

# **Artefacts and society in Roman and medieval Winchester**



# **Artefacts and society in Roman and medieval Winchester**

Small finds from the suburbs and defences,  
1971–1986

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## A note on authorship

As is made clearer in the introduction (Part 1), this volume was more than twenty years in the making, and represents the painstaking work of many specialists at differing times. In parts of the introduction, and for the coins, the Roman lamps, the glass vessels, tools and waste, the window glass, and the painted plaster – it has been possible to ascribe authorship to particular text sections. In other areas, however, the volume's format of discussing the finds by function rather than material type makes this difficult.

The catalogue entries for the illustrated non-ferrous finds from the northern and eastern suburbs and the defences, apart from the querns, are, for the most part, the work of Nina Crummy. She also prepared the catalogue for the bone objects and waste, and a few of the copper alloy objects from the western suburb, and provided overviews of all of the non-ferrous finds. Non-ferrous material that has not been illustrated, from the northern and eastern suburbs and the defences was mostly catalogued by Gillian Dunn.

Patrick Ottaway was responsible for all of the ironwork, except the iron nails from the western suburb, but he incorporated information on a number of objects from the western suburb from an earlier report by David Hinton (1980) into the present report. Andrew King catalogued the nails from the western suburb (archive), and this work formed the basis for Figure 181.

After these parts of the work were completed, the

present writer (HR) compiled those parts of the introduction and synthesis that are not separately credited, edited diverse text sections together, filled in the gaps (including some overlooked catalogue entries), and added information on the contexts. The responsibility for all mistakes is accepted here. Much of the information added at this stage was taken either from the English Heritage MAP 2 assessment of 1986–88, or from reports on material from the western suburb which had been prepared prior to this date.

Most of the copper alloy objects from the western suburb were the subject of a report by David Hinton, who was assisted in the preparation of catalogue entries by Andrew King. Hilary Cool reported on two objects of glass, whilst other items from the western suburb (mostly objects of stone) were catalogued by Charlotte Matthews.

Although each of the main authors has had the opportunity to comment on the text as it now stands, substantial revisions would not have been possible to make within the time available. I have been asked, therefore, to point out that work was more or less completed on the finds from the western suburb in the early 1980s, and on the finds from the early Roman phases of Victoria Road (northern suburb) by 1987. This is with the exception of the glass, for which reports were prepared in 1990 (Roman) and 1991 (Saxon and medieval), and the medieval coin report which was updated late in 2006.

# Summary

This volume is part of an integrated series of studies of Winchester's archaeology. It provides a thorough record and analysis of the small finds from the less well known extra-mural areas of Winchester and assesses what these new discoveries add to the understanding of the city's past. The study is based on a series of excavations from the 1970s and early 1980s which, by examining sites on the defences and in the historic suburbs, enlarges the scope of previous extensive investigations within the city walls.

The volume is split into four parts. Part I contains a full introduction, covering the context of the excavations, the locations of the sites, and an outline of the structural sequences within those sites. It also provides a broad overview of the changing history and archaeology of the city as a whole. In particular, it describes the suburban areas and city defences from Roman times to the post-medieval period.

Parts 2 and 3 comprise the detailed catalogue of finds – Part 2 examining the Roman finds according to the manner of their use, and Part 3 focusing on Saxon, medieval, and post-medieval artefacts in the same way. Finally, Part 4 offers a synthesis and discussion of the artefacts and their significance in interpreting the city's changing society and economy. This analysis draws on work from other areas of the city to provide broad comparisons and interpretations.

Discussion of the finds, both within their functional categories and in the overall synthesis, considers the sites on which they were found, as well as their significance for Winchester as a whole. In the Roman period, context is particularly important, as material came from a wide range of deposits – graves, possible special deposits, potential military features, dumps related to large-scale civic works, and residential occupation. Some contrasts between extra-mural and intra-mural sites can be observed, especially in wealth

and status, and in craft, commerce, and trade. The material contributes to a broader general picture of household and everyday life, as well as proving some insight into aspects of ceremony, religion, and afterlife belief. Additionally, it enhances our understanding of Winchester's economy in the Roman period.

The study of the post-Roman ironwork by Patrick Ottaway highlights its essentially domestic or residential nature. It also emphasises, for each of the suburban areas, the differing chronological emphasis and span of occupation.

This chronological pattern is confirmed, when all other categories of post-Roman finds are taken into consideration and they are compared to material from the city centre. Mainly small-scale but widely-varied craft and industrial activity in the primarily residential areas is identified. The availability of household goods and personal possessions and of well-crafted objects and precious materials increased through time. The discussion suggests instances in which the intervention of kings, lords, or bishops, rather than spontaneous economic growth and decline, could account for particular patterns in the data. The evidence of the material culture is also compared with the documentary record.

Thus this volume will be essential reading for specialists in archaeological finds, as well as being of value to urban archaeologists and to those with an interest in the history and archaeology of Hampshire and southern England. It sheds new light on the origins and development of the Roman and later town, as well as providing fascinating glimpses of everyday life and trade in Winchester over a period of about 1700 years. When taken with the other books in the series, the remarkably detailed and revealing archaeological picture of Winchester make this city one of the best understood in British archaeology.

# Résumé

Le présent volume fait partie d'une série intégrée d'études sur l'archéologie de Winchester. Il fournit un registre et une analyse approfondis des petites découvertes provenant des quartiers extra-muros moins bien connus de Winchester, et il évalue ce que peuvent ajouter ces nouvelles découvertes à nos connaissances du passé de la ville. Cette étude est basée sur une série de fouilles des années 1970 et du début des années 1980, fouilles qui, ayant examiné certains sites dans les faubourgs historiques et les défenses, étendent la portée de fouilles antérieures de grande envergure à l'intérieur des murs de la ville.

Ce volume est divisé en quatre parties. La première partie contient une introduction générale, couvrant le contexte des fouilles, l'emplacement des sites, et les grandes lignes des séquences structurelles à l'intérieur de ces sites. Elle brosse également les grands traits de l'évolution de l'histoire et de l'archéologie de la ville dans son ensemble. Elle décrit tout particulièrement les zones suburbaines et les défenses de la ville, de l'époque romaine à l'époque post-médiévale.

La deuxième et la troisième partie couvrent le catalogue détaillé des découvertes – la deuxième partie examine les découvertes romaines en fonction de leur utilisation, et la troisième partie se concentre de la même manière sur les objets fabriqués saxons, médiévaux et post-médiévaux. Finalement, la quatrième partie présente une synthèse et une discussion des objets fabriqués découverts ainsi que de leur signification dans le cadre de l'interprétation de l'évolution sociale et économique de la ville. Cette analyse fait appel à des travaux provenant d'autres quartiers de la ville pour fournir des interprétations et des comparaisons d'ordre général.

La discussion des découvertes, à la fois au sein de leurs catégories fonctionnelles et dans la synthèse d'ensemble, prend en considération les sites dans lesquels ont été faites ces découvertes, ainsi que leur signification pour Winchester dans son ensemble. En ce qui concerne l'époque romaine, le contexte est particulièrement important, étant donné que le matériel provenait d'une grande variété de dépôts – sépultures, dépôts spéciaux possibles, caractéristiques militaires potentielles, décharges liées à des travaux civiques à grande échelle, et occupation résidentielle. Certains contrastes entre les sites extra-muros et intra-

muros peuvent être observés, tout particulièrement en ce qui concerne la richesse et la position sociale, et dans l'artisanat, le commerce et les affaires. Le matériel contribue à une vue d'ensemble plus étendue des ménages et de la vie quotidienne, et donne également quelques aperçus de certains aspects des cérémonies, de la religion et des croyances sur la vie après la mort. De plus, il améliore nos connaissances de l'économie de Winchester durant l'époque romaine.

L'étude de la ferronnerie post-romaine faite par Patrick Ottaway met en valeur sa nature essentiellement domestique ou résidentielle. Elle met également l'accent, pour chacune des zones suburbaines, sur leurs différentes durées d'occupation et importance chronologique.

Ce modèle chronologique est confirmé quand toutes les autres catégories de découvertes post-romaines sont prises en considération, et quand elles sont comparées avec le matériel provenant du centre de la ville. Des activités industrielles et artisanales, généralement à petite échelle mais très variées, sont identifiées dans les quartiers principalement résidentiels. La disponibilité des meubles et ustensiles de ménage, des biens personnels, des objets fabriqués bien faits et des matières précieuses a augmenté au cours des ans. La discussion suggère des exemples dans lesquels ce serait l'intervention de rois, de seigneurs ou d'évêques, plutôt qu'une croissance et un déclin économiques spontanés, qui pourrait expliquer certains modèles dans les données. Les indices de la culture matérielle sont également comparés avec les actes documentaires.

Le présent volume fera par conséquent partie des lectures essentielles pour les spécialistes des découvertes archéologiques, et il sera également utile aux archéologues urbains et à tous ceux qui s'intéressent à l'histoire et à l'archéologie du Hampshire et du Sud de l'Angleterre. Il éclaire les origines et le développement de la ville romaine et ultérieure, et il fournit également de fascinants aperçus de la vie quotidienne et du commerce à Winchester pendant une période d'environ 1700 ans. Prise avec les autres livres de cette série, ce tableau archéologique remarquablement détaillé et révélateur de Winchester fait que cette cité est l'une des villes les mieux comprises de toute l'archéologie britannique.

# Zusammenfassung

Diese Abhandlung ist Teil einer Serie von integrierten Studien der Archäologie von Winchester. Diese Serie bietet eine umfassende Aufzeichnung und Analyse der Kleinfunde von Ausgrabungsarealen außerhalb von Winchesters Stadtmauern und es wird der Versuch gemacht, zu beurteilen, wie diese neuen Entdeckungen zum Verständnis der Geschichte von Winchester beitragen können. Die Studie stützt sich auf die Ergebnisse von Ausgrabungen aus den 70er und frühen 80er Jahren in denen die Verteidigungsanlagen und historischen Vorstädte untersucht wurden, und bildet damit eine Ergänzung zu den vorangegangenen umfangreichen Untersuchungen innerhalb der Stadtmauern.

Diese Abhandlung ist in vier Teile aufgeteilt. Teil 1 besteht aus einer ausführlichen Einleitung, in der die Ausgrabungen in einen Rahmen gesetzt werden, die Lage der Fundstellen erläutert wird, und ein Abriß über die Sedimentabfolgen innerhalb der Ausgrabungsareale gegeben wird. Es wird außerdem ein breitangelegter Überblick über die wechselvolle Geschichte und Archäologie der gesamten Stadt geschaffen. Insbesondere werden die Vorstädte und Verteidigungsanlagen von der Römerzeit bis in die Neuzeit beschrieben.

Teile 2 und 3 bestehen aus einer detaillierten Inventur der Funde - Teil 2 untersucht die römischen Funde, die nach Gebrauchstypen klassifiziert werden und im 3. Teil werden die sächsischen, mittelalterlichen und neuzeitlichen Artefakte nach dem gleichen Schema untersucht. Der letzte und 4. Teil besteht aus einer Synthese und Diskussion der Artefakte und deren Bedeutung in der Interpretation der wechselhaften Gesellschaftsstruktur und Wirtschaft. In dieser Analyse werden Ergebnisse von Studien aus anderen Teilen von Winchester hinzugezogen, um umfassende Vergleiche und Interpretationen zu ermöglichen.

In der Diskussion der Funde wird sowohl die Lage und Verteilung der einzelnen Fundstätten hervorgehoben, als auch deren Bedeutung für den Gesamttraum von Winchester, und zwar innerhalb ihrer funktionellen Kategorien und in der allgemeinen Synthese. In der Römerzeit ist der Kontext der Funde von besonderer Bedeutung, da Materialien aus verschiedenen Ablagerungen geborgen wurden - Gräber, rituellen Ablagerungen, mögliche militärische Struk-

turen, Schutthalden vom Bau von großen öffentlichen Gebäuden und Wohnhäusern. Es werden Unterschiede innerhalb und außerhalb der Stadtmauer beobachtet, insbesondere was Wohlstand und Status anbelangt, aber auch im Handwerk, Handel und Verkehr. Das Fundmaterial trägt dazu bei, ein breitangelegtes Bild von Haushalt und Alltag zu schaffen, und gibt Einblicke in Aspekte der Zeremonie, Religion und den Glauben an das Leben nach dem Tode. Das trägt auch zum Verständnis der römischen Wirtschaft in Winchester bei.

Die Erforschung des Eisenhandwerks in der nach-römischen Zeit durch Patrick Ottaway hat hervorgehoben, das es sich hauptsächlich um ein häusliches Handwerk handelt. In jedem der Vorstädte wird es zu verschiedenen Zeiträumen und Zeitspannen betrieben.

Dieses chronologische Modell wird bestätigt, wenn man die anderen Kategorien der nach-römischen Funde mitberücksichtigt und mit dem Material aus der Stadtmitte vergleicht. Es wird eine Mannigfaltigkeit von Kleinhandwerk in Wohngebieten identifiziert. Der Besitz von Haushaltswaren und persönliches Besitztum von qualitativ hochwertigen Artikeln und wertvollen Materialien wurde mit der Zeit immer umfangreicher. Im Diskussionsteil wird die Möglichkeit angesprochen, daß manche Trends der Daten auf die Einwirkung von Königen, Lehnsherren oder Bischöfen zurückzuführen werden könnten, und nicht auf Perioden von spontanem Wirtschaftswachstum und Verfall. Die Belege aus dem Kulturgut werden durch Quellenstudien ergänzt.

Dieser Band ist für Experten von archäologischen Funden unerlässliches Lesematerial, ist aber auch für Stadtarchäologen und Interessierte an der Geschichte und Archäologie von Hampshire und Südengland wertvoll. Es gibt neue Einblicke in den Ursprung und die Entwicklung der römischen und nach-römischen Stadt, und gibt außerdem faszinierende Einblicke in den Alltag und Handel in Winchester über einen Zeitraum von ungefähr 1700 Jahren. Zusammen mit den anderen Büchern dieser Reihe wird ein außergewöhnlich detailliertes und aufschlußreiches Bild von Winchester präsentiert, was Winchester zu einer der archäologisch best-erforschten Städte in Großbritannien macht.



**PART 1: Introduction**





## Background by K E Qualmann

This volume is part of an integrated series of studies on aspects of archaeological investigations carried out in the suburbs and on the defences of Winchester, mainly since 1972. In the previous year the large-scale programme of mainly city centre excavations directed by Martin Biddle for the Winchester Excavations Committee had been completed, and the Committee's Research Unit was concentrating its efforts on the publication of findings from these earlier investigations.

At the same time as this increased focus on the city's past, there was a growing recognition of the threats to Winchester's buried remains from redevelopment. A Rescue Archaeologist – one of the first such posts in the country – was appointed on the establishment of Winchester City Museums, and seconded to the Research Unit Director. This arrangement enabled a full-time response to sites threatened by development to be maintained within the framework of an informed evaluation of on-going research.

Despite core support from Winchester City Council, substantial excavation grants from the Department of the Environment, Ancient Monuments Inspectorate, and help-in-kind from Hampshire County Council, mainly on road schemes, it soon became clear that resources were not available to respond to every development threat. Watching briefs were maintained on most sites, but controlled excavation had to be much more selective. After 1973, a policy for the selection of sites for excavation was developed. This was strongly influenced by the plans then being put forward for a partial ring-road, affecting important sites to the north and west of the city's defences, and housing schemes for the eastern suburb and the Hyde area (see Fig 1, B). At the same time as these potential threats to archaeology in the suburbs, conservation was the watchword in the city centre: such new development that did receive planning consent was quite small in scale.

Practical considerations were thus a major factor in the creation of a policy that stressed suburban excavation during the period 1973–80 at Winchester. So too was the academic need to 'balance the sample' of previous work, which had focused largely on key sites within the city walls. Equally, it was felt that certain types of new information might more cost-effectively be gained from the extra-mural areas at that stage in our understanding. Martin Biddle summarised the results of this policy: whereas 80% of the 1961–1971 programme was undertaken within the city walls, more than 90% of excavation between 1974 and 1980 was carried out in the suburbs (Biddle 1983, 103).

Changes in the organisation of local government, implemented in April 1974, further modified the base from which Winchester archaeology operated. The new District Council agreed to provide an archaeological service for its largely rural area of 64,345 ha (159,000 acres), in addition to that already provided for the city at its core. A survey of the potential of Winchester District (Schadla-Hall 1977) led to the establishment of a Sites and Monuments Record (SMR) for the area, investigation of key sites threatened by development,

and a continuing commitment to the management of the archaeological resources of the district.

Initial publication proposals reflected the pattern of this work, with volumes planned to gather together new information on each of the extra-mural areas of the city, or from district projects. Neither of the two publication series already established for Winchester seemed a particularly appropriate vehicle for these new reports. *Winchester Excavations 1949–1960* was clearly designed to describe the work of a particular era, though a continuation of the title to cover later work was, at one stage, proposed (Collis 1978). Similarly, *Winchester Studies* takes as its basis Martin Biddle's excavations of 1961–1971. The thorough research planned as part of this project, and its finite timescale also made major new additions difficult to accommodate.

The Ancient Monuments Inspectorate of the DoE funded some initial post-excavation work, which was organised on the basis of the western suburb and northern suburb sites. In 1986, their successor body, English Heritage, sought to develop with the Archaeology Section of Winchester Museums Service a firm programme for all post-1971 Winchester sites funded from government sources. The first phase involved completion of site archives, assessment of the potential for analysis and the drafting of proposals for publication.

As this work progressed, it was realised that some, more recent, developer-funded sites were important to the interpretation of the results of the state-funded programme. English Heritage agreed that relevant information from such sites should be included in the publication programme (see Table 1).

At the completion of the two-year assessment phase, ten publication proposals, in addition to the nearly completed Western Suburb project, were submitted by the Archaeology Section. Nine of these were agreed during 1989. At that time, a tenth, on late Roman pottery, was deferred for a final decision at a later date. Early in 1990, English Heritage recommended that the prehistoric sections of the Western Suburb draft text, which included most of the recent evidence for the Oram's Arbour Iron Age enclosure on the western side of Winchester, be formed into a separate, eleventh publication. The remainder of the Western Suburb sections were to be integrated with others of the nine proposed publications as appropriate.

A further development of the restructured programme resulted from the recognition that complete sequences for multi-period sites would not be published. While reference to the site archives was regarded as a partial solution to this problem, an outline of what these contained was also felt necessary. Publication of a site-by-site summary of each of the 133 archives was therefore proposed.

In 1996, English Heritage gave approval for an introductory overview to these individual summaries. A final title has not been established, but 'Archaeological Archive Summaries: 1' is used as a working description.

Finally, in 2004, the fate of the pottery reports

was decided, and a proposal to publish the Roman, medieval, and post-medieval pottery as one monograph was accepted.

The scope of the work represented by the titles outlined in Table 1 varies quite significantly, from substantial volumes that integrate results from a number of sites, to short articles describing much more limited fieldwork projects. There are also substantial differences in the post-excavation research designs adopted for each. The broadly thematic approach means that some excavation sites are partially reported in more than one publication and that, as here, some classes of finds are published independently from the excavation sites from which they were recovered.

Most of these reports are now complete at least in draft, and although mainly not yet published, can be consulted by appointment. References throughout the text prefixed ‘P’ refer to this table, except in the case of 11, which was published recently (Qualmann *et al* 2004).

**The Roman, Saxon, and medieval town and its suburbs** by *G Scobie, K E Qualmann and H Rees*

Winchester is located at the point in central Hampshire where the River Itchen cuts through an east-west ridge of chalk downland. This is the lowest point where the River Itchen can easily be crossed, and perhaps the highest to which the river is navigable at least by smaller craft. The accumulation of large amounts of alluvial chalk ‘tufa’ forming an area of slightly higher ground in the middle of the flood plain enhances the advantages of the site as a crossing point and as a favoured location for settlement (*cf* Zant 1993, fig 4). The area that was first enclosed by the city defences in the Roman period consists of two zones – a low-

lying, wetter, eastern zone in which the ford and the tufa island are found, and a higher, dryer western zone (Fig 1).

**Prehistoric settlement**

Though there is growing evidence for human settlement in Winchester from the Bronze Age or even earlier, the first defended centre was situated on the western side of the Itchen Valley in the 1st or 2nd century BC (Qualmann *et al* 2004; Fig 2). Known as the Oram’s Arbour Enclosure from the large open space which today occupies its western side, this settlement is somewhat unusual in central southern England both for its size, perhaps 16 ha (40 acres) in extent – and for its location on steeply sloping ground. Relatively little has been found to characterise the occupation within this large, well defended centre in the period just prior to the Roman invasion of AD 43 (Qualmann *et al* 2004). There is little doubt, though, that Roman attention was soon drawn here, because of the site’s ideal strategic location on the high ground above the flood plain.

**The Roman period**

**The Roman town**

*Venta Belgarum* – the market place of the Belgae – was the fifth largest town in Roman Britain and *civitas* capital of an area covering perhaps the greater part of central southern Hampshire (Wacher 1995, 293). The civil defences were built partly over and partly downhill from the Iron Age enclosure; hence the eastern side of the Roman town extended into the flood plain, taking the western bank of the River Itchen as its border, whilst the boundary of the town on its western side left part of the earlier enclosure intact (Fig 2). The prehistoric routeways to the west seem to have been incorporated into the long-distance Roman road network, whilst the northern approach outlasted the conquest for a little while. There is also evidence that the surviving, western part of the Iron Age bank and ditch continued to play a defensive role in the earlier Roman period, and they formed a significant boundary in the landscape until as late as the 12th century.

A little pre-Flavian settlement within the enclosure is suggested by the recovery of pottery and other finds of this date (but probably residual) from the fill of the ditch at Assize Courts North (Biddle 1975a, 98–100), Castle Yard (Biddle 1970, 279–80), and Trafalgar House (Qualmann *et al* 2004, 16–19), and by the timber buildings found overlying the possible remains of the enclosure bank in the south-eastern corner at St George’s Street (Cunliffe 1964, 21–3). Outside the enclosure and east towards the river, possibly pre-Flavian ditches have been recorded on the tufa island in the flood plain at The Slaughter House (Winchester Museums History File SLH), Middle Brook Street (Bennet-Clarke 1954) and Lower Brook Street (Biddle 1975b, 296). That all of these sites are ranged west to

**Table 1    List of proposed Winchester Museums/  
English Heritage publications**

Title of publication	
1	The cemeteries of Roman Winchester
2	The town defences of Winchester
3	The suburbs of Roman Winchester
4	Feeding a Roman town
5	Fifteen hundred years of pottery from Winchester
6	Artefacts and society in Roman and medieval Winchester (this volume)
7	The Saxon and medieval suburbs of Winchester
8	Hyde Abbey, Winchester
9	The hospital of St John the Baptist Winchester
10	Food, craft, and status in Saxon and medieval Winchester
11	Oram’s Arbour. The Iron Age enclosure at Winchester (Qualman <i>et al</i> 2004)
12	Archaeological archive summary 1

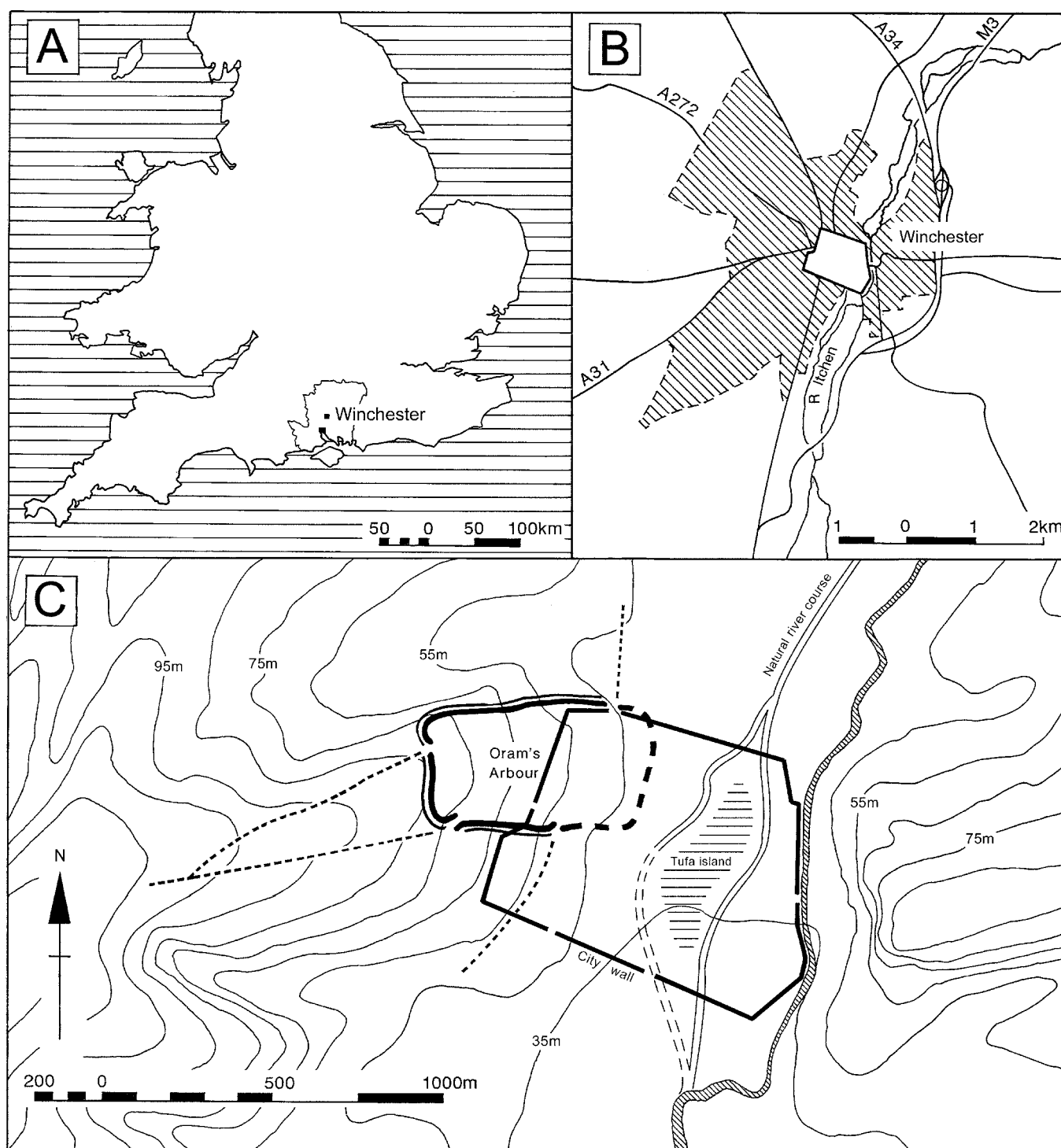


Figure 1 Location plans: A) Winchester and Hampshire in southern Britain; B) The Winchester area, showing current road routes, the city centre and suburbs; C) Plan of Winchester's topography and the two zones enclosed by Iron Age and Roman defences

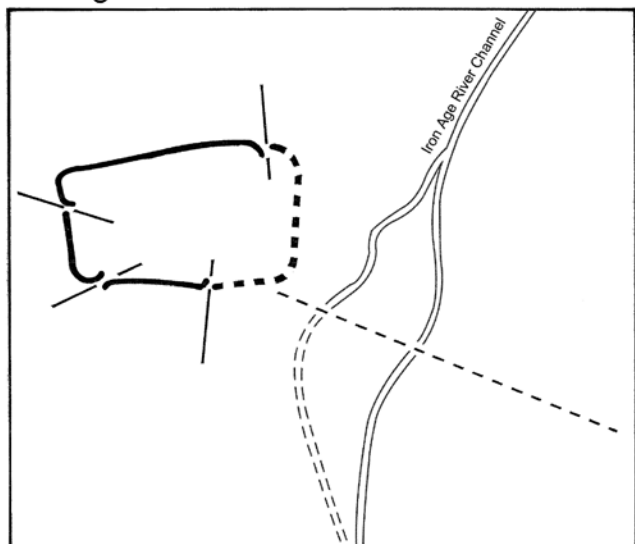
east roughly along the present High Street and the approach to the river crossing suggests that this was the main focus of activity at the time.

The whereabouts of the expected early fort have so far remained elusive. One possibility, that it was located in The Brooks area near the valley bottom and close to the ford (Biddle 1975b, 296) looks less likely in the light of excavations carried out at The Brooks in the late 1980s (Zant 1993, 50). The most plausible

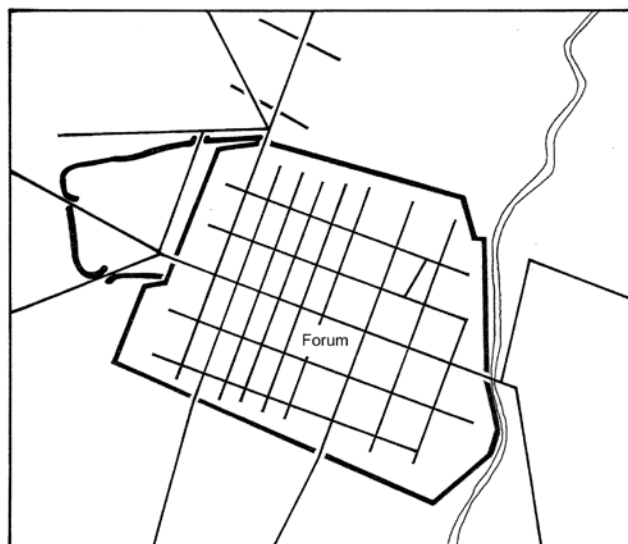
known site is that at St George's Street, which is strategically better placed than The Brooks in being some way up the western slope.

The earliest defences seem to have been in position by around AD 70 (Biddle 1975a, 110–12). There is quite good evidence from excavations in the eastern part of the town that at that time the river flowed somewhat to the west of its present course (Fig 2; Qualmann 1993, 75). This barrier and the wet, low-lying character of

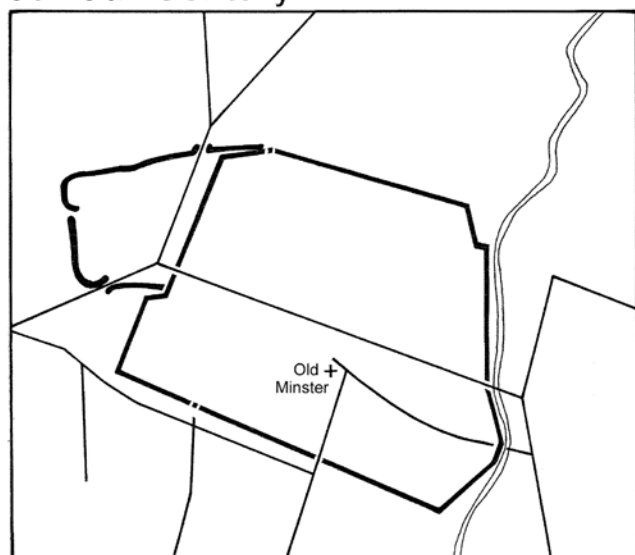
Iron Age



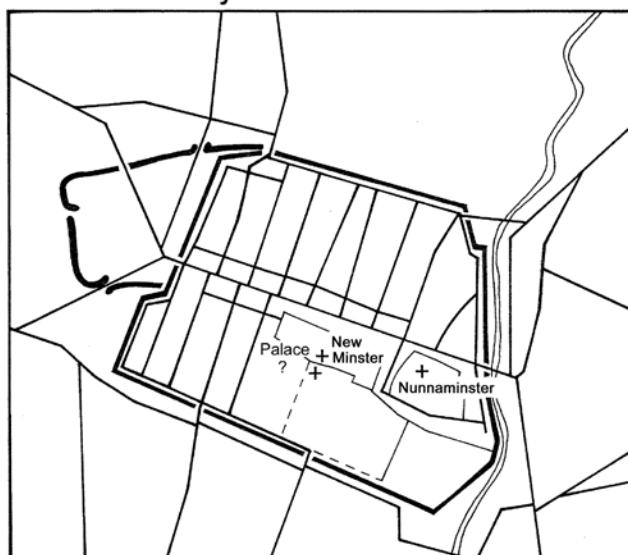
Roman



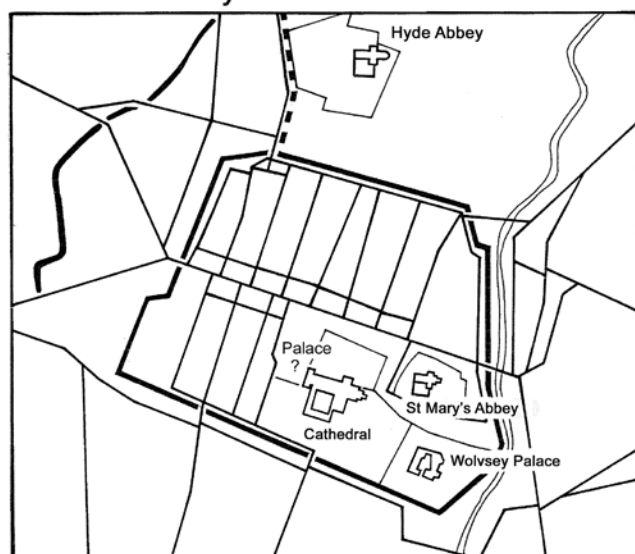
5th-9th Century



10th Century



12th Century



14th Century

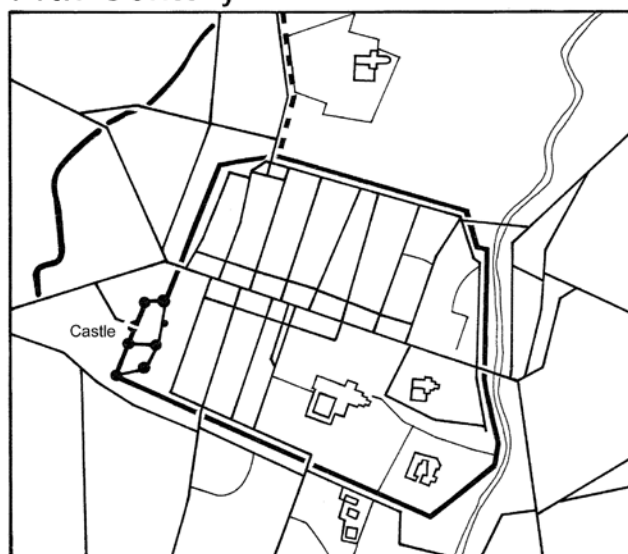


Figure 2 Settlement patterns in Winchester from the Iron Age to the late medieval period

the terrain seems to have made for sufficient security in the east and the defensive circuit was not completed until the late 2nd century, when wholesale refortification took place. In the early 3rd century these earthen defences were strengthened by a masonry wall, and there is some evidence that further reinforcement of the rampart was carried out later in the century, although this may have been on a more piecemeal basis (P2).

The late 1st and early 2nd centuries witnessed the establishment of a street grid, the construction of simple timber buildings, and the earliest attempts to drain low-lying areas (*cf* Zant 1993, 45–53). Little is known of the location of public buildings, apart from the forum and the temple, which were both on the ‘island’ of chalk brash or tufa, rising above the flood plain in the eastern part of the town (Zant 1993, fig 4). Both seem to have been in existence by around AD 100. From the mid- to late 2nd century onwards buildings were often larger and more pretentious, masonry-built, and provided with tessellated floors and hypocausts (*cf* Zant 1993, Scobie 1995). This coincided with the completion of the drainage system, which allowed some areas to be occupied for the first time, as well as the strengthening of the defences.

Wacher has argued that the initiation during the Flavian period of these major construction and reclamation projects was due to a change in arrangements brought about by the death of Cogidubnus, and the break-up of his kingdom into smaller administrative units (Wacher 1995, 293). Others have emphasised that a long span of urban planning seems to have taken place, since the drainage system was not completed until the mid- to late 2nd century (*cf* Todd 1989).

### The suburbs

Immediately to the north of the defended area, the land drops fairly steeply into a valley of the Fulflood, an intermittent stream or winterbourne which takes its name from the Old English *fulflod* (foul or dirty stream), and which is first mentioned in AD 961 (Biddle 1976, 237). This valley and the spur of downland which rises beyond it to the north are the major natural features of the area of the northern suburb (Fig 1, C).

The top of the eastern spur, St Giles’ Hill, is relatively level and ends as a steep bluff to the east, now accentuated by a railway cutting. To the south, the hill drops steeply into Chilcomb Vale, while to the north, it slopes more gently to Winnall Moor. The western spur of chalk downland, St Paul’s Hill, slopes gently eastwards down to the valley floor and northwards into the Fulflood Valley. To the south, the land drops more steeply into Sparkford Combe.

There are real differences in settlement and chronology between suburbs, which seem to have been dictated by topography: in the eastern suburb, the steepness of the chalk slope below St Giles’ Hill set a limit on expansion. In the west, the chalk slopes are not quite so precipitous, but still lend a rural character to those sites not immediately adjacent to the gates and the defences, except at times of maximum expansion of the inhabited

areas. Bisection of the northern suburb by the Fulflood stream makes for a wider area of ground, but one which was subject to minor seasonal flooding.

As in the Iron Age, the Roman town was situated at an important junction of long-distance routes: at least five roads met at *Venta Belgarum* (Fig 2). The area outside the North Gate was a more specific focus of routes from the north. A heavily used pre-Roman trackway was here replaced by Roman roads leading north-east to Silchester and north-west to Mildenhall and Cirencester (Margary 1973, Routes 42a and 43).

From the East Gate, the east-bearing road turned sharply southwards, heading for Wickham, where it branched towards in one direction Chichester and the other, Bitterne (Margary 1973, Route 420). It has also been suggested that the modern Alresford Road marks part of a route to London *via* Neatham: Millett and Graham (1986, fig 10) refer to this as the Winchester–London Roman road. Leading from the West Gate, the route of the Roman road to Old Sarum survives as the Romsey Road (Margary 1973, Route 45a).

Isolated 1st- and early 2nd-century burials are found in the northern area (Collis 1978, 149–55), and to the east and south (Jones 1978; Biddle 1967), but these are likely to be the graves of wealthy individuals from independent settlements in the countryside, rather than of town dwellers (Collis 1978, 40, 109; Millett 1986b; P1). The best-known and most extensive cemetery was situated outside the North Gate in a wide strip to the east of the Cirencester road. This graveyard was first used in the late Neronian and early Flavian periods, and by the 4th century, human burial had extended as far as Lankhills (Clarke 1979), some 500m from the North Gate (P1). In the late 3rd century, a new area was established to the west of the Cirencester road. This departure coincided with a change in burial rite, from cremation to inhumation.

Similarly, the areas outside the eastern and western walls of the city may not have come into regular use as burial grounds until the later third century. In the west, interments were made in the Oram’s Arbour ditch, and at West Hill, outside the enclosure (P1). Other burials, perhaps part of the same cemetery, have been found to the south-west, along St James Lane (Bradfield 1840). Outside the east gate, the late Roman cemetery developed northwards following the natural contours of the steep hill slope (P1).

Suburban occupation began to grow adjacent to both the Silchester and Cirencester roads in the northern area in the mid- to late 2nd century. By the later Roman period, this was a flourishing suburb, apparently with its own extra-mural street system, although the buildings were much less grand than their counterparts within the walls.

By contrast, in the west and close to the town there may have been an extra-mural street respecting the line of the western defences, but no occupation has been recorded alongside this, or the hollow way which appears to be heading towards modern Stockbridge (Fig 2). Indeed, there are few known signs of domestic occupation within the entire circuit of the Iron Age enclosure; a masonry building possibly of the late 1st to late 2nd

centuries, recorded in the south-west corner when the railway cutting of 1838–39 was excavated may have been religious in function (Haverfield 1900; and see also Esmonde Cleary 1987, 151). Outside the enclosure, there is little evidence for independent rural settlement.

The eastern suburb too seems to have been little-occupied by living townspeople (Collis 1978, 40); there was perhaps a minor suburban development close to the East Gate and adjacent to the east-bearing roads. A stone-lined tank or plunge bath was used during the late 3rd to mid-4th centuries on the site at Water Lane (Collis 1978, 48–51), but there was no trace of a building to which it might have been attached.

### **Late Roman decline**

The decline of the town as a recognisably urban place began in the third quarter of the 4th century. No new town houses were constructed after *c.* AD 350, and although the existing stock continued to be maintained and modified, it gradually fell into disrepair. In the 4th century too, the street grid, although still in use, had begun to decay and the formation of dark earth was under way (Scobie 1994, 1995, 7). During the late 4th and early 5th centuries, there may have been some attempt to maintain the main elements of the street grid in the core of the town on the tufa island (Scobie 1994, 2–3), and perhaps on the defences. Evidence of several phases of metalling post-dating the 360s or 370s has been uncovered from the street south of the forum (Biddle 1970, 312–3). A similar sequence was found on the street leading through the South Gate (Biddle 1975a, 116–18). Ultimately, these attempts at maintenance failed, however, as the gate was blocked at some point before the 7th century.

In the countryside, the main arterial routes probably survived the collapse of the Roman town: indeed, stretches persist in use as roads to this day. Nearer the town, in the northern and eastern suburbs, however, the road infrastructure began to crumble, again, dating evidence from the northern suburb suggests, in the mid- to late 4th century. In the northern suburb, deposits of dark earths and waterborne soils began to form as buildings gradually went out of use. Here, however, a few buildings are apparently of later 4th- or early 5th-century construction, although it is hard to say if they represent a new departure or the last gasp of Roman suburban occupation. Their presence suggests, though, that the degraded roads were not yet completely impassable. It seems, however, that the decline that began in the mid-4th century was terminal, and by the turn of the 4th and 5th centuries, *Venta Belgarum* as a town, rather than as a collection of decaying structures, had disappeared.

### **The 5th to 9th centuries**

The cemeteries close to the East Gate seem, from the evidence of coins, to have continued in use until the end of the 4th century or into the early 5th. Likewise, only

a few of the graves in the Oram's Arbour ditch were later than silting deposits containing coins dated up to AD 402 (P1). In the northern cemetery, however, both to the east and the west of the Cirencester road, a new phase of burial was initiated apparently around AD 390 (Clarke 1979; P1). Finds are usually late Roman in type (but see Clarke 1979, 377–403) and it is difficult from this evidence to suggest an end date for the phase. It is conceivable, though, that burial continued here after the collapse of the town, suggesting that the cemetery population could also have been drawn from the surrounding rural areas. The graveyard furthest from the East Gate had, by this time, taken on a character similar to post-Roman or partly post-Roman cemeteries in the west, such as Poundbury in Dorset (Farwell and Molleson 1993), and it is quite possible that this area was used throughout the 5th century (P1).

From the 6th century onwards, human impact on the area formerly occupied by the Roman town and the surrounding areas is more apparent. In the eastern suburb, cemeteries came into use at Winnall (Meaney and Hawkes 1970) and a nearby settlement at St Martin's Close (P7). The recovery of a 6th-century spearhead from West Hill, the site of the late Roman cemetery observed at 45 Romsey Road (see below and P1) may indicate occupation or burial in this area.

In the mid-7th century, the Old Minster, known both from history and from excavation was established (Biddle 1976, 306–13; Fig 2). Close by, at Lower Brook Street, a small cemetery of the 7th century was succeeded by the construction of a stone building (Biddle 1975b, 303–10). Excavations in The Square, just to the north of the present-day Cathedral precinct, have also revealed timber buildings, which seem to have been a site of metalworking in the late 7th or early 8th centuries (Teague 1989; Zant 1990). Following the blocking of the South Gate (Biddle 1975a, 117–18), part of the area was used for human burial in the 7th to 8th centuries. Evidence of glass working, this time of the mid- to late 9th century but still before the establishment of the late Saxon town, has been recovered from The Brooks excavations of 1987–88 (Scobie *et al* 1991, 37).

The exact character of the settlement within the walls, whether of royal or ecclesiastical status, is a matter of some dispute (Yorke 1982; Biddle 1983; Scobie 1995), but what seems certain is that the population was dispersed within the shell of the Roman town and in the surrounding countryside. Whatever the nature of authority in Winchester at this time, it did not express itself as large agglomerations of people and houses, nor in mass production, consumption or redistribution of goods. Neither was it concerned yet with extensive repairs to the decaying infrastructure of the Roman town, or other civic works. All this was to change in the later 9th century.

### **The late Saxon, medieval and post-medieval periods**

The topography and general character of the late Saxon and medieval town, its defences and its

suburbs have been described by Biddle (1976) and Keene (1985). The framework of the post-Roman city incorporated several inherited elements, the most important of which were the Iron Age Oram's Arbour defences, the Roman town defences and gates, and the long-distance approach routes (Fig 2). Although the positions of the gates were quite similar in the Roman and post-Roman periods, the late Saxon street system within the defences shows little in common with the Roman pattern other than the approach to the ford over the River Itchen (the High Street). By contrast, most of the principal streets in the western and eastern suburbs followed the lines of the Roman long distance approach routes. In the northern suburb, the Roman Cirencester and Silchester roads were lost as they approached the city's North Gate, but Hyde Street, the principal street of the northern suburb, was in position by the early 10th century (Biddle 1976, 261).

Winchester's political heyday extended from around the time of Alfred the Great to that of William I, although repairs to the defences may have been set in train by Alfred's immediate predecessors (Yorke 1982; Biddle 1983, 325–32). Systematic refurbishment, though, seemingly along exactly the same lines as taken in the Roman period, was of a piece with Alfred's strategy for the defence of Wessex during Viking incursions of the later 9th century (Biddle 1976, 272–77; Yorke 1995, 116). It has been argued that the main elements of the post-Roman street grid were set out at the same time (Biddle 1976, 277–82), although some archaeological evidence does allow the possibility that the development of the street system was more complex (Kipling and Scobie 1990, 8; Scobie 1996).

The extent of royal patronage and the energy of some of Winchester's bishops during the late Saxon period was such that, by the late 10th century, around a quarter of the walled area in its south-eastern corner was taken up by the precincts of the royal palace and ecclesiastical establishments (Biddle 1976, 289–92; 313–28; Fig 2). Winchester's pre-eminence in Wessex in late Saxon times is also shown by the output of its mint, ranking fourth in England after London, Lincoln and York (*cf* Yorke 1995, 319–21).

The New Minster was built *c* AD 903 at the instigation of Edward the Elder, whilst Alfred's widow, Ealhswith founded the Nunnaminster, a monastery for women, at around the same time (*c* AD 901). With Bishop Ethelwold's monastic reforms of *c* AD 964 came the refurbishment and extension of the Old Minster, the rebuilding of the timber Nunnaminster church in stone and the establishment of the Bishop's Palace at Wolvesey. Tradition has it that the Royal Palace stood adjacent to the old Roman forum, and to the south and west of the Old and New Minsters but physical remains of it have so far proved elusive (Teague 1988).

The Norman Conquest resulted in further large-scale modifications to the layout of the town (Fig 2). The south-western corner of the walled area was cleared in order that construction of the castle could begin (Biddle 1976, 302–05). The Old Minster was also demolished to make way for a vast new cathedral, dedicated in 1093 (*ibid* 306–13), and in *c* 1070, the

Norman palace was extended from its original site north to the High Street (*ibid* 294). ). In *c* 1108 the Nunnaminster was rebuilt in much grander style as the Abbey of St Mary and St Edburga (WS4). These developments made for somewhat cramped quarters in the ecclesiastical precincts, and *c* 1110, the New Minster was moved to Hyde in the northern suburb (*ibid* 317).

There are seven parish churches known from before the Conquest, but it is suspected that many more were in existence by 1066 (Biddle 1976, 329–35). Late Saxon cemeteries have mainly been found within the monastic quarter of the town, but an area close to the church of St Paul, at present-day Staple Gardens, was also reserved for human burial (Kipling and Scobie 1990). The church itself is not mentioned in history until 1256, but radiocarbon dating evidence from the site suggests that the graveyard was in use during the late Saxon period. It certainly represents a substantial population, seemingly from a time when citizens in all walks of life could choose to be buried at New Minster (Biddle 1976, 314; WS4), and thus, its location is quite puzzling.

By 1066, too, the plots of land between the streets had been demarcated as tenements. Numerous excavations have revealed, on the ground, tenement boundaries and domestic occupation within, usually in the form of traces of timber buildings together with deep pits and boundary ditches. In some cases, these were demonstrably in place by the beginning of the 10th century (Scobie, forthcoming). Such occupation also extended into the suburbs, concentrated along the principal approach routes to the city (Biddle 1976, 263). The western suburb is believed to have been older, and more intensively occupied than the northern suburb, the development of which was bound-up with that of Hyde Abbey (*ibid* 265–6). The western is also thought to have been the wealthiest of the suburbs, at least during the early Middle Ages (*ibid* 265). Little is known from documentary sources of the origins of the eastern suburb, but it is believed to have been demarcated by a boundary ditch by *c* 1208–09 (*ibid* 264). In the north and west, the Oram's Arbour bank and ditch continued to mark the suburban boundary until a new ditch, reusing part of the old line was dug in the 12th century (Keene 1985, 48, 67; Fig 2).

The 12th and 13th centuries saw a gradual decline in royal patronage and a consequent waning of Winchester's political influence. Indeed, this decline has its origins in the first half of 11th century (Yorke 1995, 147). The fortunes of 13th- to 15th-century Winchester were grounded in its role as a regional market town and its participation in the wool and cloth trade. Winchester's favourable strategic position as the gateway to the Hampshire basin from the north, east and west had been an added advantage from prehistoric times, as was the road and communications system inherited from the Romans (Keene 1985, 87; Yorke 1995, 310).

Local power played a part, too: on the top of St Giles' Hill to the east of the town was the site of the fair, with its own independent gridded street system, church

and cemetery (Biddle 1976, 286–8; Keene 1985, 1091–1132). The eastern suburb formed part of the Soke of the Bishop of Winchester (Keene 1985, 267), who controlled the fair for the sixteen days of its duration, and who benefited from the revenues collected. Following this, merchants were free to trade within the town, and it was the king that profited from the dues they paid. This represents in microcosm the ever-present tension between the church and state (Keene 1985, 72–3), but it was the strict administrative control exercised by the bishop that ensured success of the fair in the 13th century (*ibid* 1091, 1113).

The built up area seems to have reached its maximum overall extent and density by the mid-12th century, with the possible exceptions of St Giles' Hill fair and the northern suburb. In the latter case, there is some archaeological evidence that the late Saxon and early medieval suburb suffered a decline in the 12th century. Keene (1985, 141) suggests that this was a temporary depopulation consequent upon the siege of 1141, when Hyde Abbey came under attack.

Between then and the end of the 14th century, the western suburb dwindled, as the population shifted within the town towards the river and away from the higher ground to the west. This may have been occasioned by an increase in the number of townspeople needing easy access to water as a result of their involvement with the leather and cloth trades. The system of drainage and management of the water channels in the low lying eastern part of the town, which had fallen into decay at the end of the Roman period, had been reinstated as part of the re-establishment of the town in the 10th century (Scobie *et al* 1991, 34, 37).

During the course of the 14th century, the St Giles' Hill fair went into a drastic decline. The western suburb was also reduced to a few houses outside West Gate. Within the walls there was also a decline overall, but the low-lying eastern part of the city continued to prosper, as did the northern suburb. The causes of the decline are likely to be complex, but almost certainly include a loss of population resulting from plague, and the ever-increasing commercial predominance of London. By the mid-16th century, the city had contracted so far in size as to leave some of the suburbs almost completely isolated. The dissolution of Hyde Abbey delivered the *coup de grâce* in the northern suburb, but this had only accelerated a process of decay begun all over the city as a result of decreasing trade in previous centuries.

The history of the eastern suburb throughout the Middle Ages is unclear, but Speed's map (*cf* Keene 1985, frontispiece) shows that it was the most densely built up area outside the walls in 1611. There is some archaeological evidence to corroborate this (see below), as well as a suggestion from documents that the relative wealth of this area was quite high in the early 15th century (Keene 1985, 427). In general, the city was to remain more or less in the contracted state shown in Speed's map, until the effects of the agrarian reforms and the building of the railways brought urban renewal in the 19th century.

## The sites in this volume

With the growth of Rescue Archaeology since the Second World War, and thanks to the efforts of Winchester City Council and the Winchester Excavations Committee, the character of the occupation both within the walls and in the suburban areas has been illuminated by numerous excavations. To date, however, there has been very little excavation to the south of the city wall in the southern suburb. This volume is mainly concerned with the results of excavations on suburban sites to the north, west and east of the city, and on the defences (Fig 3).

Almost all of the sites considered as part of this publication programme were recorded within the period 1971–86. The full gamut comprises diverse kinds of archaeological intervention: survey, including building survey, surface collection, observation, watching brief and salvage recording, and trial and full excavation.

Topographically, the sites are broadly divided into two: those in the suburbs and those on the defences (see end of section for site codes and Appendix 1 for site summaries). Within this division, each of the northern, eastern and western suburbs has a distinctive character of its own, and the grouping of individual excavations according to the area in which they were located is not merely a convenience for the purposes of publication. The omission here of the southern suburb, although it exists as a historical and topographical entity (Biddle 1976; Keene 1985), is because it witnessed very little archaeological intervention during the period 1972–86, or at any other time.

The city defences sites are a more disparate group than the suburban ones; the excavated areas not only took in the defences themselves but often produced evidence of activity just inside the walls. In addition, the sites were dispersed around the circuit of the defences to the north, east and south. Thus, although the term 'defences' has been retained here, the sites can just as usefully be viewed individually.

The structural sequence recorded on each of the sites represented by finds in this volume is summarised schematically in Figures 4–12. Brief descriptions of the circumstances under which the sites were excavated are given in the site summaries in Appendix 1.

## The suburbs

### The Roman northern suburb (P1 and P3; Figs 3 & 4)

During the period up to *c* AD 100, activity in all three suburbs might be expected to have been concerned with the construction or maintenance of roads and routeways, initially leading to-and-from the putative fort, and subsequently the gates and the defended area of the newly-established town. The best evidence for this came from the northern suburb, where the roads both to Cirencester and to Silchester were located, respectively at the Victoria Road (VR 72–80) and Hyde Abbey (HA 74) sites.

At Victoria Road, where truncation was less severe



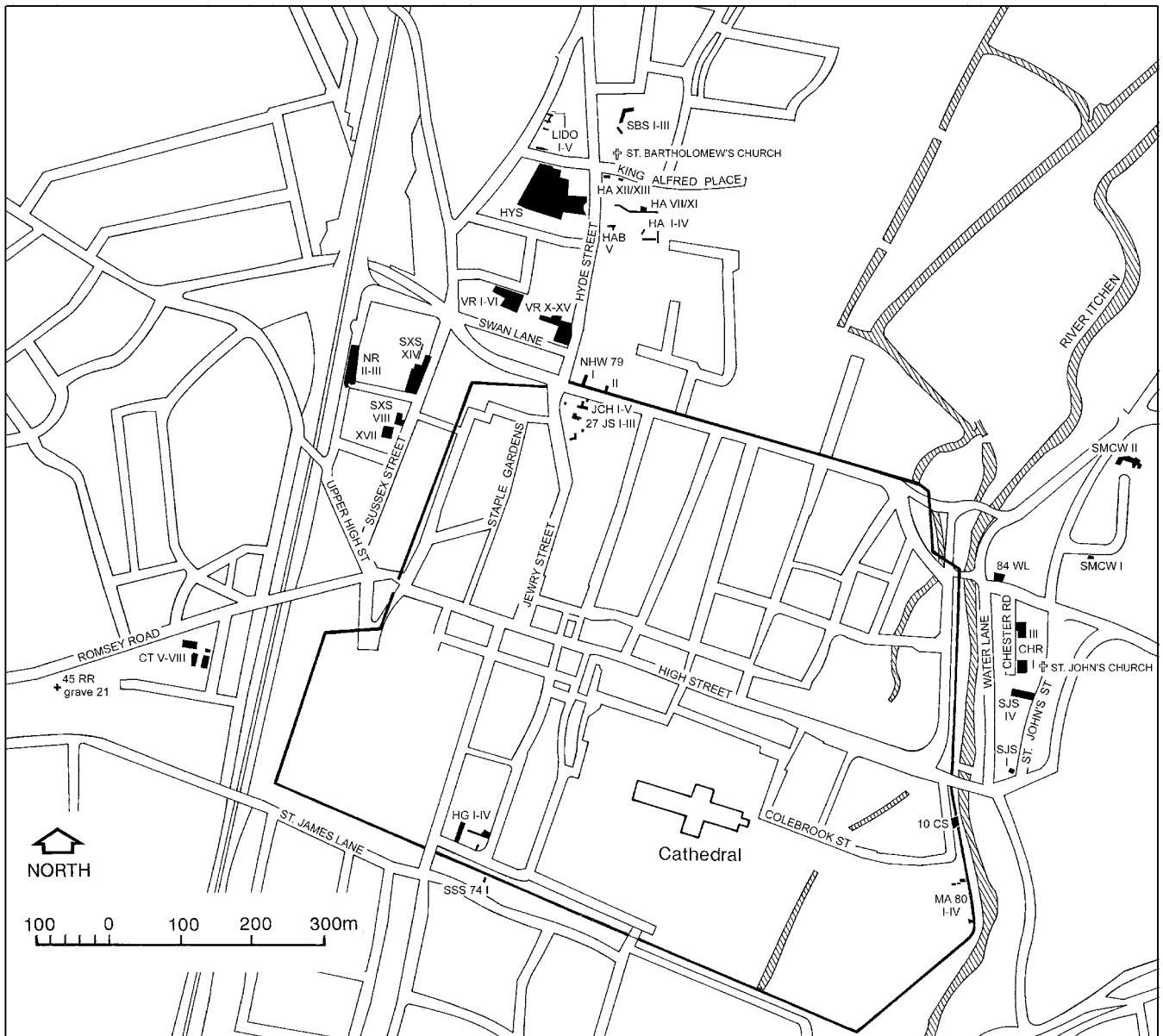


Figure 3 Plan indicating the position of sites in the suburbs and on the defences. Note: for the site codes and areas relevant to this volume, see p 25

b	building: the key to the catalogue entries explains how they are numbered
cbd	cemetery boundary ditch
g	soils
gard	soils generated by horticultural activities
pbd	property boundary ditch(es)
pbw	property boundary wall
structures	for example, post holes or surfaces which may be fences or yards rather than buildings
t	tenement ( Keene 1985)
?	uncertain date
=====	broad date range
=====	uncertain broad date range
=====➔	date range extends beyond the limit of the table
=====➔	date range may extend beyond the limit of the table

Key to Figures 4-12

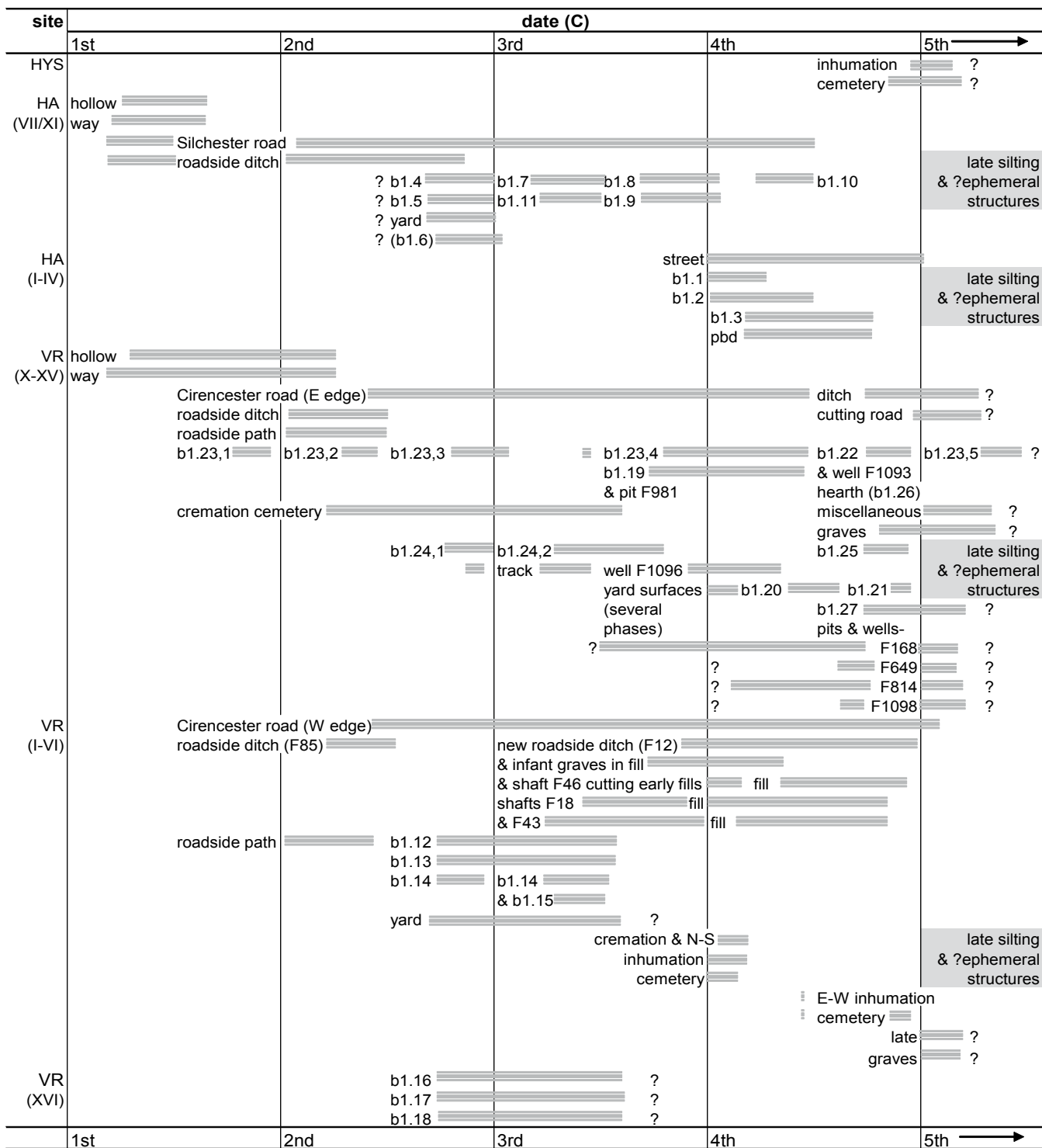


Figure 4 Roman northern suburb: summary of main excavations

than at Hyde Abbey, the Cirencester road was revealed as flanked by roadside ditches and paths. These had gone out of use by the mid- to late 2nd century, in order to make way for later developments on the site. There was also evidence from Victoria Road that the hollow way marking the north-south route into and out of the Oram's Arbour Iron Age enclosure was metalled during the very earliest part of the period.

At the Victoria Road site, too, a cemetery in which the predominant rite was cremation (although infants

were usually buried unburnt) developed to the east of the Cirencester road (Trenches X–XV), initially in the infilled Iron Age ditch adjacent to the hollow way. By the end of the 2nd century, this occupied a wide strip next to the road and had encroached on the disused roadside features. It continued in use until the mid- to late 3rd century, although less intensively than hitherto.

During the late 3rd and early 4th centuries, an area on the opposite side of the Cirencester road at Victoria

Road (Trenches I–VI) came into use as a graveyard. Here, both cremation and north–south inhumation burials close to and taking their alignment from the road were recorded. This phase seems to have been over by around AD 320, and the western area became disused until the middle of the 4th century, when a very orderly west–east inhumation cemetery was established. The second phase was succeeded, perhaps in the late 4th century, by a much more haphazardly arranged cemetery, which probably continued in use into the 5th century.

Although there is little evidence of human burial of the late 3rd and 4th centuries on the eastern side (Trenches X–XV) of the Cirencester road from the site at Victoria Road, numerous chance finds, small excavations and watching briefs have shown that the cemetery continued to develop northwards, shifting its focus away from the sites closest to the North Gate (P1) and reaching its northern limit at Lankhills (Clarke 1979). Excavations of 1979 in Hyde Street (HYS 79) also to the north of the Victoria Road site sampled an area which was used for inhumation burial seemingly in the later 4th and 5th centuries.

There was no evidence for Roman burial from the sites which later fell within the precinct of Hyde Abbey, and it seems that the eastern limit of the cemetery to the east of the Cirencester road is marked roughly by present-day Hyde Street (Fig 3). However, Roman suburban occupation along the eastern edge of the Silchester road was recovered, in the form of a series of truncated timber buildings, one associated with a yard (HA 74, Trenches VII/XI). The onset of this suburban growth is uncertainly dated at the Hyde Abbey sites; nonetheless, in the late 3rd century an intra-mural street was constructed at 90 degrees to the alignment of the Silchester road and further building development took place adjacent to it (HA 72, Trenches I–IV).

Better dating evidence for the development of the northern suburb came from Victoria Road. After the path and ditch to the west (Trenches I–VI) of the road to Cirencester became disused in the mid to late 2nd century, but before the cemetery was sited there in the late 3rd, the area was occupied by timber buildings. During this period, a new western roadside ditch was also dug. On the eastern side of the road (Trenches X–XV), there was one rather ephemeral structure of the late 1st century, which was modified or rebuilt during the early 2nd, but from the mid- to late 2nd century, as the use of the area for human burial diminished, new buildings were constructed all over it. The earliest of these buildings had fallen into disuse by the mid- or late 3rd century, but many were raised in the late 3rd and 4th centuries.

By the later 4th century, dark earths and waterborne deposits had begun to build up over both excavation areas (VR and HA), and most of the buildings had gone out of use. At Victoria Road, a ditch was dug lengthways down the middle of the Cirencester road. However, the road was probably still passable, and a few of the VR buildings were of late 4th-century construction. Moreover, although the second ditch to the

west of the road (Trenches V–VI) was filled by the late 4th century, the cemetery boundary continued to be marked by a fence line cut into it. This, and the late date of the latest phase of the cemetery (see above), suggests that both occupation and burial continued into the 5th century, albeit on a reduced scale.

Eventually even these areas were ceded to dark earths and silting, an event which is impossible to date. Subsequently, however, very limited and short-term renewal of activity on both sites is suggested by ephemeral features within the silting. These could be of any date before large scale resumption of occupation in the later 9th or early 10th centuries, and cannot be further interpreted.

#### **The post-Roman northern suburb (P7 and P8; Fig 3, 5, 6)**

Evidence from this group of sites for late Saxon and early medieval occupation of the northern suburb is fairly limited. On the eastern side of Hyde Street and to the north of the Fulflood stream, sites later within Hyde Abbey (here, HA 72, HA 74, HAB 78–80 and SBS 83) were little used; only in Trench XII at Hyde Abbey (HA 74) were positive signs of occupation of this date recorded (Fig 5). Opposite Hyde Abbey, on the western side of Hyde Street, the site at the Lido (LIDO 85/86) was also unoccupied (Fig 6). At Victoria Road, though, situated to the south of the Fulflood and the west of the street (Fig 3), evidence of properties fronting both Hyde Street (Trenches X–XV) and Swan Lane (Trenches I–VI), in medieval times, Beggare Lane, was recovered (Fig 6). In Swan Lane, only the property boundary ditches survived later truncation, but in Hyde Street, ditches, pits, a timber building and associated structures were recorded.

The building and the boundary ditches fronting Hyde Street at Victoria Road went out of use at some time in the 11th century at the latest, and were not replaced. Pits continued to be dug on the site after this, but in declining numbers until the mid- to late 13th century, when both the Swan Lane and Hyde Street frontages witnessed large scale building development. Pits were present on the Lido site by the 11th or 12th century, but around 1200 these were filled in order to construct an undercrofted building (LIDO, Trench V). Property boundary ditches dating from the 13th century onwards were recorded to the north (LIDO, Trenches I–IV).

Meanwhile, the construction of Hyde Abbey was sufficiently far-advanced by 1110 to allow the move from the New Minster to take place. The precise line of the monastic precinct is unknown, while documentary evidence suggests that it may not have been static (P8), and as a result its relationship to properties in Hyde Street is uncertain. The Hyde Abbey and Hyde Abbey Barn sites were located in or next to the south-western quarter of the abbey precinct. Excavations in 1972 (HA 72, Trenches I–IV), sampled an area on the eastern side of the inner courtyard, where traces of buildings, one of timber, and two possibly partly of masonry were recorded, together with a cobbled surface. These could

site	date (C)										
	9th–10th	10th–11th	11th–12th	12th–13th	13th–14th	14th–15th	15th–16th	16th–17th	17th–18th	18th–19th	19th–20th
HA (I–IV)				structures	structures	pbw	gard soils or turf		pbw		wartime air-raid shelters
HA (VII/XI)								pits	levelling		
									structures		
									soakaway		
									?structures	gard	modern features
									?pit	soils	
									?quarries		
HA (XIII)					building or boundary wall				b744.2	b744.3	
HA (XII)		?structures		bd		pbw				b744.4–5	
		pit			b744.1					b744.6	
HAB			ephemeral activity		pits	b740.1–2	gard	b740.3	b740.4	pbw	
SBS					quarries	structures	soils	?yard			services
						pits & well	filled soils		?structures	building	school services pit
	9th–10th	10th–11th	11th–12th	12th–13th	13th–14th	14th–15th	15th–16th	16th–17th	17th–18th	18th–19th	19th–20th

Figure 5 *Hyde Abbey area: summary of excavations*

site	date (C)										
	9th–10th	10th–11th	11th–12th	12th–13th	13th–14th	14th–15th	15th–16th	16th–17th	17th–18th	18th–19th	19th–20th
LIDO				pits	pits	b795.1					
VR (I–VI)		pbd				pbd					
						b938.1			only negative features survived		
						t937 cellar or quarry					
						?cultivation					
						pits					
						g soils					
VR (X–XV)		b935.1	demolition		b935.2		demolition				buildings & services
					b935.3						
					b936.1						
					b936.2–3	b936.4					
						b934.1					
		pbd	pbd								
		pits	pits	pits		pits	pits	pits	pits		
		structures	structures	structures		structures	structures		structures		
						hearths					
		g soils	g soils			g soils	g soils		g soils		
	9th–10th	10th–11th	11th–12th	12th–13th	13th–14th	14th–15th	15th–16th	16th–17th	17th–18th	18th–19th	19th–20th

Figure 6 *Late Saxon, medieval, and post-medieval northern suburb: summary of excavations*

be interpreted as ancillary buildings ranged around the eastern edge of the courtyard.

Trench XII of the HA 74 excavations examined a small area well to the north and west, adjacent to the eastern side of Hyde Street and its junction with King Alfred Place. Here, a property boundary ditch of three phases located 2m to the east of the street was succeeded by a boundary wall in the mid-13th century. A timber building also stood on the site in the medieval period. At Hyde Abbey Barn (HAB 78–80), to the south, further evidence of timber buildings of later medieval date was recovered. One of these buildings had been replaced in stone by the beginning of the 16th century.

These trenches alongside Hyde Street (HA 74, XII and HAB 78–80) were too small to elucidate fully the spatial relationships between the properties on

which the buildings stood, the western edge of the abbey precinct and the eastern edge of the street. The ditch recorded in HA 74 Trench XII may represent the earliest demarcation of the abbey boundary and the timber building the abbey's earliest occupation. However, it is possible also that both predate it. The presence of pits as well as buildings at HAB suggests secular occupation (see Part 4), and hence suggests that the line of the precinct wall was to the east of the excavated trenches. What may have been the northern wall of the south-western quarter of the precinct was, however, recorded in HA 74 Trench XIII.

The site at St Bartholomew's School (SBS 83) was located in the north-western quarter of the abbey precinct, to the north of St Bartholomew's Church, an older foundation which had been incorporated within the boundaries of the abbey. Here what seems to have

site	date (C)				
	1st	2nd	3rd	4th	5th →
CT	pbd		pits F6 F7 F10 F17		
NR	fill IA ditch	?cleaned out	fill IA ditch	inhumation cemetery 6 phases interleaved with silting episodes in IA ditch E-W inhumation cemetery	fill IA ditch →
45 RR					
SXS	fill IA ditch ?ploughsoils				→
	1st	2nd	3rd	4th	5th →

Figure 7 Roman western suburb: summary of excavations

been quarrying activity of the 13th and 14th centuries was succeeded by the digging of a well (and the possible construction of a well house) and a few pits.

From the mid- to late 13th century, the Hyde Street frontage at Victoria Road (X–XV) witnessed the construction and modification of several buildings, the use of external hearths and ancillary structures, and the digging and infilling of pits in profusion. Around the middle of the 15th century, with the demolition of those buildings then standing on the site, activity declined until the 19th century.

These developments were mirrored in Swan Lane (VR 72–80, Trenches I–VI); a timber building associated possibly with cultivation of a heavily rooted crop, was in use there from the mid to late 13th century to the mid-15th, and a large feature to the east perhaps represented a cellar, cut and filled within the same timespan. Occupation at the Lido site also declined from the 15th century onwards, when the undercrofted building and property boundaries (above) went out of use.

On the site of Hyde Abbey, the Dissolution of 1539 is marked by the infilling of the well and pits at St Bartholomew's School, and evidence for a period of gardening or horticulture thereafter in most of the excavated trenches. At Hyde Abbey Barn, this was followed by the construction of another building in the 16th century. The Bethel family, to whom the site had passed after the Dissolution, is recorded as responsible for the erection of a fine town house in the south-western corner of the abbey precinct, with a series of courtyards and walled gardens extending to the river meadows. This building and the one that succeeded it have been interpreted as part of this complex.

Although the Bethel family house was mostly demolished in the late 18th century (one wing still stands today, forming part of the Museums Service Headquarters), the late 17th, 18th and 19th centuries saw a gradual renewal of occupation in the Hyde Abbey area. In the late 18th century, a prison for minor offenders known as the Bridewell was built on the former site of the Abbey church. This was demolished

at some time in the later 19th century to make way for the construction of the brick-built terraced housing that characterises much of the northern suburb in the present day.

#### The Roman western suburb (Figs 3 and 7)

In the western suburb, none of the sites was located in such a way as to intersect with the main Roman routes westwards. Two, New Road (NR 74–77) and Sussex Street (SXS 76–79) lay on the Oram's Arbour defences and sampled areas within the enclosure (P3 and Qualmann *et al* 2004; Figs 3 and 7). At New Road, the partially filled enclosure ditch seems to have been cleaned out at some time during the early Roman period, suggesting that its defensive function was maintained, at least in part, after the Roman conquest.

From the late 3rd century until the end of the 4th, the site at New Road was used for human inhumation burial, mostly of infants under three months old; six phases, interleaved with silting episodes in the fill of the ditch, were recorded. There were no burials in the 2m-wide ditch section excavated at Sussex Street (Trench XIV), and it may have been fully infilled there before the establishment of the cemetery. Molluscan evidence suggests that an open landscape prevailed in the vicinity of the ditch throughout the Roman period (P4), and neither site produced any indication of occupation of the kind found in the Roman northern suburb.

The excavations at Crowder Terrace (CT 74) were sited outside the circuit of the Oram's Arbour enclosure (P3). Here a ditch, interpreted as a field boundary dating from the late Iron Age or early Roman period was filled by the end of the second century. Subsequently several pits were dug; these seem to have been in use throughout the remainder of the Roman period. From this limited evidence it is difficult to assess the character of occupation in the western hinterland of Roman Winchester. The boundary (and molluscan

site	date (C)											
	1 9th	9th–10th	10th–11th	11th–12th	12th–13th	13th–14th	14th–15th	15th–16th	16th–17th	17th–18th	18th–19th	19th–20th
CT		pits pbd	pits pbd	structures	pits/ wells pbd structures hearth medieval cemetery & boundaries				pit ?structures			buildings & services
NR	fill IA ditch ?ploughsoil	g soils pits	fill IA ditch	pits pbd structures	fill IA ditch ?cultivation pits pbd structures g soils				g soils ?cultivation pits			buildings & services
SXS	upcast ? from city ditch	pits pbd structures	pits pbd structures	pits pbd structures & ?building	pits structures b714.1/2 b714.3	demolition			g soils pits			buildings & services
	g soils				g soils				g soils			
	1 9th	9th–10th	10th–11th	11th–12th	12th–13th	13th–14th	14th–15th	15th–16th	16th–17th	17th–18th	18th–19th	19th–20th

Figure 8 Late Saxon, medieval, and post-medieval western suburb: summary of excavations

evidence) suggest that the terrain was open and rural in the earlier Roman period. The later Roman pits may indicate the presence of settlement nearby at that time.

Still further to the south and west, at West Hill, a late Roman cemetery, largely of west–east inhumation burials, was recorded at 45 Romsey Road (45RR 80). Like the cemeteries in the northern (above) and eastern (below) suburbs, and unlike the burials in the Oram's Arbour ditch (above), this seems to represent a cross-section of the population. However, the salvage conditions under which the record was made mean that many aspects of cemetery organisation and burial practice remain unfathomed (P1).

#### The post-Roman western suburb (P7; Figs 3 and 8)

The Roman cemetery in the Oram's Arbour ditch at New Road was sealed by silting layers containing coins dated up to AD 402, suggesting that burial did not continue there much beyond the end of the 4th century. At Sussex Street the ditch seems to have been totally filled up before the end of the Roman period (above), but at New Road it was still a significant feature (1.2–1.6 m in depth) during late Saxon times. In that period, the whole area investigated at Sussex Street (at least where archaeological deposits had not been totally destroyed by recent development: see Appendix 1) was covered with a layer of redeposited chalk and clay. The proximity of the site to the western wall of the town, and the scale and extent of this deposit has led to its interpretation as upcast from the digging of the city defences of the late 9th century (Fig 8).

Evidence of intensive occupation of the late Saxon and early medieval periods, in the form of pits both small and large, property boundary features, timber

structures, and a hearth, was found overlying the upcast deposit at Sussex Street. New Road and Crowder Terrace, too, were sites of pit-digging by the late 9th or early 10th centuries, and evidence for property demarcation there dated to the end of the 10th century at the latest.

The area sampled as SXS 76–79 produced evidence of medieval properties fronting Sussex Street (then, La Parokkes), whilst NR 74–77 probably lay to the rear of properties on Sussex Street and Upper High Street (then, Atheling Street). In the 12th to 14th centuries, an undercrofted building stood on the area recorded as SXS 79 Trench XVII. Evidence for a further masonry built structure was recorded in the standing section above the Oram's Arbour ditch (Trench XIV). Elsewhere on the site, occupation continued on a scale similar to what had gone before. At New Road, the Oram's Arbour ditch finally silted up in the 12th century, whilst pits continued to be dug, and property boundaries modified throughout the medieval period. Part of the site was also used for cultivation, possibly of a root crop.

In medieval times, the site at Crowder Terrace was located on tenements on the south side of Romsey Road (then, Wode Street). From the 12th to 14th centuries, it was occupied by a number of deep latrines and wells, and a hearth or oven with associated structures. To the south, and demarcated by an east–west boundary, was an area used for human burial, interpreted as part of Winchester's Jewish cemetery (Keene 1985, 1034).

At some time during the 14th century, the building on Trench XVII at Sussex Street was demolished and not replaced. This evidence of decline is matched in all of the other excavated areas: the western suburb sites were little used from the 15th century until the coming of the railway and urban renewal saw the erection of 19th-century housing over much of the area.



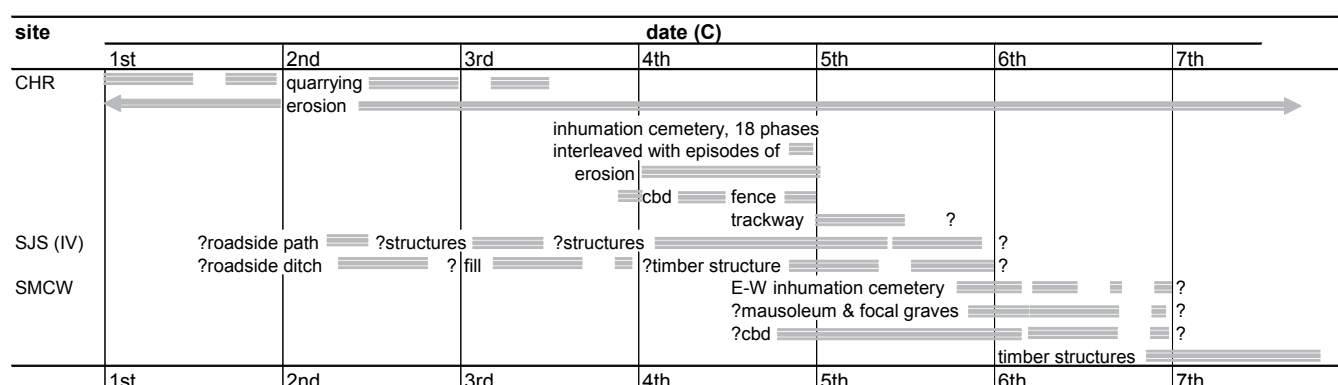


Figure 9 Roman eastern suburb: summary of excavations

### The Roman eastern suburb (P1 and P3; Figs 3 and 9)

The sample of non-sepulchral Roman contexts excavated in the eastern suburb is very small and, being mainly very close to the East Gate, may not be representative of the suburb as a whole. The trench (IV) at St John's Street (SJS 82) produced evidence of a metallised surface, probably a roadside path rather than the east-bearing road itself, and a roadside ditch. Here too were signs of roadside development similar to that recovered from the northern area at Victoria Road and Hyde Abbey, in that structures had been built over the metallised surface, and eventually, over the infilled ditch in the later Roman period (?and later). However, these cannot be interpreted very closely, as the area available for excavation was too small.

There were a few burials recorded at St John's Street (SJS 76, Trench I), but the main concentration closest to the eastern line of the city defences was discovered at Chester Road (CHR 76–80). This site appears to have been quarried in the earlier Roman period, but there were no other traces of human activity until the later 3rd century, when the area (sampled as Trenches I and III) was turned over to use as a cemetery.

There were eighteen phases of burial, mainly inhumation interleaved with episodes of erosion from the steep hill slope above the site. After ten of these phases, the excavated area was broadly divided into two parts by a boundary ditch, crossing east–west, which, perhaps as a result of rapid silting due to erosion was replaced by a fence in the later 4th century. Later, the western part of the cemetery went out of use to make way for a track leading north–south, which also sealed part of the fence line.

Further burials were located just over 2km from the north-eastern corner of the defences in St Martin's Close (SMCW 84/85). Here, a late Roman west–east inhumation cemetery had to be rapidly salvage-recorded during refurbishments to the council housing estate at Winnall. A possible cemetery boundary ditch was found to the east, and to the south (Trench I), a masonry structure, possibly a mausoleum, and graves within and around it were slightly better recorded (Morris 1986).

This cemetery is so dissimilar in character to the one

at Chester Road that it could be that two completely separate burial areas are represented. However, it is also possible that the contrast is a chronological one; the St Martin's Close area may represent the farthest extreme of a single cemetery that developed around the hill slope to the north of the East Gate throughout the course of the 4th century.

### The post-Roman eastern suburb (Figs 3 and 10)

Like the cemeteries in the northern suburb, the date at which the graveyards to the east of the town walls went out of use is uncertain. At least one phase of burial at Chester Road was later than a grave dated by the Theodosian coin used as goods to AD 388–402. This suggests that burial in the area continued into the 5th century, although possibly on a reduced scale. There was no unequivocal dating evidence at all from St Martin's Close, but some aspects of burial practice there may indicate a very late date (see above and P1).

A timber structure in the fill of the roadside ditch at St John's Street (SJS 82, Trench IV) cannot be dated any more closely than between the 4th and 9th centuries (see above). However, two rectangular buildings recorded to the north of the cemetery at St Martin's Close (SMCW 86, Trench II), have been dated by their double post construction and other aspects of their building form to the 6th to 8th centuries (P7). The possibility that the Roman graveyard was still in use at this time makes an interesting subject of speculation; it is more likely, though, that the buildings were lived in by some of those buried in the 6th- and 7th-century Anglo-Saxon cemeteries known as Winnall I and Winnall II (Meaney and Hawkes 1970; see above).

There was no sign of late Saxon, medieval and post-medieval suburban occupation at St Martin's Close. Closer to the town walls, though, in Chester Road and St John's Street, pit digging had begun probably by the 10th century, and there were structures, possibly buildings associated. Whether late Saxon occupation was as dense here as in the western suburb (see above) is uncertain, as not all of the trenches (CHR, I and III

site	date (C)										
	9th–10th	10th–11th	11th–12th	12th–13th	13th–14th	14th–15th	15th–16th	16th–17th	17th–18th	18th–19th	19th–20th
CHR (I)	erosion pits	erosion pits structures hearth			g soils large cut feature structures yard b963.1		g soils				services
CHR (III)		shallow features ? quarrying			features ? quarrying g soils						
SJS (I)		pit ? building		pits	pits b1021.1 structures g soils	b1021.2	b1021.3				
SJS (IV)		pits structures					g soils		g soils well		buildings & services
							b961.1 b961.2	b961.3 b961.4	b961.5	b961.6	
	9th–10th	10th–11th	11th–12th	12th–13th	13th–14th	14th–15th	15th–16th	16th–17th	17th–18th	18th–19th	19th–20th

Figure 10 Late Saxon, medieval, and post-medieval eastern suburb: summary of excavations

and SJS, I and IV) could be excavated fully to natural (see Appendix 1).

In the medieval period the property partly excavated as Trench I at Chester Road would have fronted the medieval lane which ran from Water Lane to St John's Church. At this time, a masonry building associated with a yard stood on the site. To the south was a very large cut feature, possibly a well construction pit. The building remained in use until the 16th century, but the later history of the site is unknown, as 19th-century house construction had razed the stratigraphy to medieval levels.

Trench I at St John's Street sampled an area to the rear of properties on the street. Here was a site of pit digging in the 12th and early 13th centuries, but by the late 13th century a timber building accomodating a substantial oven had been constructed. This was the first of a series of buildings and associated pits, presumably ancilliary to a house on the street frontage, which occupied the site until the end of the 16th century. In the 17th and 18th centuries, the area was again turned over to pits. Subsequently, the site was host to 19th-century terraced housing which was demolished to make way for redevelopment in 1976.

Little activity of the 12th to 14th centuries was recorded in SJS Trench IV, but in the later medieval period, a vaulted undercroft was built on the site. Subsequently this was modified by the insertion of a thick clay floor and flint rubble masonry in the north and south walls. No evidence for the form of any superstructure was recovered, but a small part of a timber-framed building abutted the undercroft to the north. The 17th and 18th centuries saw the construction of a chalk lined well and a series of further buildings, one cellared. A late 19th-century brick built house stood on the site until 1968, when its demolition led to the discovery of the more or less intact medieval undercroft. The undercroft survived until 1982 when, after recording, the vault was deemed unstable and deliberately demolished.

It will be deduced from the foregoing that evidence of 14th- and 15th-century decline is much less marked on these sites in the eastern suburb than on those of the northern and western suburbs. Quite what the reasons for this might be is currently unclear. The proximity of the St Giles' Hill fair is one possibility, but this too had dwindled almost to nothing by the early 16th century (Keene 1985, 1031). It may be that a good living was still to be made in the service of the cathedral and college fairly nearby (*ibid* 147), or even that the dominance of London in matters of trade had led to a revival in use of the old Roman route that passed close to the sites (see above).

### The city defences (Fig 3)

The excavations which sampled areas on the city defences were at Magdalene Almshouses and 10 Colebrook Street (MA 80 and 10CS 86) on the eastern arm of the circuit, at North Walls, Jewry Street-Crown Hotel and 27 Jewry Street (NHW 79, JCH 84 and 27JS 84) to the north, and at Henly's Garage and St Swithun's Street (HG 84/85 and SSS 74) to the south. The site at 27JS lay to the south of the line of the defences, but was included in this publication programme as it was immediately adjacent to JCH.

### The Roman defences (Fig 11)

A large ditch at NHW probably represents part of the northern side of the Oram's Arbour enclosure and was still more than 1m deep during the Roman period. In addition, the excavations at both North Walls and Henly's Garage confirmed the existence of an early phase of defensive rampart, believed to date to the Flavian period (see above). At JCH, the early defensive rampart is likely to have been outside the trench area rather than totally absent. However, on the eastern



area	site	date		C (AD)					
		BC	1st	2nd	3rd	4th	5th	→	
eastern defences	MA	←	plough marks	structures	defensive rampart				
	10CS			culvert	street				
				b38.1-2	masonry wall				wall robbed
				structures	defensive rampart				
northern defences	NHW	←	fill ?IA ditch	defensive rampart	defensive rampart				
	JCH			b35.1	defensive rampart & revetment	cremation in urn	deposits truncated		
						structures	b35.2		
	27JS		b35.4	b35.5	?cultivation				
			trackway	street	resurfaced	b35.6-7	b35.8	deposits truncated	
southern defences	HG		fences	fence					
			structures	structures					
				wells					
				hearth	yard				
			path	revetment/	fence	wells & pits F102, F105, F113			
			defensive rampart	strengthened	strengthened				
	SSS			??rampart		masonry town house b17.1			dark earth
						masonry wall			
						extramural feature			
		BC	1st	2nd	3rd	4th	5th	→	

Figure 11 Roman city defences: summary of main excavations

defences at both MA and 10 CS, structures completely occupied the site of the later rampart, establishing that this side of the town lacked man-made barriers at this time.

Evidence of the later, late 2nd-century phase of the rampart was found on all of the sites except 27 JS, although at SSS the identification is very uncertain. At HG in particular, there were indications that the rampart was considerably widened at this time, encroaching on properties within the walls. At both HG and JCH the boundaries seem to have been redefined with some ceremony, involving foundation deposits of partially burnt and butchered animal bone, a complete pot and an urned human cremation. Only MA, 10CS and SSS sampled areas in which the external masonry wall was found. This appears to have been constructed in the first half of the 3rd century. At HG, the rampart was again strengthened in the late 3rd century, causing further loss of living accommodation within the walls.

Some of the excavations manifested fragments of the Roman street system. At Magdalene Almshouses, a street running at the back of the rampart was recorded. At HG, the enlargement of the rampart meant that a similar street became much narrower, more a path than a street. At 27 Jewry Street, a first century intra-mural track was replaced by a metalled street in the 2nd century. Its alignment was at variance with the main street grid, seemingly leading directly from the

defences to the ford over the river, rather than towards the High Street. However, this street went out of use around AD 200.

Evidence of the character of occupation just inside the town was recorded at MA, 27JS, JCH and HG. At MA, timber structures and associated features preceded the construction of the late second century rampart. This phase of the rampart also sealed a timber building at JCH, and at 27JS, there were two earlier Roman buildings, one predating the street and one contemporary with it. The later building went out of use before the demise of the street, and the area was turned over to cultivation. At Henly's Garage too, a series of gullies defined four properties, each with its own well, into which the late second century rampart made substantial inroads. From that time, a masonry town house occupied the insula to the east of the earlier properties, which were subsequently amalgamated into one. In the later Roman period, a series of timber buildings stood on the site of the former street at 27JS, and similar occupation was recorded at JCH.

Taken together, the evidence from these excavations suggests that major changes to the fabric of the town took place from the mid-2nd to the early 3rd centuries: the widening of the rampart, the amalgamation of properties, the appearance of masonry townhouses and the redefinition of the street system within the northern defences. It may also have been at this time that the northern suburb was first occupied (see above).

area	site	date (C)										
		9th–10th	10th–11th	11th–12th	12th–13th	13th–14th	14th–15th	15th–16th	16th–17th	17th–18th	18th–19th	19th–20th
eastern defences	MA						city wall					robbed
						pbw (Wolsey Palace)					modern features & topsoil	
						pits		gard soil				
	10CS	?structures		?Colebrook St (E edge)		city wall	rebuilt					
northern defences	NHW		defensive ditch									gard soils & modern features
										well		
	JCH					pits	well	fill & stone lining	robbed		gard soil	
		pit		pit		pit	b271.1	b271.2		gard soil	buildings	modern features
					?structures		b271.3					
							Jewry St				pbw	
											pits	
	27JS		pits	pit & well	gard soil	b274.1	truncated features		gard		building	modern features & services
southern defences	HG											
		b269.1	pits									
	street			street								
	metalworking (smithing) surfaces											
	pits			pits		pits						
				well		wells						
						?structures						
	SSS					city wall						filled
		?ditch			ditch							
		?structures							building		garden features	
	9th–10th	10th–11th	11th–12th	12th–13th	13th–14th	14th–15th	15th–16th	16th–17th	17th–18th	18th–19th	19th–20th	

Figure 12 Saxon, medieval, and post-medieval city defences: summary of main excavations

Late 4th - and early 5th-century signs of the demise of the Roman town were scarce on this group of sites, sometimes due to truncation of the later Roman deposits. Attempts to maintain the house at Henly's, though, became increasingly feeble throughout the second half of the 4th century. Silting on the floors shows that parts of the building were no longer weatherproof in its final phases, and the structure was also robbed to provide building materials for other purposes. At that time, a hearth in one of the rooms was still in use, but subsequently dark earth covered all.

### The post-Roman defences (Fig 12)

There were some signs of defensive activity of the late Saxon period on the excavations. At North Walls, a large ditch cutting that of the Iron Age enclosure probably represents refortification as a burh. A large cut feature positioned outside the Roman city wall at St Swithun's Street is of uncertain date, but seems to have been filled up by the 13th century. Evidence that the wall was rebuilt in medieval times came from the east, at 10CS and MA, and from the south at SSS. At 10CS and possibly at SSS two phases of wall construction were identified. At SSS, too, a ditch replaced the earlier large feature.

Fragments of the post-Roman street system were

recorded on the eastern and the northern defences. At 10CS a metallad surface has been interpreted as the late Saxon predecessor to modern Colebrook Street, whilst another street gave access to the rear of the city wall in medieval times. At both 27JS and JCH, the forerunner of modern Jewry Street was recorded. An unnamed east–west street connecting Jewry Street and Staple Gardens was also present at 27JS from the late Saxon period onwards.

Truncation had damaged evidence for late Saxon occupation on many of the sites, although only MA was completely devoid of late Saxon archaeology. The best-preserved deposits were from 27JS, where a timber building stood at the corner of the east-west street and Jewry Street. This had gone out of use by the end of the 10th century, and the site was briefly turned over to pits before the street was reinstated. At Henly's Garage, a series of working surfaces was recorded in section. The debris recovered from associated pits and found in samples taken from the section showed that these were the site of intensive iron smithing in the late Saxon and early medieval periods.

Medieval buildings and associated pits and wells were recorded at 10CS, JCH and 27JS, but only pits and wells were identified at MA and HG. Throughout the late 15th, 16th and 17th centuries, these buildings fell into decay, or were deliberately demolished, and the areas investigated were given over to garden soils (where they had not been truncated). In the 17th century

the building now known as no. 26 St Swithun's Street was constructed. The line of Jewry Street recorded at JCH went out of use, probably as a result of turnpike improvements carried out around 1800 (Keene 1985, 38) and at this time, redevelopment began to gather pace in the street. By the later 19th century the foundations of the thriving town we see today had been laid.

### The finds in their contexts

The size and nature of the excavation obviously have a bearing on the quantity and quality of finds recovered from a particular site. Details are given in Appendix 1, but it is worth noting at the outset that in general, larger areas were available for investigation in the suburbs than on the defences. Moreover, by far the largest area to be fully excavated *by hand* was at Victoria Road in the northern suburb and the resulting finds assemblage totally dominates this report numerically.

Overall, the quantity of finds from the sites mirrors the area available for excavation under controlled conditions, but the density and character of past human activity also played a part. The site excavated at St Martin's Close in 1986, for example, despite being of medium size by the standards of this sample, produced no finds at all. Little reflection is needed to ascertain the reason for this: what remained were small features (post holes) cut directly into the natural chalk at a time (the 6th and 7th centuries) when artefacts were in any case in short supply.

### Context types

A relatively high proportion of graves of the 1st to 3rd centuries was provided with goods, and many furnished graves had a multiplicity of finds. Thereafter, quantities diminish with the province-wide tendency towards unfurnished burial throughout the 4th century (Philpott 1991, 231). In the medieval cemetery at Crowder Terrace, there were no furnished graves, merely coffin nails and fittings. Because of their contexts, grave finds were normally in relatively good condition, although some from cremation burials had been burnt on the funeral pyre.

Amongst non-funerary contexts, deep negative features, such as ditches and pits or wells account for most of the finds itemised in this report, as well as a huge proportion of the pottery and animal bone destined for publication elsewhere. Pits of the late Saxon, medieval and post-medieval periods are particularly well represented. Assemblages from pits tend to be in better condition than those from ditches.

Deposits relating to the construction of buildings can be surprisingly prolific, although judging whether material relates directly to construction activities or has merely been disturbed by them is more difficult. Finds from occupation deposits within buildings are scarcer, and there can be no doubt that floors were deliberately kept clean both in the Roman and post-Roman periods. There are perhaps relatively more

finds from such contexts in this volume than in other publications in the series (which cover pottery and animal bone) because some 'small finds' are genuinely very small, and once lost were gone forever (or at least until the late 20th century). External surfaces such as yards and even roads and streets seem not to have been subject to the same rigours, and were quite often covered with a wide range of debris. Less remarkably, there are many finds from demolition deposits.

Large civic projects such as the construction of the Roman defences and roads account for very few of the finds reported here. The Roman defensive rampart was virtually sterile, presumably because it was constructed with virgin materials. It is tempting to suggest that two Gaian coins from the construction of the Roman road to Cirencester were lost by its builders, probably no later than the early Claudian period, and had remained in situ until they were recovered during excavation (Part 2, Category 6). Medieval Hyde Abbey, too, generated very little that was disposed of or lost within the precinct walls.

Those contexts sometimes called 'general soils' may contain many finds, depending on what they represent. On sites that were intensively used, where, for example, grave- or pit-digging caused a widespread build-up of soil and other debris, this is the case. Such finds, though, are presumably found at some distance from their original place of deposition. More puzzling are the soils relating to the 5th to 9th centuries, a time at which no site was intensively used.

Within the town walls (including, here, sites on the city defences), these are the much debated 'dark earths'. In the northern suburb they comprise a mixture of waterborne deposits and dark earths. In the eastern suburb, particularly at Chester Road they are mainly erosion deposits probably derived from the steep hill slope or quarry face above the site. These post-Roman contexts, although differing in the way that they were formed, are (typically) quite abundant in finds, although these are usually scrappy and abraded. Such finds are mostly of the Roman period, with some of late Saxon and even medieval date. A tiny proportion (usually pottery, so not discussed in detail in this volume) is diagnostically of the 5th to 9th centuries.

It seems that the deposits built up gradually throughout the 5th to 9th centuries and may have been reworked in the late Saxon and later periods, in a way which is difficult to define as a separate context; for example, in areas where occupation was not intensive, by ploughing or horticulture. The quantity of finds from such strata is difficult to explain: perhaps the effects of flooding, erosion and reworking disturbed earlier contexts on the sites to a greater extent than is apparent from the extant stratigraphic record.

### Stratigraphy and dating

The stratigraphy varies, being deepest in the area of the defences and almost non-existent in some parts of the western suburb. On the defences, material derived from the rampart accounted for most of the

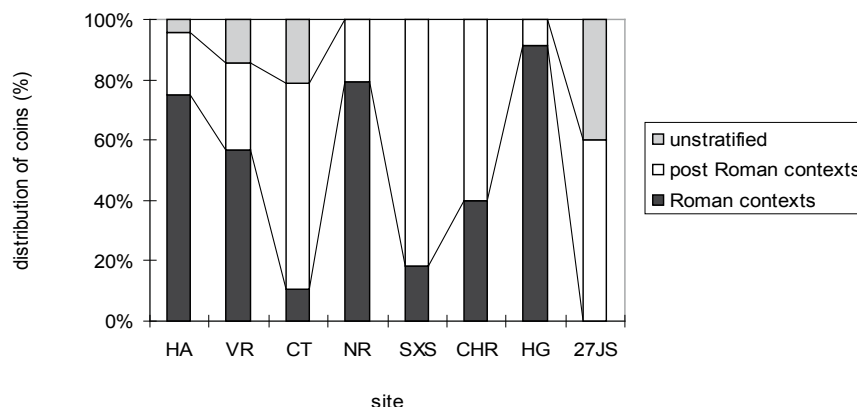


Figure 13 *Residuality as indicated by Roman coins*

stratigraphy at 10 Colebrook Street, Magdalene Almshouses, North Walls and St Swithun's Street. By contrast, Henly's Garage, 27 Jewry Street and Jewry Street, Crown Hotel also produced stratified occupation deposits.

At Victoria Road, there was some vertical stratigraphy, and the density of horizontally stratified features was sufficient to allow the definition of a sequence almost as good as that encountered on the best of the defences sites, especially for the Roman period. Vertical stratigraphy was also encountered within the late Saxon and medieval deposits at Sussex Street, but there were fewer intercutting features than at Victoria Road.

The sites in the eastern suburb are difficult to judge by the same standards, as fewer of the deposits were excavated fully to natural. At Chester Road, vertical stratigraphy was more natural than man-made, comprising erosion deposits (see above). St John's Street may perhaps have been similar to Victoria Road. St Martin's Close, though, was a fully 'rural' site: the cuts for archaeological features were sealed by modern topsoil, and cut into the natural chalk.

In theory, when dating the deposits by reference to the finds, there are two extremes: in the first (well stratified), a *terminus post quem* from the finds holds good for several successive phases of occupation and gives a relatively tightly defined dating based also on the assessment of the rapidity of structural change; in the second (poorly stratified), a *tpq* from the finds is the sole dating evidence, as comprehensive structural change has been lost to truncation, or was never present because the site was not intensively used.

In practice, the nature of the stratigraphy means that all shades in between the two extremes are encountered. Added to this, contemporary contexts can sometimes be identified over wide areas due to their character. The second phase of the Roman defensive rampart is a good example of this, but similarities in burial practice between poorly dated late Roman graves here and well dated graves at Lankhills (Clarke 1979) might also be cited. Given also that the largest, best preserved and most reliably dated finds assemblages are almost never in the most useful contexts, it has to be admitted that dating is a complex and

inexact business and the reader should allow for some revision in the future.

### **Residuality and intrusion**

On many of the major sites continual disturbance of the ground took place from the Roman period to the present day, and the potential for residuality is high, if difficult to quantify. Figure 13 shows the distribution of Roman coins in Roman and post-Roman contexts. Sites which had ten or more coins have been included, although this sample size may be too small; only Victoria Road had more than 50 (Part 2, Category 6).

The pattern for Hyde Abbey, with 48 coins, shows that Roman coins were surprisingly little disturbed considering the quantity of Roman pottery found residually in post-Roman contexts there (P8). The pattern for Victoria Road (371 coins) is probably a reasonable reflection of reality.

On the western suburb sites, the distribution and quantity (CT, 19 coins; NR 29 coins; SXS 11 coins) seems to match the nature of the excavated deposits: the sites were most used from the late 9th to the 14th centuries, and New Road was more intensively used in the Roman period than the others (see above).

The pattern for Chester Road (eastern suburb) shows the difference between the two main trenches excavated. The 'in context' Roman coins were largely from the part of the cemetery that was fully excavated (Trench III), whilst Trench I, in which the excavated deposits were mostly post-Roman in date, produced the residual ones.

On the city defences at Henly's Garage (35 coins), too, the distribution is affected by the nature of the excavation: most post-Roman deposits were not excavated by hand, and the residual Roman coins are lost to us. The pattern for 27 Jewry Street (only ten coins) is at first sight surprising, as a good stratigraphic sequence of Roman date was recovered there; however, in the trench from which most of the coins were recovered (I) this sequence was truncated by gardening activity in later times, and perhaps the distribution of Roman coins reflects the severity of this truncation.

Figures 14–16 show the proportions of Roman coins

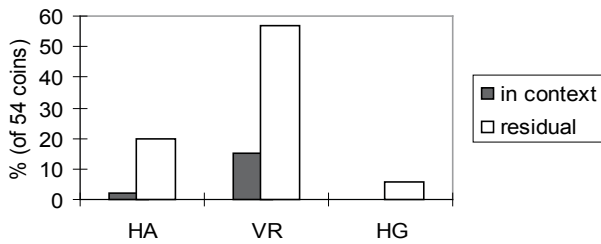


Figure 14 Phase A, to AD 259, Issue Periods i-ixb

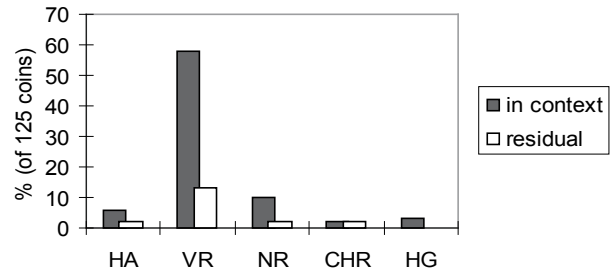


Figure 16 Phase D, AD 330-402, Issue Periods xiiib-xvi

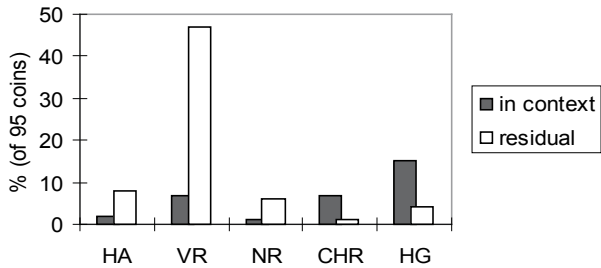


Figure 15 Phase B, AD 259-94, Issue Periods x-xi

in Roman contexts from sites with fifteen or more coins – either as residual, or likely to be in the contexts in which they were lost, according to the phases defined by Reece (1974; Part 2, Category 6). The by-phase figure represents a proportion of the entire by-phase assemblage and therefore favours the sites with the most finds. There were too few coins from Phase C to include.

At Chester Road and Henly's Garage, the relatively high proportion of 'in context' coins in Phase B (Part 2, Category 6) reflects the occurrence of finds in graves (CHR), and in a single feature perhaps related to the manning of the defences during the late 3rd century (HG, IV, F102). In general, however, the pattern seems to show that only in the 4th century are there more coins found at least close to the time when they were lost, than are found coins which are obviously residual. The implication, from the point of view of residuality, is that from the early or middle years of the Roman occupation and use of Winchester's suburbs and defences, relatively few finds remained in the contexts in which they were deposited. There is the possibility, of course, that the coins themselves were valued and curated beyond their normal circulation period.

The numbers of Saxon, medieval and post-medieval numismatic finds recovered from the suburbs and defences is probably too small to be reliable. However, it may be worth noting that around half of those dating before AD 1700 appear to be residual (Part 3, Category 6, 1943-85), suggesting a high potential for residuality amongst the post-Roman finds too.

There are also a number of instances in which finds discussed here are apparently later in date than the deposits from which they came. In some cases, the site records pinpoint the reason, for example, that the context was much disturbed by tree roots. In others,

it is more difficult to judge whether the apparent contamination is real, or whether the date of the deposit should be reassessed. Human error during finds processing is possibly a factor. It is also possible that, like the 'dark earths' (above), poorly sealed deposits were reworked. In addition, negative features may take a long time to silt up fully after they have gone out of use, and deep features, such as pits and wells may be subject to sinkage after infilling. In any event, this is a further reason for the admission that, whilst the dating quoted here is probably broadly accurate, its details may be subject to modification in the future.

### Condition and conservation

None of the sites was waterlogged, so fragile organics such as wood, leather and textiles do not normally survive except, occasionally, through mineral replacement. All of the natural deposits are chalk or chalk-derived, giving alkaline soils (which accounts for the generally good preservation of bone artefacts). During excavations carried out in the 1970s, storage conditions were less than ideal and some types of material, particularly the copper alloy, benefited from the early attention of a professional in-house conservator (Suzanne Keene). These conditions, however, adversely affected the post-Roman glass and the iron, much of which is now in a fragmentary state.

Subsequently, a selection of the remainder of the material was cleaned, and where possible, stabilised, by English Heritage conservators at the laboratory in Salisbury. An X-radiograph record now exists for all of the ironwork, except for some of the scrappier and more incomplete objects and the nails from the western suburb.

### Publication

After the initial work on the western suburb was completed, but before analysis on the northern suburb began, a decision was taken to publish the small finds according to the functional categories defined amongst the Roman material from Colchester, and at the time recently published, by Nina Crummy (1983, 4-6). Following the English Heritage (MAP 2) assessment of 1986-88, it was felt that there was an insufficient



quantity of material to justify the publication of four separate volumes as at Colchester (Crummy 1983; 1987; 1988; Cool and Price 1995), and that Roman, Saxon, medieval and post-medieval small finds, glass and coins could all be included in one. However, the advantage of the Colchester format is that it allows something to be said about everything and, indeed, this publication has grown in the writing to include all finds barring pottery (P5) and environmental material (P4 and P10).

The Winchester material is sufficiently similar to that from Colchester as not to cause more than the usual difficulties in deciding to which functional category an object might belong (see, for example, Crummy 1983, 5, 115). Neither has it been found necessary to create new categories. However, the inclusion of the glass and coins has meant that some categories have been slightly expanded: vessel glass fits fairly comfortably with household utensils and furniture (Category 4), but Category 6 (objects employed in weighing and measuring) has been enlarged to include commerce, hence coins, and Category 15 (objects associated with metalworking) also includes possible Roman glass working waste. The alternative, treating the coins and glass as separate chapters, made for a rather unwieldy synopsis, as those reports are much shorter than the ones for the remainder of the finds.

Only one of the categories is completely empty: there were no Roman objects associated with pottery manufacture (Category 17). Winchester, unlike Colchester, does not seem to have had its own Roman pottery industry, partially, no doubt, because of the lack of suitable clays and perhaps, wood for fuel.

It was not the intention, in principle, to publish finds of a later date than *c* AD 1700, but some have crept in because of the difficulty of drawing the same line amongst so many differing material types and typologies. Full catalogues were prepared for the coins and the Roman, medieval and Renaissance glass, and, where not reproduced in their entirety here are to be found in the archive. The ironwork has also been fully catalogued, except for hobnails, horseshoe nails and other nails from non-funerary contexts, and amorphous lumps and fragments, which are merely listed. Of the remaining small finds, the proportion that was so fragmentary as to be completely unidentifiable and finds which were clearly of recent date have not been catalogued. Bulk finds, such as iron slag, have, of course, been quantified rather than itemised individually. The information given here on ceramic and stone building materials (Category 9) is taken from the (MAP 2) assessment, as support for further work was considered by English Heritage to be unwarranted. Unlike the Colchester publications, catalogue entries for material that has not been illustrated have been printed in the volume rather than reproduced on microfiche.

The objects chosen for drawing are either representative of their types or illustrate some unusual or significant feature. It has not been possible, however, to draw all of the iron objects which warranted illustration. Omissions are usually due to excessive corrosion or fragmentation; in such a case the X-radiograph

held at Winchester Museums Service must serve as the primary illustrative record. The illustrations were prepared over a number of years both in-house and at the English Heritage drawing office, then in London. They are not, therefore, of a unified style.

### Abbreviations used in the text

A	area
BD	base diameter
D	diameter
FH	fallen horseman
FTR	<i>Fel Temp Reparatio</i>
GE1	<i>Gloria Exercitus</i> (one standard)
GE2	<i>Gloria Exercitus</i> (two standards)
gf	grave find
GR	<i>Gloria Romanorum</i>
H	height
hf	stone find
ID	internal diameter
indet.	indeterminate
L	length
PH	present height
RD	rim diameter
rf	recorded find
sf	small find
SR	<i>Securitas Reipublicae</i>
T	thickness
2V	two Victories
W	width
WT	wall thickness

### Key to the catalogue entries

The catalogue entries are best illustrated by an example and consist of three parts:

#### 1 Fig 17 sf VR 449.

Catalogue number (in bold), followed by reference to the figure on which the illustration appears, then the series of reference numbers to which the find was allocated during initial processing; hf: stone find; rf: recorded find; sf: small find; gf: grave find (*cf* WS7.2, 8). The last two elements are the site code and the individual reference number. Where objects have no individual reference number '0' is used (all individually catalogued objects will eventually be accessible in the archive via their catalogue number).

*Only the tip of the pin of this bronze brooch is missing. The spring is of four turns. The bow is decorated with knurled marginal grooves. L 48mm.*

Free text description including dimensions, some discussion if warranted and date of the object if known and not included in more general discussion.

*4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 83).*

Brief description of the context including type and date, feature (F) or grave (G) number, with trench (Roman numerals) and context number in brackets. Roman buildings within the walls are numbered according to the *insula* on which they stood (see, for example, Zant 1993, fig 6). The attempt to define *insulae* so comprehensively has since been put in abeyance, as it has been realised that we have insufficient topographical information to do so accurately, but the numbers are retained in this volume for the sake of consistency. Roman buildings in the northern suburb have been numbered 1.1–1.26. Medieval buildings are numbered according to Keene's (1985) tenement boundaries, for example, 936.1 is the earliest building on tenement 936 (Victoria Road).

### Order of the catalogue entries

Under each group or typological heading, the entries are ordered as follows:

1. With illustrated material taking precedence over unillustrated material.
2. According to the dating of the deposit from which the object was recovered.
3. According to the area of the town from which the object was recovered, in this order:
  - (a) northern suburb
  - (b) western suburb
  - (c) eastern suburb
  - (d) city defences
4. In site code alphabetical order.
5. In individual reference number order.
6. In context numerical order (where the individual reference number is 0).

It should be noted that since the catalogue entries were numbered, the functional category of a few has been changed and their numbers are now out of sequence. In these cases, the appropriate cross reference is given in the text.

### Quick reference to area, site, and site code

#### *In site order*

CHR, Chester Road, eastern suburb  
 10CS, 10 Colebrook Street, city defences  
 CT, Crowder Terrace, western suburb  
 HA, Hyde Abbey, northern suburb  
 HAB, Hyde Abbey Barn, northern suburb  
 HG, Henly's Garage, city defences  
 HYS, Hyde Street, northern suburb  
 JCH, Jewry Street, Crown Hotel, city defences  
 27JS, 27 Jewry Street, city defences  
 LIDO, the Lido, northern suburb  
 MA, Magdalene Almshouses, city defences  
 NHW, North Walls, city defences

NR, New Road, western suburb  
 45RR, 45 Romsey Road, western suburb  
 SBS, St Bartholomew's School, northern suburb  
 SJS, St John's Street, eastern suburb  
 SMCW, St Martin's Close, Winnall, eastern suburb  
 SSS, St Swithun's Street, city defences  
 SXS, Sussex Street, western suburb  
 VR, Victoria Road, northern suburb  
 84WL, 84 Water Lane, eastern suburb

#### *In area order*

##### **northern suburb**

HA, Hyde Abbey  
 HAB, Hyde Abbey Barn  
 HYS, Hyde Street  
 LIDO, the Lido  
 SBS, St Bartholomew's School  
 VR, Victoria Road

##### **western suburb**

CT, Crowder Terrace  
 NR, New Road  
 45RR, 45 Romsey Road  
 SXS, Sussex Street

##### **eastern suburb**

CHR, Chester Road  
 SJS, St John's Street  
 SMCW, St Martin's Close, Winnall  
 84WL, 84 Water Lane

##### **city defences**

10CS, 10 Colebrook Street  
 HG, Henly's Garage  
 JCH, Jewry Street, Crown Hotel  
 27JS, 27 Jewry Street  
 MA, Magdalene Almshouses  
 NHW, North Walls  
 SSS, St Swithun's Street

### Pottery fabric codes used in the text

ADA, Roman, Dressel 20 amphora (Peacock and Williams 1986, 136–40).  
 MAP, Saxon and early medieval, unglazed fabric, medium grained sandy ware with flint. Dense small to medium sized sands (0.1–0.8mm). Common flint (up to 3mm). Iron oxides.  
 MAV, Saxon and early medieval, unglazed fabric, chalk tempered ware with some flint. Abundant chalk temper. Fairly common quartz (0.1 to 0.3mm) and flint inclusions. Some iron oxides.

MBX, Saxon and early medieval, unglazed fabric, chalk tempered ware. Heavily tempered with chalk, 1mm. Some iron oxides. Rare flint or quartz inclusions.

MDF, Saxon and medieval, unglazed fabric, medium grained sandy ware. Densely sanded fabric with medium sized quartz grains (mostly 0.3 – 0.4mm, some in the range of 0.1 – 1mm). Scatter of larger sands (up to 1.5mm). Some iron oxides.

MDL, Saxon and early medieval, unglazed fabric, dense medium sands (0.3–0.5mm). Occasional iron oxides. Often oxidised reddish brown

NFA, Roman, micaceous red fabric with fine sand (the fabric was possibly originally mica dusted).

SG, Roman, grog tempered ware (*cf* Tomber and Dore 1998, 139).

TLA, Roman, Lyon ware (Greene 1978, 15–16).

ZC, Roman, coarse grained grey ware, often from Alice Holt/ Farnham (Lyne and Jefferies 1979, 18).

ZM, Roman, medium grained grey ware, often from Alice Holt/ Farnham (*ibid*) or the New Forest kilns (Fulford 1975a).



## Appendix to Part 1: site summaries

This gives brief details of the circumstances under which sites that appear in this volume were recorded. Description of the main results of each intervention is given in Part 1.

### The northern suburb

#### **Hyde Abbey** (HA 72, HA 74)

Altogether sixteen trenches were opened up for excavation, an area of around 995 square m. Due to problems with funding and the contractors' timetable only Trenches I, II and IV (1972) were fully excavated by hand (138 square m). In addition, Trench XI (1974) was excavated nearly to natural at its western end. Natural was also reached in Trench XII (1974), and Trench XIII (1974) was partially excavated, but natural was not seen. Trench X (1974), the site of the almoner's hall still partly standing in the present day, could only be cleaned in the time available. The stratigraphy in the other trenches was observed, either as part of trial trenching or during construction work.

Further investigations at Hyde (HA 95–99) have gone some way to elucidate the internal plan of the abbey, especially the site of the church. The results of these excavations have been included in this series of publications, but it was too late for the finds to be assessed and written up, and they are omitted here.

#### **Hyde Abbey Barn** (HAB 78–80)

This code has been used for a series of chance finds, observations and one controlled open area excavation (Trench V) of around 39 square m carried out prior to the construction of an extension to the Historic Resources Centre, 75, Hyde Street.

#### **Hyde Street** (HYS 79)

4185 square m were opened for development. Due to delays in obtaining planning consent, archaeological interest in the site was overlooked. Twenty-seven Roman graves (210 square m) were rapidly excavated over a period of four days, and a further 27 observed during construction work.

#### **The Lido** (LIDO 85/86)

An area of around 400 square m was observed in 1985. Within this area 63 square m were cleaned and planned (Trenches I–IV), and parts of Trenches I and

IV were fully excavated (23 square m). Trench V (1986) represented an area of 59 square m to the south, which was fully excavated apart from very deep pits.

#### **St Bartholomew's School** (SBS 83)

The entire development covered 1,125 square m, but only a limited area could be excavated, and this very rapidly, due to problems with access and lack of resources. Trenches I–III comprised an area of around 115 square m in which most medieval and post-medieval features were at least partially excavated.

#### **Victoria Road** (VR 72–80)

This code was given to two large areas of excavation and a linking trench, which were seen as parts of a single response to the proposed construction of a major new road. The area to the west (Trenches I–VI) was adjacent to Victoria Road and to the north of Swan Lane, and that to the east (Trenches X–XV), closer to Hyde Street. The linking trench (VII/XVI) sampled an area across the Roman road to Mildenhall and Cirencester; thus, the excavation revealed the character of Roman occupation on both sides of the road, as well as that of medieval properties fronting both Hyde Street (X–XV) and Swan Lane (I–VI). In all, around 2,500 square m were excavated by hand.

### The western suburb

#### **Crowder Terrace** (CT 74)

An area of just over 500 square m was opened for investigation as Trenches I–VIII. Most of this area was excavated by hand, although in some places rather rapidly.

#### **New Road** (NR 74–77)

Trial excavation (Trench I) of 6 square m was followed by controlled investigation of 735 square m (Trenches II and III), but safety considerations meant that part of the Oram's Arbour Iron Age ditch remained unexcavated in this area. A watching brief was maintained in two further trenches (IV and V), parts of which were salvage excavated.

**45 Romsey Road** (45RR 80)

Roman graves found in a large (5,000 square m) area were salvage recorded. Some of the information now in archive came from contractors working on the construction site.

**Sussex Street** (SXS 76–79)

Trial trenching (I–VI) on the west side of Sussex Street in 1974 in advance of road widening showed that archaeological deposits had mostly been destroyed on the street frontage, but survival in former garden areas was good. Accordingly, Trenches VII and VIII were opened, but no archaeological features were seen in Trench VII. Hand excavation took place in Trench VIII in 1976 (184 square m) but natural was only reached in part of it (90 square m).

During road construction in 1977, a watching brief was maintained and some rapid excavation carried out over the whole of the development area (Trenches XIII–XVI and XVIII). A delay in the construction programme also allowed the Oram's Arbour ditch to be identified in Trench XIV and a 2m-wide section excavated under controlled conditions.

Trial trenching (IX–XII) of 1976 had also tested the survival of deposits to the south of Trenches VII and VIII. Modifications to the scheme meant that this area was no longer under threat when the road was constructed in 1977, but proposals for new housing caused part of the area to be excavated in 1979 as Trench XVII. The unexpected complexity of the stratigraphy, and the withdrawal of funding restricted the area which could be investigated under controlled conditions. The full area of 250 square m was excavated to the level of the chalk and clay deposit interpreted as the upcast from digging the late 9th-century city defences (see Part 1). Within this, 38 square m were excavated to natural.

**The eastern suburb****Chester Road** (CHR 76)

Four trenches were opened, but only two (Trenches I and III) excavated. In Trench I (about 250 square m) excavation reached late Roman deposits and exposed a few later Roman graves, whilst Trench III (about 270 square m) was plumbed mostly to early Roman levels and all of the graves in this area investigated under controlled conditions.

**St John's Street** (SJS 76–80; SJS 82)

Proposals for quite large scale housing development in St John's Street led to archaeological intervention beginning in 1976. Eight trenches (I–VIII) were opened, and watching briefs maintained over the whole development throughout the period 1976–1982. Controlled excavation on any scale was possible only

in Trenches I (SJS 76) and IV (SJS 82). Very small areas were excavated as Trench VIII and in part of Trench VI.

Trench I was around 325 square m, and was excavated to the top of Roman deposits in its eastern part. In the western part, excavation ceased at levels of the 13th to 14th centuries. An area of around 28 square m was excavated as Trench IV. Medieval and later deposits were fully excavated, but earlier remains could only be sampled.

**St Martin's Close, Winnall** (SMCW 84–86)

Renovations to the housing estate in 1984 led to observation and limited excavation of Roman graves in house foundations and drainage trenches. A very small area of the cemetery (around 20 square m) designated as car parking space was investigated more fully (SMCW 84/85, Trench I). To the north, around 175 square m was opened as Trench II (SMCW 86), with a view to defining the cemetery boundary and investigating graves under controlled conditions. Of such remains, however, there was no trace; instead the excavation revealed vestiges of two Anglo-Saxon timber buildings, causing Trench II to be extended (by about 80 square m) in order to recover their full plan.

**The city defences****10 Colebrook Street** (10CS 86)

Around 45 square m was excavated under controlled conditions in order to assess the state of preservation of the Roman defences. Natural was only seen in a small area in the centre of this trench.

**Henly's Garage** (HG 84–85)

Three trial trenches (I–III) were opened in 1984, and controlled excavation of an area around 215 square m subsequently agreed. Trench IV, an enlargement of Trench II was designed to investigate the sequence on the Roman defences. Extension of Trench III was intended to elucidate the deposits relating to the Roman building and subsequent industrial activity observed in the trial trench. Trench IV was fully excavated with the exception of deep features, but lack of adequate finance meant that the Roman building could be examined only briefly, and the industrial deposits sampled.

**27 Jewry Street** (27JS 84)

A total of just over 110 square m of area was investigated. This consisted of 21 square m of mechanical trial trenching (Trenches I and II), about 22 square m of rapid manual excavation (Trench III) and 70

square m of controlled excavation in those areas of Trenches I and II which had not been destroyed by 19th-century cellaring. Deep pits remained unexcavated in all areas, and no watching brief was carried out during building construction. Investigation was constrained to the areas away from the standing buildings.

***Jewry Street, Crown Hotel*** (JCH 84)

Rapid hand excavation of trial trenches (I and II) was succeeded by controlled excavation (Trenches III and IV). A further rapidly excavated trench (V) was cut later to further elucidate the extent of the Roman defensive rampart. Trenches I, II and V were around 25 square m, whereas Trenches III and IV occupied 45 square m.

***Magdalene Almshouses*** (MA 80)

Four small trenches (I–IV) were opened in 1980 to provide information about the defences and to investigate the proposed site of a Saxon north-south street. In extent and intent, these were trial trenches, aimed also towards examination of ground conditions on behalf of the developer. However, all excavation was undertaken manually and fully controlled. Trenches I–IV were just over 30 square m in area, although some deep features were only partially excavated. Failure

to secure the agreement for further excavation led to the destruction with only a watching brief record of archaeological deposits in the remaining 695 square m of new build.

***North Walls*** (NHW 79)

Two trenches (I and II) comprising 33 square m of ground were excavated to assess the survival of archaeological deposits relating to the defences in advance of proposed road widening. As a result of these investigations the scheme was dropped and the site scheduled.

***St Swithun's Street*** (SSS 74)

Trench I represented the archaeological excavation of a new access from the garden to the basement of no 26 St Swithun's Street, which was placed in such a way as to bestride the main southern defences of the city. In area this was around 11 square m and averaged 2m deep. Though a maximum depth of 3.2m was recorded, natural was not seen. Trenches II–V were the foundations of a new house built in the garden of no 26, which were cleaned and recorded, whilst Trench V was a soakaway pit from which some finds were collected by workmen. Part of a foundation trench for a new wall to the original building were observed in 1975 as Trench VI.



**PART 2: Roman**



# 1 Objects of personal adornment and dress

This group of material is dominated by dress accessories from burials, both cremations and inhumations, dating from the 1st to the late 4th or early 5th century. The 1st- to early 3rd century grave goods consisted mainly of jewellery – brooches, beads, armlets, and finger-rings, while more unusual items include a large ivory armlet, two cowrie shells and an iron pin with a bead of glass set into the head. The cowrie shells may have been seen as having an amuletic purpose as the same grave produced a small bell, and a second jewellery group also included a bell. The 4th- to 5th-century graves contained armlets, and one also contained an unusual silver pin with the head in the form of a bird.

Hobnails came from graves of all periods and many occurred as general site finds, as did a considerable number of iron boot-plates. The assemblage of site finds also includes many items of jewellery, in particular bone hairpins.

## Brooches

Some of the early brooches came from cremations, and in many cases the dates of the graves are later than the usual date assigned to the type (for example, the Nauheim derivatives, the rosette brooch and one of the Hod Hill examples). It may be that these graves should be dated rather earlier, or the discrepancy may highlight a survival of certain brooch forms in this area when they had passed out of use elsewhere, or they highlight the fact that grave goods offer not a clear date for a burial, but only a *terminus post quem*. Many of the other brooches are residual in later features or unstratified.

The majority of brooches are of 1st-century date, and 23 out of the 57 recovered are one-piece Nauheim derivative types. This brooch type is common and widespread across southern Britain, and the vast majority come from post-Conquest pre-Flavian contexts, though contextual evidence from eastern Britain suggests that some continued in use up to c AD 80 or even later (Stead and Rigby 1986, 123). The influx of Nauheim derivatives triggered by the conquest shows that most are imports, but they are so numerous that it is possible a workshop was set up in the new province. The simplicity of the form can make it difficult to distinguish between imported forms and those British-made wire brooches that developed independently in the late Iron Age or early Roman period. In this assemblage it is quite likely that the hinged iron brooches nos 18–20 may be of British origin, but there is as yet no solid evidence to suggest that the same is necessarily true for any of the copper alloy brooches. Detailed analysis of examples from

dated contexts across southern Britain and from the continent is needed to establish if the period of use varied across the province and if the distribution of different subtypes is regional or scattered.

The very high proportion of Nauheim derivative brooches here at Winchester must reflect a period of intense local activity, presumably the creation of the Roman town, and may also be an indication of a comparatively low-status population. Olivier (1988, 52–3) noted that where one-piece Nauheim derivatives occur in high numbers there is often a matching paucity of contemporary two-piece British-made Colchester B and BB derivative forms, and this is certainly the case here, with only three recovered, as well as two of the earlier pre- to immediately post-conquest Colchester type. However, though Colchester brooches and Colchester derivatives have a wide distribution, they are essentially British-made Trinovantian/Catuvellaunian types and therefore low representation at Winchester is not surprising, and a similar paucity of western British brooches of Polden Hill form or related T-shaped types, again low in number at Winchester, suggests rather that comparison should be made with other brooches imported at and immediately after the conquest, such as Hod Hills and Aucissas, which are associated with the Roman army. There are none of the latter and only four of the former in this assemblage, which implies that there was no great military presence at Winchester. Whereas Hod Hills are taken to indicate the presence of the Roman army, it may be that high numbers of Nauheim derivatives as at, for example, Wanborough, Wiltshire (Butcher 2001) and Silchester, Hampshire (Hull corpus), point to an influx of immigrant settlers.

Plate brooches are few in number in this assemblage, and none are of the 1st-century forms introduced at the conquest. The majority are of British manufacture, with only the Tutulus brooch being of continental origin (Hattatt 1989, 128). The pair of Dragonisque brooches from cremation grave 566 were probably made in northern Britain, and their presence here can perhaps be linked to a mirror with dragonisque-style handle in grave 466.

Several of the plate brooches appear to have had some symbolic meaning: the Dragonisque brooches 49–50, an enamelled axe brooch 51, and a sandal brooch 52 (Jundi and Hill 1997, 133–4; Green 1997, 221–2; Hattatt 1987, 220; Simpson and Blance 1998, 277–8; Johns 1995). An enamelled bow brooch crowned with a lunula may be a particularly important item in this respect (43). The crescent is a protective motif sometimes worn as an amulet and also found on jewellery associated with wheel models as emblems of sun and moon, for example the necklaces from the Backworth and Snettisham hoards (van Boekel 1987, 102, 653–7; Green

1993 194–6, fig 3, I; Charlesworth 1961, 20–1, pls 1–2; Johns 1997, catalogue nos 317–22). The prominence of the symbol on the Winchester brooch suggests that it might be a votive object, or perhaps worn by a cult member, rather than just an everyday item incorporating a ‘casual’ reference to the moon.

No penannular brooches were found, though an unusual penannular catalogued as late Saxon may be residual Roman (Part 3, Category 1).

Throughout this section references are made to the corpus of brooches by the late M R Hull (typescript in Colchester and Essex Museum).

## **Bow Brooches**

*Note: owing to changes at a late stage, parts of this section have been re-ordered, but without changing the catalogue numbers.*

### **One-piece Nauheim derivative brooches and hinged strip-bow brooches**

#### *(a) with a reverse curve to the bow (Hull’s Type 10)*

1 Fig 17 sf VR 449. Only the tip of the pin of this bronze brooch is missing. The spring is of four turns. The flat bow is decorated with knurled marginal grooves. L 48mm. 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 83).

2 Fig 17 sf CT 297. Copper alloy, with the spring broken at one turn and no pin surviving. The edges of the flat are decorated with knurled marginal grooves. L 42mm. Unstratified.

#### *(b) with a single curve to the bow (Hull’s Type 11)*

9 Fig 17 sf VR 3295. Part of the bow and the four-turn bilateral spring of a bronze brooch which has three incised transverse grooves about half way down the narrow flat bow. These grooves mark a change in the bow’s section from D-shaped to flat. L 30mm. Fill of the eastern Cirencester-roadside ditch F258 (X, 783). Probably dating to the late 1st century.

10 Fig 17 sf VR 7110 (a). One of at least three similar bronze brooches from this grave. This brooch is more or less complete, and has no decoration on the narrow flat bow. L 39mm. Late 1st-century cremation grave 515 (XI, 1219).

3 Fig 17 sf VR 7184 (a). One of three similar copper alloy brooches with wide flat bow from this grave. This example is complete except for part of the catchplate, but is in four fragments. The spring is bilateral and has four turns. The bow has knurled marginal decoration. The alloy is bronze (copper-tin alloy). L 40mm. The deposition of three brooches in this grave, and possibly of three in grave 515, suggests that two may have been used to fasten the shoulders of a tubular dress and one on a cloak. Late 1st- to early 2nd-century cremation grave 528 (XI, 1291).

4 Fig 17 sf 27JS 236. A brass brooch with wide flat bow; only the pin is missing. L 56mm. The plain bow is of angular D-shaped section. The pin is of four turns. A hybrid form, with the cast solid catchplate and bow section of a Colchester derivative. ?Late 1st- or early 2nd-century phase of disuse of Roman street F70 (I, 419).

11 Fig 17 sf VR 1087. A complete bronze brooch with four-

turn bilateral spring. There are two ring-and-dot motifs on the narrow flat bow. L 40mm. Soil layer (V, 372). Probably dating to early to mid-2nd century.

5 Fig 17 sf VR 1013. A complete bronze or gunmetal brooch in three pieces. L (bent) 22mm. The bow is plain and the brooch can be attributed to the wider-bowed subtype only by virtue of its short length compared to its width. Mid- to late 3rd-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 361).

12 Fig 17 sf JCH 181. A bent brooch with narrow flat bow; the pin is missing. L (bent) 50mm. Context of uncertain type and date (III, 264).

#### *not illustrated*

13 sf VR 7110 (b). One of three (at least) similar undecorated bronze brooches with narrow flat bow from this grave. The brooch is fragmented and the length uncertain. Late 1st-century cremation grave 515 (XI, 1219).

14 sf VR 7110 (c). Many fragments representing at least one bronze brooch similar to the other two from this late 1st-century cremation grave 515 (XI, 1219).

6 sf VR 7184 (b). One of three similar bronze brooches from this grave (see no 3 above). In four fragments but complete except for the tip of the pin and part of the catchplate. L 41mm. Late 1st- to early 2nd-century cremation grave 528 (XI, 1291).

7 sf VR 7184 (c). One of three similar bronze brooches from this grave (see no 3 above). In three fragments. Part of the spring and most of the bow are missing. L about 40mm. Late 1st- to early 2nd-century cremation grave 528 (XI, 1291).

15 sf VR 3176. A distorted gunmetal brooch of which only the tip of the pin is missing. L (bent) 40mm. The spring has broken on the first of its four turns, but the two parts of the brooch still hold together. The flat bow is narrow and plain. Soil layer of the first half of the 2nd century (X, 540).

8 sf VR 7172. A bronze brooch in five fragments but complete except for the central part of the pin. The tip of the pin has corroded on to the catchplate. The bilateral spring is of four turns. The bow has knurled marginal decoration. Similar to the three brooches from grave 528 (see above; Fig 17). L about 42mm. Cremation grave 522 (XI, 1287), dated to the second quarter of the 2nd century.

16 sf VR 1043. A complete brooch of bronze or gunmetal. L 35mm. The spring is of four turns. The flat bow is narrow and plain. Late 2nd- to early 3rd-century layer in Building 1.14 (V, 130).

17 sf VR 6111. Distorted brooch with a three-turn spring and narrow flat bow. Catchplate and pin broken. L 49mm. 15th- to 16th-century pit F312 (X, 950).

#### *(c) iron brooches (Hull’s Type 14)*

18 Fig 17 sf VR 9926. A complete iron hinged strip-bow brooch. The bow widens out at the head and is rolled over to hold the axial bar that fixes the hinged pin. The solid catchplate leaves the bow almost at right angles. L 65mm. Late 1st-century cremation grave 627 (XI, 1719).

19 Fig 17 sf VR 11026. Part of an iron hinged strip-bow brooch. The corroded and damaged bow is flat at the top, turning to D-shaped at the broken end. L (surviving) 35mm. Late 1st- to early 2nd-century soil layer (V, 475).

20 Fig 17 sf VR 458. Iron. Loop arm and catchplate set at 90 degrees to the plate which widens towards the latter. L 53mm. Residual in backfill of mid-4th- to early 5th-century inhumation grave 58, gf 59 (IV, 300).



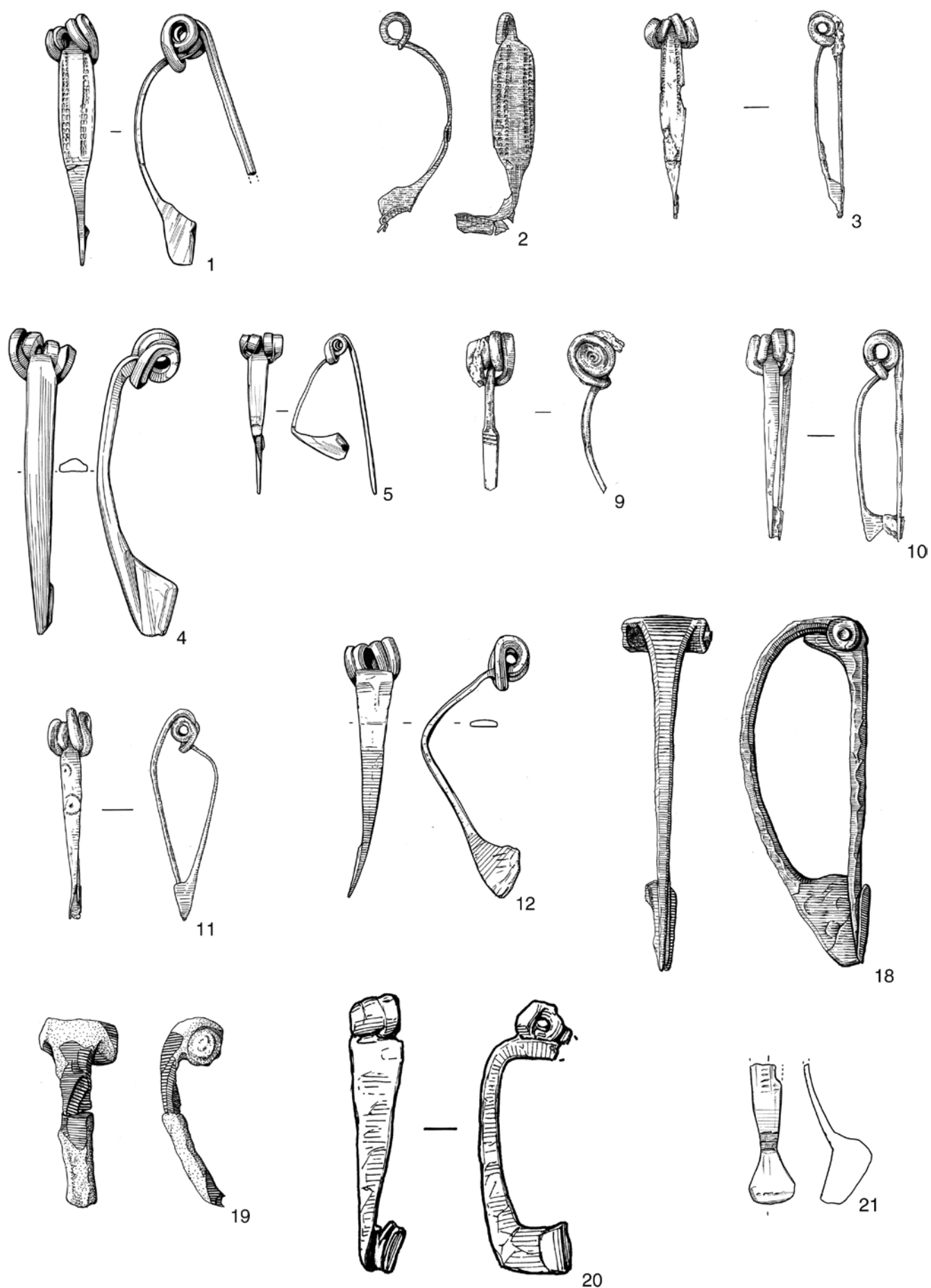


Figure 17 Bow brooches, nos 1-21, scale 1:1

*(d) fragments*

**21** Fig 17 sf VR 1030. Only the lower part of the bow and the foot of this bronze brooch remain. Possibly part of a Nauheim derivative brooch. L (surviving) 26mm. The bow is decorated with a central knurled band, and may have slight marginal grooves. Three transverse grooves mark the base of the bow. The foot is triangular and may also have slight marginal grooves. General soil layer, dated to late 3rd century or later (V, 344).

*not illustrated*

**22** sf JCH 97. Three fragments of brooch springs, possibly from Nauheim derivatives. Erosion or weathering of late 2nd-century defensive rampart (III, 151).

**23** sf 27JS 255. Four-turn bilateral spring of bow brooch. L 15mm. Post-Roman context of uncertain date and type (I, 455).

**Langton Down brooch**

This is a particularly plain and narrow-bowed example of the type (Hull's Type 21), which usually has a wider and flatter reeded bow. Similarly plain brooches have been found at Colchester, and Royston in Hertfordshire (Hull typescript, catalogue numbers 0315, 2404). The type was imported in considerable numbers in the first part of the 1st century AD, and went out of use by about AD 50. The mean nature of this brooch from Sussex Street may suggest that it is a late example of the type.

**24** Fig 18 sf SXS 5. Copper alloy Langton Down brooch with a narrow, plain bow, slightly thickened in the centre, though not truly D-shaped. The spring-cover has been ripped open, distorted and damaged, but appears to have been completely plain. There is a very slight moulding at the junction of bow and spring-cover. Most of the catchplate is missing but it appears to have had a single large triangular opening. L 51mm. Unstratified.

**Rosette or thistle brooch**

The example recovered belongs to Hull's Type 26, subtype A, being made in several parts. Rosette brooches are continental in origin, and date from the Augustan period to the reign of Claudius. This example is probably Claudian in date.

**25** Fig 18 VR sf 5105. A brass brooch made in at least three, and most probably four pieces. One piece, the spring with the pin, is missing. All that remains of another, the foot, is a rectangular fragment held on to the back of the central lozenge-shaped plate by a projection which passes through it and has been hammered flat. The lozenge-shaped plate is probably separate from the spring cover, bow and moulded rosette, but it fits so closely on to the junction of bow and spring cover that it is uncertain if the top line of the plate indicates that the piece is separate or merely cracked. If separate, then the projection which pierces and holds the foot must come from the underside of the bow/rosette, and also pierce the plate. Most of the outer edge of the lozenge-

shaped plate has broken off. Where it remains, it is decorated with two lines of punched dots. The bow is decorated with strong mouldings, and the rosette is fringed with irregularly shaped projections. L (incomplete) 38mm. Mid-2nd-century cremation grave 466 (XII, 2386).

**Fragment**

Possibly a Langton Down brooch with unusual decoration. If this identification is correct, the brooch is residual in its context.

**26** Fig 18 sf VR 5383. Only the lower part of this brooch remains. L (surviving) 37mm. The bow tapers to a squared-off foot and is decorated by wide marginal slashed mouldings and a central plain moulding defined by grooves. The catchplate is solid. Early to mid-3rd-century disuse of oven F846 in Building 1.24 (XIII, 3378).

**Hod Hill brooches**

Hod Hill brooches probably first arrived in Britain with the invading Roman army in AD 43, and went out of use c AD 60–65. They are hinged on an iron axial bar held in the forward-rolled head. The decoration shows great variety, and was used by Hull to subdivide the series into 20 types (60–79+). Many Hod Hills are tinned, as here, and all may have been so when new.

**27** Fig 18 sf VR 7235. A brooch of gunmetal with a tin coating; Hull's Type 60. The pin has broken off and is in two fragments. Its tip is missing. The rest of the brooch is well-preserved. The bow has knurled marginal mouldings and a central knurled ridge. There is a transverse moulding at the top of the foot and another just above the rectangular terminal knob. L 41mm. Late 1st-century cremation grave 540 (XI, 1301).

**29** Fig 18 sf VR 3245. The rolled-over part of the head and the pin of this brass brooch are missing; Hull Type 71, with cross-mouldings on bow and foot. L (surviving) 38mm. The top of the bow is defined by a single cross-moulding and the junction of bow and foot by two cross-mouldings, all of which project beyond the bow slightly. The single moulding is knurled. Two more evenly-spaced mouldings cross the bow, and two more cross the foot, one at the top, and one just above the foot-knob. There are slight notches on the three mouldings below the knurled one, but these are irregular and probably not a part of the integral design. The catchplate is solid. As with **28**, above, there is no trace of tinning on this brooch. As its head is missing, the identification should perhaps be regarded as tentative. General layer of the first half of the 2nd century (X, 494).

**30** Fig 18 sf VR 9734. This brooch can probably be classed with Hull's Type 75 as it is similar (though not exactly so) to a Type 75 brooch with one square panel in the bow from Wanborough, Wiltshire (Hull catalogue number 8987). The brooch is of gunmetal with some lead. There is no evidence of tinning. The pin is missing. The bow is decorated with transverse mouldings and includes a rectangular panel with a ring-and-dot motif. The foot knob is surmounted by a terminal moulding. L 47mm. General layer of the first half of the 2nd century (XV, 4213).

**28** Fig 18 sf VR 1018. The pin of this brass brooch has broken off immediately below the hinge, and the bow and foot, though complete, have been bent forward into a reverse

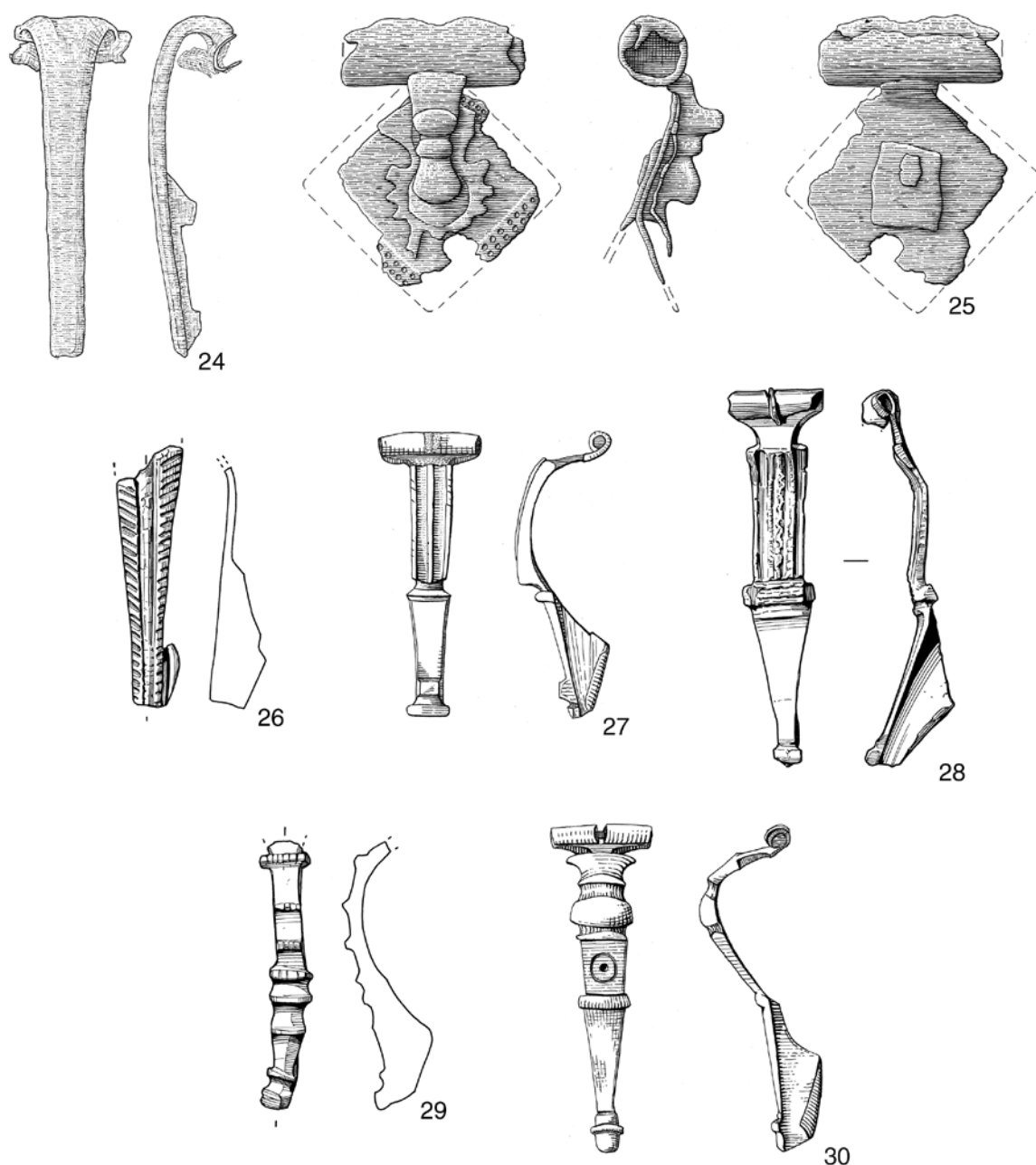


Figure 18 Bow brooches, nos 24–30, scale 1:1

curve. L 56mm. The form is Hull's Type 61 with lugs at the base of the bow. The bow has slight moulded margins and three central mouldings, the outer pair finely knurled, the inner a wavy line. The junction of bow and foot is marked by a group of cross-mouldings level with the lugs, and a slightly lower single cross-moulding. The foot is plain and terminates in a small rectangular knob. The catchplate is solid. There are no traces of tinning on this brooch. Mid-to late 3rd-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 368).

#### Colchester and Colchester derivative brooches

One-piece Colchester brooches date to the first part of the 1st century AD and went out of use by *c* AD 50. Two-piece derivative brooches (Colchester B) date to *c* AD 50–79, and BB derivatives to *c* AD 60–80.

31 Fig 19 sf HA 309. Colchester brooch (Hull Type 90) with the catchplate and the lower part of the bow missing; most of the spring and pin, and one side-wing are also missing. L (surviving) 46mm. The bow is oval in section. The remaining side-wing is very small, worn and plain. The metal used for this brooch is brass, used for over 90% of Colchester A brooches analysed (Bayley 1990, 17). Building 1.7 (XI, 401), ?early to mid-3rd century.

35 Fig 19 sf VR 5851. A corroded Colchester BB derivative brooch (Hull Type 93), in three pieces. The pin is missing. L (approximately) 60mm. Each side-wing is decorated at the end by a pair of shallow grooves. The bow has marginal grooves which meet at the foot. The catchplate is solid. 13th- to 14th-century pit F790 (XIII, 3345).

32 Fig 19 sf VR 3230. Colchester brooch type broken across the bow; the pin is missing. L (approximately) 46mm. The bow is decorated with shallow parallel grooves. The catchplate is solid. 13th- to 15th-century soil layer (X, 295).

*not illustrated*

**33** sf VR 3232. Part of a copper alloy two-piece Colchester B derivative brooch (Hull Type 92). The pin is of bronze and the bow of leaded bronze. Only the head, one side-wing, the spring and most of the pin survive. L (incomplete) 28mm (see also the catchplate **44** below). Eastern Cirencester-roadside path F243 (X, 689). Late 1st century.

**34** sf VR 1283. Part of a copper alloy two-piece Colchester B derivative brooch, the alloys used for the bow and pin being the same as **33** above. The lower half of the bow and the tip of the pin are missing. L (incomplete) 29mm. Late 1st- to early 2nd-century fill of the western Cirencester-roadside ditch F85 (V, 481).

### **Polden Hill and T-shaped brooches**

These brooches date broadly to the second half of the 1st century and in general have a broadly western distribution.

**36** Fig 19 sf VR 1265. A hinged brooch of leaded bronze, complete except for the hinged pin. The circular side-wings are grooved on either side of the head and have writhen terminal knobs (similar to those found on some penannular brooches). There are buttresses on either side of the head which relate this brooch to the Polden Hill series. The central crest on the bow is knurled. The catchplate has a single perforation. L 39mm. Late 1st- to early 2nd-century soil layer (V, 450).

**37** Fig 19 sf VR 9676. A complete hinged bronze T-shaped brooch. L 31mm. The bow tapers to a point and its crest is knurled. The side-wings are long, and decorated with mouldings. The junctions of the bow and side-wings are marked by a moulding which tapers upwards to the hinge-slot, a characteristic reminiscent of developed Polden Hill brooches. Mid- to late 4th-century Building 1.22 (XV, 4144).

**38** Fig 19 sf CHR 46. A small distorted hinged brooch with most of the pin and catchplate missing. L 33mm. The pin is secured by an iron bar set through the crossbar. 11th- to 12th-century erosion layer (I, 83).

**39** Fig 19 sf VR 9912. The pin of this Polden Hill brooch is missing, and the head, side-wings and spring are encrusted with corrosion (Hull Type 95). L 43mm. Attribution of this brooch to a type is difficult. It appears to have the remains of an external chord passing through a perforated lug above the spring, which places it either in the Polden Hill or T-shaped group. 13th- to 14th-century pit F1059 (XV, 4015).

**40** Fig 19 sf VR 3107. T-shaped brooch, complete apart from the pin, which is missing, one end of the tip of the crossbar, and the tip of the crest. L 44mm. The surviving end of the crossbar is marked by two fine grooves. The bow makes a short sharp curve into the head, and the damaged crest is on the lower end of the curve. The head is marked by grooves forming a cross within a lozenge. The flat bow of this type is usually decorated with a longitudinal groove, but this example bears a panel of herringbone decoration flanked by fine grooves. The catchplate is cut off straight just above the foot, which is marked by a groove. 13th- to 14th-century pit F166 (X, 439).

### **Trumpet brooch**

**41** Fig 19 sf VR 373. Well-preserved brooch with fixed head-loop and long narrow leg, complete apart from the upper half of the head loop; Hull's Type 154B, with a distri-

bution centring on Cirencester, and probably dating to the 2nd century. L 62mm. The mouldings and torus of the button are plain. The long leg terminates in a collared foot knob. The spring is held on a single lug. Context of uncertain type and date (V, 89).

### **Knee brooch**

**42** Fig 19 sf VR 5263. A complete brooch of brass; Hull's Type 173, dated to the later 2nd or early 3rd century. L 33mm. The sides of the head-loop are worn. The spring is held in the cylindrical head by an axial bar, which is fixed in the returned ends of the cylinder. The bow is of rounded outline, solid and semicircular in section. The foot is quite pronounced but is not knobbed. Early to mid-3rd-century disuse of oven F846 in Building 1.24 (XIII, 3233).

### **Unclassified**

An unusual brooch which bears some resemblance to the Headstud series. The date is uncertain, but it probably belongs within the last quarter of the 1st century or the early years of the 2nd. The single sweep of the low arched bow with its rectangular panels of enamel, the heavy moulded foot and solid catchplate can be found on Lamberton Moor brooches, though the bow is much shorter than that of most Lamberton Moors. The head, though, is highly distinctive. The rectangular panel, though reminiscent of sidewings, is set at an unusual angle and its knurled edge ranks it with the head mouldings. It appears to serve only as a base for the large crescent moon motif which dominates the brooch and could have been intended to be amuletic in character. The seven enamelled circle motifs on the crescent could represent the seven days (as seven suns) in a quarter of a lunar cycle. Seven was also the number of planetary births and rebirths which, in some oriental mystery religions, the soul had to undergo before achieving immortality (Toynbee 1973, 234).

Decorative developments of the head-plate feature on some Wroxeter-type brooches, of which the most elaborate is one from Stratford-upon-Avon with a cusped trefoil-shaped plate riveted above the head (Hull, catalogue number 3346). The only other lunula mount appears to be that on an unclassified plate brooch from Eccles villa which has an enamelled crescent above the head (*ibid* catalogue number 9592), though the use of the lunula motif occurs on continental plate brooches of Feugère's Type 24 (1985, 184).

**43** Fig 19 sf VR 3168. A short and well-preserved brooch, but lacking the hinged pin. L 40mm. The head has a large torus with knurled edge below smaller mouldings and a rectangular plate, also with knurled edge. Above the plate is a large lunula ornamented with seven enamelled dots. The one on the extreme left is red; the colour of the others is unknown. The enamelled bow is only slightly arched, and ends in three stout mouldings. The first, third, and fifth rectangular panels of enamel are of an unknown colour, the second and fourth are turquoise. The catchplate is solid. Unstratified (X).

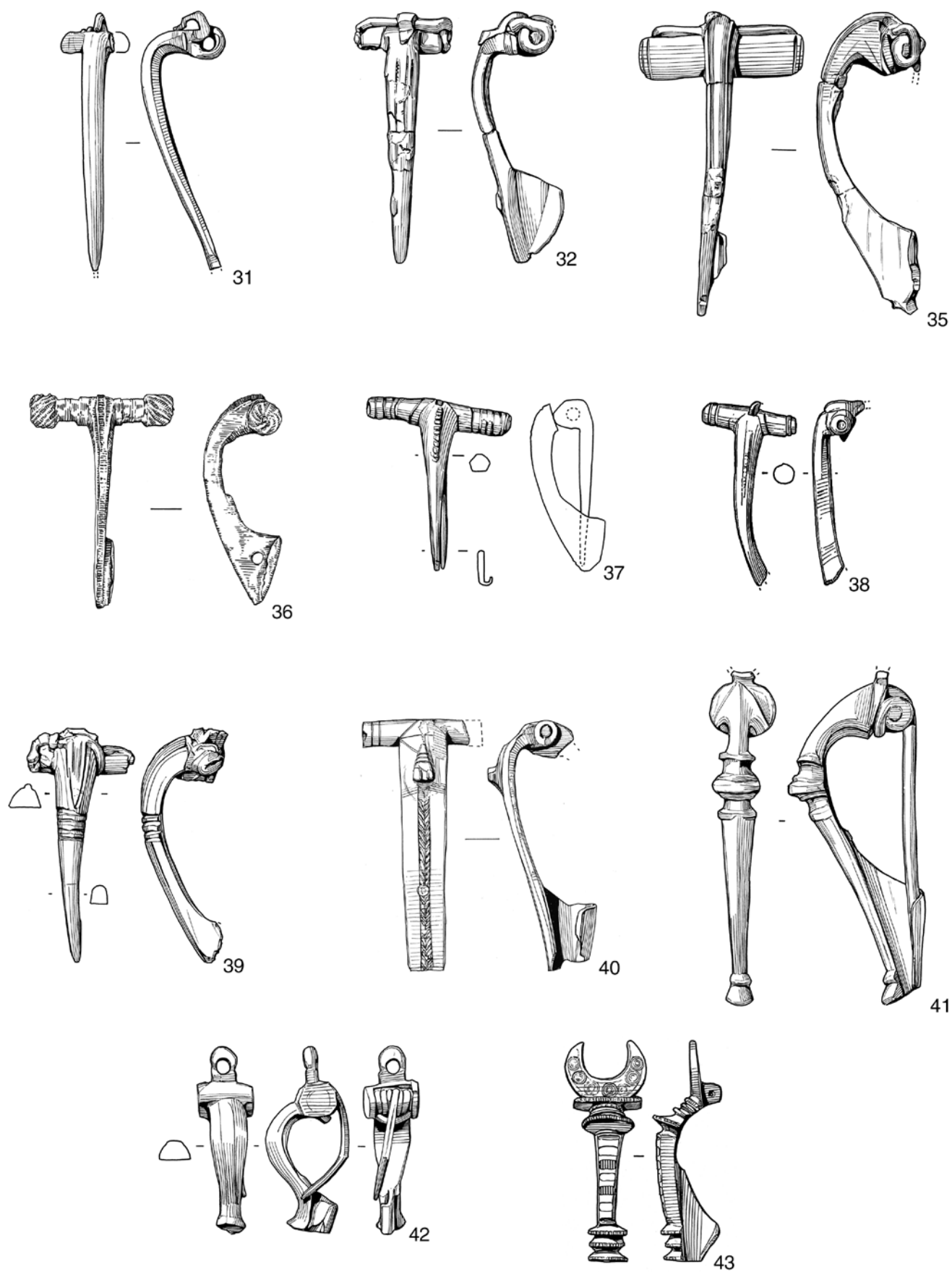


Figure 19 Bow brooches, nos 31-43, scale 1:1

**Bow brooch fragments***not illustrated*

44 sf VR 3365. A copper alloy brooch catchplate, possibly part of 33 above, a Colchester B brooch, from the same context. Eastern Cirencester-roadside path F243 (X, 689). Late 1st century.

45 sf VR 1303. A copper alloy hinged brooch pin. Silting over the path to the west of the Cirencester road (V, 511). Late 1st to early 2nd century.

46 sf VR 1264. A copper alloy hinged brooch pin. Not from the dolphin brooch 36 in the same context. Late 1st- to early 2nd-century soil layer (V, 450).

47 sf VR 7402. An iron brooch catchplate with a large triangular perforation. Mid-2nd-century cremation grave 507 (XI, 1261).

48 sf VR 11197. A copper alloy brooch catchplate. Mid-2nd-century phase of disuse of the western Cirencester-roadside ditch F85 (V, 413).

**Plate brooches****Dragonesque brooches with enamelled decoration**

This pair of brooches come from a late 1st-century cremation grave, and were originally joined by a chain fitted into holes pierced through the ears; all that now remains of the chain is a twisted shackle on each brooch.

The Dragonesque series of brooches has been the subject of much study, for which Bulmer (1938), Feacham (1951 and 1968) and Kilbride-Jones (1980) are the main sources. They appear to have been made in the territories of the Brigantes and the Parisii, and have a distribution centred around that area, with a few southern outliers. This pair does not easily fall into either the Parisian or the West or East Brigantian forms defined by Kilbride-Jones (1980, fig 53); they most resemble Parisian examples but the head shape is different. The closest parallel is another anomalous brooch from Cirencester (*ibid* fig 55, 7). The perforation of the ears for the chain is also an unusual feature; that it was secondary is indicated by the burring around each hole, and, on 49, by the way the hole cuts through one of the enamel triangles. Many brooches, for example T-shaped ones, have remains of chains attached to their heads. Chains passing across the chest linking a brooch on each shoulder would probably have suffered considerable wear, and it is perhaps not surprising that even in the context of this burial, the chain itself has not survived.

Dating evidence for Dragonesque brooches is scarce, but the grave containing this pair also held a large group of South Gaulish terra sigillata vessels dated to the mid-70s AD.

49 Fig 20 sf VR 7312. A brooch, one of a pair from the grave, of leaded gunmetal (copper- tin- zinc- lead-alloy) with enamelled body, ears eyes and snout. The other is 50. The upper ear has been pierced to take a chain, of which only a shackle remains. The perforation has burred edges, indicating that it is secondary to the manufacture of the brooch. On this example, the hole is positioned so as to cut through

one of the two enamelled areas on the ear. The enamels used are blue and either green or red (red enamel often decays to green). The enamel in the ears is triangular rather than 'quasi-peltate' (as Hull describes the enamelling of his subtype B). The body decoration consists of a panel of eight squares and four terminal triangles, two at each end, filled with alternating colours. The use of eight squares appears to be unparalleled, usually only four are present, though an example with six (arranged in two rows of three across, not along, the bow) comes from Charterhouse, Somerset (Kilbride-Jones 1980, fig 53, 9). L 50mm. Cremation grave 566, dated mid-70s AD (XI, 1561).

50 Fig 20 sf VR 7381. A brooch of leaded gunmetal with enamelled decoration, similar to 49 from the same grave. The enamelling is in blue and red or green. The upper ear has been pierced to take a chain, of which only a shackle remains. The perforation has burred edges, indicating that it is secondary to the manufacture of the brooch. On this example, the hole is neatly positioned between the two enamelled areas on the ear. L (not including the shackle) 52mm. Cremation grave 566, dated mid-70s AD (XI, 1561).

**Skeuomorphic brooches**

51 Fig 20 sf VR 9700. A complete well-preserved axe-shaped brass brooch, inset with enamel and partly tinned. L 30mm. The spring is held between two lugs. The small projection of the shaft above the axe-head is perforated to take a chain. Two examples of the type are illustrated by Hull (catalogue numbers 4108 from South Shields and 1553, from Camerton in Somerset); like this brooch from Victoria Road both are perforated to take a chain; an unperforated example from East Anglia is illustrated by Hattatt (1989, fig 77, 1629). The axe-head bears two separate cells of enamel, the lower, red (now olive green) and crescentic, the upper, blue. The reserved metal surrounding and dividing the enamelled fields is tinned, though the chain-loop is not. Four alternated red and blue diagonal stripes of enamel set as one field decorate the shaft. The lack of a division between these stripes points towards a second century date (Hattatt 1987, 9) and the wide distribution of the few examples of the type known from Britain supports this, while the use of tinned brass suggests a date early rather than late in the century (Bayley 1990, 21–2). Early 4th-century soil layer (XV, 4151).

52 Fig 20 sf JCH 29. A sandal-shaped brooch of leaded bronze. The upper part of the lug on the heel and the hinged pin are missing. The rolled edge of the catchplate is damaged. L 39mm. Although the lug on the heel of the Winchester example has broken quite low down, it was probably perforated to take a chain, as an unpierced lug is unlikely to break. However, this is not completely certain, since on an example from Norfolk the lug has concentric moulding and is unperforated. Most of the central enamel is missing; where it remains, it appears to represent one colour. The broad border is tinned and carries a row of small pinacled dots in imitation of hobnails. Hattatt (1987, 220) dates the type to the 2nd and early 3rd centuries and cites examples from Nor'nour, Scilly Isles, Zugmantel, Germany, and Augst, Switzerland as parallels for his sandal-shaped figure 68, 1141 from Mildenhall, Suffolk. One of the Augst examples and the Mildenhall brooch have a studded border similar to the Winchester brooch. 13th- to 14th-century pit F37 (III, 111).

**Tutulus brooch**

53 Fig 20 sf VR 223. The pin of this brooch was sprung between two lugs. The spring survives but the pin is missing.

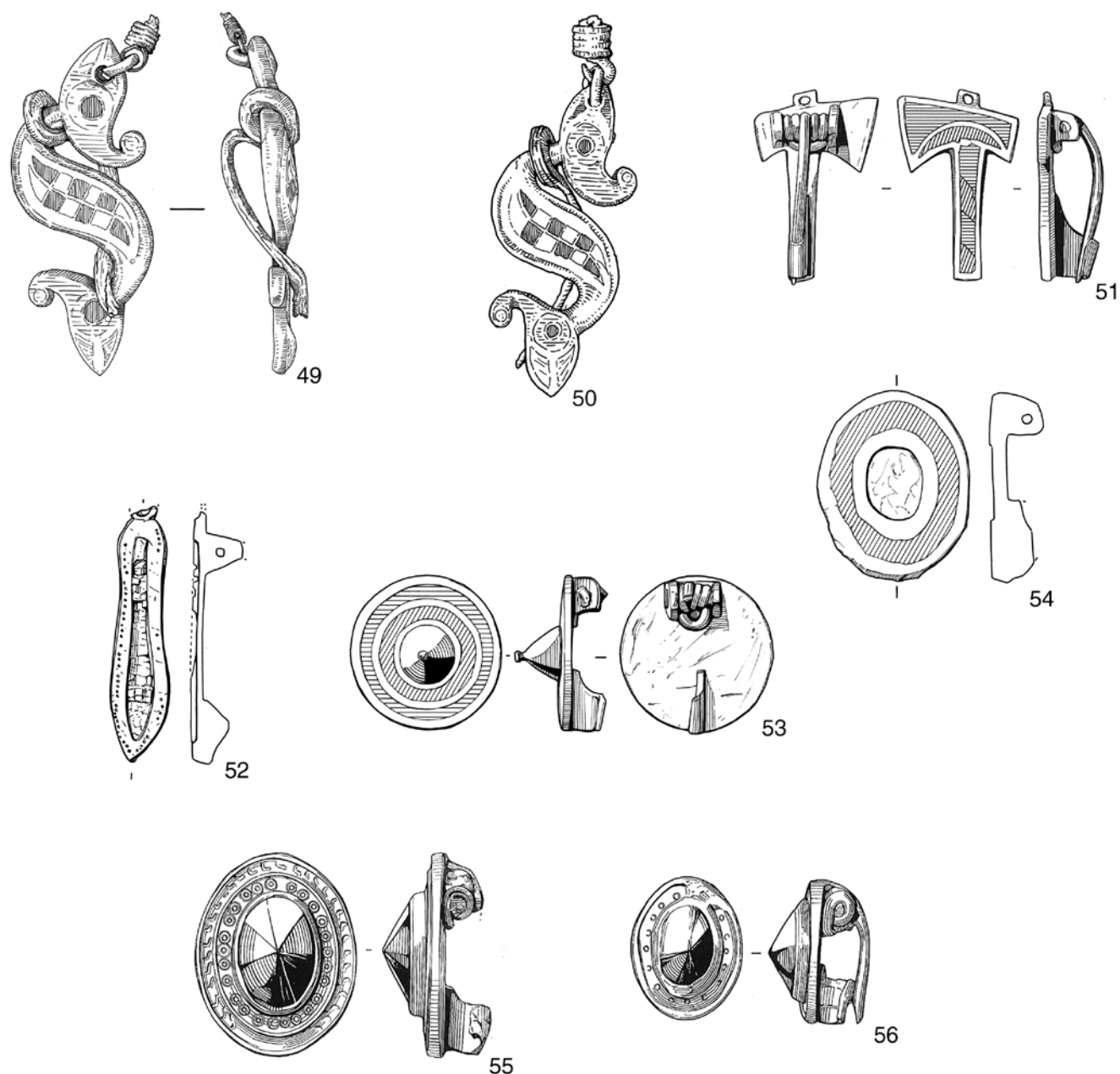


Figure 20 Plate brooches, nos 49–56, scale 1:1

D 24mm. The brooch is made of leaded bronze with tinning applied to the three rings of metal defining the enamelled bands but not the central nipples umbo. The outer band was filled with opaque turquoise enamel, the inner band now appears green but was almost certainly not that colour originally. The umbo is set above the level of the inmost metal ring. The method by which it was attached to the face of the brooch is uncertain. Metallised yard surface F2 (V, 12). Mid-2nd century or later.

#### Glass centre-boss brooches

Hull's Types 270 (round) and 271 (oval)

Glass centre-boss brooches, a native Romano-British type, make their appearance in the 3rd century and continue into the 4th century (Hattatt 1987, 253).

Closer dating is difficult despite the large numbers recovered, as few are from well-dated archaeological contexts. Their highly decorative nature is supported by a subtype identified by Hattatt in which the central setting contains an intaglio rather than a conical boss (see 54, below). One of the six examples of the subtype is of jet (Hattatt 1987, fig 80, 1221), whilst four are of black glass imitating jet (*ibid*, 1217–20). The sixth is of two-toned blue *nicolo* glass used to imitate onyx (Hattatt 1989, 181). Hull (catalogue no. 9962) lists an example from Winchester also set with a blue glass intaglio, which may again be *nicolo*, and two others with green glass intaglios (*ibid*, 4112 and 8040), in which the green may be intended to imitate emerald.

Few of the published examples of these brooches have been subjected to detailed analysis, but tinning on the reverse has been noted on both oval and round

forms of the type by Hull, and others (Crummy 1985, fig 111, 6; Hattatt 1982, fig 71, 174; 1985, fig 73, 639, 641, 643–5; 1987, fig 79, 1211, 1213), and it is very likely that the majority were so treated, though on a brooch from Bicester, Oxfordshire, the reverse was gilded (Hattatt 1987, 1214). Although gilding survives on the obverse of nearly all glass centre-boss brooches, there are no published references to the method of its application. However, of two of the Victoria Road examples catalogued here, there is a likelihood that one was amalgam-gilded and the other leaf-gilded, and Hattatt (*ibid*) describes the gilding on the Bicester brooch as ‘of a coppery hue’, which may indicate that it too was applied as leaf. The reason for a surface coating on the invisible reverse of this type is uncertain, but may perhaps be explained by the fact that it was current at a time when brooches were no longer commonly in use, and thus were to some extent an indicator of status. A gilded obverse and a tinned reverse might give the impression, when displayed for sale, of a gold and silver object, in the same way that the glass boss gives the impression of a semi-precious stone inset. The Bicester brooch, small and round, with one field of decoration, would thus appear to be solid gold.

The Winchester brooches were all found with what appears to be the debris from a smith’s workshop at Victoria Road (XII) and it is possible that they were scrap or brought for repair.

**54** Fig 20 sf VR 5461. A corroded oval brooch of leaded bronze. D (maximum) 29mm. The catchplate of this brooch is broken and the pin is missing. It was almost certainly sprung on the single pierced lug which remains on the underside opposite the catchplate. The face of the brooch is divided into two fields: an outer band of decayed enamel, originally red, defined by two fairly broad rings of metal and an inner field, now empty. The inner field was almost certainly filled by a shallow metal cup containing a paste intaglio. This cup is missing in many surviving examples of the type (Hattatt 1987, 252). While the type is widespread in the south, it has been found, as described by Hull, at sites along Hadrian’s Wall. Early to mid-4th century finds-rich soil layer (XII, 2517).

**55** Fig 20 sf VR 5381. A large example of the type, made of brass. L 32mm. The pin is missing, and what remains of the spring, fixed on a single lug, is distorted. Between the raised rim of the brooch and the high setting for the boss are two fields of decoration separated by a low wall. The inner field is raised slightly above the outer, and is decorated with punched double rings. The outer field bears sloping S motifs, although the inner end of nearly every S has not penetrated the metal as fully as the rest of the motif and is consequently obscured, giving the impression of a crescent design. The boss is black in colour. The gilding which survives over most of the surface of the brooch contains traces of mercury, showing that it was applied by amalgam-gilding (fire) (Hodges 1976, 96) (*cf* with the leaf gilded brooch **56** below). The reverse is tinned. Early to mid-4th-century metal (yard) surface F665 (XII, 2486).

**56** Fig 20 sf VR 5577. A complete small example of the type, like **55** above, also of brass. L 22mm. The spring is fixed on a single lug. Only one field of decoration lies between the rim and the wall that forms the setting for the central boss. This field is gilded, and simply decorated with small punched circles set at regular intervals close to the inner wall. The pinkish colour of the gilding and the lack of mercury from XRF analysis indicated that it was probably applied as leaf

using an adhesive (*cf* with the amalgam-gilded example, **55** above). The glass boss is of two colours, mostly opaque dark olive/black, but with an irregular V-shaped translucent turquoise area at the spring end of the brooch. The reverse of the brooch is tinned. Early to mid-4th-century finds-rich soil layer (XII, 2551).

### Uncertain type

*not illustrated*

**57** sf HG 279. A very corroded plate brooch of uncertain type, possibly Hull’s simple Type 248, with a disc decorated only by mouldings, but examination at the time of conservation suggests that the fields between the mouldings were enamelled. The disc shows concentric mouldings and a circle of repoussé dots set around a central (off-centre) cell. It is probably in two parts, a moulded disc soldered to a plain backplate. The disc is damaged above the hinged pin, which suggests that the brooch may have had a loop as in Hull’s enamelled Type 250. Date uncertain, possibly 2nd-century. Unstratified (IV).

### Hairpins

The types of hairpins represented here confirm the date ranges put forward previously (Crummy 1979, 157–63; 1983, 19–30; 1992). The iron pin with a glass bead set in the head (**140**) is difficult to parallel, but a similar object was found at South Shields Fort (Allason-Jones and Milet 1984, 5.94). The silver pin with bird head, which was worn at burial (**147**) is also unusual and difficult to date. As a grave good, it might be an heirloom, or contemporary with the late 4th- or 5th-century date assigned to the inhumation.

A number of hairpins, **101**, **140**, **147**, were deposited in burials as grave goods. Others were recovered as fragments in graves and in these cases, especially when the date of the grave is much later than the pin type (**63**, **75**, **87** and **129**), are almost certainly residual in grave backfill. Grave 415 is a cremation burial, so it is possible that the Type 2 pin fragment, a type current in the 2nd century, is incomplete as a result of the burial rite. It appears unburnt.

### Bone hairpins

A large number of the bone hairpins are of types manufactured in the 1st and 2nd centuries, while types of the 3rd or 4th centuries are quite poorly represented. The principal factor in this imbalance is undoubtedly the presence of early Roman bone working debris at Victoria Road, which included early Type 1 pins, and possibly, also Type 2. Some examples of these types are not well-finished, and may be blundered products of the industry, which should, perhaps, have been placed in Category 16. Nevertheless, the comparative scarcity of pins of Type 3, usually the best-represented on British sites, is particularly surprising. It appears to suggest that domestic occupation of the site at Victoria Road was not continuously intensive over the 3rd and



4th centuries, or that it was not of a character likely to produce many pins (that is, females were present only in low numbers), or both.

### Type 1. Pins with a plain conical head

These are dated *c* AD 50–200. The head is a continuation of the shaft. This type of pin was almost certainly a product of the bone working industry represented by the scatter of debris and unfinished items at Victoria Road (northern suburb) and was possibly amongst the debris at Crowder Terrace in the western suburb (Category 16 and P4).

58 Fig 21 sf VR 5752. Tip missing. L (surviving) 71mm. Soil layer (XII, 2563). Mid-2nd century.

59 Fig 21 sf VR 1232. Tip missing. L (surviving) 60mm. Mid- to late 2nd-century fill of the western Cirencester-roadside ditch F85 (V, 413).

60 Fig 21 sf VR 1259. Very tip missing. L (surviving) 90mm. The shaft is fairly rough and polygonal in section, and the head roughly cut. Late 2nd- to 3rd-century (or later?) fill of pit F64/70 (V, 387).

*not illustrated*

61 sf VR 3027. Most of the shaft and tip are missing. L (surviving) 31mm. From the metallurgy of the Cirencester road (X, 286). Late 1st century.

62 sf CT 15. Probably a pin head of Type 1, well finished. Shaft broken off, L 42mm, D immediately below the head 3mm. 2nd-century fill of boundary ditch F21 (V, 30), in which it was associated with a large deposit of bone working waste.

63 sf VR 2919. Most of the shaft and tip are missing. L (surviving) 35mm. Cremation grave 411 (X, 592). First half of the 2nd century.

64 sf VR 1099. Tip missing. L (surviving) 53mm. In two pieces. Mid- to late 2nd-century phase of Building 1.13 (V, 405).

65 sf VR 452. L 67 mm. Complete. Metalled yard surface (V, 107). Mid-2nd-century or later.

66 sf VR 1252. Tip missing. L (surviving) 86 mm. Head quite crude. Possibly a peg. Late 2nd to 3rd-century (or later?) fill of pit F64/70 (V, 387).

67 sf VR 1255. Tip missing. L (surviving) 47mm. In two pieces. Late 2nd- to 3rd-century (or later?) fill of pit F64/70 (V, 387).

68 sf VR 2012. Tip missing. L (surviving) 95mm, D of head 6mm. 19th- or 20th-century soil layer (X, 7).

### Type 2. Pins with 1–4 grooves beneath a conical head

As with Type 1, these are dated *c* AD 50–200 and have a head which is a continuation of the shaft. If Type 1 pins were products of the bone-working industries identified at Victoria Road and Crowder Terrace, it is possible that Type 2 pins may also have been so. Unfinished examples of Type 1 may equally be unfinished examples of Type 2, or its variants.

69 Fig 21 sf VR 1019a. Complete. L 89mm. A very fine pin with three grooves. Mid to late third century fill of the

western Cirencester-roadside ditch and cemetery boundary F12 (V, 368).

70 Fig 21 sf VR 5150. L (incomplete) 39mm. A fine pin with two grooves not fully cut in places. Mid to late 3rd-century layer sealing the second phase of Building 1.24 (XIII, 3281).

71 Fig 21 sf VR 4580. Very tip only missing. Two grooves. L 83mm. Context of uncertain type and date (XIII, 3397).

*not illustrated*

72 sf VR 2927. Tip missing, two grooves. L (surviving) 39.5mm. Early 2nd-century soil layer (X, 602).

73 sf VR 3214. Tip missing, three grooves. L (surviving) 30mm. Early 2nd-century soil layer (X, 602).

74 sf VR 3249. L (surviving) 45mm. Tip and very top broken off. One groove. Possibly Winchester Type (see below). Soil layer of the first half of the 2nd century (X, 540).

75 sf VR 7850. The head of a Type 2 pin. L (surviving) 29mm. Mid-2nd-century cremation grave 415 (X, 609).

76 sf VR 1046. Tip missing. L (surviving) 31mm. Head slightly damaged. Two grooves. Possibly Winchester Type (see below). Metalled yard surface (V, 42). Mid-2nd-century or later.

77 sf VR 1074. Tip missing. L (surviving) 44mm. Two grooves. In two pieces. Metalled yard surface F2 (V, 12). Mid-2nd-century or later.

78 sf VR 7424. L 68mm. Complete. Two fairly shallow grooves. Late 2nd- to early 3rd-century general layer (XI, 1616).

79 sf VR 4454. Tip missing. L (surviving) 49mm. Two grooves. Initial use of oven F852 in Building 1.24 (XIII, 3344). Late 2nd to mid-3rd century.

80 sf VR 255. L (surviving) 34mm. Tip and top of head broken off. Two grooves. ?Early to mid-3rd-century phase of Building 1.14 (V, 45).

81 sf VR 399. Tip missing. L (surviving) 68mm. Two grooves. Possibly a damaged Winchester Type (see below). Mid- to late 3rd-century phase of Building 1.15 (V, 98).

82 sf VR 1057. Tip missing. L (surviving) 52mm. Two grooves. Late 3rd- to 4th-century soil layer (V, 316).

83 sf VR 961. L (surviving) 56mm. Tip and top broken off. One groove remaining. Late 3rd- to 4th-century fill of well or shaft F46 (V, 284).

84 sf VR 5575. Tip missing. L (surviving) 52.0mm. Two grooves. Early to mid-4th-century finds-rich soil layer (XII, 2551).

85 sf VR 9621. Tip missing. L (surviving) 39mm. Two grooves. Levelling prior to construction of Building 1.22 (XV, 4141). Mid- to late 4th century.

86 sf VR 9567. Tip missing. L (surviving) 49mm. Two grooves. Late 4th-century soil layer (XV, 4099).

87 sf VR 724. L (surviving) 35mm. Tip and very top broken off. Two grooves. Possibly Winchester Type (below). Residual in inhumation grave 88 (IV, 395), dated late 4th to early 5th century.

88 sf VR 9512. Tip missing. L (surviving) 87mm. Two grooves. 13th- to 14th-century pit F1018 (XV, 3929).

89 sf VR 9509. Tip missing. L (surviving) 33mm. Two grooves. 17th- to 18th-century pit F1010 (XV, 3916).

90 sf JCH 54. L (incomplete) 12mm. Tip broken off. Two grooves. Context of uncertain date and type (III, 163).

### Type 2 variant, 'Winchester' Type

Like Types 1 and 2, pins of this type have heads that do not stand proud of the shaft, but continue its line. The main characteristics of the head are a broad lattice-

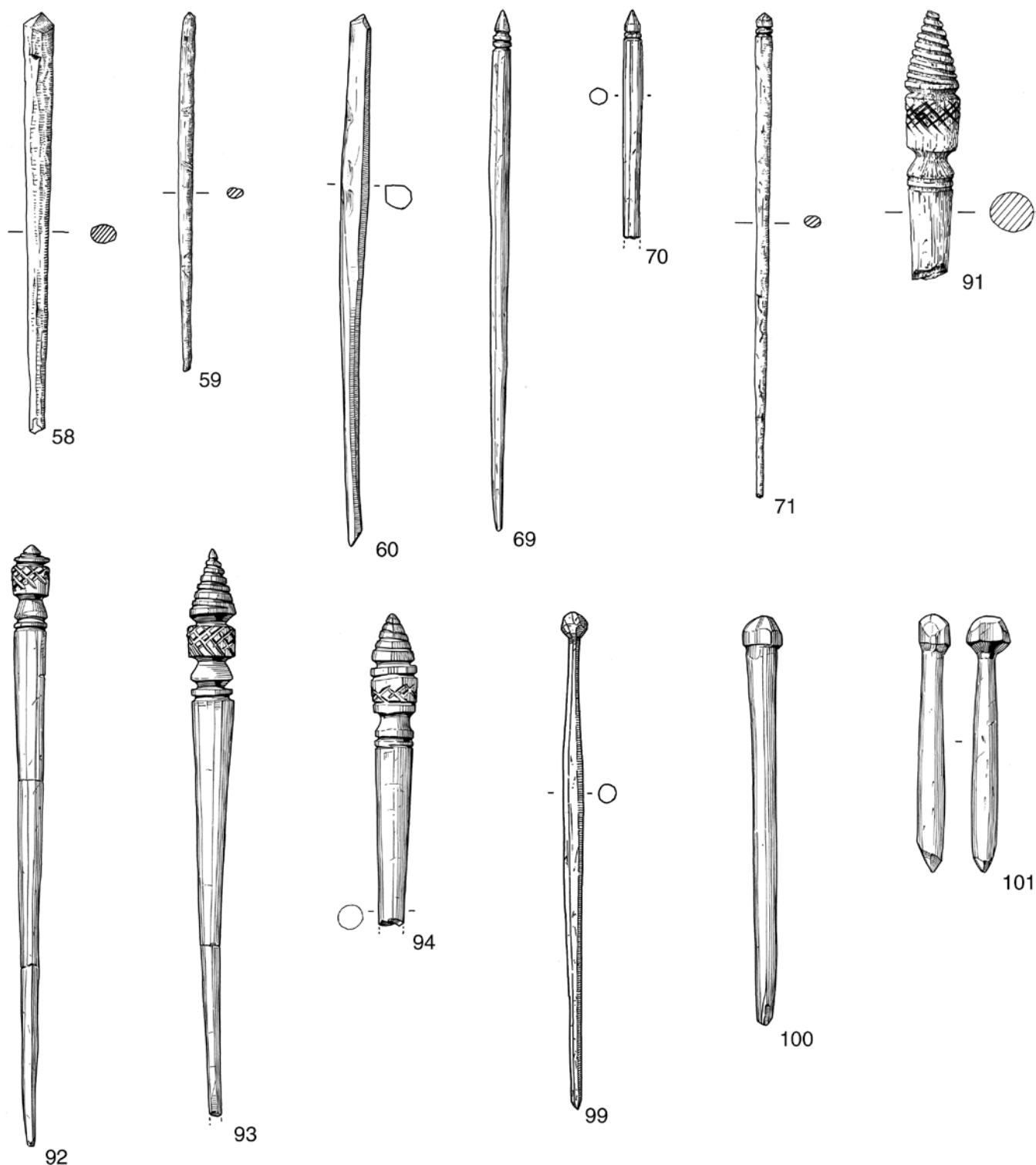


Figure 21 Bone hairpins, nos 58-101, scale 1:1

decorated reel above a bead and narrow reel, and a conical top incised with a spiralling groove. There is no stratigraphic evidence for the variant appearing before the 2nd century. One of the examples (94) is coloured pale green.

91 Fig 21 sf VR 1078. The head of a pin, of which the very top has broken off. L surviving) 44mm. Early 2nd-century soil layer (V, 372).

92 Fig 21 sf VR 1027. Complete, in three pieces. L 105mm. The grooved conical head is very short. Metalled yard surface (V, 58). Mid-2nd-century or later.

93 Fig 21 sf VR 7035. In two pieces, tip missing. L (surviving) 97mm. A well-made example. Mid-to late 2nd-century soil layer (XI, 1225).

94 Fig 21 sf VR 1044. Tip missing. L (surviving) 53mm. This example is coloured pale green, probably deliberately (Crummy 1983, 20). Mid- to late 3rd-century phase of Building 1.13 (V, 388).

*not illustrated*

95 sf VR 1050. Head only, broken beneath lattice reel. Metalled yard surface (V, 42). Mid-2nd-century or later.

96 sf VR 399. Only the bottom reel and bead remain. Mid- to late 3rd-century phase of Building 1.15 (V, 98).

97 sf VR 961. Only bottom reel remains. Tip missing. Could be a Type 2 variant other than Winchester Type. Late 3rd- to 4th-century fill of well or shaft F46 (V, 284).

98 sf VR 3499. L (surviving) 48mm. Tip missing. Conical head with spiral groove. Very worn chevron or criss-cross decoration beneath, ?elongated bead and two grooves. Late Saxon soil layer (XII, 2126).

### Type 3. Pins with a more-or-less spherical head

This type probably appears *c* AD 150, and survives to the end of the Roman period. 101 is a grave good from an inhumation dated to the mid- to late 4th century. Spherical-headed pins often form the bulk of bone hairpin assemblages from Roman sites, both urban and rural, for example at Colchester (Crummy 1983, 21–2; 1992, 144), London (Museum of London Archaeological Archive) and Ivy Chimneys, Witham, Essex (Crummy, forthcoming). The apparently comparatively low numbers from the Winchester suburbs may be simply a distortion of the overall picture by the high number of Type 1 (and Type 2) pins from the early Roman bone working debris at Victoria Road (Category 16).

99 Fig 21 sf HA 160. Complete. L 85mm. A very slender pin, with the swelling on the shaft well-upwards of the head. ?Early to mid-4th-century disuse of site area (XI, 260).

100 Fig 21 sf VR 5545. Complete. L 69mm. A pin with a head similar to 101 below but worked to a better finish. The shaft is quite thick below the head and does not appear to have been swollen at any point along its length. The tip is quite rough on one side, and may indicate repointing. Early to mid-4th-century finds-rich soil layer (XII, 2548).

101 Fig 21 sf VR 704. Complete. L 43mm. A pin with a fairly rough flattened globular head. The pin has broken just below the swelling on the shaft and been repointed. Inhumation grave 64 (IV, 316), dated mid- to late 4th century.

*not illustrated*

Head shapes are after Crummy (1983, 21).

102 sf VR 2763. Tip missing. L (surviving) 43.5mm. Head B. Mid- to late 2nd-century soil layer (X, 435).

103 sf VR 3190. L 85mm. Complete. In two pieces. Late 2nd-century or later phase of Building 1.23 (X, 603).

104 sf HA 131. L 115mm. Complete. Head A. ?Early to mid-4th-century disuse of site area (XI, 278).

105 sf VR 9650. L 78mm. Complete. Head B. 4th-century fill of well F1096 (XV, 4119).

106 sf VR 9678. L 101mm. Complete. Head B. 4th-century fill of well F1096 (XV, 4119).

107 sf HA 132. L (surviving) 54mm. Tip missing. Head damaged. Head B. Levelling prior to construction of Building 1.10 (XI, 280), ?mid- to late 4th century.

108 sf HA 142. Tip missing. L (surviving) 72.5mm. Head B. Building 1.10 (XI, 300), ?mid- to late 4th century.

109 sf VR 2549. Tip missing. L (surviving) 59mm. Head damaged. Head A? Late 4th-century soil layer (X, 144).

110 sf HA 118. L (surviving) 18.5mm. Head and top of shaft only. Head B. Late 4th- to early 5th-century soil layer (XI, 253).

111 sf VR 16. Tip missing. L (surviving) 60mm. Head B. Wall foundation for 13th- to 15th-century Building 938.1 (IV, 23).

112 sf VR 7186. Tip missing. L (surviving) 33mm. Head damaged. Head D. 13th- to 15th-century general soil layer (XI, 1514).

113 sf VR 477. L 84mm. Complete. Head B. Unstratified.

### Type 4. Pins with a faceted cuboid head

These are dated from *c* AD 250–400 or later. Only one example was recovered, which is not illustrated. Helen Rees (pers comm) has suggested that the paucity of examples of this type may reflect an eastern bias to the distribution (based on coastal trade), as the type imitates jet examples from northern Britain.

*not illustrated*

114 sf VR 109. L (surviving) 15mm. Head and top of shaft only. Unstratified.

### Type 5. Pins with 1–5 reels beneath a conical or ovoid head

These are dated to the 4th century.

115 Fig 22 sf 27JS 257. Complete. L 79mm. Possibly repointed. Polygonal section shaft. The head, a cone above three reels, is flattened along one axis. Post-Roman context of otherwise uncertain type and date (I, 455).

*not illustrated*

116 sf VR 113. Tip missing. L (surviving) 29mm. One reel, damaged ovoid head, round section. Unstratified.

### Type 6. Pins with a reel-shaped or bead-and-reel-shaped head

This type is dated to the 3rd and 4th centuries.

117 Fig 22 sf VR 3215. Complete. L 91mm. The head of this very fine pin is a simple reel. 3rd- or 4th-century pit F168 (X, 638).

*not illustrated*

118 sf VR 927. Tip missing. L (surviving) 30mm. Reel-shaped head. 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 349).

119 sf VR 2544. Tip missing. L (surviving) 56.5mm. Reel-shaped head. 14th- to 15th-century pit F111 (X, 255).

### Miscellaneous types

120 Fig 22 sf VR 137. Complete. L 55mm. The head is a rough cone, with the faces covered in irregular fine grooves.

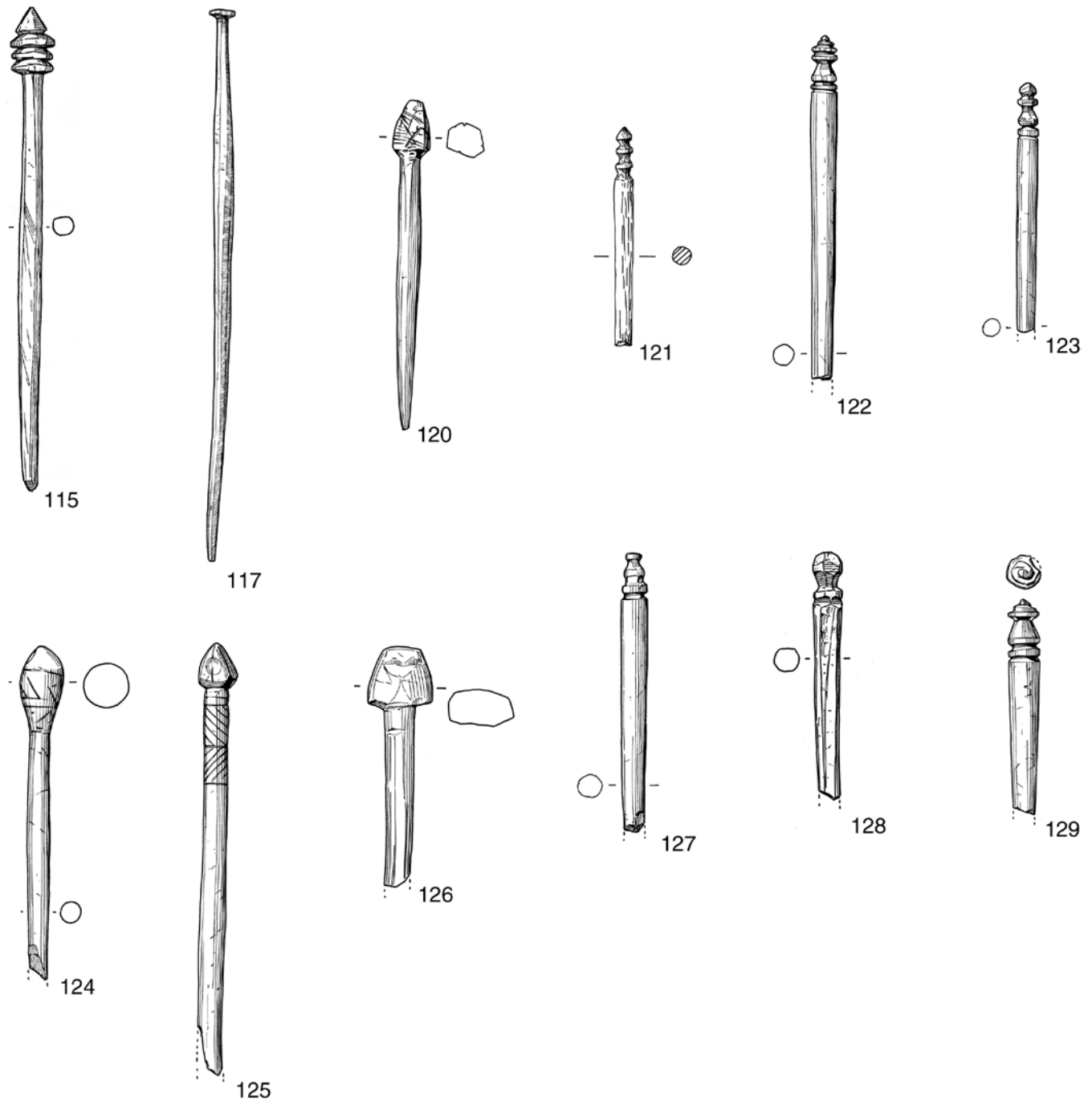


Figure 22 Bone hairpins, nos 115-29, scale 1:1

The well-formed and polished shaft is short, and has a long swelling running for about 21mm from a short distance below the head. Mid- to late 2nd-century phase of Building 1.23 (XI, 303).

**121** Fig 22 sf VR 1297. A fragment of a pin which falls between types 2 and 6. The head is cut into three beads, which do not stand proud of the shaft as in Type 6, but are formed by wide V-shaped grooves cut into a tapering shaft. This fragment is stained green, which, with its relationship to Type 2, helps to date it to the late 1st or 2nd century. Mid- to late 2nd-century fill of the western Cirencester-roadside ditch F85 (V, 496).

**122** Fig 22 sf VR 1062. Tip missing. L (surviving) 56mm. The head is the same as that of **129** below but the topmost conical element is rather longer. Ephemeral structures probably rep-

resenting the earliest Roman buildings in the trench (V, 395). Dates to mid- to late 2nd century.

**123** Fig 22 sf VR 1054. Tip missing. L (surviving) 41mm. Motifs on the head from the bottom up are reel, baluster, reel, biconical head. This pin is a variant of Type 2, which dates from c AD 50-200, and is similar to a copper alloy pin, also from Victoria Road (**142**, below). Mid-2nd- to early 3rd-century phase of Building 1.12 (V, 121).

**124** Fig 22 sf HG 292. Pin with an elongated ovoid head lightly scored with bands of diagonal lines defined by margins. The tip is missing- a tip fragment found in association probably does not belong to this pin. L (surviving) 55mm. Probably of 3rd- or 4th-century date. Late 3rd- to early 4th-century fill of pit F102 (IV, 1223).

**125** Fig 22 sf VR 854. Tip missing. L (surviving) 71mm. The

head is flame-shaped and incised with six very fine grooves radiating out from the point. Beneath the head is a cordon around most of the centre line on which is incised a fine groove. The top of the shaft below the cordon is incised with fine herringbone decoration set within marginal grooves and with a central groove. Late 3rd- to 4th-century fill of well or shaft F46 (V, 264).

**126** Fig 22 sf VR 5345. L (surviving) 40mm. The head is more or less a flattened mushroom in form, but is well-worn. This object may be a peg rather than a hairpin. Early to mid-4th-century metallised (?yard) surface F665 (XII, 2486).

**127** Fig 22 sf VR 7807. Tip missing. L (surviving) 47mm. Motifs on the head from the bottom up are reel, biconical bead, tiny bead. A variant of Type 2, this pin should belong to the late 1st or 2nd century. Posthole F632 in early to mid-4th-century boundary fence (XII, 2389).

**128** Fig 22 sf HA 133. Tip missing. L (surviving) 40mm. A hybrid of a Type 2 and a Type 3 pin. The globular head is less in diameter than the shaft, and there is a single groove just below it. Probably of 2nd-century date. ?Late 3rd- to mid-4th-century disuse of Building 1.9 (XI, 278).

**129** Fig 22 sf VR 1276. Tip missing. L (surviving) 35mm. Motifs on the head from the bottom up are reel, baluster, cone with spiralled grooves. This pin is a variant of Type 2, and the grooved conical upper element is also found on the elaborate Winchester variant of the form. This pin should therefore also predate AD 200. Residual in inhumation grave 129 (V, 470), dated mid- to late 4th century.

#### not illustrated

**130** sf VR 3242. Pin shaft. Mid-2nd-century cremation grave 426 (X, 195).

**131** sf VR 1085. A pin shaft broken above a transverse groove at the upper end. Probably from a Type 2 pin. L (surviving) 58mm. Mid-2nd-century phase of disuse of the western Cirencester-roadside ditch F85 (V, 413).

**132** sf HA 249. Tip and part of shaft. L (surviving) 39mm. ?Mid- to late 3rd-century Building 1.8 (XI, 285).

**133** sf VR 468. Tip missing. L (surviving) 33mm. Head comprises an inverted cone, square on top and pointed. Late 3rd- to 4th-century soil layer (IV, 194).

**134** sf HA 157. Tip missing. L (surviving) 50mm. Type 3 head, but the base of the head is set in from the top of the shaft with groove below, reminiscent of Type 2. Latest Roman or earliest post-Roman soils (XI, 240).

#### Coloured pin shaft fragments

Pins coloured either green or red are usually of Types 1 and 2 (Crummy 1983, 20; 1992, microfiche supplement), to which may be added the Winchester variant of Type 2, identified above as **94**. Thus the fragments catalogued here but not illustrated can be dated to the 1st or 2nd centuries. All of these examples are coloured green. Colouring of pins has been noted at Colchester (*ibid*), York (MacGregor 1978a, 35) and Rochester, Kent (Harrison 1972, 155).

#### Not illustrated

**135** sf VR 1279. Shaft fragment. L (surviving) 37mm. Late 1st- to early 2nd-century soil layer (V, 475).

**136** sf VR 3191. Tip and part of shaft. L (surviving) 40.5mm.

Strongly coloured. General soil layer of the first half of the 2nd century (X, 540).

**137** sf VR 1069. A shaft fragment with the tip. L (surviving) 32mm. Mid- to late 2nd-century fill of the western Cirencester-roadside ditch (V, 397).

#### Metal pins

##### Type 1. Pin with a plain conical head

This type is believed to date to the 2nd century (Crummy 1983, 28).

**138** Fig 23 sf VR 1250. A plain copper alloy ?hairpin. L 99mm. Mid- to late 2nd-century fill of the western Cirencester-roadside ditch F85 (V, 448).

##### Type 3. Pin with a more or less spherical head

**139** Fig 23 sf VR 3225. Copper alloy. Complete. L 66mm. The head is a simple flattened sphere. The shaft is swollen, a characteristic of bone hairpins of this and other forms post-dating c AD 200. 3rd- or 4th-century pit F168 (X, 642).

#### Miscellaneous types

**140** Fig 23 sf VR 7182. Iron pin in two pieces. The top appears as two prongs clasping an ovoid glass head. The shank has a rounded cross-section and expands slightly below the head before tapering again. L 103mm, W of head 12mm, T of shank 4mm. Bead L 8mm, W 8mm. Late 1st- to early 2nd-century cremation grave 528 (XI, 1291).

**141** Fig 23 sf VR 1094. Copper alloy. Circular in section. L (incomplete) 40mm. The conical head is grooved at irregular intervals. Mid- to late 2nd-century phase of Building 1.14 (V, 54).

**142** Fig 23 sf VR 760. Copper alloy. Complete. Section varies from polygonal to sub-rectangular to circular. L 74mm. Motifs from the bottom up are bead, baluster, reel, biconical head with flattened top. The lowest bead has grooves in places to give reel, bead, reel. This pin is similar to those with bead, reel and spool motifs surmounted by a flattened sphere, dated to the 2nd and 3rd centuries (*ibid*). The baluster motif also occurs on a bone pin from the same site (**123**, above), which is a variant of bone pin Type 2 (dated c AD 50–200). A silver pin, from a context dated from c AD 150–250 or earlier at the Balkerne Lane site in Colchester also bears a baluster motif (*ibid* fig 31, 506). Mid- to late 3rd-century phase of Building 1.15 (V, 11).

**143** Fig 23 sf VR 5403. Copper alloy. Complete but bent. Circular in section apart from one hexagonal section motif on the head. L (approximately) 136mm. The pin bears a very ornate head. Motifs from the bottom up are six cordons, reel, bead, reel, two small reels, hexagonal-section pillar, reel with notched edge, cone with four radiating incised lines and notched edge. The notches on the uppermost reel and the incised lines and notches on the cone must have been applied in one operation, for at one point the edge of the uppermost reel is slightly recessed beneath the cone and has not been notched. The lower large reel and bead have been blundered by the metal being touched while it was still soft. Early to mid 4th-century finds-rich soil layer (XII, 2508), like **144** below, associated with debris from a smith's workshop (Category 15).

**144** Fig 23 sf VR 5456. Copper alloy with glass. Circular in section apart from the head. L (incomplete) 47mm. A spiral-

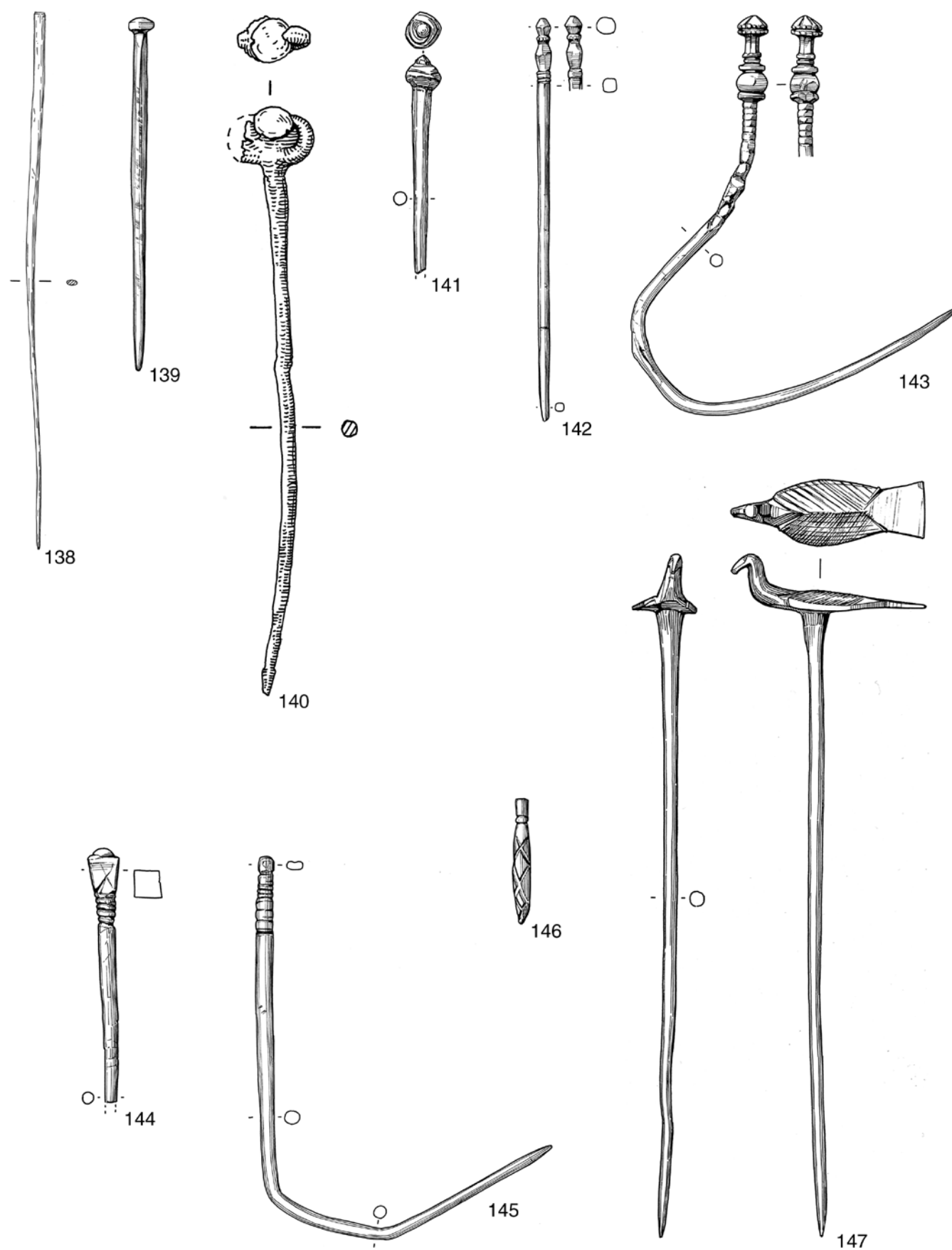


Figure 23 Metal hairpins, nos 138–47, scale 1:1 except 147 (2:1)

ling groove is cut into the upper part of the shaft beneath the head, a flaring square-section cup into which is set an opaque cobalt blue glass hemisphere (or sphere). Each side of the cup is incised with a saltire and each quadrant so formed may contain and incised circle, though the metal is not sufficiently well-preserved for this to be clear, and the slight circles that are visible may be caused by surface corrosion. Where the rim of the cup survives, it is marked by a slight incised line. Early to mid-4th-century finds-rich soil layer (XII, 2517).

**145** Fig 23 sf VR 809. Copper alloy. Complete but bent. The section varies from circular to ellipsoid to lenticular at the head. L (approximately) 120mm. The head consists of three large and four small cordons beneath a small discoid top. 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 216).

**146** Fig 23 sf VR 3053. Copper alloy. Head and a short length of shaft only. L (surviving) 23mm. The head consists of a small reel beneath a flame-shaped head with incised lattice decoration. Such heads are paralleled at Colchester, in a context dating from c AD 250–300 (Crummy 1983, fig 31, 504). Late 4th-century soil layer (X, 144).

**147** Fig 23 sf SMCW 330. Silver pin with bird head. L 63mm. The bird is stylised, but compares in form to swimming duck brooches (Hattatt 1985, fig 71). Bird-headed pins cannot be closely dated, and in this grave context could be either an heirloom or contemporary with the date of the burial. The latter is perhaps most likely. Inhumation grave 38 (38), dated late 4th to 5th century.

## Beads

Though many of the beads from early Roman contexts were deposited in graves (for example, the melon beads from graves 440 and 501 at Victoria Road), no strings of beads were recovered from late Roman graves. The assemblage, like that of the hairpins, is therefore weighted towards the 1st and 2nd centuries. In addition to the probable necklaces from cremation burials, two of the Roman coins from Victoria Road had been perforated for suspension. They are included in the summary catalogue for the coins (Part 2, Category 6).

### Gadrooned beads

#### Melon beads

Twenty-eight melon beads were recovered, all but one being of turquoise frit, often much decayed. The exception is a large bead of opaque cobalt blue glass. Twenty of the melon beads derive from grave 440, and two, including the glass example come from grave 501. Melon beads were at their most popular in the second half of the 1st century and in the 2nd century.

**148** Fig 24 sf VR 2848. One of thirteen similar beads from this small find, and one of twenty from the grave. Turquoise frit, L 15mm, D 17mm. Late 1st-century cremation grave 440 (X, 823).

#### not illustrated

**149** sf VR 2847. Bead of decayed turquoise frit. L 16mm, D 20mm. Late 1st-century cremation grave 440 (X, 823).

**150** sf VR 2848. Thirteen beads of turquoise frit, of which one is illustrated and separately catalogued (above)

- (a) L 17mm, D 20mm;
- (b) L 18mm, D 21mm;
- (c) L 17mm, D 23mm;
- (d) L 17mm, D 20mm;
- (e) L 17mm, D 20mm;
- (f) L 15mm, D 20mm;
- (g) L 15mm, D 18mm;
- (h) L 15mm, D 18mm;
- (i) L 12mm, D 15mm;
- (j) L 13mm, D 16mm;
- (k) L 12mm, D 15mm;
- (l) L 13mm, D 15mm.

Late 1st-century cremation grave 440 (X, 823).

**151** sf VR 3312. Bead of turquoise frit. L 13mm, D 16mm. Late 1st-century cremation grave 440 (X, 823).

**152** sf VR 3316. Bead of turquoise frit. L 15mm, D 18mm. Late 1st-century cremation grave 440 (X, 823).

**153** sf VR 3323. Bead of turquoise frit. L 13mm, D 15mm. Late 1st-century cremation grave 440 (X, 823).

**154** sf VR 3325. Bead of turquoise frit. L 16mm, D 18mm. Late 1st-century cremation grave 440 (X, 823).

**155** sf VR 3556. Bead of turquoise frit. L 15mm, D 19mm. Late 1st-century cremation grave 440 (X, 823).

**156** sf VR 3557. Bead of turquoise frit. L 13mm, D 15mm. Late 1st-century cremation grave 440 (X, 823).

**157** sf VR 7041. Bead of opaque cobalt blue glass. L 15mm, D 24mm. Late 1st-century cremation grave 501 (XI, 1321).

**158** sf VR 7262. Bead of decayed turquoise frit. L 15mm, D 19mm. Late 1st-century cremation grave 501 (XI, 1321).

**159** sf VR 3296. Bead of decayed turquoise frit. L 15mm, D 25mm. Late 1st-century fill of the eastern Cirencester-roadside ditch F258 (X, 782).

**160** sf VR 1223. A fragment of a turquoise frit bead. L 12mm, D 16mm. Mid- to late 2nd-century fill of the western Cirencester-roadside ditch (V, 432).

**161** sf HA 181. Bead of turquoise frit. L 9.5mm, D 13.5mm. ?Mid- to late 3rd-century Building 1.8 (XI, 326).

**162** sf VR 3122. Bead of turquoise frit. L 12mm, D (average) 14.5mm. 13th- to 15th-century general soil layer (X, 474).

**163** sf VR 3144. One complete and one half of melon beads of turquoise frit. L (complete) 11mm, D (average) 12.5mm. L (incomplete) 10.5mm, D 11.5mm. 13th- to 15th-century general soil layer (X, 474).

### Annular beads

#### Annular beads with marvered trail

**164** Fig 24 sf VR 7044. A mid yellow paste bead with marvered brown zig-zag trail. On one side, running in a spiral from the edge of the perforation, is a thin (0.5mm) groove, which probably originally held a marvered trail, now missing. L 7mm, D 13mm. Late 1st-century cremation grave 501 (XI, 1321).

**165** Fig 24 sf VR 7054. A fragment of an annular bead of cobalt blue glass with white marvered trail, Guido's Group 5a (Guido 1978, 63–4). The form is very long lived and this example may be Saxon. L 6mm, D 17mm. 14th- to 15th-century pit F413 (XI, 1224).

**166** Fig 24 sf VR 3911. An annular bead of translucent cobalt blue glass with marvered white paste trail. The trail has degraded to grey and has started to break up. L 10mm, D 19mm. A small example belonging to Guido's (1978, 63–4) Group 5a. As with **165**, this example may be post-Roman. Modern soil layer (XIII, 3006).

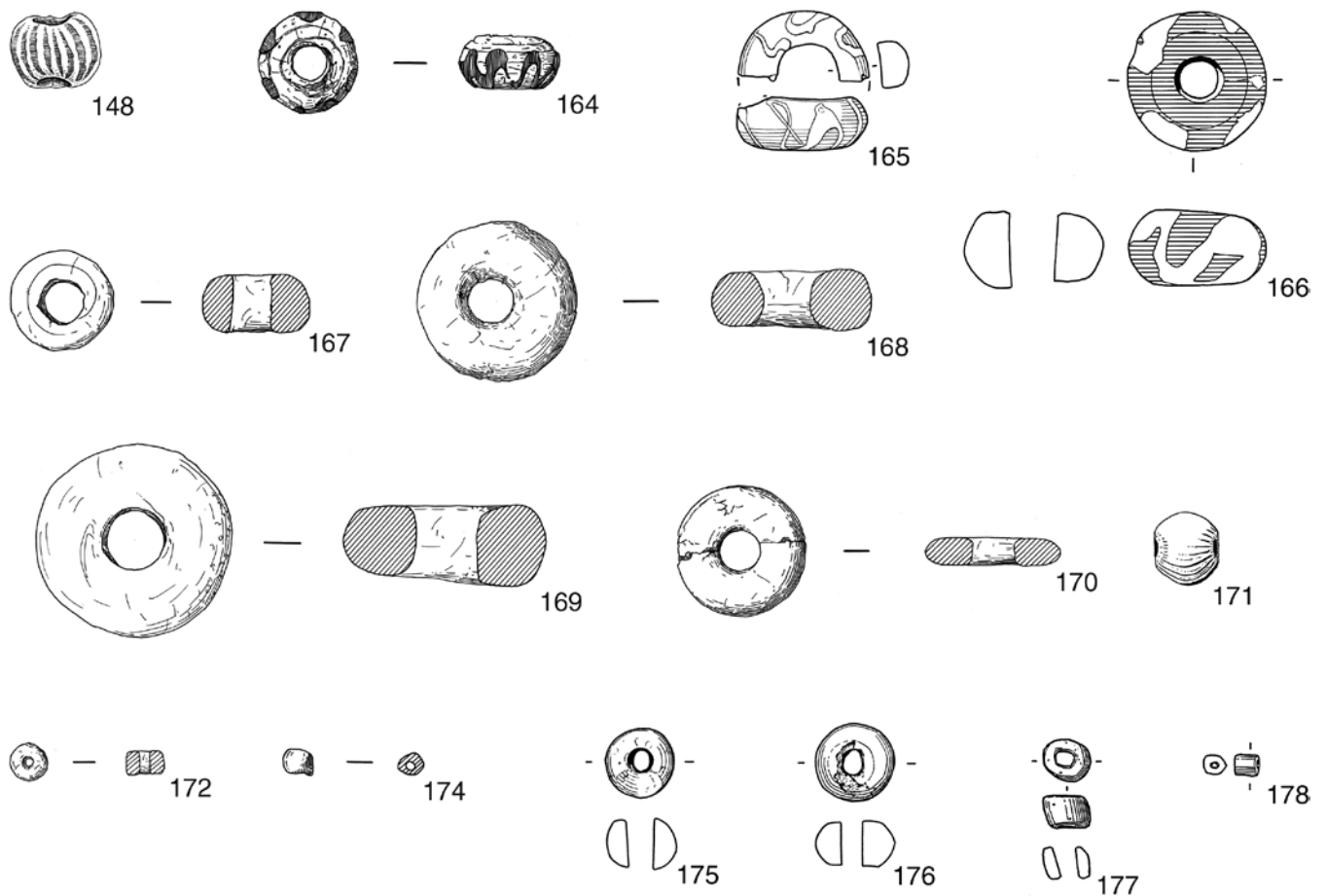


Figure 24 Beads, nos 148–78, scale 1:1

#### Plain annular beads

**167** Fig 24 sf VR 7043. A translucent natural greenish glass bead, L 7mm, D 15mm. Late 1st-century cremation grave 501 (XI, 1321).

**168** Fig 24 sf VR 7223. An amber bead, L 7mm, D 23mm. Late 1st-century cremation grave 540 (XI, 1301).

**169** Fig 24 sf VR 5703. A translucent natural yellowish glass bead, L 10mm, D 26mm. Mid-2nd-century cremation grave 466 (XII, 2616).

#### Disc bead

**170** Fig 24 sf VR 7233. An amber oblate disc bead, L 4mm, D 18mm. Late 1st-century cremation grave 540 (XI, 1301).

#### Short beads

##### Short spherical beads

**171** Fig 24 sf VR 3057. A fired clay bead, L 8mm, D 10mm. The very fine silty fabric is fired to a cream colour. Metalling of the Cirencester road, dating to the late 1st century (X, 346).

**172** Fig 24 sf VR 7471. An opaque mid green glass bead, L 3mm, D 5mm. Early to mid-2nd-century phase of the cemetery boundary ditch F525/692/704 (XI, 1738).

*not illustrated*

**173** sf VR 1162. An opaque green glass bead, L 2.5mm, D 4mm. . Late 2nd- to 3rd-century (or later?) fill of pit F64/70 (V, 376).

#### Short cylinder bead

**174** Fig 24 sf VR 2992. An opaque blue glass bead, L 3mm, D, 4mm. Late 1st-century cremation grave 440 (X, 822).

#### Short oblate beads

**175** Fig 24 sf VR 3149. A damaged bead of corroded opaque cobalt blue glass. L 7mm, D 9mm. Late 2nd- to early 3rd-century soil layer (X, 433).

**176** Fig 24 sf VR 9728. Bead of corroded translucent colourless glass. L 6.5mm, D 11mm. 4th-century fill of well F1096 (XV, 4209).

**177** Fig 24 sf HG 1509. Corroded glass bead, original colour obscure. L 4mm, D 6mm. Mid- to late 4th-century phase of masonry Building 17.3 (III, 817).

#### Standard bead

**178** Fig 24 rf VR 4108. Opaque purplish-white spacer bead



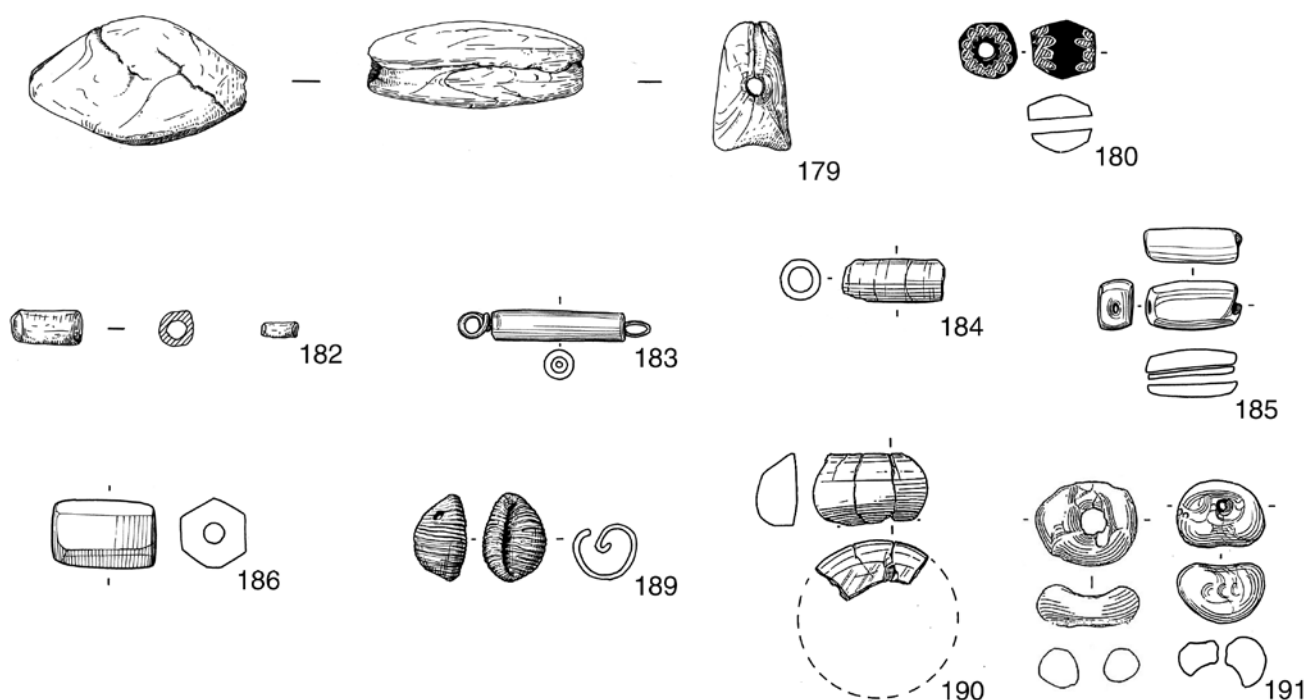


Figure 25 Beads, nos 179-91, scale 1:1

of glass. L 3mm, D 3mm. Mid-3rd-century cremation grave 409 (X, 604).

### Long beads

#### Long barrel beads

**179** Fig 25 sf VR 5704. An amber bead, thinner on one axis than the other. L 27mm, W 11 by 16mm. Mid-2nd-century cremation grave 466 (XII, 2616).

**180** Fig 25 sf VR 2934. Opaque bead of cobalt blue glass, with a floret of white-bordered red petals around each end. At its widest, this bead is hexagonal in section, with the junctions of the sides faceted. L 9mm, D 8mm. Cremation grave 447/401 (VII, 851), dating to the first half of the 3rd century.

#### Long cylinder beads

**181** see Category 13.

**182** Fig 25 sf VR 7045. A translucent turquoise-green glass bead, sub-rectangular in section. L 9mm, D 4mm. Late first century cremation grave 501 (XI, 1321).

**183** Fig 25 sf VR 3151. Opaque cobalt blue glass bead of circular section, with white or off-white striations running the length of the bead all over the surface. L 17mm, D 4mm. The bead is threaded on to a length of copper alloy wire, the ends of which are twisted into loops, one of a single turn of wire, the other of two turns. Late 2nd to early 3rd-century soil layer (X, 433).

**184** Fig 25 sf NR 393. Dark green glass bead of circular section, with a large perforation. One end of the bead tapers inwards slightly. L 13mm, D 6mm. Late Roman fill of the Oram's Arbour Iron Age enclosure ditch F371 (II, 484).

**185** Fig 25 sf VR 5407. Translucent but cloudy self-coloured greenish glass bead of rectangular section. The ends curve in towards the perforation. L 12mm, W 5 by 6.5mm. A short

length of wire (probably of copper alloy) remains inside the perforation. Early to mid-4th-century finds rich soil layer (XII, 2508).

**186** Fig 25 sf VR 9679. Corroded glass bead of hexagonal section, probably originally opaque mid or dark green. L 14mm, D (maximum) 9mm. 4th-century fill of well F1096 (XV, 4119).

**187-8** see Category 13.

### Miscellaneous types

**189** Fig 25 sf VR 2731. Two cowrie shells (only one illustrated), pierced for suspension. The shells were found in a pot in this grave, together with a glass bead **178**, a standard-size cylinder bead, **190**, a burnt bone bead, and **255**, a copper alloy bell. Mid-3rd-century cremation grave 409 (X, 604).

**190** Fig 25 sf VR 2730. A fragment of a burnt bone bead, probably of short oblate form. L 10mm, D (approximately) 26mm. Mid-3rd-century cremation grave 409 (X, 604).

**191** Fig 25 rf VR 4852. Two crudely-made beads, (a) translucent cobalt blue glass bead, roughly annular. D (maximum) 12mm, L 5mm; (b) a blob of corroded translucent greenish glass with a tiny perforation, possibly deliberate, possibly accidental. Association with (a) and turquoise frit melon beads **162** and **163**, two complete and one a fragment only, suggest that this piece is intended for use as a bead and that both should be regarded as Roman, although a medieval date cannot be discounted. Turquoise frit beads were common in the early Roman period, and the crudeness of these two glass beads appears to indicate local attempts at manufacture. 13th- to 15th-century general soil layer (X, 474).

### Armlets

This assemblage contains armlets dating from the late 1st through to the late 4th century or later. The

material shows some differentiation by date, but, as the collection is so small, this is rather misleading. The iron armlets here, for example, may be dated by their contexts (in cremation graves) to the late 1st or early 2nd centuries, though similar examples are known in the late Iron Age (Stead and Rigby 1989, 102–03, fig 14, 150.4) and the Lankhills cemetery at Winchester produced nine from 4th-century inhumations (Clarke 1979, 311).

Three of the four bone armlets come from an inhumation grave (530) at Chester Road dated to the mid- to late 4th century. This grave also produced a copper alloy armlet, and several other copper alloy armlets also came from 4th-century contexts, notably two from a well which also contained a coin hoard with an end date of AD 364 (Category 6). While these pieces date to the peak of popularity for copper alloy bangles, much earlier examples were also found, for example a bone armlet from a late 2nd- or early 3rd-century context at Victoria Road, and a copper alloy bangle from a 2nd-century cremation (grave 466) at the same site.

Shale armlets are well represented throughout the Roman period in this collection, and were almost certainly manufactured out of shale from the Dorset beds, while the elephant ivory armlet from grave 466 at Victoria Road was clearly an import.

### **Shale and jet armlets**

#### **Plain**

**192** Fig 26 sf VR 7367. A plain shale armlet of oval section, in five fragments. ID 55mm, H 7mm. Late 1st- to early 2nd-century cremation grave 542 (XI, 1342).

**193** Fig 26 sf VR 3148. Complete shale armlet, ID 36mm. Section more-or-less D-shaped, with the flat side outermost, H 10mm, T (maximum) 3mm. Late 2nd- to early 3rd-century soil layer (X, 433).

#### *not illustrated*

**194** sf VR 1300. Part of a plain shale armlet (in four fragments) of D-shaped section with a slight internal ridge. ID (approximately) 77mm, H 15mm. Late 1st- or early 2nd-century silting over the path to the west of the Cirencester road (V, 510).

**195** sf VR 1302. A fragment of a plain shale armlet. Both the top and the bottom of the section have broken away. Probably not a part of **194** above, which is slightly narrower across the section. Late 1st- or early 2nd-century silting over the path to the west of the Cirencester road (V, 510).

**196** sf VR 1512. A small fragment of a plain shale armlet; only part of the section survives. Late 1st- to early 2nd-century soil layer (V, 450).

**197** sf VR 1093. A small fragment of a plain shale armlet of oval section. H 8mm. Mid- to late 2nd-century silting over the western Cirencester-roadside ditch F85 (V, 410).

**198** sf VR 5478. A fragment of a shale armlet. ID 75mm, oval section, T 8mm, H 12mm. Early to mid-4th-century finds-rich soil layer (XII, 2508).

**199** sf VR 12490. A fragment of a shale armlet. ID 4mm, D-shaped section, T 7mm, H 12mm. Early to mid-4th-century finds-rich soil layer (XII, 2471).

**200** sf VR 9595. A fragment of a shale armlet. ID 6mm, oval section, T 6mm, H 85mm. 4th-century fill of well F1096 (XV, 4119).

**201** sf VR 9632. A fragment of a shale armlet. ID 45mm, D-shaped section, T 6mm, H 8mm. 4th-century fill of well F1096 (XV, 4119).

**202** sf VR 9680. A fragment of a shale armlet. ID 8mm; oval section, T 9mm, H 10mm. Levelling for Building 1.22, dates to mid- to late 4th century (XV, 4144).

**203** sf VR 12943. A fragment of a shale armlet. ID 9mm, rectangular section, T 5mm, H 9mm. Late 4th- century (or later) ?reoccupation of the trench area (V, 33).

### **Ring-and-dot decoration**

**204** Fig 26 sf VR 3146. Complete shale armlet. ID (maximum) 34mm. Section roughly oval, H 6mm, T 4mm. The outer face is decorated with single ring-and-dot motifs, all set about 15mm apart (dot-centre to dot-centre) except two which are only 11mm apart. This pair presumably represent the starting and finishing point for the scribing of the motifs. Late second or early 3rd-century soil layer (X, 433).

### **With latitudinal grooves**

**205** Fig 26 sf VR 884. A fragment of a shale armlet, ID (approximately) 81mm. Section more-or-less oval; H 11mm, T 8mm. The outer face bears two grooves, between which are two rounded ridges. 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 304).

**206** Fig 26 sf VR 2641. A fragment of a shale armlet. Section elliptical but flattened at top and bottom; H 13mm, T 6mm. The outer face is decorated with four grooves and three rounded ridges. The marginal ridges are also rounded. 17th to 18th-century pit F113 (X, 259).

### **Miscellaneous types**

**207** Fig 26 sf HA 321. A fragment of a ?jet ?armlet with carved decoration, possibly one of a series of lozenges defined by a cutaway band. L 24mm, T (maximum) 11mm. ?Early to mid-4th-century disuse of the site area (XI, 278).

### **Bone armlets**

**208** Fig 26 sf VR 3147. A fragment of a plain armlet, ID 33mm. Section more-or-less oval, H 5mm, T 3mm. Late 2nd- or early 3rd-century soil layer (X, 433).

**209** Fig 26 sf CHR 799. At least three plain armlets, represented by six fragments each with one broken end and one end with either a surviving iron rivet or a hole for a rivet. Two of the pieces fit together but the bone has 'sprung'. An ID of about 58mm is suggested by the length of the circumference (182mm). The ends would have been butted together and held in place by a riveted copper alloy or iron plate. As none of the other pieces appear to fit, there may have been more than three such armlets in the grave. Inhumation grave 530 (III, 561), dated mid- to late 4th century.

### **Ivory armlet**

**210** Fig 27 sf VR 5715. An incomplete armlet of elephant ivory (identified by Jeremy Heath of Colchester Museum and

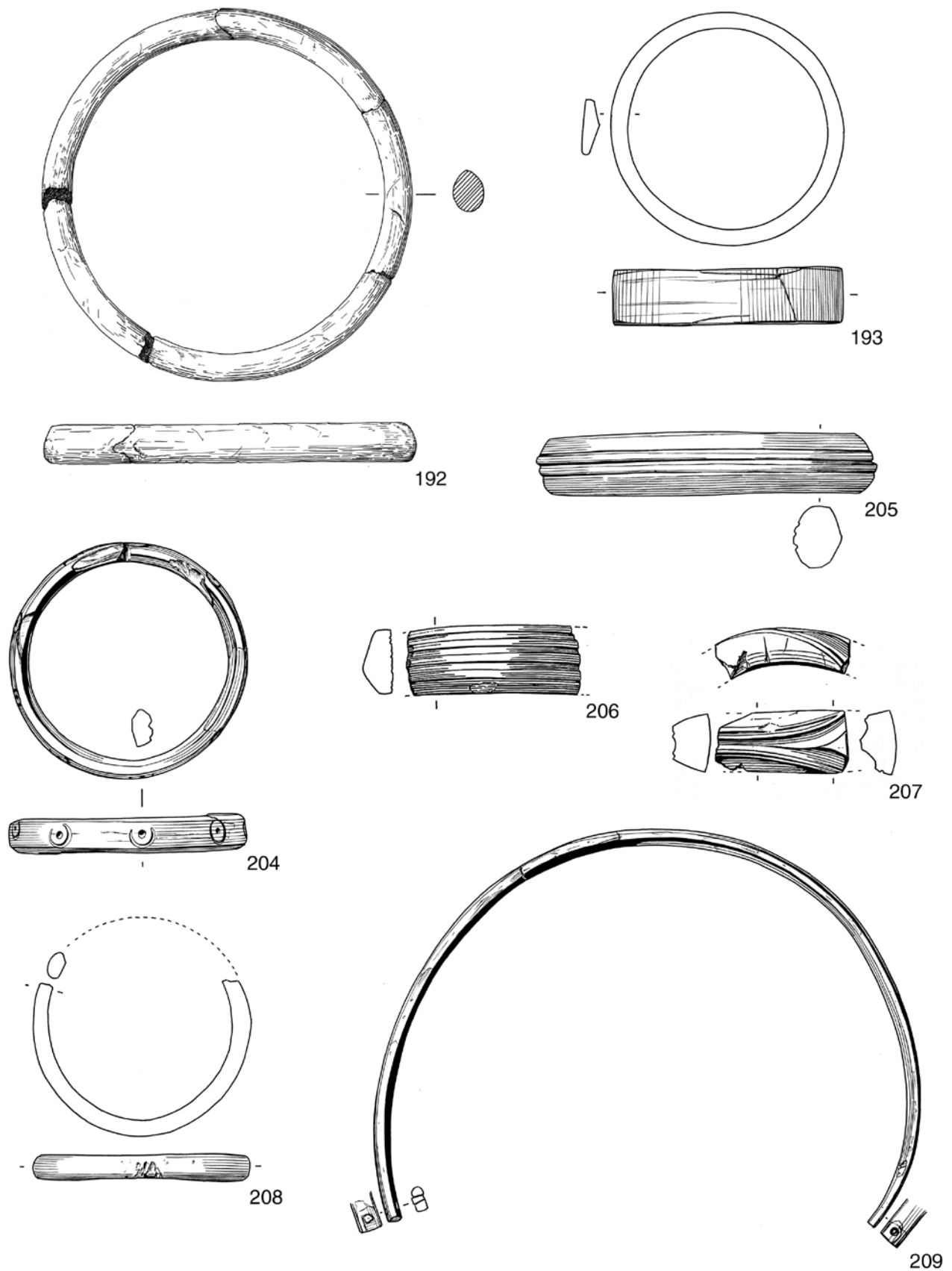


Figure 26 Armlets (shale, jet, and bone), nos 192-209, scale 1:1

confirmed by Sonia O'Connor of York Archaeological Trust). The section is more-or-less D-shaped, with the upright stroke of the D on the outside of the armlet. ID (maximum) 76mm. The height varies from 8 to 11mm, the thickness from 4 to

8mm. Though the armlet is now incomplete, it was certainly originally penannular (either by design or as a result of damage), as the silver finger ring 243 was found threaded on it. Mid-2nd-century cremation grave 466 (XII, 2616).

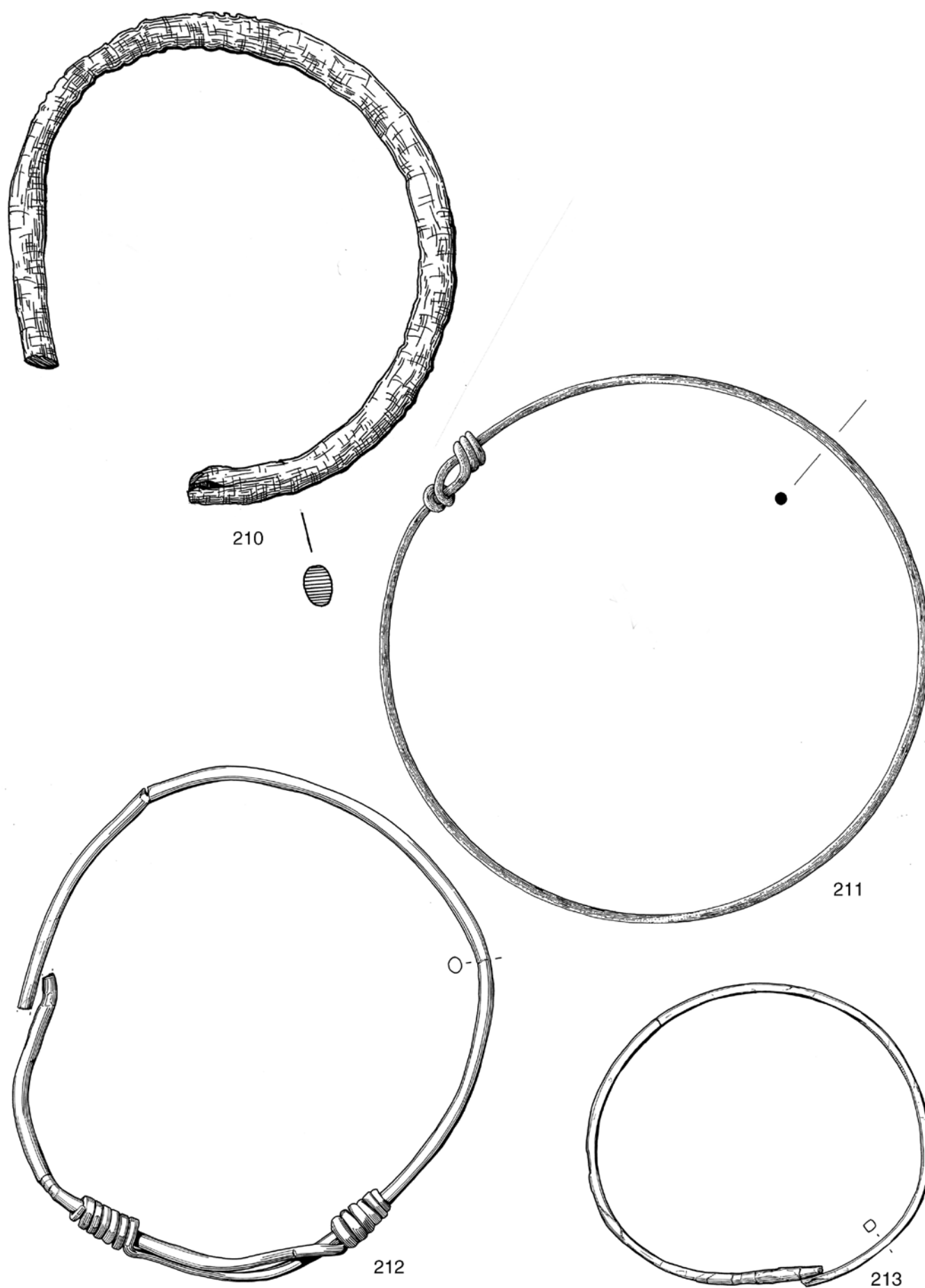


Figure 27 Armlets (ivory and copper alloy), nos 210–13, scale 1:1

## Metal armlets

The majority (17 out of 22), are of copper alloy. Five iron armlets were found in early Roman cremation graves (214–18). They have a diameter of *c* 70mm and are formed from thin strips of rounded cross-section, the ends of which were coiled around the main body of the object. The iron armlet from grave 578 (217) has three small copper alloy rings attached to it.

Of the 17 copper alloy armlets, only two are grave goods: one from a second century cremation (VR, G466), another from an inhumation dated *c* AD 350–70 (CHR, G530). Many of the others are from 4th-century contexts and belong to the late Roman period of popularity of metal bangles. Two are associated with structures, 212 from a late 2nd- or early 3rd-century context in Building 1.15 and 224 from a mid- to late 4th-century context in Building 1.10. Two (225 and 226) were from a well (XV, F1093) at Victoria Road, which also contained a coin hoard (Category 6) with a closing date of AD 364. One large armlet (212) may be an anklet or for use on the upper arm.

## Wire

Most examples, both those of copper alloy and those of iron have coiled or twisted joins. Although the wire armlets are typologically similar, the iron ones were originally catalogued separately and have not been re-ordered.

211 Fig 27 sf VR 5731. Sixteen fragments of thick plain copper alloy wire. At least eight are from an armlet with a simple twisted (?expanding) clasp. The remaining six fragments may be part of the armlet, whilst two may be part of a hairpin. Mid-2nd-century cremation grave 466 (XII, 2616).

212 Fig 27 sf VR 1033. A large copper alloy armlet, broken at one point and distorted, D (approximately) 94mm. Circular section, D 3mm. Twisted expanded clasp. Late 2nd- to early 3rd-century phase of Building 1.15 (V, 57).

213 Fig 27 sf CHR 1442. This copper alloy armlet appears to be in one continuous piece, but the ends of the length of wire from which it was formed must have been joined together at some point, probably in the area now badly laminated and broken. ID (approximately) 58mm. Inhumation grave 530 (III, 561), dated mid- to late 4th century.

214 Fig 28 sf VR 6221. Iron armlet in five pieces: (a) has two strips lying alongside each other, L 44mm; (a) fits (b) L 14mm; (c) comprises two strips lying alongside each other, L 26mm; (d) is two strips wrapped around each other, L 23mm; (e) L 15mm, D (original) 62mm. Late 1st- to early 2nd-century cremation grave 556 (X, 1038).

215 Fig 28 sf VR 7162a. An iron armlet in six pieces. Two pieces of L 23 and 21mm fit together. Four other pieces are L 42, 41, 11 and 8mm. T of all pieces 2mm. D (originally) 70mm. Late 1st- to early 2nd-century cremation grave 520 (XI, 1284).

216 Fig 28 sf VR 7252a. Iron armlet in several pieces, two coiled joins. D (originally) 68mm. Late 1st to early 2nd-century cremation grave 546 (XI, 1306).

217 Fig 28 sf VR 7394. A iron armlet in 12 pieces. (a), L 33mm, has a small copper alloy ring around it; (b), L 34mm, has two copper alloy rings around it; (c), L 27mm, consists of two strips, one of which is coiled twice around the other; (d),

L 9mm, consists of two strips one of which is coiled around the other three and a half times. L of other pieces 30, 29, 21, 20, 14, 12, 8 and 6mm. T (all pieces) 5mm, D (original) 84mm. Late 1st- to early 2nd-century cremation grave 578b (XI, 1582).

*not illustrated*

218 sf VR 7170. An iron armlet in seven pieces. Around three quarters appears to be present. Original D was *c* 84mm and maximum T *c* 5mm. L of pieces 67, 45, 36, 29, 27, 25 and 17mm. Cremation grave 522 (XI, 1287), dating to the second quarter of the 2nd century.

## Cable

219 Fig 29 sf VR 768. A pennanular copper alloy four strand cable armlet. The strands are circular in section. At each terminal, three of the strands have been neatly cut and the fourth used to make a clasp, on one side a hook (now broken), on the other a flattened loop. The cut strands on both the terminals and the return of the loop have been soldered together and bound by a piece of sheet copper alloy. Each piece of binding has marginal mouldings. ID (maximum) 65mm. 4th-century fill of well or shaft F43 (IV, 417).

220 Fig 29 sf CHR 933. A two-strand cable armlet of copper alloy, both terminals of which are missing. Oval D, maximum 45mm. 4th-century cemetery boundary ditch F570 (III, 679).

## Plain

*not illustrated*

221 sf VR 5766. A plain curved copper alloy strip of oval section, possibly from an armlet. T 3mm. Late 1st- to early 2nd-century fill of the cemetery boundary ditch F704 (XII, 2631).

222 sf VR 442. Two copper alloy fragments intertwined. Double twisted clasp. Circular section. 4th-century fill of Cirencester-roadside ditch and cemetery boundary F12 (V, 85).

223 sf VR 3069. Copper alloy, in four pieces. D 65mm. Residual in 14th- to 15th-century pit F131 (X, 370).

## Grooved

224 Fig 29 sf HA 252. A fragment of a copper alloy penannular D-section armlet with diagonal grooves and a debased snake's head terminal. Corrosion has obscured the flattened terminal, which may originally have been much longer than it now appears. An armlet with similar decoration, though of more solid construction and with a more clearly serpentine terminal came from a 4th-century grave at Butt Road, Colchester (Crummy 1983, fig 44, 1693). L 33mm, W 4mm, T 2mm. ?Mid- to late 4th-century Building 1.10 (XI, 287).

225 Fig 29 sf VR 9633. A penannular copper alloy armlet with a hook-and-eye clasp, in three pieces. The eye terminal is broken off and the tip of the hook is missing. D (internal) 59mm. Rectangular section, H 5mm, T 2mm. The decoration consists of slight transverse scoring and a single marginal groove. There is a long undecorated panel near the eye terminal which is marked by transverse grooves and notches. The hook terminal is also marked by grooves and notches,

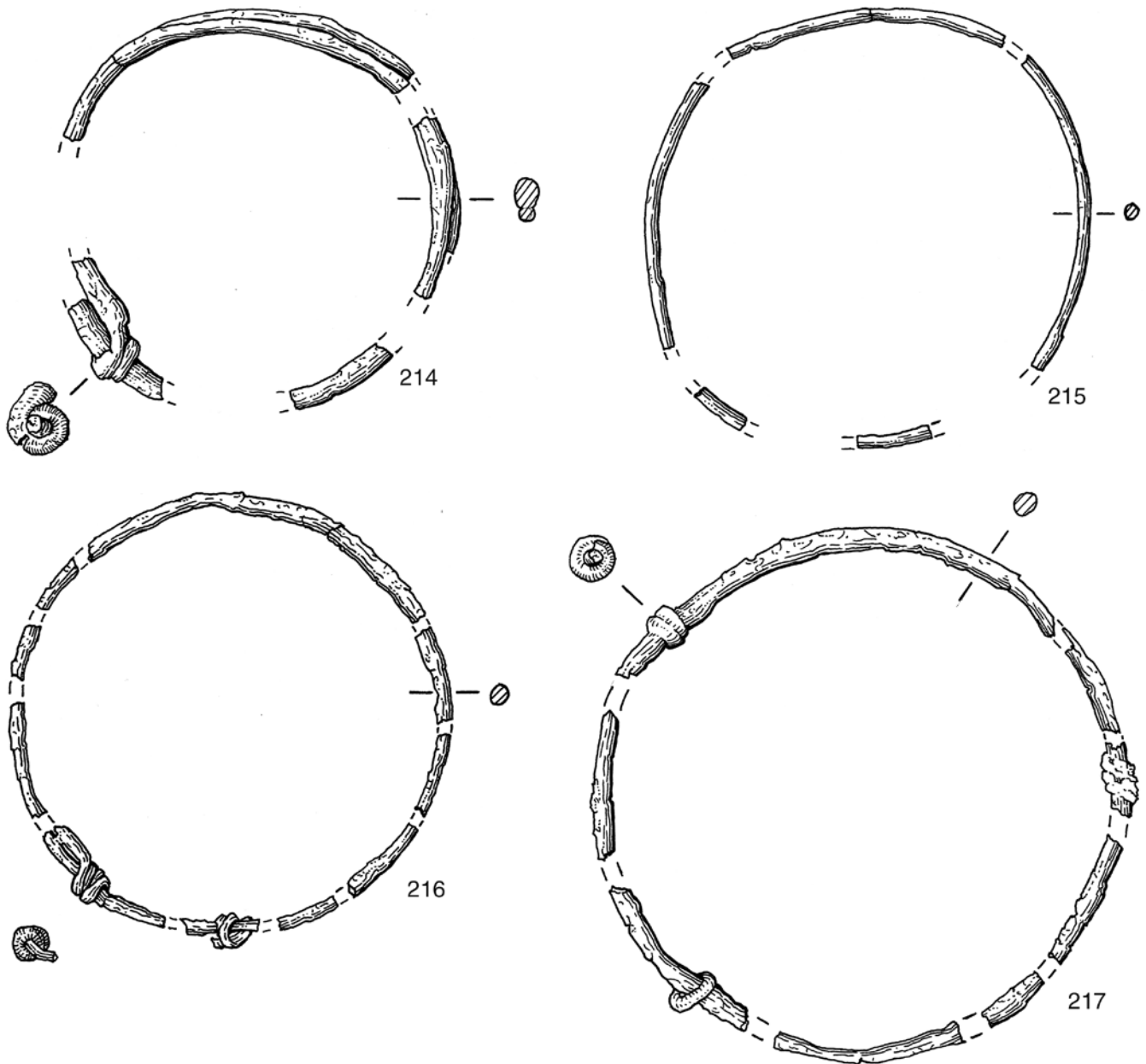


Figure 28 Armlets (iron), nos 214–17, scale 1:1

but here there is only a short plain panel. Mid-to late 4th-century fill of well F1093 (XV, 4135).

**226** Fig 29 sf VR 9623. A fragment of a (now) hollow armlet, formed from a single strip of sheet copper alloy folded so that the join is at the centre of the inner face. The metal would have been wrapped around a wooden ring and sealed by a lead-based solder, traces of which remain at one end of the piece. This would have given the armlet sufficient rigidity to survive being worn. The piece is similar to an armlet from Cannington (Rahtz *et al* 2000, 355, fig 239).

The outer face is decorated with a long row of indented chevrons flanked by short rows of diagonal (slightly) grooves. At one end the chevrons appear to reverse direction. Both chevron and grooves are quite broad, and appear to have been made by a clinching tool which pressed the copper alloy into the softer internal material. A single tool was used for both chevrons and diagonals, as a slight ridge in the centre of each diagonal indicates a

two-part action. D uncertain; section more-or-less circular, 6mm in diameter. Mid- to late 4th-century fill of well F1093 (XV, 4128).

#### Raised decoration

**227** Fig 30 sf HG 294. Possibly a fragment of an armlet of copper alloy, with cast decoration consisting of raised zig-zag and slight marginal mouldings. L 24mm, H 5mm, T 2mm. This could be part of a bow brooch, but it does not appear to taper along its length and so is more likely to be from an armlet. However, the context is rather early for this to be a strip bangle and the decoration on these bangles is usually cut or stamped into the metal, not raised. The identification of this piece can only be tentative. Disuse of the path giving access to the Roman rampart; 2nd century (IV, 1258).

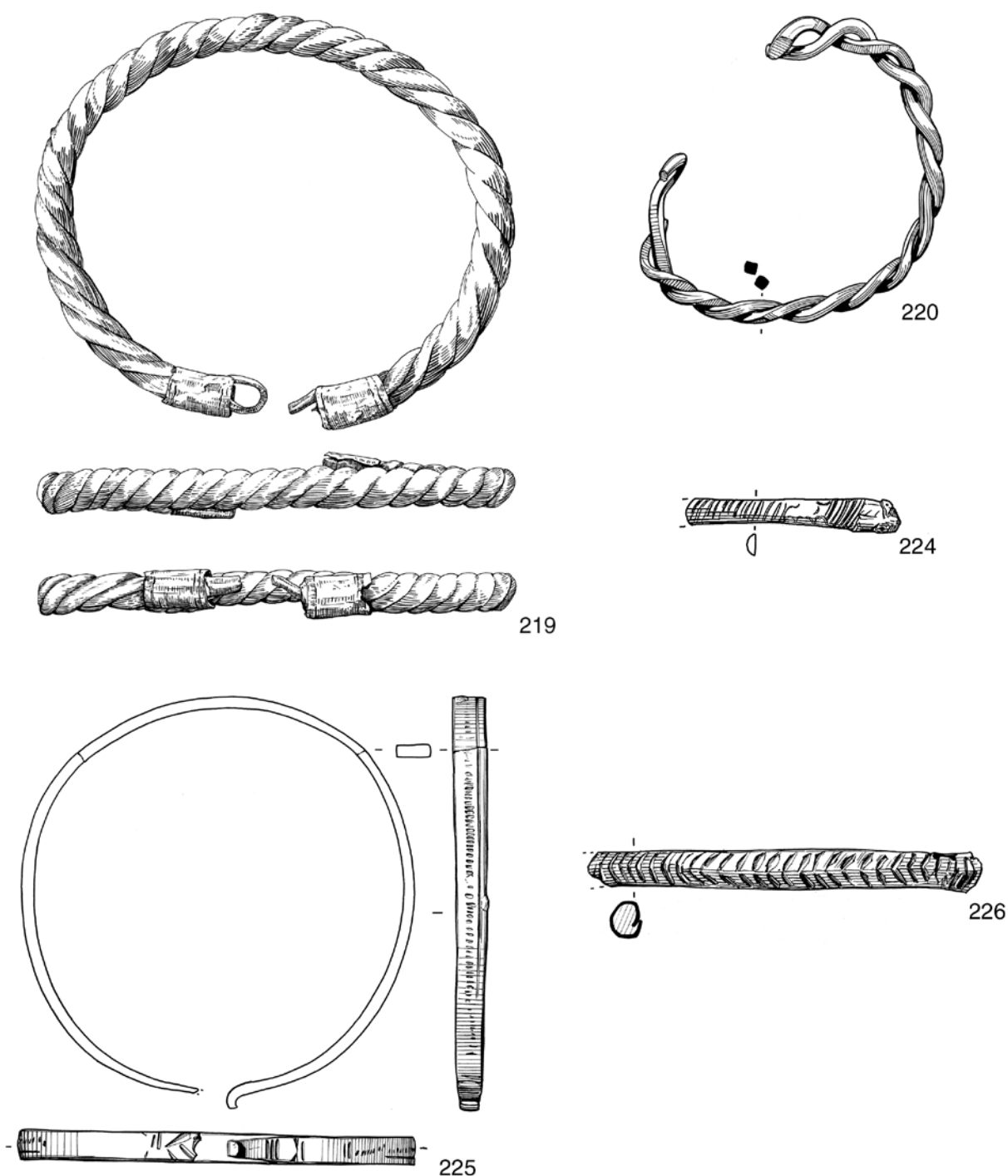


Figure 29 Armlets (copper alloy), nos 219–26, scale 1:1

**228** Fig 30 sf CT 3. Three fragments of an armlet, two may join. The pieces have been bent but the diameter appears to have been about 62mm. Decoration consists of a zig-zag band created by notching the metal edge, with a narrow groove on the band for emphasis. Within each inverted V of the zig-zag is a ring-and-dot motif. Somewhat similar decoration is found on two multiple-motif armlets from Colchester (Crummy 1983, fig 47, nos 1731–2), one of which comes from an inhumation grave dated c AD 320/40 to 330/50 (Crummy *et al* 1992, Table 2.67, G537). Late third to mid-4th-century fill of pit F10 (V, 19).

**229** Fig 30 sf HA 148. A fragment of a copper alloy armlet with stamped 'O' decoration and marginal grooves. L

21mm, H 8mm, T 1mm. ?Late 3rd to mid-4th-century disuse of Building 1.9 (XI, 278).

#### Bead imitative

**230** Fig 30 sf VR 388. A bent fragment of a copper alloy armlet, D (internal) is uncertain. Rectangular section, H 5mm, T 2mm. The decoration consists of faceted panels which give the impression of long biconical beads, each bead being inscribed with a double ring-and-dot motif. Between each of these panels is a pair of tiny single ring-and-dots, one

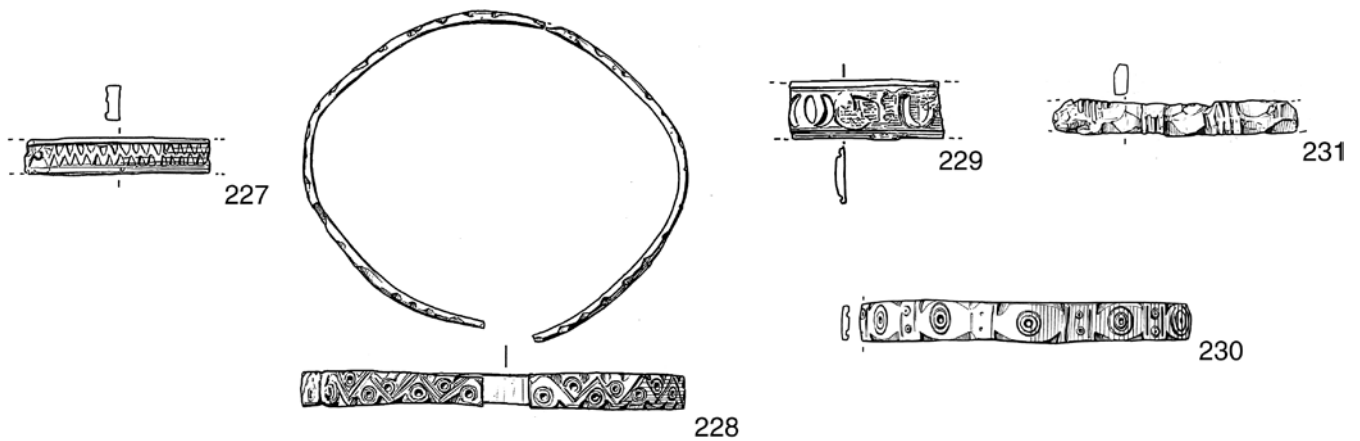


Figure 30 Armlets (copper alloy), nos 227–31, scale 1:1

above the other, flanked by grooves. 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 102)

**231** Fig 30 sf MA 67. A fragment of a copper alloy armlet with faceted panels imitating biconical beads alternating with groups of vertical mouldings. L (fragment) 32mm, H 4mm, D-shaped section T 2mm (D uncertain). 13th- to 14th-century pit F10 (III, 20).

### Miscellaneous types

*not illustrated*

**232** sf VR 1233. A strip of copper alloy rolled around several fragments of wire, one of which protrudes slightly at one end. The strip is grooved. Possibly a terminal from an armlet, or perhaps a clasp from a necklace. L 14mm. Mid to late 2nd-century fill of the western Cirencester-roadside ditch F85 (V, 432).

### Finger rings

The pattern already shown by other items of jewellery, of being weighted to the early Roman period, is reflected again by the finger rings. Seven of the twenty recovered were came from early Roman cremations, and the coiled ring **245** is an early type (Crummy 1983, 47). Only the bead-imitative (**246**) and crenellated (**251**) rings are of distinctly 4th-century form. There are three iron finger rings. Two (**247** and **248**) came from cremation graves at Victoria Road, and one (**249**) is from Hyde Abbey. **247** has a simple diamond-shaped expansion forming the bezel. **248** has a glass bead in the bezel and **249** has a piece of copper alloy, originally perhaps bearing relief work, in the bezel.

### Jet finger ring

*not illustrated*

**233** sf SXS 126. Fragment of a finger ring of jet. T 1.5mm. Roman fill of the Iron Age enclosure ditch F106 (XIV, 486).

### Metal finger rings

#### Plain

**234** Fig 31 sf VR 6969. A plain copper alloy finger ring of D-shaped to rectangular section. D (internal) 14mm. Late 1st-century cremation grave 540 (XI, 1301).

**235** Fig 31 sf VR 7234. A copper alloy ring with traces of ?engraved decoration on the bezel. Part of the hoop is missing. D (maximum, internal) 14mm. Late 1st-century cremation grave 540 (XI, 1301).

**236** Fig 31 sf VR 7374. A plain copper alloy ?finger ring of exaggerated D-shaped section. D (internal) 12mm. Late 1st-century cremation grave 501 (XI, 1321).

**237** Fig 31 sf VR 3277. A plain copper alloy finger ring of D-shaped to rectangular section. D (internal) 15mm. 2nd-century cremation grave 433 (X, 718).

**238** Fig 31 sf VR 448. A thin copper alloy hoop of D-shaped section. H 3mm, D (internal) 18mm. Probably a finger ring. 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 83).

*not illustrated*

**239** sf VR 892. Fragment of a copper alloy ring of rectangular section. D (internal) 20mm, H 3mm, T 2.5mm. Mid- to late 3rd-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 304).

**240** sf VR 3631. Complete penannular ring of copper alloy with subrectangular section. D (internal) 19mm, H 5mm, T 5.5mm. Late Saxon general soil layer (XII, 2291).

**241** sf VR 118. Fragment of a copper alloy ring of rectangular section. D (internal) approximately 20mm, H 2–3mm, T 1.5mm. 13th- to 15th-century general soil layer (V, 14).

**242** sf VR 5887. Penannular copper alloy ring of ?square section. D (internal) 17mm, H 4mm, T 4mm. Floor layer in 13th- to 15th-century building 936.2 (XII, 2690).

#### Plain, with decorative clasp

**243** Fig 31 sf VR 5716. A silver ring of circular section with twisted expanding clasp. Found threaded on to the ivory armlet **210**. D (internal maximum) 14mm. Mid 2nd-century cremation grave 466 (XII, 2616).



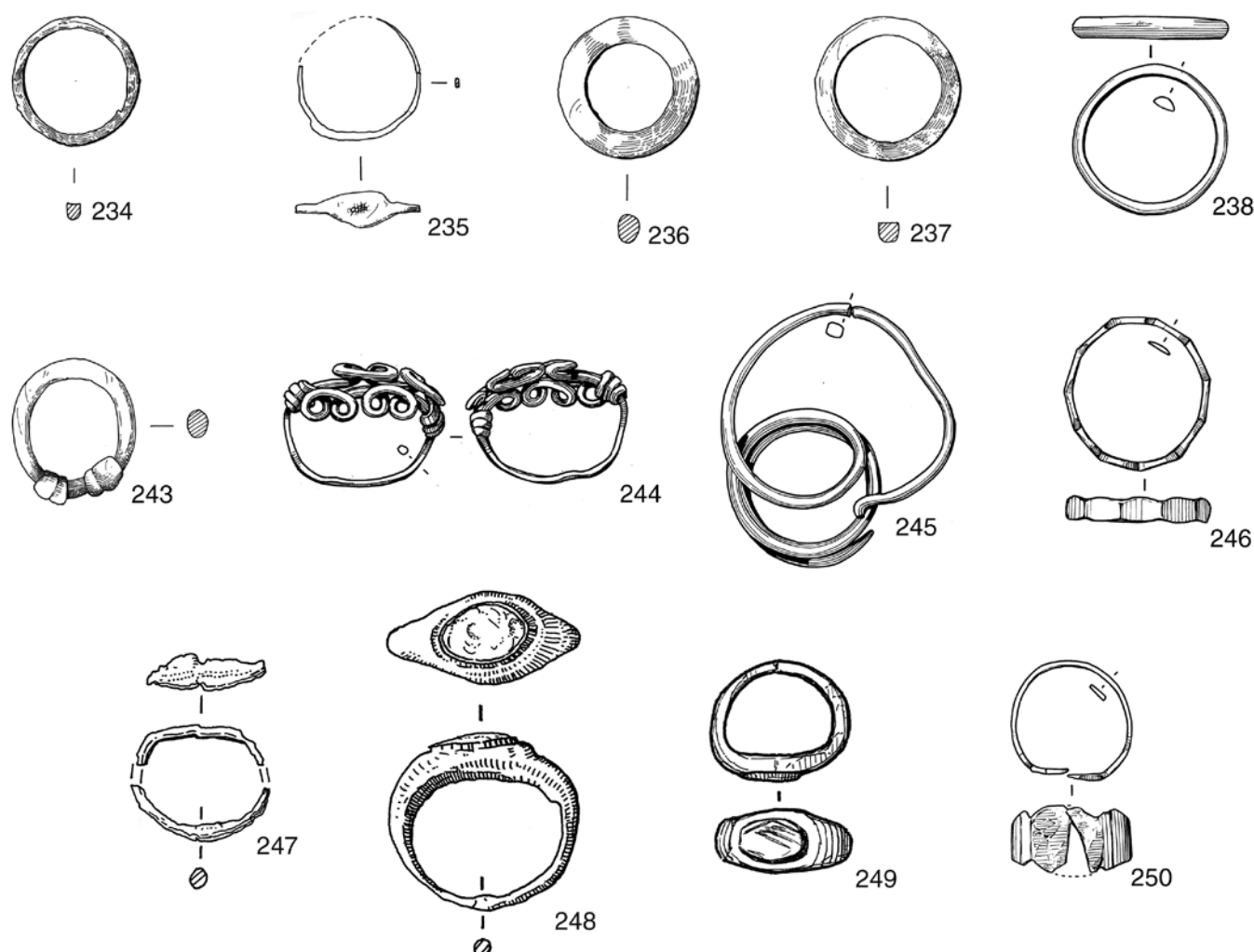


Figure 31 Finger rings, nos 234–50, scale 1:1

**244** Fig 31 sf HA 136. A complete but distorted copper alloy ring. D (internal maximum) 19mm. Circular section, T 1mm. Each end is twisted into four running loops before being wound securely round the hoop. Similar rings come from Colchester and Wanborough (Hull 1958, 47, 4; Crummy 1983, fig 50, 1757; Hooley 2001, fig 35, 100–01). ?Mid- to late 4th-century Building 1.10 (XI, 300).

#### Coiled

**245** Fig 31 sf VR 3173. A coiled length of copper alloy wire with the lower coils pulled out and distorted. Possibly a finger ring. The undamaged terminal tapers to a blunt point. D (internal) 18mm. Soil layer of the first half of the 2nd century (X, 494).

#### Bead-imitative

**246** Fig 31 sf VR 521. A thin copper alloy ring cut into the shape of a string of long barrel beads, the surfaces very slightly faceted. D (internal) 20mm, H (maximum) 4mm. Late 4th or early 5th-century soil layer (V, 28).

#### With decorative setting

**247** Fig 31 sf VR 7162b. Two pieces of an iron ring which do not fit together. One piece has a bezel which takes the form of a widened diamond-shaped area with two rebates on either side. Dimensions of pieces: L 19mm, T 2mm; L 18mm, W 5mm, T 2mm. Late 1st to early 2nd-century cremation grave 520 (XI, 1284).

**248** Fig 31 sf VR 7252b. Iron ring, which expands at one point to form a bezel taking a glass bead. D 27mm, W (bezel) 12mm, T 6mm. Late 1st- to early 2nd-century cremation grave 546 (XI, 1306).

**249** Fig 31 sf HA 523 Iron ring with copper alloy bead in the bezel. D 17mm, W 8mm. Posthole F170 in ?early to mid-3rd-century Building 1.11 (XI, 318).

**250** Fig 31 sf VR 1254. A copper alloy hoop with wide shoulders, each marked with a slight incised line, and a broad flat bezel. This is broken and the setting is missing, but traces of ?solder remain. D (internal) 16mm. Late 2nd- to 3rd century (or later?) fill of pit F64/70 (V, 387).

#### Crenellated

*not illustrated*

**251** sf VR 3649. Twisted, possibly not a finger ring. Rec-

tangular section, H 1mm, T 2mm. Decoration consists of crenellations with two grooves either side of each crenellation. Slot F616 in late Saxon Building 935.1 (XII, 2293).

### Fragment

*not illustrated*

**252** sf VR 892. Fragment. ID 20mm, rectangular section, H 3mm, T 2.5mm. 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 84).

### Earring

**253** Fig 32 sf HA 163. A small penannular ring of circular-section wire, with one end curled into a simple loop and the other bent almost straight and lying against the loop, probably originally intended to pass through the loop and be held in position by it. Clearly, both ends have been simply cut off by a clinching tool. ID (maximum) 17mm. ?Mid- to late 3rd-century Building 1.8 (XI, 340).

### Miscellaneous jewellery

Included here are two bells, a strip of copper alloy, a likely but not certain earring and the fragmentary remains of what was probably a finger ring. Bells were used as amulets, their noise being perceived as driving away evil. One of the bells (**945**) was initially placed in Category 14, but has been moved here.

**945** Fig 32 sf VR 7039. A copper alloy conical bell with a suspension loop cast in one with the main body of the bell. The iron clapper is fixed by means of a copper alloy split-spike loop passed through the top of the bell's wall. H 24mm, D 28mm. The recovery of this bell in a burial with other grave furniture precludes its being catalogued with objects associated with animal husbandry. Late 1st-century cremation grave 501 (XI, 1321).

**254** Fig 32 sf VR 349. A thin strip of copper alloy tapering to a point at each end and twisted into a loop. Possibly an earring. D 19mm. Late 1st to early 2nd-century soil layer (IV, 193).

**255** Fig 32 sf VR 2729. A small copper alloy bell with traces of an iron clapper. A pair of slight ?incised grooves pass round the base of the bell. The suspension loop is of copper alloy. It was inserted through a hole cut into the top and the clapper was attached to the part which projected into the underside of the bell. The bell appears then to have been pinched near the top to hold the loop firmly in place. H 15mm, D 14mm. This bell was probably part of a necklace or armlet formed by the glass, bone and shell beads **178**, **189** and **190**. Mid-3rd-century cremation grave 409 (X, 604).

*not illustrated*

**256** rf VR 301. Shale. ?Bezel of ring in six pieces. 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 84).

### Button-and-loop fastener

**257** Fig 32 sf VR 5141. A bone button-and-loop fastener. H 18mm, W 18mm, T 11mm. The fastener is smaller than those

from military sites (compare with examples in Oldenstein 1976, Taf. 55), and the loop in particular appears to be too narrow to take a leather strap. This example may therefore be a civilian dress accessory rather than a military fitting (Allason-Jones 1989, 118). Mid- to late 3rd-century disuse of Building 1.24 (XIII, 3319).

### Buckle

The only ordinary buckle from a certain Roman context is an incomplete specimen of iron from a grave at Chester Road. Other buckles and belt fittings are catalogued with military equipment (Category 13).

*not illustrated*

**258** sf CHR 762. Half of a D-shaped frame. L 32mm, W 25mm. Fill of inhumation grave 556, dated to the late 4th century (III, 620).

### Footwear

#### Boot-plates

There are some 38 boot-plates, or cleats, from Roman contexts and a further 13 were found residual in post-Roman contexts. Two were unstratified. These objects would have been fitted to the heels and toes of boots and shoes.

Several distinct forms were recorded, including the rounded, the oval, the elongated with more-or-less straight sides and the curved or crescentic. There is also one specimen which is diamond-shaped.

A pair of oval plates **277** from grave 528 at Chester Road had clearly belonged to the hobnailed boots or shoes buried as grave goods.

#### Rounded

*not illustrated*

**259** sf VR 5235. Rounded, L 35mm, W 24mm. Early to mid-4th-century finds-rich soil layer (XII, 2471).

**260** sf VR 5453. Rounded, L 25mm, W 15mm. Early to mid-4th-century finds-rich soil layer (XII, 2517).

**261** sf VR 303. Rounded plate, arms missing. L 21mm, W 15mm. 5th-century and later disuse of the site (V, 61).

#### Oval

**262** Fig 32 sf VR 2479. Oval, L 44mm, W 28mm. Posthole F143 in mid- to late 3rd-century phase of Building 1.23 (X, 372).

**263** Fig 32 sf VR 5212. Elongated oval, one arm missing. L 50mm, W 19mm, L of arm 13mm. Early to mid-4th-century finds-rich soil layer (XII, 2470).

**264** Fig 32 sf VR 3036. Elongated oval, one arm missing. L 32mm, W 12, L of arm 18mm. 5th-century or later disuse of the site (X, 144).

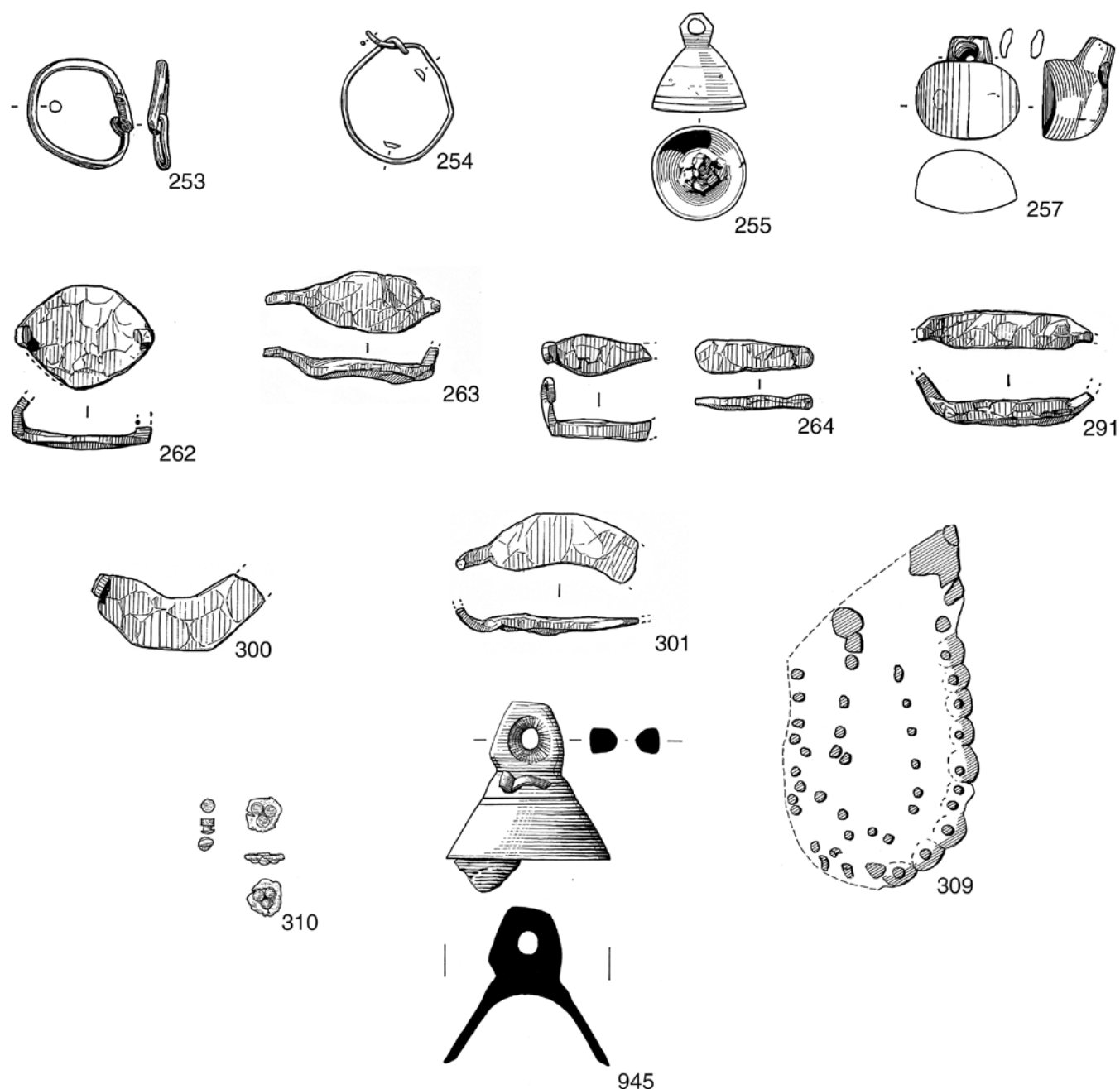


Figure 32 Jewellery, fastener, and footwear, nos 253–7, 310, & 945, scale 1:1; nos 262–301, 309, scale 1:2

*not illustrated*

**265** sf HA 152. Oval, L 35mm, W 11mm. ?Late 3rd- to mid-4th-century disuse of Building 1.9 (XI, 269).

**266** sf HA 153. Elongated oval, arms missing, L 42mm, W 18mm. ?Late 3rd- to mid-4th-century disuse of Building 1.9 (XI, 269).

**267** sf HA 0. (a) oval, L 35mm, W 15mm; (b) oval, L 39mm, W 12mm. Late 3rd- to 4th-century street F9 (II, 75).

**268** sf VR 5222. Oval, one arm missing, L 35mm, W 35mm, L of arm 20mm. Early to mid-4th-century finds-rich soil layer (XII, 2471).

**269** sf VR 5233. Oval, one arm missing, L 28mm, W 12mm. Early to mid-4th-century finds-rich soil layer (XII, 2471).

**270** sf HA 43. Oval, L 32mm, W 11mm. 4th-century soil layer (II, 74).

**271** sf VR 8546. (a) oval, one arm missing, L 20mm, W 13mm; (b) oval, one arm missing, L 20mm, W 15mm. 4th-century fill of pit F981 (XIV, 3834).

**272** sf VR 9593. Oval, L 30mm, W 16mm. 4th-century fill of well F1096 (XV, 4119).

**273** sf VR 443. Oval, L 36mm, W 21mm. 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 102).

**274** sf HA 45. Oval, L 30mm, W 10mm. Mid- to late 4th-century demolition of Building 1.10 (II, 48).

**275** sf VR 12896. Oval, L 36mm, W 15mm. Mid- to late 4th-century ditch F122/1202 (X, 31).

**276** sf CHR 0. Incomplete but was roughly oval. L 38mm, W 33mm, L of arms 10mm. Grave 605, dated mid- to late 4th century (III, 732).

- 277 sf CHR 827. (a) oval, L 38mm, W 15mm; (b) oval, L 28mm. Grave 528, dated mid- to late 4th century (III, 626).
- 278 sf VR 914. Elongated oval, L 36mm, W 13mm. Late 4th- to early 5th-century soil layer (V, 344).
- 279 sf VR 2547. Oval with one arm, L 45mm, W 20mm. 5th-century or later disuse of the site (X, 144).
- 280 sf VR 3047. Oval, one arm missing. L 30mm, W 15mm. 5th-century or later disuse of the site (X, 144).
- 281 sf VR 3987. Elongated oval plate. L 30mm, W 14mm. Posthole F621 in late Saxon Building 935.1 (XII, 2303).
- 282 sf VR 3999. Oval plate. L 45mm, W 20mm. Late Saxon soil layer (XII, 2366).
- 283 sf VR 5097. Elongated oval plate. L 44mm, W 15mm. Late Saxon property boundary ditch F648 (XII, 2432).
- 284 sf VR 8531. Oval plate. L 20mm, W 10mm. Late Saxon pit F508 (XIV, 3832).
- 285 sf CT 12. Oval. L 28mm. 12th- to 13th-century grave 1 (V, 41).
- 286 sf VR 3874. Oval plate, one arm is missing. L 32mm, W 10mm. 13th- to 14th-century pit F607 (XII, 2274).
- 287 sf VR 0. Oval plate. L 25mm. 15th- to 16th-century pit F643 (XII, 2407).
- 288 sf VR 0. Oval plate, one arm missing. L 30mm, W 12mm; (b) Elongated plate. L 43mm, W 13mm. Post-medieval soil layer (V, 205).
- 289 sf VR 2197. Elongated oval plate. L 42mm, W 18mm. 19th- to 20th-century pit F13 (X, 27).
- 290 sf VR 0. Oval plate, one arm missing. L 45mm, W 18mm. Unstratified (VI).

### Elongated

- 291 Fig 32 sf VR 867. Elongated, one arm missing. L 54mm, W 10mm. Residual in late Saxon or early medieval ditch F13 (V, 241).

### *not illustrated*

- 292 sf HA 374. Elongated, L 46mm, W 8mm. ?Late 2nd- to 3rd-century layer (XI, 382).
- 293 sf VR 5213. Elongated with slightly convex sides. L 63mm, W 20mm. Early to mid-4th-century finds-rich soil layer (XII, 2470).
- 294 sf VR 5418. Elongated, L 40mm, W 14mm. Early to mid-4th-century finds-rich soil layer (XII, 2508).
- 295 sf HA 42. Elongated, L 45mm, W 14mm. ?4th-century soil layer (II, 74).
- 296 sf VR 655. Elongated, arms missing. L 48, W 15. 4th-century fill of well or shaft F43 (IV, 352).
- 297 sf VR 2558. Elongated, L 38mm, W 12mm. 5th-century or later disuse of the site (X, 144).
- 298 sf VR 2542. Elongated plate, one end broken. 13th- to 15th-century soil layer (X, 61).
- 299 sf VR 0. Elongated plate. L 45mm. Context of uncertain type and date (275).

### Crescentic or curved

- 300 Fig 32 sf VR 5227. Incomplete, crescentic. L 51mm, W 16mm. Early to mid-4th-century finds-rich soil layer (XII, 2471).
- 301 Fig 32 sf VR 5336. Incomplete, curved and elongated. L 55mm, W 15mm. Early to mid-4th-century metallated (?yard) surface F665 (XII, 2486).

### *not illustrated*

- 302 sf CHR 56. Crescent shaped plate. L 40mm, W 20mm. Late Saxon erosion layer (I, 86).
- 303 sf VR 26. Crescentic plate, one arm missing. L 32mm, W 16mm. 13th- to 15th-century layer (IV, 44).
- 304 sf HA 293. Elongated and curved. L 55mm, W 15mm. 19th- to 20th-century fill of cellar F310 in Building 744.4 (XII, 37).

### Diamond-shaped

### *not illustrated*

- 305 sf HA 361. Diamond-shaped, L 42, W 14mm. ?Late 3rd- to early 4th-century soil layer (XI, 278).

### Other

### *not illustrated*

- 306 sf VR 859. One arm missing, L 30mm, W 15mm. Late 3rd- to early 4th-century inhumation grave 101 (V, 214).
- 307 sf VR 5215. A plate now much bent, which narrows to a thin arm at one end, broken at the other. A hobnail is fused on to it. L 79mm, W 20mm, T 2mm. Early to mid-4th-century finds-rich soil layer (XII, 2471).
- 308 sf VR 4377. One arm is missing. L 45, W 10mm. Late 4th- to early 5th-century inhumation grave 30 (IV, 326).

### Hobnails

Hobnails occur in Roman contexts of all periods, and there were numerous examples found residual in post-Roman contexts. The earliest hobnail is one from a mid- to late 1st-century occupation layer at St John's Street (IV, 850). Four (two each) from two late 1st- to early 2nd-century cremation graves at Victoria Road (G477 and G606) may derive from footwear burnt on the funeral pyres. Hobnails from a 2nd-century inhumation grave also at Victoria Road (G491), may derive from footwear interred with the deceased. Groups from late Roman inhumation graves at Hyde Street and Victoria Road in the northern suburb, New Road and 45 Romsey Road in the western suburb, and at Chester Road and at St Martin's Close in the eastern suburb, also testify to the burial of shoes as grave goods. One group of hobnails was recovered with a fragment of the leather in which it was set. There is a group from an early 4th-century soil deposit at Victoria Road (XV, 4151) which is evidence for a complete shoe discarded as refuse.

The archive gives a complete listing of the occurrence and numbers of nails by context.

- 309 Fig 32 sf VR 1293. The front part of a leather sole, from instep to toe. Two rows of hobnails line the outer edge. The item of footwear from which the sole derives is uncertain, but may well be a calceus, a shoe of which the upper was often of openwork (Charlesworth and Thornton 1973, 150). Early to mid-2nd-century fill of the Cirencester-roadside ditch F85 (V, 498).

### ***Decorative rivets***

These were recovered from a grave at New Road in association with iron hobnails at the feet of the skeleton. The tiny copper alloy studs almost certainly formed a decorative pattern on the upper half of a Roman shoe. Surviving examples are known from London (Museum of London Archaeological Archive, SWA81 [4349] << 2'87 >> ) and 4th-century Vindolanda (Carol

van Driel-Murray, pers comm). Patterns at Vindolanda appear to include small crosses, circles around a larger central stud and groups of three.

**310** Fig 32 sf NR 248. Twenty-two complete copper alloy rivets of tiny proportions, some (illustrated) still set into partially mineralised leather in a group of three. Circular section and dome-shaped head. L 1.5–2mm, D (head) 1–2mm. Late Roman grave F393 (II, 500).

## 2 Toilet, surgical, or pharmaceutical instruments

This category consists principally of combs, mirrors and toilet instruments. Only a long scoop and two long-handled small flat scoops may have been used as medical instruments, though tweezers were no doubt used for minor surgical procedures, such as the removal of splinters, as well as for depilation.

The mirrors form a substantial 1st- to 2nd-century group, mostly of imported square and circular types but distinguished by the inclusion of an unusual example with dragonesque loop-handle which belongs to the insular tradition of mirror-making but dates to the 2nd century. Most of the nail-cleaners, toilet spoons and tweezers are contemporary with the mirrors, and two of the former belong to groups with southerly distributions. At least one late Roman nail-cleaner is also present, contemporary with the antler combs, most of which come from burials and form, together with those from Winchester's Lankhills cemetery, perhaps the largest late Roman comb assemblage from any British town, with the possible exception of York. Several of the combs have zoomorphic end-plates, with the most elaborate based on horse heads. One of the horse-head combs was contained within a wooden box with sliding lid, veneered with bone plaques decorated with a pattern that complements that of the comb's connecting plates. The comb and box together form a unique and clearly high quality set, no doubt specially commissioned for, or by, the young woman with whom it was buried.

Glass unguent bottles, which properly belong in this section, are discussed with household items, due to the difficulty of distinguishing them consistently in small fragments.

### Combs

These combs are probably all of red deer antler and, where they are sufficiently well-preserved to judge, are composite and double-sided. All of the combs warranting illustration were deposited in 4th-century inhumations in the suburban cemeteries, and can be dated to the last third of the 4th century. The earliest date offered for a grave containing a comb is mid- to late 4th-century, perhaps as early as AD 350–70, supporting this date range for the popularity of the item as grave furniture. The paucity of combs as general site finds is not unusual and could be an indication either of the cost or rarity of such an item, or that some particular ritual significance attached to combs. However, in Roman London most comb fragments recovered from occupation rather than burial sites were associated with bath buildings (Crummy 2001), as was a fragment from Canterbury (MacGregor and Stow 1995, fig 515, F1186), which suggests not only

a practical rather than ritual use for these items, but also that they are quite simply more likely to be found where they were used.

That combs could be an indication of status is demonstrated by the range of decoration on these examples. **317** from Victoria Road grave 94 (dated to late 4th or early 5th century), is very plain, while the decoration on **312** from Hyde Street grave 5 is very elaborate, and **315** from grave 36 at St Martin's Close is not only elaborately decorated, but also came in a purpose-built wooden box with highly decorated bone inlay (Category 4, **595**).

The method of manufacture of antler combs is described by MacGregor (1985, 74–6). Recent work on the decoration of both connecting-plates and end segments, including these examples from Winchester, suggests that this is closely related to the manufacturing and marketing of combs, and has shown that a limited range of zoomorphic decoration might be employed on the end segments (Crummy 2001). In summary, simple and slightly decorated examples were made before being presented for sale, with the end segments so shaped as to permit further development if required at the point of sale. **317** is an example of this early stage. Further work on the end segments could produce owl forms (**311**, **313**), horse heads (**312**, **315**) or dolphins (Galloway 1979, fig 31, 473; Crummy 1983, fig 59, 1857). A comb from Langton, Yorkshire, shows strong stylistic links with horse and/or dolphin buckles of Hawkes and Dunning's Type Ib (1962, figs 15, 17–19). The limited range of zoomorphs suggests that the choice of animal had some symbolic meaning for the purchaser. Specially made combs could also be ordered, an example of which is **315**.

**311** Fig 33 sf VR 705. L 89mm, W 60mm, W (maximum) of connecting-plates 17mm. A complete composite double-sided comb with a broad flat connecting-plates, both of which are cracked, but only a small fragment of one is missing. Both long sides are notched from the cutting of the teeth. Four iron rivets remain in place, and between each pair of rivets, the plates are decorated with pairs of double ring-and-dot motifs. The end segments are decoratively shaped and also inscribed with double ring-and-dot motifs which form the eyes in a stylised owl face. This comb, with its broad flat connecting-plates, scribed ring-and-dot ornament and decoratively-shaped end segments, is clearly in the same late Roman provincial tradition as the combs from the Lankhills cemetery, Winchester (Galloway 1979, 246–8, fig 31), and those from the late Roman cemetery at Butt Road, Colchester (Crummy 1983, fig 58–9, especially 1855). Inhumation grave 57b (IV, 299), dated mid- to late 4th century, perhaps within the earlier part of the range, c AD 350–70.

**312** Fig 33 sf HYS 17. L 114mm, W 63mm, W of connecting-plates 20mm. A complete, only slightly damaged, composite double-sided comb with broad stepped connecting-plates. The plates have wide margins on the long sides which have been heavily notched from the cutting of the teeth. The inner

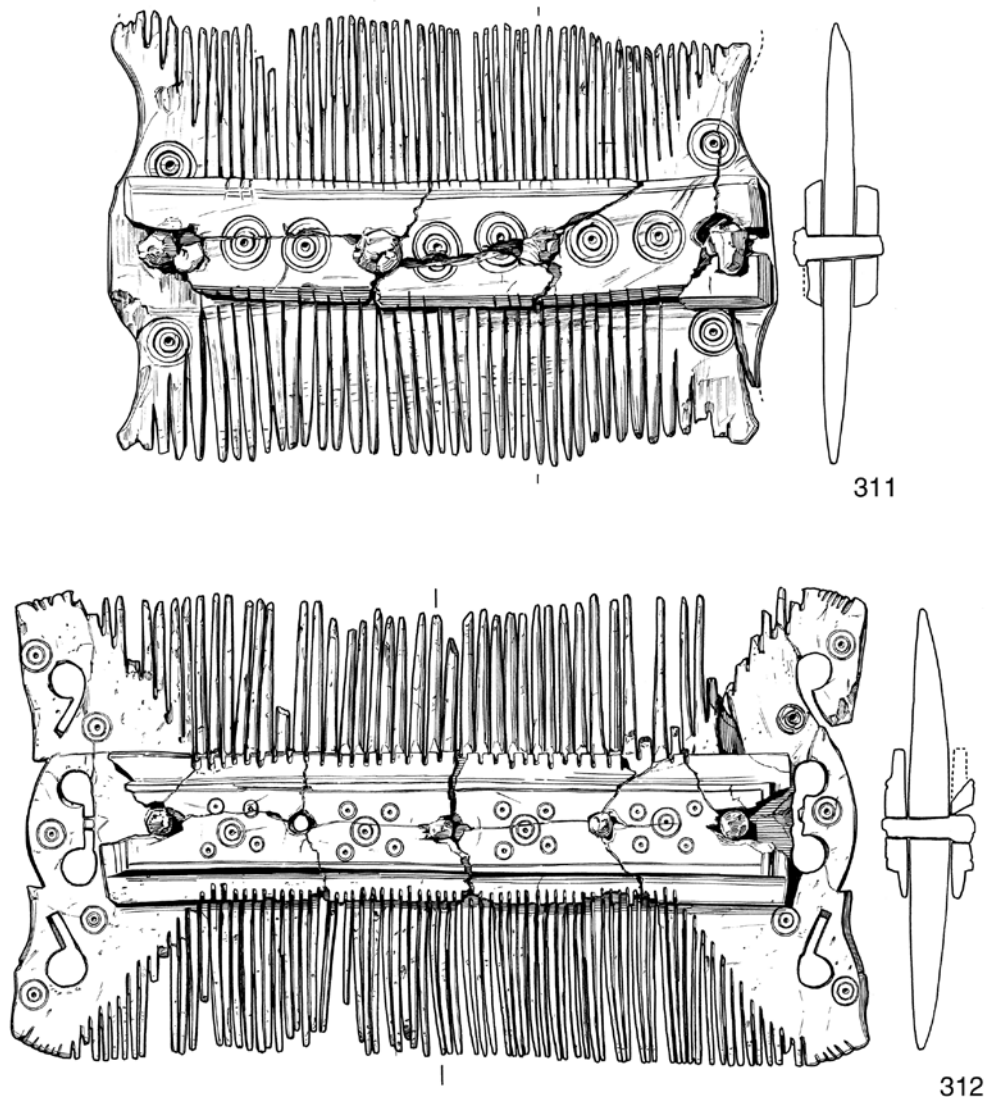


Figure 33 Combs, nos 311–12, scale 1:1

raised area is defined by a marginal groove, and between the five iron rivets, four of which remain, is decorated with ring-and-dot decoration, a central double ring-and-dot within a 'square' of four single ring-and-dot motifs. The openwork end segments are very ornate. At each corner is a horse's head with a double ring-and-dot for an eye and grooves running down to the teeth to represent the mane. The P-shaped cut-out used to define each horse's head is repeated in a pair opposite each end of the connecting-plates, set base to base with just a tiny fragment of antler left uncut between them (this piece has broken away on one side). There are further double ring-and-dot motifs scribed at each end of the paired cut-outs and on the central panel between each pair. Inhumation grave 5 (I, context not issued), dated mid-4th to early 5th century.

**313** Fig 33 sf VR 1. Fragment of a comb with one end-plate, almost toothless tooth-plates, and parts of the connecting-plates remaining. L 56mm, W 54mm, W of connecting-plates 15mm. The end-plate has an edge cut to form an owl's head, with a central indentation above two large 'eye' perforations, tufts above the eyes, and long 'ears'. The connecting-plates taper towards the end, and are stepped in profile but otherwise plain.

This is almost exactly similar to a comb from the grave of a 50- to 60-year-old woman at Cirencester (McWhirr *et al* 1982, fig 80, 175). The owls depicted bear a strikingly close

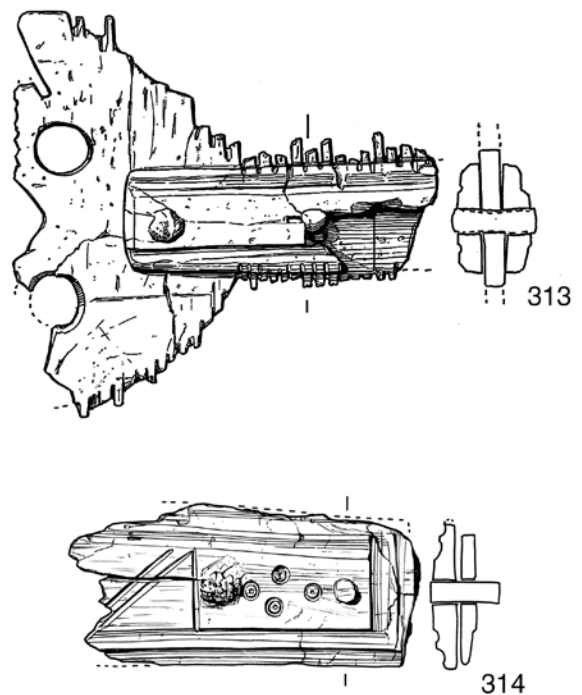


Figure 34 Combs, nos 313–14, scale 1:1

resemblance to the long-eared owl, a native of Britain and most of north-west Europe (Scott and Forrest 1976, 140–1). Late 4th- to early 5th-century inhumation grave 1 (II, context not issued).

**314** Fig 34 sf SMCW 116. Fragments of a greatly decayed composite double-sided comb. Only the largest piece is illustrated, the others consist of the iron rivets with small pieces of associated antler. The illustrated fragment is of a broad connecting-plate, 21mm across, with a stepped profile. The 'steps' are formed by well-executed grooves and mouldings. The flat topmost step is divided into two panels by an incised transverse line. The surviving end panel is ornamented by four single ring-and-dot motifs set in a lozenge, the inner by a pair of incised diagonal grooves. The end rivet has a flat copper alloy cap. The pairs of diagonal grooves are paralleled on a connecting-plate from Balkerne Lane, Colchester (Crummy 1983, fig 58, 1851), which also has a stepped profile, but a more simply-formed with three distinct flat platforms. Grave F57 (I, 174), dated late 4th to 5th century.

**315** Fig 35 sf SMCW 331. This comb was placed in grave 36 (36), which is dated late 4th to 5th century, inside a wooden box, ornamented with decorated bone inlay (595). L 127mm, W 64mm, W of connecting-plates 23mm. A complete, though fragmented, well-preserved comb, with very broad, low, convex connecting-plates. Incised lines define the margins of each plate, and the resultant rectangular panel is divided into three horizontal bands by two further incised lines (in many places the lines overrun their necessary length). The middle band is slightly broader than the two outer bands, and all three contain single ring-and-dot motifs. These motifs are not set in a clear pattern. In places they lie more-or-less in vertical rows. In places, a central motif lies in a space defined by two sets of outer motifs. The iron rivets in the central band are set without regard to the position of the motifs. One end shows a repair, where the rivet in the central band, its former position marked by a hole, has been replaced by two rivets, one in each outer band.

The openwork end-segments of this comb are very unusual. The sides are straight, but the corners are gently rounded and the edges worked into a delicate pattern of curves and points. This pattern is directly related to the ring-and-dot motifs and cut-outs which ornament the end-segments. The cut-outs vary slightly in size, but all are the same shape, formed by drilling a hole, and then extending the shape from it, or joining it to an independently-cut second element. They lie in confronting pairs, three along the edge with the circular element outermost, alternating with two set with the circular element innermost. Along the edge are five single ring-and-dot motifs, three set in the space between confronting cut-outs, and two set between the pairs. A further three are set in similar fashion within and between the inner pairs of cut-outs. The pattern on each edge is so arranged that a point is centred on one of these ring-and-dot motifs. In effect, the design is of confronting pairs of horse heads. The piece lacks the lightness achieved by zoomorphic decoration found on **312** above, and the double-barred comb from Beadlam, Yorkshire (Galloway and Newcomer 1981, fig. 2), and represents an exercise in technique rather than style.

**316** Fig 35 sf VR 495. L (incomplete) 117mm, W (?incomplete) 47mm, W of connecting-plates 15mm. This comb is very poorly-preserved. The form of the end segments is uncertain, and nearly all of the teeth are missing. The connecting-plates are decorated with groups of four transverse grooves between the five iron rivets, two of which are missing. The long sides are heavily notched from the cutting of the teeth. The end segments are severely decayed. Only a small part of one remains and few parts of the original edges of the other survive. Enough remains, however, for it to be clear that each segment was pierced. At one end, the hole is placed about half way between the end of the connecting-plate (indicated by a relatively less decayed surface) and the

edge of the segment. At the other, the hole is very close to the connecting-plate and set in slightly from its end. Neither hole shows any sign of staining from iron corrosion products, and is therefore unlikely to represent a repair to the comb. Grave 52 (IV, 288), dated late 4th to early 5th century.

**317** Fig 35 sf VR 776 and sf VR 941. L 101mm, W 50mm, W of connecting-plates 14mm. A comb, broken across the centre, with parts of the connecting-plates and most of the teeth missing. The plain, relatively narrow, connecting-plates have sloping sides and ends, and their long edges are heavily notched from the cutting of the teeth. Three rivets were used to hold the comb together. Two remain in place, but only part of the third (across which the comb has broken) survives. The end segments are concave and plain. Grave 94 (IV, 418), dated late 4th to early 5th century.

#### *not illustrated*

**318** sf CHR 135. Fragment of a composite ?double-sided comb. Consists of an end-plate and part of a connecting-plate. Iron rivet in situ. W 32mm. Possibly post-Roman in date. Late Saxon pit F24 (I, 115).

**319** sf VR 703. Fragment. Three broken teeth and part of a plate. Unstratified (V).

### Mirrors

Of the seven mirrors listed here, four are complete (though in one case broken) and from early Roman cremation burials. The other three are fragments residual in later contexts. Grave 466 at Victoria Road, dated to the mid- to late 2nd century, contained both a circular handled mirror and a rectangular one, set in a maple-wood frame. A similar rectangular mirror with wooden frame came from grave 623. In this case, the wood could not be identified. In neither case was it possible to determine if the wooden frame had a handle. A circular mirror from grave 598 appears to have had a handled frame of willow or poplar-wood. A copper alloy fitting was probably soldered to the mirror and set into the handle.

**320** Fig 36 sfs VR 9911 and 9922. A rectangular speculum mirror with traces of preserved wood on the reverse. The wood is too degraded to allow the identification of the species, but a few features suggest it to be a hardwood rather than a conifer. The upper part of a small copper alloy tack remains corroded on to one edge of the mirror (corrosion is shown in tone in the illustration), and a second tack was found loose. There is no evidence for a handle. Maximum dimensions 91 by 102mm. Late 1st-century cremation grave 623 (XV, 4315).

**321** Fig 37 sf VR 7455. A very slightly convex round speculum mirror (in fragments) and a fitting that would have been soldered to the mirror and set in a handle. The edge of the mirror bears shallow V-shaped notches at irregular intervals. D 94mm. The reverse of the mirror carries fragments of preserved wood identified as willow (*salix* sp.) or poplar (*populus* sp.). This wood formed a frame and handle for the mirror. A fragment of textile was also associated with the mirror. This is a tiny fragment of plain weave (tabby) cloth preserved in the copper alloy corrosion products. System 1, Z-spun, yarns well spaced out, about 7 threads per 10mm, L (maximum) approximately 7mm. System 2, Z-spun, closer set yarns, about 18 per 10mm, L (maximum) approximately 7mm. System 2, perhaps the weft, largely covers system 1.



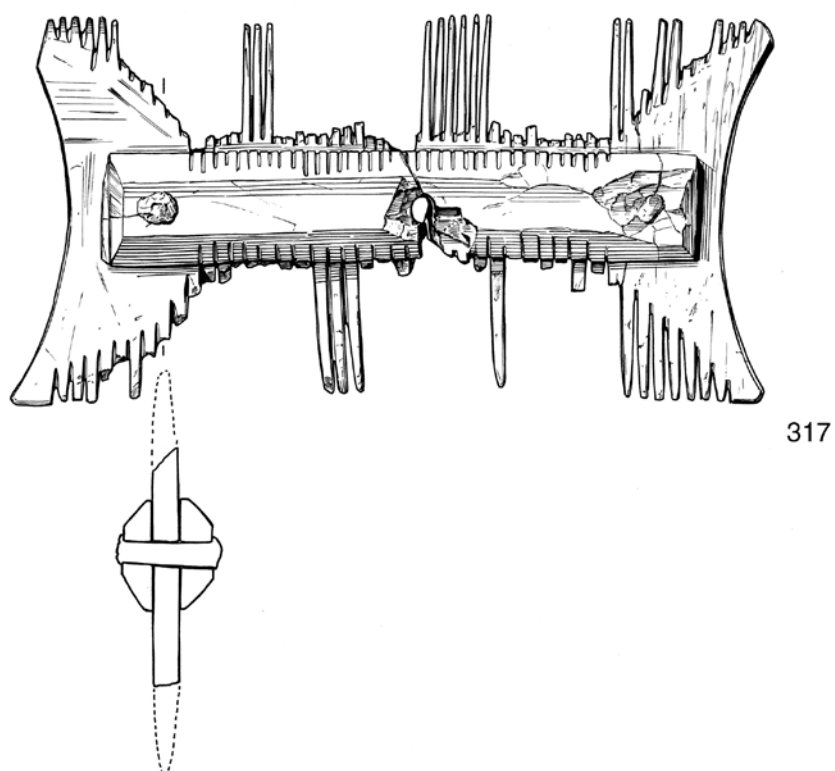
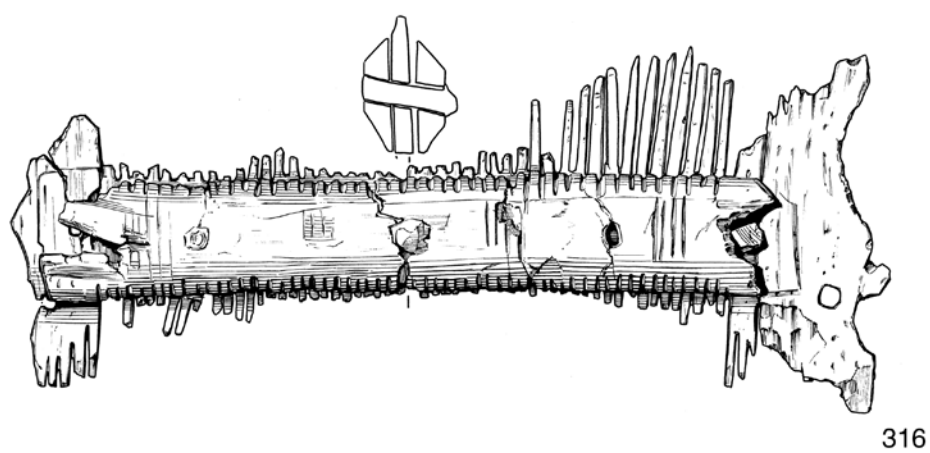
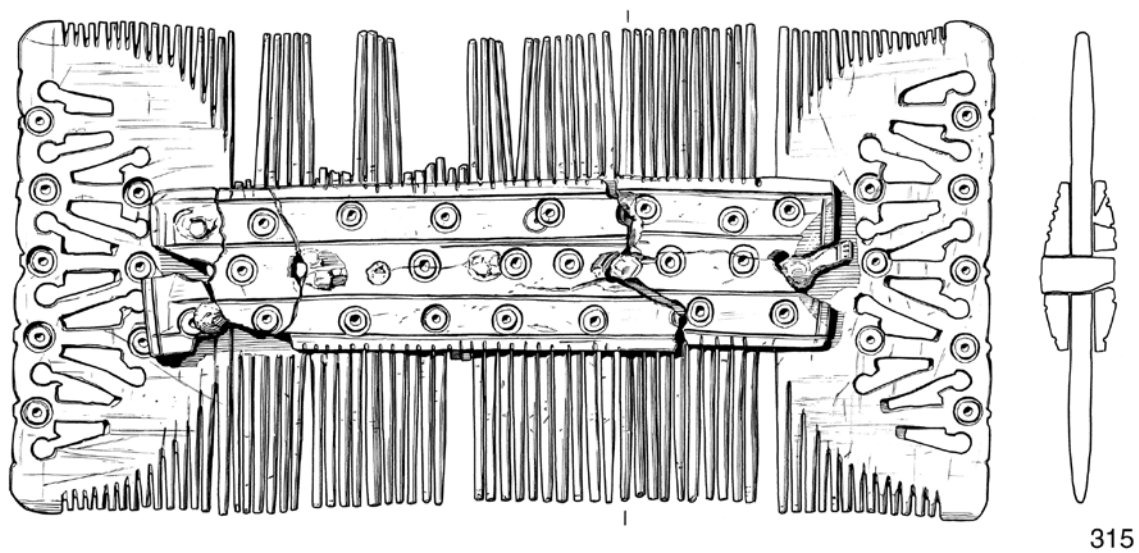


Figure 35 Combs, nos 315-17, scale 1:1

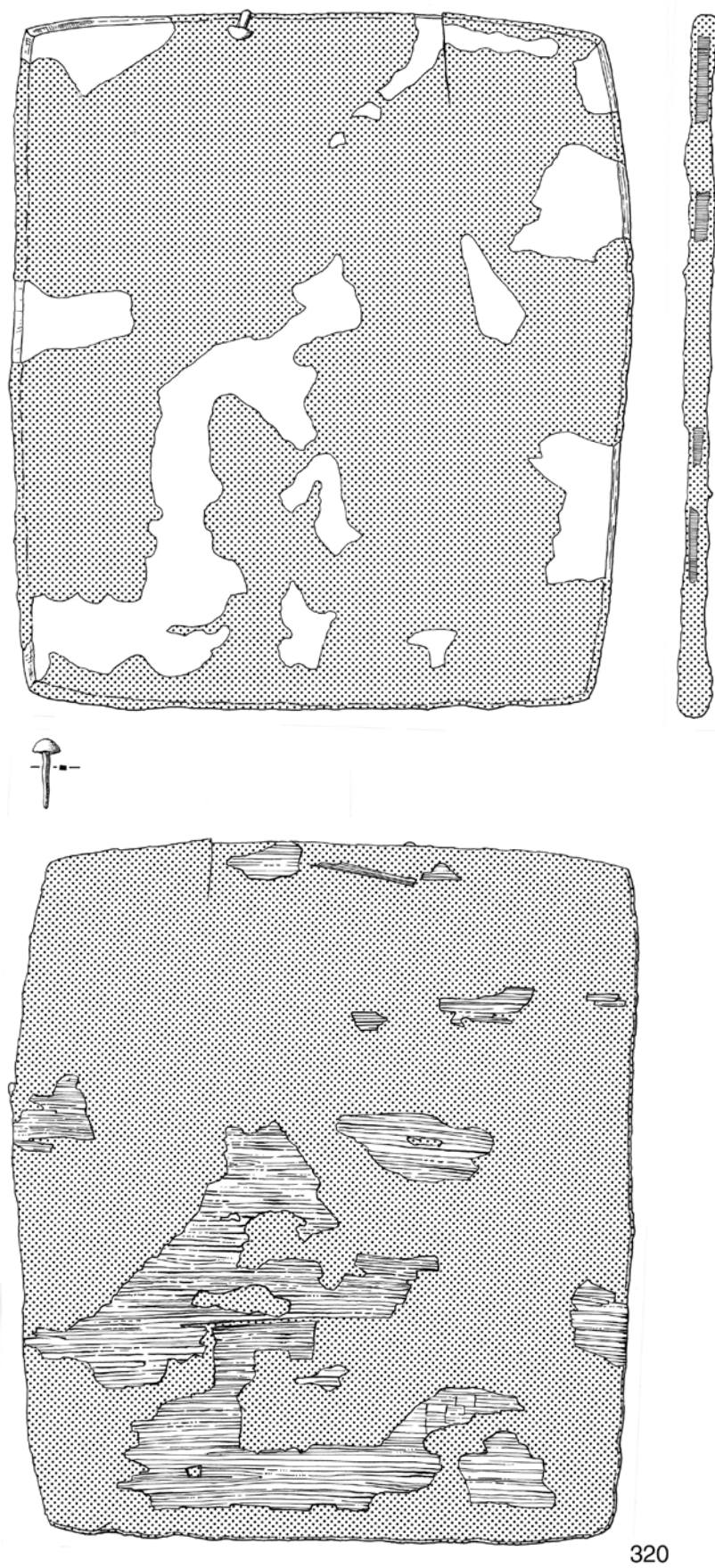


Figure 36 *Mirror, no 320, scale 1:1*

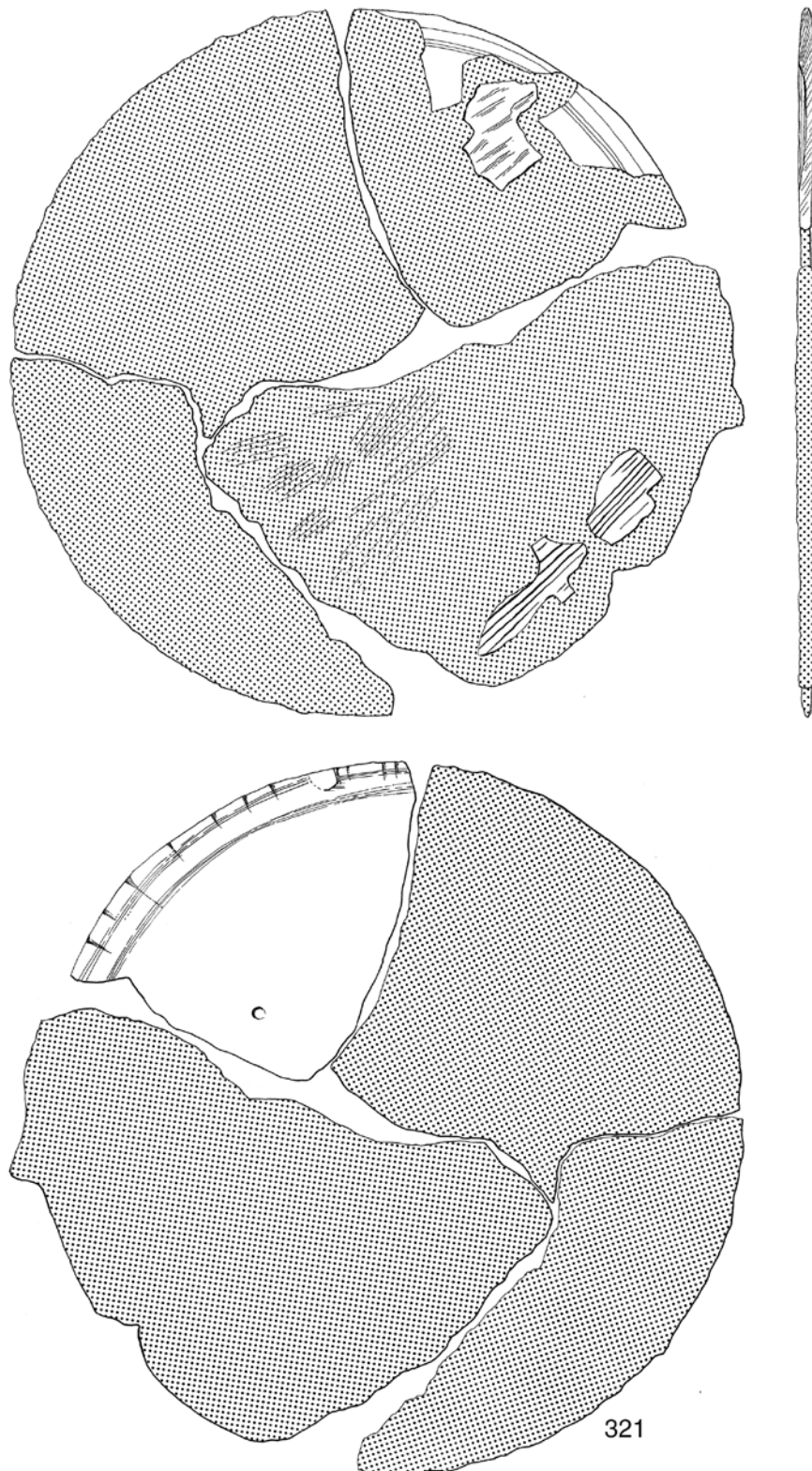
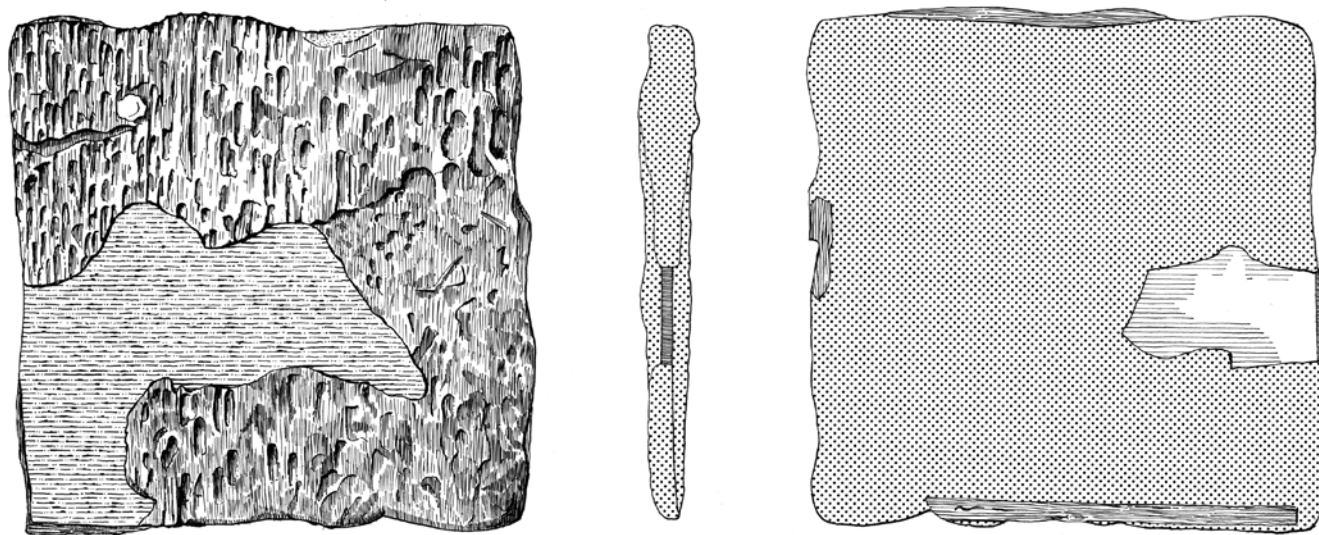


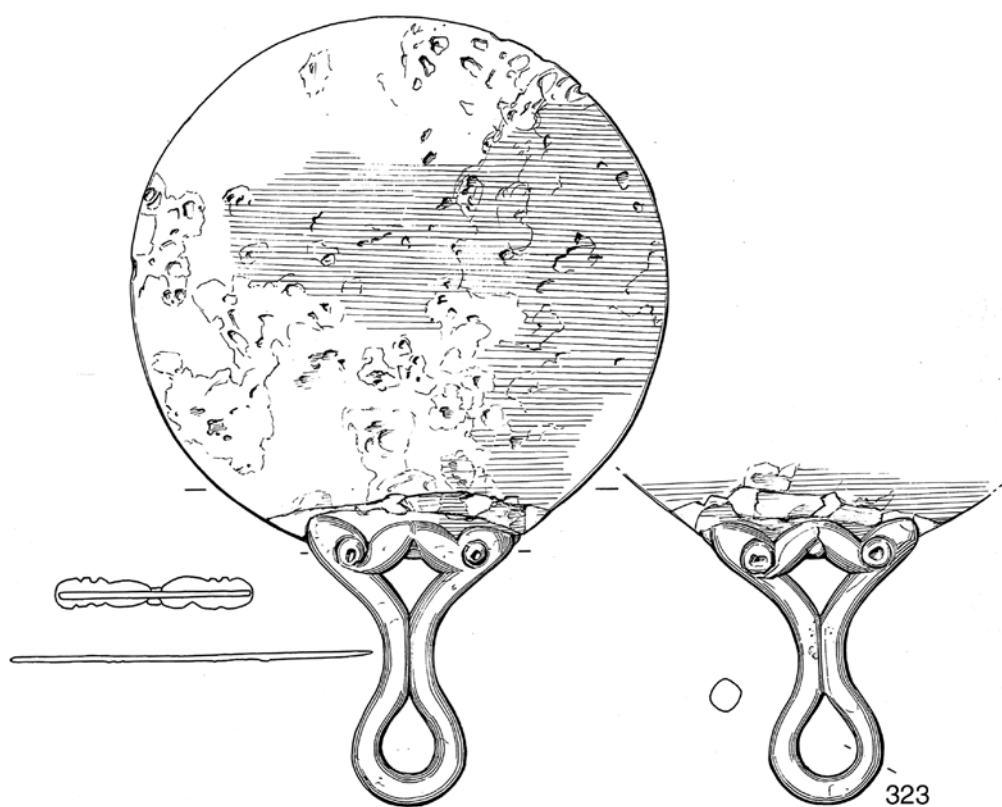
Figure 37 Mirror, no 321, scale 1:1

The fibres are probably flax. The cloth may be the remains of a covering or wrapping which could have served both to prevent tarnishing of the polished metal surface, and to polish it further. Alternatively, it may be all that remains of a bag which contained the cremated bone. Toning on the illustration shows the extent of corrosion. Late 1st- to early 2nd-century cremation grave 598 (XI, 1704).

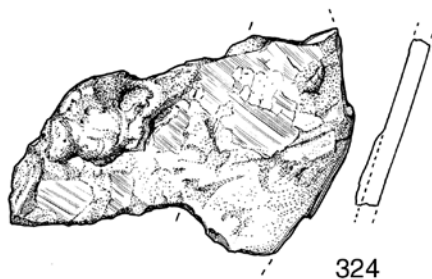
**322** Fig 38 sf VR 5706. A rectangular speculum mirror with clear traces of maple-wood on the reverse and around the edges of the front. The wood was cut with radial sections that would have shown the figure of the grain to advantage. This small mirror (about 65 by 67mm) was associated with a box of maple-wood with copper alloy fittings (below). As maple was used for both objects, it is possible that they



322



323



324

Figure 38 Mirrors, nos 322 & 324, scale 1:1; no 323, scale 1:2

were companion pieces from a set. The mirror apparently lay beneath the box, so it is unlikely that it was set in the lid, although such mirrors are known (Lloyd-Morgan 1977, 233). Corrosion is shown in tone in the illustration. Mid-2nd-century cremation grave 466 (XII, 2616).

**323** Fig 38 sf VR 5707. A handled circular mirror of tin bronze (not high tin). There is no clear distinction in the metals used for handle and mirror. The handle is formed of confronting dragons with joined snouts and is fixed to the mirror by a rivet between the two animals. There is no trace of enamel in the eyes, though faint traces of a black material in the eye may be from an adhesive used to fix in an eye of glass, as in some dragonesque brooches.

The mirror is clearly related to the tradition of handled Celtic mirrors and other metalwork, but the debased dragons of the handle and the plainness of the mirror suggest a date in the second quarter or the middle of the 2nd century, at the end of the period of manufacture of dragonesque brooches. Whether this mirror was made in the same area as the dragonesque brooches from grave 566, which are dated rather earlier, is uncertain. Mid-2nd-century cremation grave 466 (XII, 2616).

**324** Fig 38 sf VR 9586. A fragment of a speculum mirror, no edge appears to be original. Maximum dimensions 50 by 28mm, 3mm thick. Both edges retain areas unaffected by the bubbling corrosion which has destroyed the object elsewhere. On one face, there is a coating probably of white metal, covered with fine parallel striations. The other face shows no white metal, and this may indicate that it bore a wooden frame, similarly to mirrors from early Roman graves at Victoria Road. Mid- to late 4th-century fill of well F1093 (XV, 4128).

#### *not illustrated*

**325** sf VR 1511. A corroded curved fragment of speculum. Both the inner and outer edges are quite rough. Possibly broken from a mirror, or possibly an offcut associated with the manufacture of mirrors. One edge is slightly curved. L 32mm, W 10mm. Mid-2nd-century fill of the Cirencester-roadside ditch F85 (V, 446).

**326** sf VR 7115. A corroded thick fragment of tin bronze (not definitely speculum). Possibly broken from a mirror. One edge is slightly curved. L 44mm, W 27mm. Probably residual in the backfill of mid-2nd-century cremation grave 508 (XI, 1259).

### Nail-cleaners

All seven nail-cleaners are of copper alloy. Six are of simple flat form, cut from sheet metal (**327–32**), and the seventh (**333**) is cast with the upper part of the shaft tubular and the lower flat. Of the sheet metal examples all but one have a flat rounded terminal pierced for suspension, while the top of the sixth is rolled over to form a loop. Recent research has identified some eastern and western regional nail-cleaner types centred on the *civitas* areas of the Dobunni and the Catuvellauni/Trinovantes (Crummy and Eckardt 2004). As would be expected, no examples of the three forms discussed there are represented but one, **327**, which has the upper part of the flat blade expanded to produce a bellied appearance, is of a form found on southern and western late Iron Age to early Roman period sites, e.g. Maiden Castle and Exeter (Wheeler 1943, fig 96, 12–13; Holbrook and Bidwell

1991, fig 117, 116). Another, **331**, is similar to examples of a form with careless and exuberant incised decoration on the neck that occurs at Portchester, Fishbourne and Wanborough, though it is of rather more careful manufacture and lacks the slight expansion of the shaft seen on most (Webster 1975a, fig 113, 56; Cunliffe 1971, fig 42, 67–71; Hooley 2001, fig 44, 191, 202). All these examples date to the 1st or 2nd century, though some are residual in their contexts, while the cast nail-cleaner, **333**, is late Roman. It belongs to a small and widespread group and the decorative detailing varies on each. Examples closest to this one come from Gadebridge, Wanborough and Kelvedon (Neal and Butcher 1974, fig 62, 190; Hooley 2001, fig 45, 206; Rodwell 1988, fig 48, 45). A damaged toilet instrument, catalogued below as miscellaneous (**349**), is almost certainly another of this group, but the tip is very damaged and may perhaps have developed into a long oval V-section scoop.

#### Flat with expanded blade

**327** Fig 39 sf VR 7451. In three pieces which fit together. L 50mm. The suspension loop is a simple pierced terminal on the same plane as the blade, with the perforation placed off centre. There is a long neck between the terminal and the broad element of the blade. The latter is badly damaged and partly missing. Early 4th-century metal surface F939 (XI, 1687).

#### Flat with straight blade

**328** Fig 39 sf VR 3244. A nail-cleaner with simple slightly flared shaft and suspension loop formed by turning the shaft over. The loop is placed so that its centre point is in a line with the shaft and it is this that suggests that the nail cleaner was made from a broken pair of tweezers. Comparison with other nail-cleaners with rolled over shafts (for example, Crummy 1983, fig 67 1945) and with the form of tweezers (*ibid* fig 63) supports this idea. L 47mm. Early 2nd-century soil layer (X, 700).

**329** Fig 39 sf VR 1247. A crudely made nail-cleaner, with slightly flared shaft and an irregularly shaped terminal clearly formed by beating out and roughly trimming the end of the shaft. A hole for suspension has been punched in this terminal, and its burred edge smoothed out, but not well enough to remove all the burring. L 53mm. Early to mid-2nd-century fill of the Cirencester-roadside ditch F85 (V, 434), the same context as a pair of tweezers (**334**).

**330** Fig 39 sf VR 1209. L (slightly bent) 51mm. The suspension loop is a simple pierced terminal, on the same plane as the flared blade. Mid 2nd century layer (?building activity) (V, 58), the same context as a pair of tweezers (**338**).

**331** Fig 39 sf VR 825. Nail-cleaner of simple form, with incised cross and groove decoration at the top of the shaft. The terminal is flattened and pierced for suspension. The blade flares slightly towards the points. L 43mm. Late Saxon or early medieval ditch F13 (V, 150).

#### *not illustrated*

**332** sf VR 3187. Complete nail-cleaner. L 39mm, W 5mm. Occupation layer F208 in early to mid-2nd-century phase of Building 1.23 (X, 593).

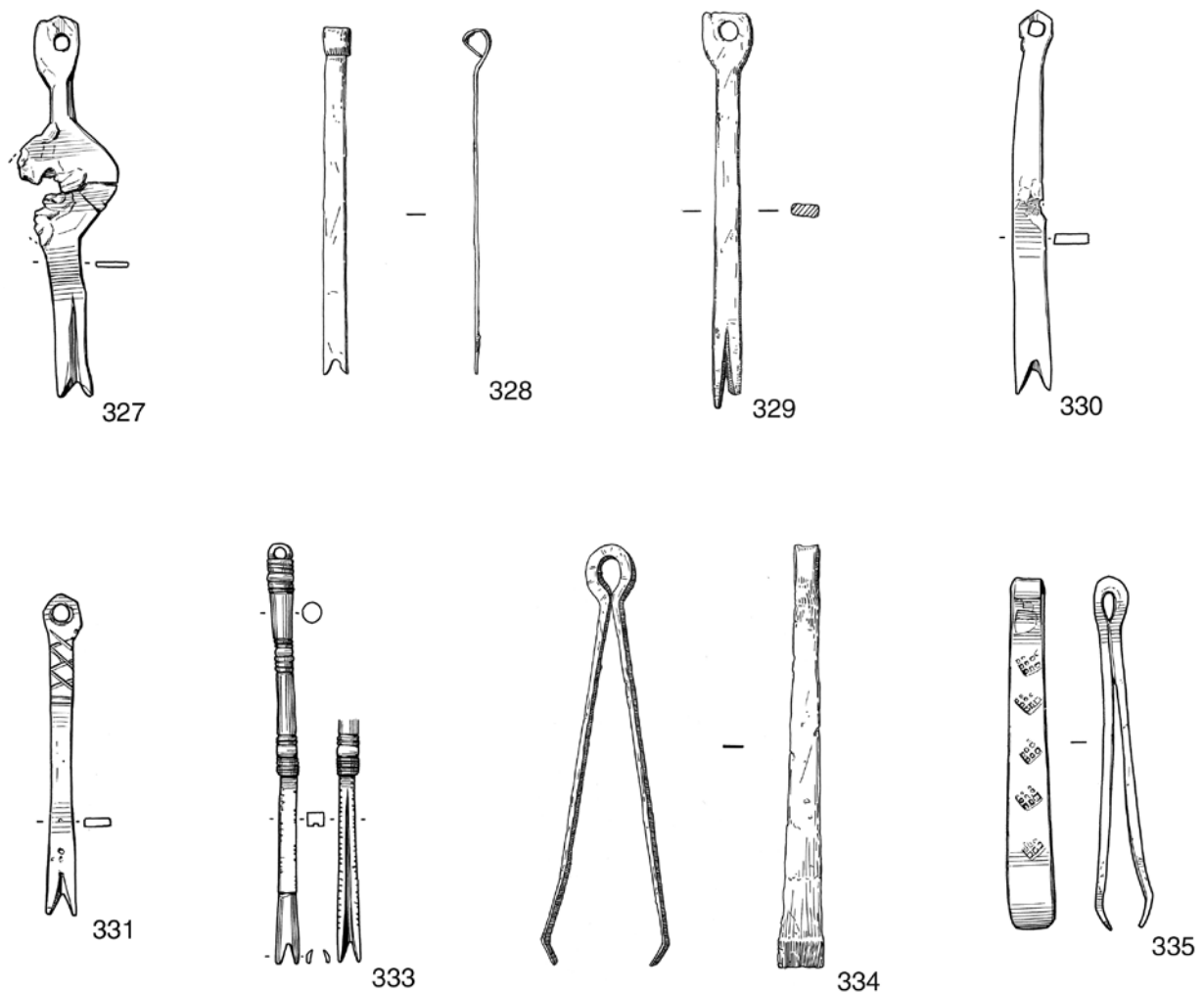


Figure 39 Nail cleaners and tweezers, nos 327-35, scale 1:1

### Cast

**333** Fig 39 sf VR 11002. L 56mm. Nail-cleaner with a simple suspension loop of wire set on top of the shaft on the same plane as the blade. It seems to be an integral part of the nail cleaner, not soldered on. The upper part of the shaft is circular in section, tapering from 3mm at each end to 2mm in the middle. Top, middle and bottom are marked by bands of very fine bead and reel mouldings. The lower part of the shaft is 2mm square in section, widening very slightly towards the bottom, and its edges are feathered with notches, continuous on the front edges, in alternate band of four on the back. The section at the points changes to semi-circular, leaving a sharp ridge on the back face at the point of change. The feathering on the front continues down on to the points, though not right to the tips. Post-medieval layer (VI, 12).

### Tweezers

**334** Fig 39 sf VR 1248. A pair of copper alloy tweezers with plain flared blades. L 57mm. Early to mid-2nd century fill of the Cirencester-roadside ditch F85 (V, 434), the same context as a nail-cleaner (329).

**335** Fig 39 sf VR 5538. L 47mm. Copper alloy with flared blades. Both blades have been stamped on the outer broad

face with five hatched lozenges, 3 by 3mm. The positions of the stamps on each face are different. Early to mid-4th-century metallated (?yard) surface F682 (XII, 2538).

*not illustrated*

**336** sf VR 3216. A pair of copper alloy tweezers in two fragments, with plain flared blades. L 50mm. Early 2nd-century soil layer (X, 602).

**337** sf VR 1266. A pair of copper alloy tweezers with plain flared blades. L 63mm. Early to mid-2nd-century silting over the western roadside path F94/95 (V, 455).

**338** sf VR 1211. Copper alloy. Most of one blade missing, in two pieces. L 50mm, flared blades, W (maximum) 5mm. Mid-2nd-century layer (building activity?) (V, 58), the same context as a nail-cleaner (330).

**339** sf VR 3177. Copper alloy. Complete, in two pieces. L 40mm, flared blades, W (maximum) 6mm. Layer of the first half of the 2nd century (X, 540).

**340** sf VR 5310. Copper alloy. Middle section of one blade missing. L 52mm. Flared blades, W (maximum) 5mm. In three pieces. Early to mid-3rd-century disuse of Building 1.24 (XIII, 3233).

**341** sf VR 7802. Copper alloy. One flared blade, L 48mm, W (maximum) 6mm. Early to mid-4th-century finds-rich silting layer (XII, 2556).

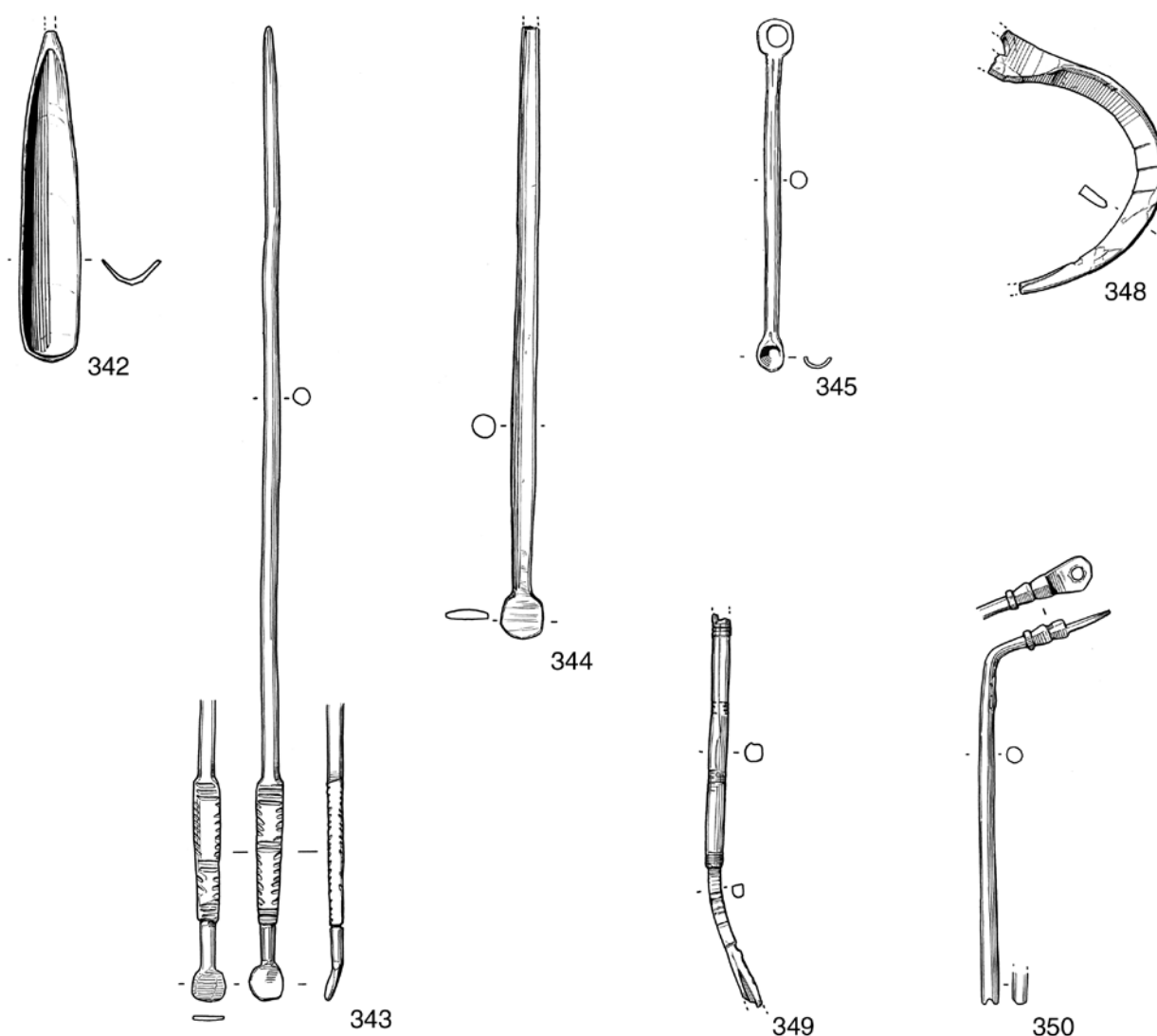


Figure 40 Toilet spoons and miscellaneous toilet instruments, nos 342–50, scale 1:1

### Toilet spoons

**342** Fig 40 sf VR 3250. Copper alloy with long cupped scoop. The shaft is missing. L 46mm. Soil layer of the first half of the 2nd century (X, 494).

**343** Fig 40 sf VR 9745. Copper alloy. L 136mm. Small round flat scoop, D (maximum) 5mm. The round-section shaft developing rectangular-section 'grip' just above the scoop. On both sides, the grip is marked at top, middle and bottom with groups of transverse incised grooves, and its edges are feathered with slanting notches. Late 2nd-century soil layer (XV, 4235).

**344** Fig 40 sf VR 9568. Bone. Tip of shaft missing. L 86mm. Small round flat scoop, D 6mm. The bone is uniformly very pale green in colour, a feature also found in bone hairpins and needles (above). Mid- to late 4th-century deposits (F1094) associated with the use of hearth F1097 (XV, 4103).

**345** Fig 40 sf CHR 519. A complete copper alloy scoop, probably from a toilet set. L 49mm. Cupped scoop, D 3.5mm. The round section shaft has been beaten into a circular terminal, perforated for suspension. Post-medieval soil layer (III, 506).

*not illustrated*

**346** sf VR 1281. A copper alloy shaft probably from a toilet spoon. The shaft has been made by rolling up a strip of sheet copper alloy, as in a similar object from Colchester (Crummy 1983, fig. 64, 1898). Early 2nd-century fill of the Cirencester-roadside ditch F85 (V, 480).

**347** sf VR 7068. Part of copper alloy handle and small fragment of scoop. L (incomplete) 48mm. Mid-2nd-century soil layer (XI, 1254).

### Miscellaneous toilet instruments

**348** Fig 40 sf VR 5267. Copper alloy. L 35mm. A sickle-shaped instrument similar to examples from Colchester (Crummy 1983, fig 67, 1939), Verulamium (Vaugh and Goodburn 1972, fig 35, 76) and London (Wheeler 1930, pl 38, 10). The tip of the instrument has broken off, as has part of the pierced terminal. Such objects are sometimes identified as toothpicks or nail-picks. In the former case, this would equate them with curved or bent toothpicks of the medieval

period (for example, Goodall 1988, 40, fig 22, 11). Early to mid-4th-century metal (yard) surface F665 (XII, 2486).

**349** Fig 40 sf VR 9665. Copper alloy. L 54mm. The shaft of a toilet instrument, neither end of which is complete. The shaft is circular in section and 3mm D, and is banded at 8mm intervals with groups of very fine grooves. A fine groove runs down the centre of the shaft for part of its length. At the upper end of the shaft is a very small projection, possibly all that remains of a wire suspension loop similar to that on the nail-cleaner **333**. At the lower end, the shaft abruptly narrows to 2mm diameter. The section appears to be D-shaped with very faint traces of feathering in the front edges, again similar to **333**. The end of this

lower section is missing, but is split by a central groove. It is probably a nail-cleaner, but may instead be part of a long toilet spoon with V-section scoop. Mid- to late 4th-century fill of well F1093 (XV, 4135).

**350** Fig 40 sf VR 3131. Copper alloy. Bent. L (full) 62mm. The suspension loop is a simple pierced terminal, beneath which are two inverted conical mouldings and a reel. The shaft is circular in section, increasing from just under 2mm D beneath the reel to 2.5mm at the tip. The end of the shaft is grooved at right angles to the suspension loop and may have broken across a perforation. Possibly the terminal of a balance arm and possibly post-Roman. 13th- to 14th-century pit F182 (X, 490).



### 3 Objects used in the manufacture or working of textiles

Very few objects from this category were recovered, mostly from late or post-Roman contexts. A weaving tablet and a shale spindlewhorl were found with a 4th-century coin hoard in the fill of a well and may represent a closure deposit.

#### Sewing needles

The three types identified at Colchester (Crummy 1983, 65–7) were also present in this assemblage from Winchester. Although only bone examples of Types 1 and 2 occur here, both have been found in copper alloy, and both occur throughout the Roman period (Crummy 1992, 155). Type 3 only occurs as copper alloy and is of late Roman date.

Type 1 has a simple tapering shaft with a pointed head and its eye can be rectangular (Crummy 1983, fig 70, 1956), figure-of-eight shaped (352 and 353), triangular (Crummy 1992, microfiche supplement), or round (351). More than one eye may be present (Crummy 1992, fig 6.9, 111). Figure-of-eight shaped eyes were made by drilling two overlapping circular holes, and it may be that the pair of circular eyes on 351 are a failed attempt at a figure-of-eight. Type 2 has a flat spatulate head and most commonly bears a rectangular or figure-of-eight shaped eye (Crummy 1992, 155). Both of the examples illustrated here are not well finished and it is possible that 355, though from a post-Roman context, may be residual from a scatter of bone working debris from the site (Category 16). Type 3 has

a groove above and below the eye. The groove is the result of cutting out the eye, which usually appears to have been done on cold metal.

#### Type 1: Needles with a pointed head

351 Fig 41 sf VR 1231. A complete bone needle with conical head and two circular eyes. L 73mm, possibly repointed. Mid- to late 2nd-century fill of the western Cirencester-roadside ditch F85 (V, 432).

*not illustrated*

352 sf VR 1049. Bone. Tip broken off. Figure-of-eight eye. L 50.5mm. Floor surface in mid- to late 3rd-century building 1.13 (V, 122).

353 sf VR 3104. Bone. Tip broken off. Figure-of-eight eye. Stained green. L 53mm. 13th- to 14th-century pit F166 (X, 439).

#### Type 2: Needles with a flat spatulate head

354 Fig 41 sf JCH 1037. The head of a crudely made bone needle, possibly, like 355 below, unfinished. L 34mm, W of head 11mm. The head shows a slanting cut mark where excess material has been removed from the end. Roman context of otherwise uncertain type and date (III, 217).

355 Fig 41 sf VR 2541. Only the head and a short part of the shaft of this bone needle survive. L 63mm. It is impossible to tell whether or not this object has been used. Both shaft and head show knife cuts, and clearly, neither has been finished

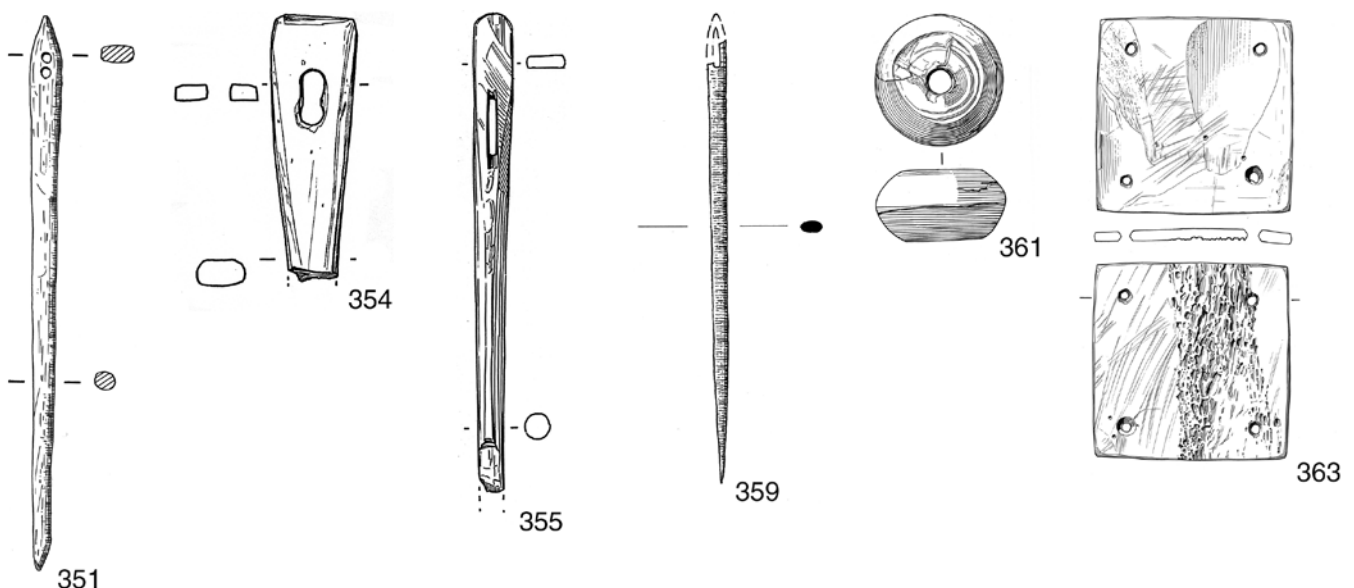


Figure 41 Needles, spindlewhorls, and weaving tablet, nos 351–9, scale 1:1; nos 361–3, scale 1:2

to a high standard. This piece may, therefore, belong with the large quantity of bone working debris from the site. 13th- to 15th-century general soil (X, 61).

*not illustrated*

**356** sf HA 169. Bone. Tip broken off. L 66mm. ?Late 3rd- to mid-4th-century disuse of Building 1.9 (XI, 299).

**357** sf HA 333. Bone. Part of the eye missing. ?Type 2. Possibly rectangular eye. L 72mm. ?Late 3rd- to mid-4th-century disuse of Building 1.9 (XI, 297).

**358** sf VR 2637. Bone. Head only, and part of eye missing. L 19mm. Late medieval pit F131 (X, 284).

### **Type 3: Needles with a groove above and below the eye**

**359** Fig 41 sf NR 239. Copper alloy. Bent, top missing, but part of eye survives. L 64mm. Late Roman fill of the Iron Age enclosure ditch F371 (I, 486).

*not illustrated*

**360** sf VR 9696. Copper alloy. ?Type 3. Bent. Tip and top missing. L 50mm. Early 4th-century soil layer (XV, 4151).

### **Spindlewhorls**

A shale cylindrical spindlewhorl was found in the fill of a well associated with Building 1.22 at Victoria Road, along with a weaving tablet (**363**), and a hoard of coins with a closing date of AD 364. Several shale spindlewhorls, similar in date to the coin hoard, were deposited in graves at the Lankhills cemetery (Clarke 1979, 248–9).

Spindlewhorls fashioned from sherds of pottery vessels are sometimes found on Roman sites. Unlike shale whorls, they are probably homemade rather than imported from another region as finished artefacts. The identification of all pierced discs of pottery as spindlewhorls cannot be taken as granted (Crummy 1983, 67). Essentially, the perforation should be worn smooth and straight, placed centrally, and sufficiently great in diameter to take a spindle. If these criteria are applied, few pierced discs will be identi-

fied as whorls and are therefore placed with pottery counters (Category 5).

**361** Fig 41 sf VR 9596. A complete shale whorl (in two pieces) which falls into Lawson's (1976, 272) Group ii, with oval cross section. This example 35mm D by 18mm thick. One of the faces is quite rough. The other is slightly concave and bears a slight circular concentric groove. This groove probably indicates that a wide spurred centre was used to hold the whorl on a lathe while the plain outer surface was shaped and smoothed. The perforation is straight, D 6mm. Mid- to late 4th-century fill of well F1093 (XV, 4135).

*not illustrated*

**362** sf VR 0. Fragment of a spindlewhorl fashioned from a vessel of grog tempered ware, fabric SG (P5). T 7.5mm, D 40mm, D of straight perforation 5mm. 19th- to 20th-century pit F11 (X, 646).

### **Weaving tablet**

Triangular and rectangular weaving tablets were used to produce braid, with a warp thread passed through the holes in the corners and fixed to a frame. The number of tablets used varied according to the width of the braid needed. Wild (1970, 73–4, 140–1) describes their use in detail. The flat panels of bone required to produce the tablets were usually cut from cattle scapulae. There is possible evidence for the production of weaving tablets in the early Roman period from Crowder Terrace in the western suburb (Category 16), and also in the late 1st or early 2nd century from the Copthall Court site in London (Groves 1990, 82).

The rectangular tablet from Victoria Road comes from the same context as the spindlewhorl (**361**, above), and a coin hoard with an end date of AD 364, and may be of similar 4th-century date.

**363** Fig 41 sf VR 9722. A large, square, 53 by 54mm, bone tablet, perforated in each corner. T (maximum) 3mm, D of perforations 2–3mm. All of the perforations are hour-glass-shaped, drilled through from each side. None of the holes show any sign of wear. This example had a band of cancellous tissue across one face. Mid- to late 4th-century fill of well F1093 (XV, 4135).

## 4 Household utensils and furniture

It has been difficult to determine the full extent of finds that should be described in this section, for reasons outlined by Crummy (1983, 69). Only objects which can be identified with certainty as household items have been included. However, it should be noted that many iron fittings and nails in Category 11 could well have come from boxes and items of furniture. The vessel glass has been included in this section, but the pottery is published elsewhere (P5).

The assemblage includes important groups of hand-querns and of box-fittings. The latter chiefly come from early Roman cremation graves, but include veneer from a box deposited in a high status late Roman burial.

### Spoons

While the bowl of a spoon is usually considered to be the part to eat with, in the Roman period the pointed tip of the handle could also be used to extract shellfish or snails from their shells (Martial, *Epigrams* 16, 121).

#### Type 1. Spoons with a round bowl

This type dates from the middle of the 1st century into the 2nd century. Unfinished bone spoons with round bowls were among the bone working debris which

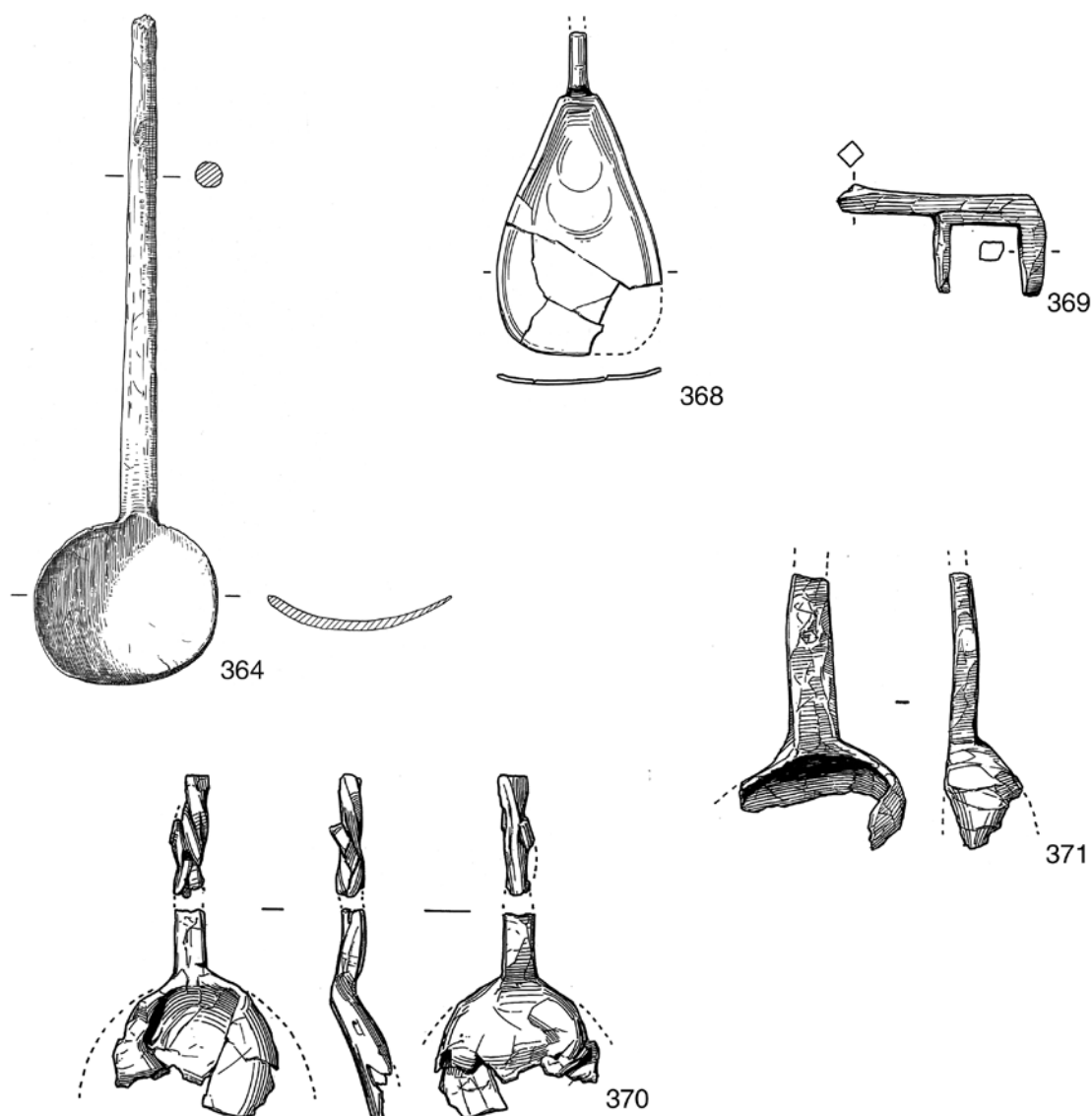


Figure 42 Spoons, flesh hook, and ladles, nos 364–8, scale 1:1; nos 369–71, scale 1:2

was recovered from Crowder Terrace and Victoria Road (Category 16).

**364** Fig 42 sf VR 7251. A round-bowled copper alloy spoon, complete except for the tip of the handle which is not broken off, but seems to be worn by use. L 88mm. Mid- to late 2nd-century soil layer (XI, 1543).

*not illustrated*

**365** sf HG 243. Bowl of copper alloy spoon. L including part of shaft 25mm. 1st-century developed soil (IV, 1290).

**366** sf VR 3205. Fragment of a round-bowled bone spoon. Part of the bowl and the tip of the handle are missing. L 70mm. Early 2nd-century soil layer (X, 602).

**367** sf VR 1166. A small fragment of the bowl and part of the shaft of a ?round-bowled copper alloy spoon. L 20mm. Mid-2nd-century dumping layer (V, 397).

## Type 2. Spoon with a pear-shaped bowl

Spoons of this form were in production early in the 2nd century, and probably continued to be made throughout the Roman period.

**368** Fig 42 sf HA 115. Most of a silver spoon bowl in seven fragments. The junction of the bowl and the offset 'rat's tail' handle survives. The metal of the bowl is very thin and has been pressed almost flat, though the irregularity of the surface suggests that it was originally curved. L 43mm (approx). Probably 3rd or 4th century in date, and recovered from the construction of Building 1.10, which was occupied in the ?mid- to late 4th century (XI, 274).

## Flesh hook

**369** Fig 42 sf VR 5554. The end of a small two pronged iron flesh hook; two teeth, the tips of which are bent over, and a fragment of shank. L 53mm, L of teeth 25mm, T 10mm. Early to mid-4th-century finds rich soil layer (XII, 2548).

## Ladles

**370** Fig 42 sf VR 933. Consists of an incomplete spirally twisted tang and what appears to be an incomplete and crushed bowl of iron. L 88mm, L of 'bowl' 40mm, W of 'bowl' 43mm. Probably an incomplete small ladle, as the spirally twisted handle is a feature often found on such objects, as, for example, on a larger specimen from Fishbourne (Cunliffe 1971, 134–5, fig 60, 55). Cremation grave 95 (IV, 161/421), late 3rd to early 4th century.

**371** Fig 42 sf VR 5211. Incomplete iron tang and fragment of a bowl. L 72mm, W of bowl 42mm. Probably an incomplete ladle. Early to mid-4th-century finds rich soil layer (XII, 2470).

## Glass vessels by H E M Cool

### Introduction (Table 2)

The publication of the vessel glass from the suburban and city defences sites allows, for the first time, the

presentation of a moderately large assemblage of domestic glass from Winchester, as hitherto the majority of the glass vessels published from Winchester has come from sepulchral contexts (Collis 1978, 85,102; Harden 1967, 1979). Though this is a limited group of material, belonging in the main to the 2nd to 4th centuries, it does start to reveal the range of forms in use in and around the city. Many of the forms are common but there are some uncommon ones, most notably fragments of a strongly coloured snake thread vessel from Hyde Abbey (**412, 430**), and several unusual 4th-century vessels (**476, 479, 480, 484, 485, 491**) scattered amongst the different sites.

The glass from the various sites is summarised in Table 2, where a variety of methods of quantification are presented. The estimated vessel equivalents have been calculated by using zonal EVEs (Cool and Baxter 1996) and the minimum numbers for Victoria Road in the northern suburb result from the treatment of the glass from the trenches to the east of the Cirencester road as a separate assemblage to that from the west of the road. Given the spatial separation of the two areas this seemed a sensible solution, but it does have the effect of inflating the minimum numbers present. Minimum numbers are never a very stable measure and so the EVE measurement is preferred. By any method of quantification, however, Table 2 shows that the material from Victoria Road dominates the glass from the suburban and defences sites. This reflects the fact that a large area was excavated at this site. Occupation of the site spanned the entire Roman period, but demonstrably pre-Flavian deposits were small in number and mostly related to the adaptation of a pre-existing long-distance route, followed by its abandonment in favour of a new road to and from Cirencester (Part 1; P1 and P3). This probably explains the 2nd- to 4th-century bias in the glass, though the site did produce a handful of fragments belonging to 1st-century vessels. The glass tablewares that came into use during the second half of the 1st century and which continued in use into the middle of the 2nd century are well represented at Victoria Road but where it is possible to narrow the date range, the variants tend to be of mid-2nd-century date. The later 2nd to 3rd-century tablewares are also well represented especially to the west of the Cirencester road. This may be because the four Roman buildings excavated in Trench V appear to have been in use during the mid-2nd to late 3rd centuries, whereas a number of the buildings recovered from Trenches X, XII, XIII and XV were later in date. Thus, if the vessels deposited with the cremation burials at Victoria Road are excluded, the glass assemblage from the site is effectively a mid-2nd to 4th-century one.

Smaller collections which nevertheless included a number of diagnostic fragments were recovered from Hyde Abbey, also in the northern suburb, New Road in the western suburb, Chester Road and St John's Street in the eastern suburb, and from Henly's Garage and 27 Jewry Street on the city defences. Amongst these, the range of material was more restricted than at Victoria Road. Very few of the fragments from Hyde Abbey

Table 2 Summary of vessel glass

area	site	code	EVE	minimum vessels	fragments	chips/splinters
northern suburb	Hyde Abbey	HA	0.59	7	30	2
	Victoria Road	VR	28.24	77	604	34
western suburb	Crowder Terrace	CT	–	1	1	–
	New Road	NR	1.02	6	14	–
	Sussex Street	SXS	0.14	2	7	–
eastern suburb	Chester Road	CHR	1.37	4	31	3
	St John's Street	SJS	0.14	2	2	–
city defences	10 Colebrook Street	10CS	–	1	6	2
	Henly's Garage	HG	1.58	9	53	13
	27 Jewry Street	27JS	0.48	3	13	–
	Jewry Street – Crown Hotel	JCH	0.14	2	13	–
	Magdalene Almshouses	MA	–	2	7	–
totals			33.70	116	781	54

can be closely identified, but the majority are likely to be of 1st- to 3rd-century date because they are made of blue/green glass. There are also four fragments of bubbly greenish colourless glass which are probably of 4th-century date.

At Henly's Garage, most of the fragments that can be identified come from vessels that were in use during the 2nd and 4th centuries. Occupation at Henly's Garage probably began before the turn of the 1st century AD and ended, perhaps, in the late 4th or early 5th centuries, but the largest finds assemblages were from two deep negative features of the late 2nd or early 3rd century and of the late 3rd to early 4th centuries. It seems that the assemblage of Roman vessel glass reflects this (although it is not always from the same contexts).

With the exception of two fragments from prismatic bottles which may be dated to the period between the later 1st and early 3rd centuries, all of the material from Chester Road is of late Roman date. This is in keeping with the chronology of the site, as it was occupied largely by graves dating after *c* AD 270. A similar situation prevailed at New Road (although there late Roman graves were recovered only in the partially infilled ditch of the Iron Age Oram's Arbour enclosure). In consequence, a small quantity of Roman vessel glass of 1st- to 3rd-century date was found, and a little more that can be dated to the 4th century, because it is made of the greenish colourless bubbly glass that is typical of that period.

The small site at 27 Jewry Street had a well stratified sequence from the later 1st to the early or mid-3rd century but late Roman deposits were absent, or (more likely), they had been destroyed by truncation in

medieval or post-medieval times. It is not therefore surprising that both of the recognisable vessels from the site are blue/green containers. An even smaller number of Roman deposits were excavated at St John's Street, but the fact that one of the two fragments of vessel glass can be closely identified reflects the potential of the general area, which has not been fully explored.

The very small collections from Crowder Terrace and Sussex Street in the western suburb and from 10 Colebrook Street, Jewry Street-Crown Hotel, and Magdalene Almshouses on the city defences were not closely diagnostic. With the exception of Crowder Terrace (where one blue/green fragment of otherwise completely undiagnostic form was recovered), a few fragments from blue/green prismatic bottles were found at all of the sites. Other featured fragments are catalogued (437, 473) but the sites are not further mentioned in the text.

In the early Roman cemetery at Victoria Road, at least seven glass vessels had been deposited with at least four burials of the 1st to early 2nd centuries, and with two of the mid- to late 2nd century, and this material will be discussed before the non-sepulchral material. None of the late Roman graves at Victoria Road and Hyde Street (northern suburb), New Road (western suburb) or Chester Road and St Martin's Close (eastern suburb) contained glass vessels. It is, however, possible to suggest that the colourless conical beaker 478 could have come from a disturbed grave as despite being made of very thin and consequently fragile glass, a far greater proportion of it survives than is normal in this assemblage. One of the vessels from Chester Road (480) is also very likely to have come from a disturbed grave.

**Table 3** Distribution of strongly coloured vessel glass

date	colour	site		
		northern suburb	city defences	
		HA	VR	HG
late 1st to mid-2nd century	deep blue		2	
	purple		1	
	yellow-brown		2	
	peacock		1	
mid- to late 2nd century	yellow-brown		1	
late 2nd to mid-3rd century	polychrome	1	1	
	purple			1
	yellow-brown		2	1
late 3rd to mid-4th century	polychrome		1	
	yellow-brown		4	
mid- to late 4th century	yellow-brown		1	
residual/unstratified	yellow-brown		2	
totals		1	18	2

**Table 4** Distribution of lightly tinted vessel glass

date	colour	site		
		northern suburb	city defences	
		VR	HG	
1st century	light green	1		
late 1st to mid-2nd century	light green	9		
	yellow-green	2		
mid- to late 2nd century	light green	3		1
	yellow-green	1		
late 2nd to mid-3rd century	light green	2		
late 3rd to mid-4th century	light green	1		1
mid-4th to early 5th century	yellow-green	2		
later Roman	yellow-green	2		
residual/unstratified	light green	4		1
totals		27		3

The assemblage from each site has been fully catalogued and these catalogues are available in the archive. What follows here is an integrated catalogue

of the material from all the sites (this is ordered slightly differently from the other catalogues in the volume, as the material has its own internal typologi-

Table 5 Distribution of colourless vessel glass

date	site					
	northern suburb		western suburb	eastern suburb	city defences	
	HA	VR	SXS	CHR	10CS	HG
late 1st to early 2nd		2				
mid- to late 2nd		10			2	1
late 2nd to mid-3rd	1	22				4
late 3rd to mid-4th		42				
mid-4th to early 5th		19				1
earlier Roman		1		3		
later Roman		16	1			
residual/unstratified	2	15				
totals	3	127	1	3	2	6

Table 6 Distribution of blue-green vessel glass

date	site											
	northern suburb		western suburb			eastern suburb			city defences			
	HA	VR	NR	CT	SXS	CHR	SJS	10CS	HG	JCH	27JS	MA
1st century		7										
late 1st to early 2nd		42										5
mid- to late 2nd	3	67							28	9	1	
late 2nd to mid-3rd	6	52						4	11		8	
late 3rd to early 4th	8	79							2			
mid-4th to early 5th	5	55				1			6			
earlier Roman		2		1								
later Roman		34	3		6					3		
residual/unstratified	1	74	2			2	1	2	4	1	4	
totals	23	412	5	1	6	3	1	6	51	13	13	5

Table 7 Distribution of fragments of blue-green prismatic bottles

date	site									
	northern suburb		western suburb		eastern suburb		city defences			
	HA	VR	NR	SXS	CHR	10CS	HG	JCH	27JS	MA
1st century		2								
late 1st to early 2nd		16								3
mid- to late 2nd	1	32				1	3	5	1	
late 2nd to mid-3rd	5	23				3	4		3	
late 3rd to early 4th	1	25					1			
mid-4th to early 5th	1	18			1		1			
earlier Roman		2								
later Roman		21	1	3						
residual/unstratified		19	1		1	2	1	3	1	
totals	8	158	2	3	2	6	10	8	5	3
% of site assemblage (excluding chips)	27	26	14	43	6	100	19	62	38	43
EVE	0.14	4.34	0.28	–	–		0.14	–	0.28	–
%EVE	28	15	28	–	–		9	–	100	–

cal logic). It is selective in that the undiagnostic body fragments have been excluded, together with diagnostic fragments that would only duplicate information already provided in the catalogue by other entries. The principal category of diagnostic fragments that have been excluded here are the blue/green bottle fragments, the smaller fragments of colourless cylindrical cups and neck fragments from flasks or jugs.

These diagnostic fragments in the archive have been included in the EVE totals where appropriate. Tables 3–9 show the incidence of all fragments by colour, site and period (contexts that were poorly dated are referred to as 'earlier Roman' and 'later Roman'), excluding the few fragments from pillar moulded bowls and mould blown vessels, as these are fully catalogued.

The non-sepulchral glass has been divided into

six main categories. First the few fragments of 1st-century vessels are discussed, then the later 1st- to mid-2nd-century tablewares followed by the late 2nd- to 3rd-century tablewares. All the 1st- to 3rd-century containers are grouped in the next section and all of the 4th-century vessels in the next. The typological discussion concludes with a section on possible early medieval material. Within each category, the catalogues are ordered primarily by form so that, for example, all the drinking vessel fragments are catalogued together. It should be noted that unguent bottles, which belong more properly with other toilet instruments, have been included here as small fragments are difficult to distinguish consistently from other vessel glass. Many base fragments cannot be closely dated because the base types are common to many different forms of vessels in use at different times. This can be a problem for the chronological approach to cataloguing and discussion adopted here. In this case they have been placed in the catalogue according to the date of their context. It is possible that some of the later ones will be residual, but it is thought that this problem will be negligible as generally there is a reasonably good agreement between the independent typological date and the date of the context of the fragment.

The secondary use of fragments of Roman vessel glass is not uncommon. In general it can be divided into three categories and examples of all three are present here. The first category consists of bases of vessels where the edge of the vessel has been grozed to produce a disc formed by the base. Bases with base rings are normally preferred for this, as may be seen in **400**, **427**, **438**, **494** and **501**. The production of discs like this seems to have been a regular feature of Roman life but what purpose they served is unknown. It is possible that some of the smaller ones were utilised as counters, but examples with diameters 70mm or more such as **427** might be thought to be too large for this purpose. It is possible that these were used as some form of lid.

In the second and third types of reuse, vessel fragments have been reworked to form scraper-like tools and counters. Four of the first category were recovered from Victoria Road, two from the western suburb, at Sussex Street and New Road and one from the city defences at Henly's Garage. These are catalogued with the other tools (Category 10) except for the examples from New Road (**486**) and Henly's Garage (**447**), which have discernible vessel forms. A glass counter, from Victoria Road, is catalogued with the other objects associated with games and recreation (Category 5).

### ***The vessels found with the burials***

Recognisable glass vessels were found with four graves of the 1st and early 2nd centuries (graves 431, 433, 438, and 440), and with two of the mid- to late 2nd century (graves 442 and 466). In all cases, the vessels deposited were blue/green unguent bottles and flasks, but the way in which they had been treated differed. In the earlier graves and in one of the mid- to late 2nd century (grave 442), the vessels had been burnt before they were

**Table 8 Distribution of melted blue-green vessel glass at Victoria Road**

context	date	quantity
grave 431	mid- to late 1st century	4
grave 433	1st century	16*
grave 438	mid- to late 1st century	1
grave 440	late 1st to early 2nd century	6
grave 442	mid- to late 2nd century	270*
other	2nd century +	18

\*includes fragments of recognisable form

deposited. The degree of heat to which they had been subjected varied. At one extreme is **372** which has only slight distortion at the rim and neck. At the other are the pieces tabulated in Table 8 which consist of melted globules and fragments in which, with the possible exceptions of two from graves 433 and 442, no form can be recognised. By contrast, in the other mid- to late 2nd-century grave with glass vessels (grave 466, **376** and **377**), both had been deposited intact and unburnt. The difference in treatment would seem to suggest that though the same category of vessel was used for all of the burials, the role the vessels played in the burial ritual began to change at some time during the second half of the 2nd century. It is likely that the burning resulted from the inclusion of the vessels in funeral pyres, which, in the case of Victoria Road, were located off-site (P1). The contents of the burnt examples could well have been used to anoint the body prior to the cremation, whilst in the case of the unburnt examples the oils may have been associated with ritual surrounding the collection and deposition of the calcined bones.

Three of the vessels found in the first and early 2nd-century burials were tubular unguent bottles (**372–4**), and one was an unguent bottle of otherwise uncertain form (**375**). On **372** it is possible to see that the rim was originally sheared. The rim formation of the other two was probably similar though it is not now recognisable. In Britain this type of unguent bottle was a mid-1st-century form which was going out of use during the Flavian period (Isings Form 8; Cool and Price 1995, 159). They are a common find on Romano-British sites occupied at that time and have often been found accompanying burials. At Winchester, for example, others have been found in burials at the Winnall housing estate (Collis 1978, 85, fig 30.20), and at Milland (Price 1978, 102, fig 40.49). The former contained samian pottery dated to AD 55–65, and the pottery in the latter was dated to AD 75–100. Both of these had been placed in the grave unburnt.

The fifth vessel, from the later grave 442, is a flask (**378**). Only parts of the neck and body are now recognisable and from these it appears to have been ovoid and without any tooling marks or constrictions at the junction of the neck and body. As the diagnostic features for identifying flasks of different dates are the forms of the rim and base (Cool and Price 1995, 150), it is thus not possible independently to date this vessel as neither of these can be distinguished.



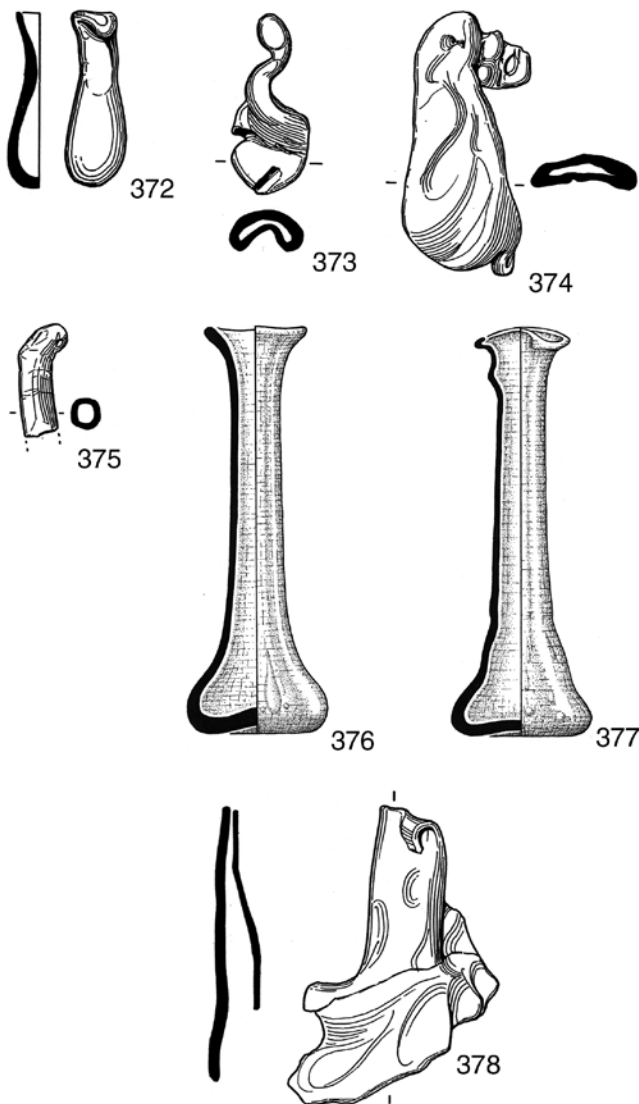


Figure 43 Vessel glass, nos 372-8, scale 1:2

Grave 442 also contained a considerable amount of melted blue/green glass (Table 8). This ranged from slightly heat affected body fragments to lumps with rounded surfaces which appeared to have been formed by the dousing of melted glass by water. Amongst this material there are fragments from a folded and flattened rim. This might have come from the flask 378, but seems more likely to have been part of a prismatic or cylindrical bottle. The quantity of melted glass found in this grave (just under 200g) certainly suggests that more than one vessel was present.

Fragments of melted blue/green glass were also found in the earlier graves which produced recognisable vessels (graves 431, 438, and 440), but in these cases the quantities of additional glass are not sufficient to postulate the presence of an additional vessel. Grave 433 was the only other early grave to produce melted glass, including a fragment that is probably from the neck of an unguent bottle. The quantity of glass found in this grave is small and it may have been an accidental inclusion rather than a deliberate one.

The two unguent bottles from the other later grave

466 (376 and 377) have sheared rims, long necks, and small conical reservoirs. Both bases have pontil scars, suggesting that it was intended to fire-round the rims. This was only achieved in the case of 376, the rim of 377 being asymmetrical and slightly rolled in. In all respects, the latter is a much more incompetently made vessel than the former, being both asymmetrical and full of bubbles and impurities.

The main period of use for this type of unguent bottle appears to be during the late 1st or very early 2nd centuries (Cool and Price 1995, 161), though the presence of one in a drain deposit at Caerleon dated to c AD 160-230 (Allen 1986, 104-5 no 31, fig 41) indicates that some were still in use in the middle of the 2nd century or later. The presence of 376 and 377 in a mid-2nd century or later grave provides further evidence for the extended life of the form. Unguent bottles like these are not as common as the tubular form represented here by 372-74 and as a consequence they have been found less often with burials. A very similar example was found with a cremation burial of, probably, the later 1st or early 2nd century at Old Newton, Suffolk (Low 1907-09, 256, pl C). Two others were recovered from the Railway Station cemetery, York, but nothing is recorded of the burial these came from (Harden 1962, 137, pl 66).

Other vessels (478 and 480) that may have been deposited with late Roman burials are discussed below.

372 Fig 43 rf VR 3855. Complete tubular unguent bottle. Small bubbles; streaky green impurities; iridescent surfaces. Rim probably originally outbent and sheared; cylindrical neck; tubular body with convex base. Rim and neck heat affected and distorted. L 45mm, L of body 30mm, D (maximum) of body 17 by 14mm. (EVE 1.0). Mid- to late 1st-century cremation grave 438 (X, 816).

373 Fig 43 rf VR 3854. Tubular unguent bottle similar to 372 (above). Now melted and distorted, with rim and upper part of neck fused. PH 46mm. (EVE 1.0). Mid- to late 1st-century cremation grave 438 (X, 816).

374 Fig 43 rf VR 3867. Tubular unguent bottle similar to 372 (above). Now melted and distorted with neck folded sideways and small globule of additional glass attached to the base. PH 67mm. (EVE 1.0). Late 1st-century cremation grave 440 (X, 823).

375 Fig 43 rf VR 4834. Neck fragment of unguent bottle. Cylindrical neck, melted and distorted, with one end fused. PH 29mm, D of neck 8mm, T of neck 1mm. (EVE 0.2). Mid- to late 1st-century cremation grave 431 (X, 775).

376 Fig 43 sf VR 5708. Complete unguent bottle. Some bubbles, occasionally large and elongated; streaky yellow-green impurities; red sandy inclusions. Asymmetrically out-turned rim, edge fire rounded and slightly rolled in at one point; cylindrical neck with faint tooling marks part way down, where neck starts to expand to low conical body with markedly expanded lower part; concave base with traces of pontil scar. H 105mm, H of body c 38-40mm, RD 24mm, BD 26mm, D (maximum) of body 36mm. (EVE 1.0). Mid-2nd-century cremation grave 466 (XII, 2616).

377 Fig 43 sf VR 5709. Complete unguent bottle in two pieces. Many bubbles, large proportion large and elongated; streaky yellow-green impurities; some sandy inclusions. Very asymmetrical out-turned rim, edge rolled over; cylindrical neck with tooling marks at base of neck; low conical body curving out markedly at base; shallow concave base with oval pontil scar placed off-centre. H 106mm, H of body 25mm, RD 20-24mm, BD c 28mm, D (maximum) of body

36mm, D of pontil scar 16 by 14mm. (EVE 1.0). Mid-2nd-century cremation grave 466 (XII, 2616).

**378** Fig 43 rfs VR 3882, 3884 and 3885. Two joining neck and body fragments of flask, and four distorted body fragments from the same vessel. Thick iridescence. Cylindrical neck curving out to body. PH 76mm, D of neck 19mm, WT 1.5mm. (EVE 0.4). Late 2nd- to early 3rd-century cremation grave 442 (VII, 832).

### 1st-century tablewares

Very few vessels that can be securely assigned to the 1st century were present amongst the non-sepulchral finds and all were from Victoria Road. The only form that can be identified with certainty is a blue/green pillar moulded bowl (Isings Form 3; Cool and Price 1995, 15–26) which is represented by **380** and **381**. Fragments from these are very common on 1st-century sites but nearly all of them will have been discarded by the end of the century.

The other material that is likely to be 1st-century in date cannot be identified at all closely. The light green body fragment with wheel-cut lines (**379**) and a similar fragment—both recovered from a mid- to late 2nd-century context—possibly come from wheel-cut beakers. Lightly coloured examples were in use during the Flavian period as an example was found in a military context at Wroxeter and is thus most likely to be of late Neronian or early to mid-Flavian date (unpublished). They do not appear, however, to have been very common. In addition there are also two deep blue, one purple and one green-blue vessels which are represented only by body fragments (Table 3). Given their late 1st- to mid-2nd-century contexts, they are most likely to be of 1st-century date as, in general, such strong colours become very rare after that time (though see **389**). A Flavian mould blown vessel may be represented by **477**, but given its context (a mid- to late 3rd-century or possibly early 4th-century grave) and the special circumstances pertaining at Winchester, it seems best to discuss it alongside the other fragment of 4th-century mould blown vessel (**476**).

**379** Fig 44 rf VR 2816. Body fragment. Light green; strain cracked. Straight side. Wide wheel-cut groove. 19 by 9mm, WT 1mm. Late 1st- to early 2nd-century layer (V, 476).

*not illustrated*

**380** rf VR 1527. Lower body fragment from a pillar moulded bowl. Blue/green. Abraded band on interior. Part of one rib remaining. 29 by 28mm. (EVE 0.2). Early to mid-2nd-century layer (V, 372).

**381** rf VR 1566. Lower body fragment from a pillar moulded bowl as **380** (above). 28 by 24mm. (EVE 0.2). Early to mid-2nd-century fill of the western Cirencester-roadside ditch F85 (V, 431).

### Later 1st- to mid-2nd-century tablewares

Late 1st- to mid-2nd-century tablewares were found principally at Victoria Road (5.17 EVE) with a much

smaller quantity at Hyde Abbey (0.14 EVE) and Henly's Garage (0.42 EVE). Victoria Road produced a range of forms, but at the other two sites only jugs could be recognised with certainty.

**382** appears to be from a colourless facet and linear cut beaker (Berger 1960, taf. 11, Form V; Cool and Price 1995, 72), though the facets on the side are smaller than normally would be the case for such a beaker. Most unusually it appears to have been externally ground and polished but as the fragments are heavily weathered it is not possible to be completely certain of this. Facet and linear cut beakers are superficially very similar in shape and decoration to the much more numerous facet cut beakers (*ibid* 71–2, fig 5.6, nos 395–402), indeed, Isings included both with her Form 21. The main distinction between the two is that facet cut beakers always have their entire surface ground to shape and often have elements of the decoration, such as ribs in relief, whereas facet and linear cut beakers are not ground to shape and never have elements of the decoration in relief. Few facet and linear cut beakers have been found in well dated contexts. They were in use between the later 1st and mid-2nd centuries, possibly being commoner in the later part of that period. It is particularly unfortunate that **382** was found unstratified and in such poor condition, as it would appear to be a hybrid that could have cast light on the poorly understood relationship between the two forms.

Two colourless wheel-cut beakers are represented by **383** and **401**. These were the commonest drinking vessels of the early to mid-2nd century (Cool and Price 1995, 79). The earliest variety was a thin-walled cylindrical beaker with a tubular pushed-in base ring, similar to one from Wroxeter found in a context dated *c* AD 80–120 (Bushe-Fox 1916, 34, pl XXIII, fig1), and it is likely that **383** belongs to this form. The fragments forming **401** are smaller and less diagnostic and it is more likely to date to the middle third of the 2nd century when wheel-cut beakers became very numerous, and there was greater variety of body shape and base form (Price 1987, 188–91, 202–03 nos 8–11, 13–14, fig 2).

It is probable that the small rim fragment **402** also came from a beaker of this general variety despite coming from a late Roman context. It has a ground rim which is an unusual feature on late Roman drinking vessels, but is the normal rim finish used on beakers of this range.

The majority of the other fragments that may be assigned to this section come from tubular rimmed bowls (Isings Form 44/5; Cool and Price 1995, 94), collared jars (Isings Form 67c; Cool and Price 1995, 106) or globular and conical jugs (Isings Forms 52 and 55; Cool and Price 1995, 120). These vessel forms were the commonest varieties of tablewares, other than drinking vessels, in use during the period. With the exception of tubular rimmed bowls, which occur in earlier contexts, the forms first appeared during the late Neronian period and were widespread and numerous for the rest of the 1st century. Collared jars and globular jugs disappear during the early 2nd

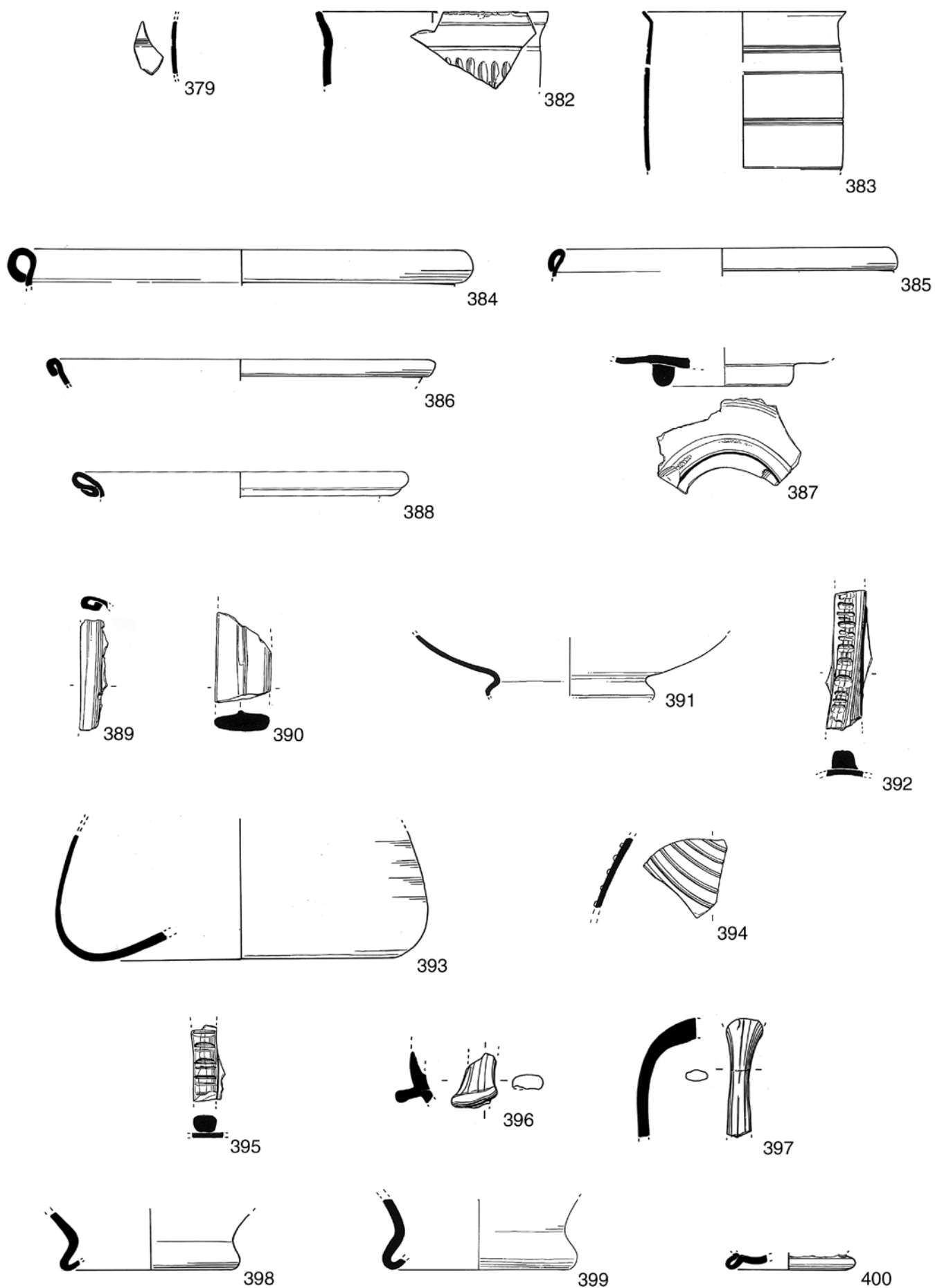


Figure 44 Vessel glass, nos 379-400, scale 1:2

century, but tubular rimmed bowls and conical jugs continue in use into the middle of the 2nd century.

At Victoria Road, tubular rimmed bowls were only present in Trenches IV and V, in the area to the west of the Cirencester road, where rim fragments from three different blue/green examples were found (384–6). A base fragment (387) almost certainly from a fourth bowl of this variety also comes from Trench V. It is identical in all respects to the normal bases on tubular rimmed bowls apart from the fact that it is made in very pale greenish colourless glass. This is very unusual as these bowls are normally made in blue/green, strongly coloured, amber or light green glass.

The only collared jar that can be identified with certainty is represented by the blue/green rim fragment 388. The lower body and base fragment 408 and a similar fragment from a late 3rd- to 4th-century context (yellow-brown), 398 (light green) and 399, 410, and 411 (blue/green) might have come from collared jars, but could equally have come from jugs.

Conical jugs are represented at Victoria Road by the unusual dark yellow-green (392, 472), the light green (393, 409) and blue/green (394) fragments. A blue/green example was found at Hyde Abbey (395) and a yellow/brown one from Henly's Garage (391). Of these the light green and blue/green examples from Victoria Road were diagonally ribbed, but there is no evidence of ribbing on the other fragments. 391 and 393 both came from the form with an open pushed-in base ring similar to the one found in a rubbish pit at Park Street Towcester which also contained pottery dated *c* AD 155–65 (Price 1980, 66, no 9, fig 15). Both of these fragments came from mid- to late 2nd-century contexts and there are grounds for believing that this variant of the conical jug was most popular during the second and third quarters of the 2nd century. The example from Towcester has already been noted and others from similarly dated contexts include one from a disturbed Hadrianic burial at Lower Runhams, Kent (Monkton 1979, 10 no g, fig 3); a purple example from a pit at Castleford, West Yorkshire dated to AD 140–80 (Cool and Price 1998, 157 no 51, fig 53), one from the pottery shop at Birch Abbey, Alcester dated to AD 150–60 (Price and Cottam 1994, 224 no 9, fig 104) and another from a mid- to late 2nd-century context at Gloucester (Price 1983, 168 no 5, fig 98).

The commonest handle form on these jugs is an angular handle with a central rib. Fragments from such handles were found at Victoria Road (390 and 404) and Henly's Garage (405 and 406), and so it seems very likely that at all the sites conical jugs were favoured rather than globular ones. At Victoria Road, this can be directly related to the chronology of the domestic occupation as the globular form would have gone out of use before it started.

The purple jug handle fragment 389 may also have come from a similar jug but is too fragmentary to be sure. As noted above, strongly coloured glass is generally a 1st-century fashion but purple, a colour that was never very common, may be an exception to this. 389 was found in a late 2nd- to mid-3rd-century context and, in the absence of purely 1st-century forms on the site, it seems unlikely to be a residual from the

1st century. At Castleford at least four purple vessels were found in mid-2nd-century contexts, and again were unlikely to be residual (Cool and Price 1998, 147), so it is possible that purple was still being used to make vessels in the mid- to late 2nd century.

Other jug forms are generally uncommon in the later 1st to mid-2nd-century period, but one handle fragment from a 2nd-century soil layer may be from one. 396 has a pinched projection which occurs part of the way along the handle rather than forming a thumb plate at the handle attachment. It has a superficial similarity to the handle with pinched projections on a probably early 2nd-century spouted jug from Colchester (Thorpe 1935, pl VIIIc; Cool and Price 1995, 146, fig 8.11, no 1128). In that case and on similar handles, however, the projections are pinched out from a thick trail applied to the handle rather than from the handle itself as on 396. Spouted jugs such as these sometimes had simple rod handles (see for example Shepherd 1996, fig 65 nos 144–5), and it is possible that the handle fragments 397 and 407 came from such jugs but rod handles are a long-lived form and so they cannot be closely identified.

**382** Fig 44 rf VR 64. One rim and three body fragments of conical beaker. Colourless; occasional small bubbles; weathered surfaces; strain cracks. Curved rim, edge cracked off and probably ground but now much chipped; straight side sloping in slightly. Rim fragment retains one wheel-cut line below rim edge and one on upper body; part of seven rice grain facets arranged in quincunx in two rows. Two body fragments retain edges of rice grain facets. External surface probably ground and polished. PH 28mm, RD 90mm, WT 2.5mm. (EVE 0.4). Unstratified (V).

**383** Fig 44 sf VR 9735–6. One rim and one body fragment of a wheel-cut carinated beaker. Colourless; some small bubbles; dulled surfaces. Curved rim, edge cracked off and ground; straight side sloping out. Two wheel-cut grooves on upper body. Body fragment retains parts of four grooves with two paired centrally. PH (of rim fragment) 19mm, RD 80mm, WT 1mm. (EVE 0.4). Early to mid-3rd-century disuse of oven F846 in Building 1.24 (XIII, 4232).

**384** Fig 44 rf VR 393. Rim fragment of a tubular rimmed bowl. Blue/green; some bubbles; dulled surfaces. Tubular rim bent out and down. RD *c* 180mm, WT 2mm. (EVE 0.2). Late 3rd- to 4th-century fill of well or shaft F46 (V, 270).

**385** Fig 44 rf VR 355. Rim fragment of a tubular rimmed bowl. Blue/green; dulled surfaces. Slightly inbent rim, edge bent out and down. RD *c* 130–40mm. (EVE 0.2). Late 4th-century (or later) ?reoccupation of the trench area (V, 37).

**386** Fig 44 rf VR 1470. Rim fragment of a tubular rimmed bowl. Blue/green; occasional small bubbles. Tubular rim bent out and down. PH 12mm, RD 150–160mm, WT 1mm. (EVE 0.2). Late 4th- or early 5th-century inhumation grave 55 (IV, 297).

**387** Fig 44 rf VR 1512. Lower body and base fragment of a bowl. Very pale green; occasional small bubbles. Wide lower body broken at carination to upper body; applied true base ring with post technique scars; base mostly missing. BD 5mm, WT 2mm. (EVE 0.4). Mid- to late 3rd-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 341).

**388** Fig 44 sf VR 9563. Two rim fragments of a collared jar. Blue/green; iridescent surfaces; strain cracks. Outbent rim, edge first rolled in, then bent out and down. RD *c* 130mm. (EVE 0.19) Late 4th-century (or later) soil layer (XV, 4092).

**389** Fig 44 sf HG 246. Handle fragment of jug. Purple. Thick iridescence. Edge of straight handle with rounded rib, now

slightly distorted. Section 10+ by 6mm. (EVE 0.14). Late second to mid-3rd-century yard surface (IV, 1233).

**390** Fig 44 rf VR 3438. Handle fragment of a jug. Dark yellow-brown; flaking iridescent surfaces. Straight ribbon handle with central rib. L 34mm, 21 by 6mm in section (excluding rib). (EVE 0.14) Construction of late 2nd-century phase of Building 1.23, ?post base F172 (X, 161).

**391** Fig 44 sf HG 103. Lower body fragment of conical jug. Light yellow-brown; occasional small bubbles; iridescent surfaces. Broken at carination between upper body and convex-curved lower body sloping into open pushed-in base ring; base missing. PH 20mm, BD 65mm, WT 1.5mm. (EVE 0.14). Late 2nd- to early 3rd-century fill of well F38 (II, 180).

**392** Fig 44 rf VR 1522. Body and handle fragment of a conical jug. Yellow/green. Many small bubbles in handle. Straight side; part of a slightly curved, diagonally scored, central extension trail from handle. 51 by 15mm, WT 2mm. (EVE 0.14). Mid- to late 3rd-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 368).

**393** Fig 44 rf VR 1577–9. Four lower body fragments (three joining) from a conical jug. Light green; some bubbles. Straight side sloping out to rounded carination to slightly convex-curved lower body. shallow spiral ribs dying out at carination. D at carination c 140–150mm, WT 1–2.5mm. (EVE 0.28). Mid-2nd-century disuse of the western Cirencester-roadside ditch F85 (V, 413).

**394** Fig 44 rf VR 2824. Upper body fragment of ?conical jug. Blue/green; some small bubbles. Slightly convex-curved body. Parts of five spiral ribs. 31 by 26mm, WT 2mm. (EVE 0.14). Western Cirencester-roadside path F94/95, late 1st to early 2nd century (V, 509).

**395** Fig 44 rf HA 643. Handle and body fragment of ?conical jug. Blue/green; elongated bubbles in handle; iridescent surfaces. Part of central extension trail from lower handle attachment, horizontally scored to form wide and narrow ribs; straight side. 25 by 8mm. (EVE 0.14). ?2nd-century Building 1.4 (XI, 433).

**396** Fig 44 rf VR 3835. Handle fragment of jug. Many elongated bubbles; streaky green impurities; iridescent surfaces. Curved oval rod handle with pinched projection. Handle section 12 by 6mm. (EVE 0.14) 2nd-century soil layer (X, 494).

**397** Fig 44 rfs VR 3007 and 3020. Two joining handle fragments of jug. Blue/green; elongated bubbles. Oval-sectioned rod handle curving over and expanding to upper attachment, small part of return trail from attachment. Section varies from 8 by 3mm to 14 by 8mm. (EVE 0.14). Residual in late Saxon ditch F46 (X, 103) and 13th- to 15th-century soil layer (X, 46).

**398** Fig 44 sf VR 5507. Lower body and base fragment of a jug or jar. Light green; clouded iridescent surfaces. Side sloping into open pushed-in base ring; base missing. PH 23mm, BD c 70mm, WT 3mm. (EVE 0.28). Early to mid-1st-century fill of hollow way F856 (XIII, 3390). Intrusive?

**399** Fig 44 rf VR 334. Lower body and base fragment of a jar or jug. Blue/green; some small bubbles; iridescent surfaces. Side sloping into open pushed-in base ring. Base missing. PH 25mm, BD 75mm, WT 3mm. (EVE 0.28). Occupation of 13th- to 15th-century Building 938.1 (IV, 147).

**400** Fig 44 rf VR 5032. Base fragment. Blue/green; some small bubbles; surfaces dulled; strain cracks. Tubular pushed-in base ring; inner part of base convex-curved. Side grozed. BD 50mm. Early to mid 2nd-century disuse of the western Cirencester-roadside ditch F85 (V, 413).

#### *not illustrated*

**401** sf VR 5379. One rim and one upper body fragment of wheel-cut beaker. Colourless; clouded surfaces. Curved rim,

edge chipped and missing; slightly convex-curved upper body. Two wheel-cut grooves below rim edge, one on upper body. PH c 19mm, WT 1mm. (EVE 0.4) Early to mid 3rd-century disuse of oven F846 in Building 1.24 (XIII, 3378).

**402** rf VR 159. Rim fragment of a cup or beaker. Colourless; clouded surfaces. Curved rim, edge knocked off and ground smooth. RD 13mm, WT 1mm. (EVE 0.4). Late 4th- or early 5th-century soil layer (V, 61).

**403** rf VR 5324. Neck fragment of jug. Blue/green; some small bubbles. Cylindrical neck with parts of three vertical ribs. 14 by 13mm, T of neck 4mm. (EVE 0.14). Early 2nd-century layer (V, 450).

**404** rf VR 3480. Handle fragment of a jug. Blue/green; elongated bubbles; iridescent surfaces. Straight ribbon handle with central rib. One edge broken. Distorted by heat. Section excluding rib 29+ by 4mm. (EVE 0.14) Late 2nd-century phase of Building 1.23 (10, 485).

**405** sf HG 240. Handle fragment of jug. Blue/green; elongated bubbles; iridescent surfaces. Edge of straight ribbon handle broken at edge of central rib. Section 12+ by 4mm (EVE 0.14). Late 2nd- to mid-3rd-century yard surface (IV, 1045).

**406** sf HG 433. Handle fragment. Light green; elongated bubbles; streaky impurities. Straight ribbon handle with central rib. Section excluding rib 28 by 6mm. (EVE 0.14). Unstratified (III).

**407** sf VR 9516. Handle fragment of jug. Blue/green; elongated bubbles; dulled surfaces. Oval-sectioned rod handle retaining small fragment of return trail from upper handle attachment. Section 9 by 5mm. (EVE 0.14) Late Saxon pit F1032 (XV, 3950).

**408** sf VR 9626. Lower body and base fragment of jar or jug. Light yellow-brown flaking iridescent surfaces. Side sloping into open pushed-in base ring; base missing. PH 16mm, BD 70mm, WT 2mm. (EVE 0.28). Mid- to late 4th-century fill of well F1093 (XV, 4125).

**409** rf VR 1600. Lower body and base fragment of jar or jug. Light green; some bubbles. Side sloping into open pushed-in base ring; base missing. PH 20mm, BD c 60mm, WT 2.5mm. (EVE 0.28). Late 1st- to early 2nd- century layer (V, 450).

**410** rf VR 1583. Lower body fragment of jar or jug. Blue/green; convex-curved side sloping into top of open pushed-in base ring. 97 by 20mm. WT 2mm. (EVE 0.14). Early to mid-2nd-century fill of the western Cirencester-roadside ditch F85 (V, 413).

**411** sf VR 5323. Base fragment of jar or jug. Blue/green; some small bubbles; dulled surfaces. Open pushed-in base ring; base missing. BD 50mm. (EVE 0.14). Early to mid-4th-century metallised (yard?) surface F665 (XII, 2486).

#### ***Later 2nd- to 3rd-century tablewares***

Nearly all of the fragments that can be attributed to this category come from Victoria Road (EVE 6.24). Two body fragments probably of this date came from Hyde Abbey and as already noted some of the fragments from Henly's Garage discussed above may in fact be of mid- to late 2nd-century date (389 and 391).

This category is dominated by fragments from colourless cylindrical cups with fire rounded rim and double ring base (Isings Form 85b: Cool and Price 1995, 82). In total, including both the catalogued fragments (414, 415, 417, 433–6) and the rim and base fragments in the archive, the form contributes 5 of the 6.24 EVEs in this category. All of them appear to have come from the commonest variant which is undecorated with a vertical rim (Charlesworth 1959, 44, pl 1.4). These

were in use from c AD 160–70 (Price 1987, 204, no 19, fig 2) into at least the second quarter of the 3rd century (Cool 1990, 168). These cups are the commonest glass vessel type in the north-western provinces during this period and are frequently found in large numbers on sites. Thus the relatively large number found at Victoria Road is not surprising.

Another drinking vessel may be represented by the colourless fragment **418** from Trench XII. This is part of the stem from a stemmed beaker of Isings Form 86 or a stemmed flask of Isings Form 93, such as those from Cologne (Fremersdorf 1959b, 41, 43, 45, 45–9, tafn 17, 18, 23, 30–3 and 35–45). Vessels such as this are relatively uncommon on Romano-British sites (Cool and Price 1995, 85–6, fig 5.13). From the dimensions of this example from Victoria Road (8 by 8mm.) it is likely to have come from a slightly smaller vessel than normal. It is more usual for the diameter and height to be approximately 12mm, like, for example, the vessel from Parsonage Field, Cirencester (Charlesworth 1971, 85 no 15, fig 11).

Stemmed beakers and flasks are two of the forms which frequently have snake thread decoration. One small fragment with opaque white snake thread decoration was found at Victoria Road (**432**), but it was not possible to identify the vessel type it came from. This is frequently the case with snake thread fragments found in Britain. These are not uncommon finds on later 2nd- and early 3rd-century sites but they never occur in large numbers, probably indicating that though such vessels were widespread in Roman Britain, they were not particularly common (Cool and Price 1995, 61). A second snake thread vessel may be represented by **413**. The trail retains the transverse scoring typical of snake thread glass, but the light yellow/brown colour would be unusual. As the fragment is very small and was found in a medieval context, its identification must remain tentative.

The two polychrome fragments **412** and **431**, from 3rd-century contexts at Hyde Abbey may be assigned to the snake thread tradition with more confidence. They each consist of peacock green body fragments with opaque white trails in slight relief. A minority of vessels with snake thread decoration were made in strongly coloured glass, see for example the pair of bright green stemmed goblets from Cologne (Fremersdorf 1959a, tafn 66–7). Only two other fragments of this type of snake thread glass are known from Britain and both are purple with opaque white trails. They were found at Piercebridge, County Durham and Catterick (both unpublished).

A shallow blue/green bowl with a wide rim, possibly similar to that from Jarmin Grave 10 at Colchester (May 1930, 288, pl XC.10), is represented by **419**. Such vessels are rarely identified and are consequently difficult to date. An example from Cologne has been dated to the mid-3rd century (Fremersdorf and Polonyi-Fremersdorf 1984, 3, no 4). Rim fragments from Colchester (Cool and Price 1995, 103–04, no 714, fig 6.7) and Chesterholm (Price 1985, 208, no 17, fig 77) have been found in contexts dating to the second half of the 2nd century and the middle of the 3rd century

respectively. A 2nd- to 3rd-century date therefore seems the most probably for such vessels.

Another relatively rare vessel form may be represented by the blue/green fragments **420** and **421**, though these do not necessarily come from the same vessel. **420** is a vertical fire rounded rim fragment with very slight indications that the glass was bending out sharply at the point at which it was broken and **421** is a body fragment with a cut-out fold. It is possible that these come from a shallow hemispherical bowl with cut-out fold and foot ring (Isings Form 69b), very similar in shape to the samian pottery bowl Dragendorff Form 38. In Britain these have only been identified with certainty at Silchester (Boon 1974, 232, fig 36.7), Piercebridge, County Durham (unpublished), and Dorchester (Cool 1997, fig 112, no 8). The date range of the form is not well understood as both in Britain and the other north-western provinces, blue/green examples from securely dated contexts are rare. They are presumably contemporaneous with the pottery bowls with the same form and thus a date of the later 2nd and 3rd century can be suggested.

The blue/green rim fragment (**426**), and the colourless (**422**, **423**, and **437**), and blue/green (**426** and **438**) handle fragments are most likely to have come from jugs with funnel mouths. These, both with and without spouts, were the commonest jug form in use during the later 2nd and 3rd centuries (Cool and Price 1995, 131–6, fig 8.8, nos 1001, 1005–6, 1019, fig 8.9, nos 1037–50 and 1052–3). A third example may be represented by the blue/green lower handle attachment **425** which is possibly from a chain handle. This handle form is a relatively rare one but is most frequently found on funnel-mouthed jugs (*ibid* fig 8.8, nos 1024–5, fig 8.11, nos 1129–31).

**412** Fig 45 sf HA 500. Body fragment. Small bubbles; iridescent surfaces. Streaky peacock green with opaque white trail in slight relief. Straight side. 23 by 10mm, WT 1–2mm. ?Early to mid-3rd-century disuse of the site area (XI, 406).

**413** Fig 45 rf VR 123. Body fragment. Pale yellow-brown. Part of unmarvered trail with transverse slash retaining small fragment of side. 14 by 3.5mm. 13th- to 15th-century soil layer (V, 14).

**414** Fig 45 rf VR 130. Rim fragment of cylindrical cup. Colourless; occasional small bubbles; dulled surfaces. Vertical rim, edge fire thickened; straight side. PH 24mm, RD 100mm, WT 1mm. (EVE 0.4). Mid- to late 3rd-century floor in Building 1.14 (V, 39).

**415** Fig 45 rf VR 378. Rim fragment of cylindrical cup as **414** (above). Colourless. PH 20mm, RD 85mm, WT 1mm. (EVE 0.4) Late 3rd- to 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 258).

**416** Fig 45 rf VR 321. Complete base fragment of a cylindrical cup. Slightly green-tinged colourless; small bubbles; iridescent surfaces. Wide lower body; solid pushed-in base ring; concave base; thick circular trail with pontil scar on underside. BD 41mm, WT 1mm. (EVE 0.4) Mid- to late 3rd-century phase of Building 1.15 (V, 86).

**417** Fig 45 sf VR 8536. Rim fragment of cylindrical cup as **414** (above). Colourless; some small bubbles; iridescent surfaces. PH 12mm, RD 70mm, WT 1mm. (EVE 0.2) Late 3rd- to mid-4th-century fill of pit F984 (XIV, 3841).

**418** Fig 45 sf VR 5557. Stem of a stemmed beaker or flask. Green-tinged colourless; clouded surfaces; strain cracks. Convex-sided cylindrical stem retaining chip from foot or

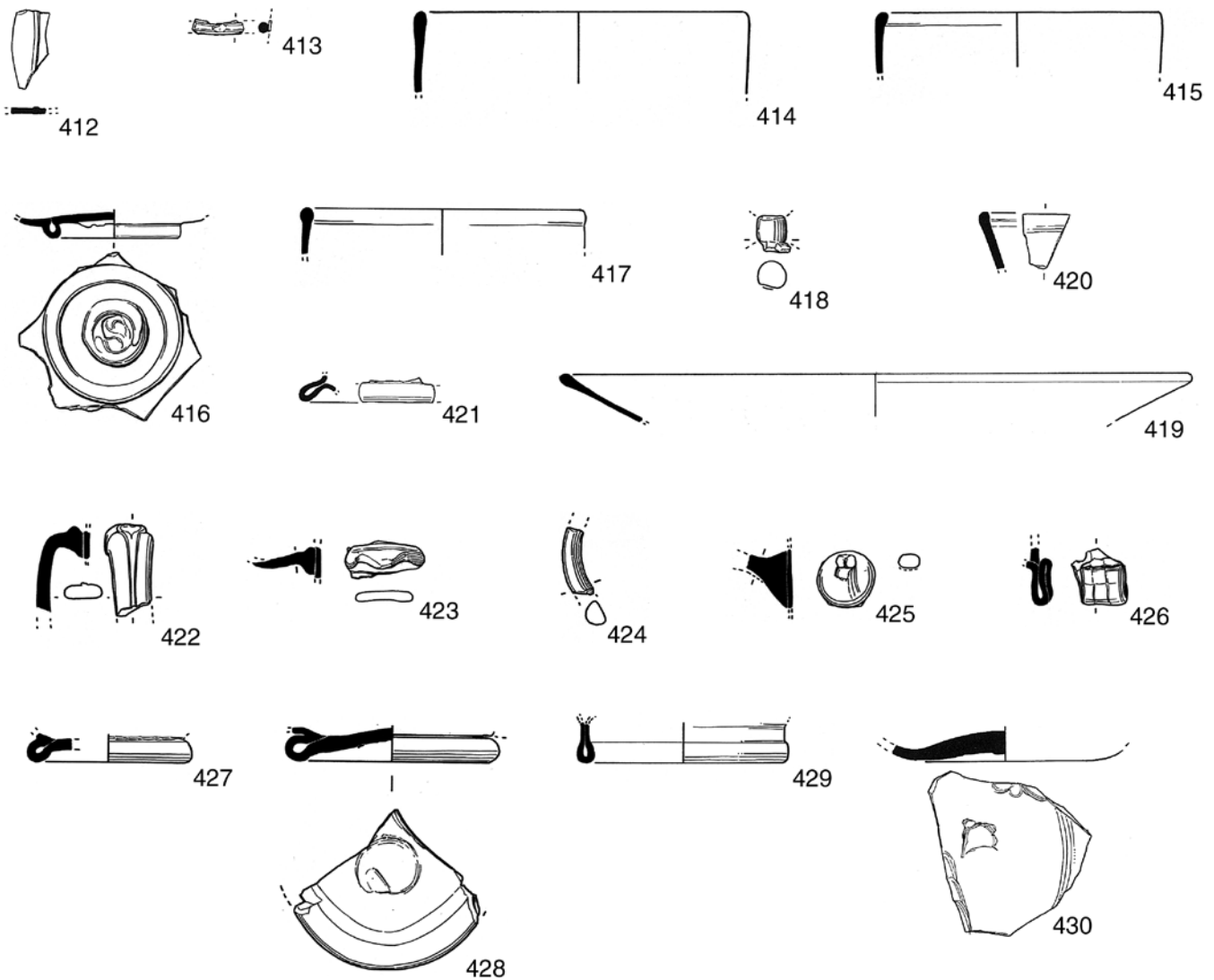


Figure 45 Vessel glass, nos 412–30, scale 1:2

base of vessel. D of stem 8mm, L of stem 8mm. (EVE 0.2) Late 3rd to fourth century fill of well or shaft F46 (V, 270).

**419** Fig 45 sf VR 5898. One rim and one joining body fragment of a shallow bowl or plate. Blue/green; some small bubbles; iridescent surfaces; strain cracks. Fire thickened rim; straight side sloping in shallowly. PH 14mm, RD 190mm, WT 1mm. (EVE 0.2). Early to mid-4th-century fill of pit F814 (XIII, 3262).

**420** Fig 45 rf VR 465. Rim fragment of a bowl. Blue/green; small bubbles; iridescent surfaces; strain cracks. Fire thickened rim; straight side, sloping in shallowly. PH 14mm, RD 190mm, WT 1mm. (EVE 0.2). Unstratified (V).

**421** Fig 45 rf VR 336. Base fragment. Blue/green; occasional small bubbles. Cut-out fold. 21 by 10mm, WT 1.5, D (outer) of fold c 120mm. (EVE 0.2). Late 4th-century (or later) reoccupation of the trench area (V, 125).

**422** Fig 45 rf VR 2823. Neck and handle fragment of a jug. Colourless; elongated bubbles; iridescent surfaces. Angular ribbon handle with simple folded upper attachment with return trail and retaining small fragment of neck. Handle 11 by 4mm in section. (EVE 0.14) Early to mid-2nd-century fill of the Cirencester-roadside ditch F85 (V, 498).

**423** Fig 45 rf VR 371. Handle and body fragment of a jug. Colourless; elongated bubbles; dulled surfaces. Simple lower attachment of ribbon handle retaining fragment of body. W

of handle attachment 22.5mm. (EVE 0.14) Fill of late Saxon or early medieval ditch F13 (V, 241).

**424** Fig 45 rf VR 3930. Handle fragment. Colourless; streaky weathered surfaces. Oval-sectioned curved rod handle. 6 by 5mm in section. (EVE 0.14). Late Saxon soil layer (XII, 2136).

**425** Fig 45 rf VR 2817. Handle and body fragment of a jug. Blue/green; some bubbles; dulled surfaces. Circular-sectioned rod handle with simple lower attachment retaining fragment of convex-curved side. Attachment 16 by 16mm, section of handle 6 by 6 mm. (EVE 0.14) Late 1st- to early 2nd-century soil layer (V, 475).

**426** Fig 45 rf VR 3829. Rim and handle fragment of jug. Blue/green; elongated bubbles; iridescent surfaces. Folded upper attachment of handle pinched to form thumb rest; small fragment of rim, edge fire rounded. 16.5 by 14mm. (EVE 0.14). 2nd-century soil layer (X, 494).

**427** Fig 45 rf VR 1517. Base fragment. Blue/green; small bubbles. Tubular pushed-in base ring; concave base. Side grozed. BD c 70mm. Early to mid-4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 355).

**428** Fig 45 rfs VR 1976–8. Three joining base fragments. Blue/green; some small bubbles. Small part of body sloping in horizontally to tubular pushed-in base ring; concave base with small central kick; circular pontil scar with small



fragments of additional glass. BD 60mm, D of pontil scar c 16mm. Mid- to late 4th-century soil layer (V, 344).

**429** Fig 45 rf VR 163. Base fragment. Blue/green; occasional small bubbles. Vertical high pushed-in base ring with hollow tube at end; side and base broken. BD c 60mm. Late 4th- to early 5th-century soil layer (V, 61).

**430** Fig 45 rf HA 10. Base fragment. Blue/green; small bubbles; dulled surfaces. Side curving into shallow concave base with central biscuit. Pontil scar. BD c 55mm, WT 2.5mm. Late 3rd- to 4th-century street F9 (I, 19).

#### *not illustrated*

**431** rf HA210. Body fragment as **412** (above). Streaky peacock green with opaque white trail in slight relief. Straight side. 9 by 6mm, WT 1mm. ?Early to mid-3rd-century Building 1.11 (XI, 373).

**432** rf VR 2767. Body fragment. Polychrome snake thread. Colourless convex-curved side; curved, diagonally slashed opaque white trail. 9 by 7mm, WT 0.5mm. Posthole F10 in early to mid-3rd-century phase of Building 1.13 (V, 93).

**433** rf VR 2820. Rim fragment of cylindrical cup as **414** (above). Colourless; some small bubbles; iridescent surfaces. PH 12mm, RD c 100mm, WT 1mm. (EVE 0.2). Mid-2nd-century fill of the western Cirencester-roadside ditch F85 (V, 495).

**434** rf VR 357. Rim fragment of a cylindrical cup as **414** (above). Colourless; some small bubbles; dulled surfaces. PH 16mm, RD 85mm, WT 1mm. (EVE 0.2). Early to mid-3rd-century phase of occupation in Building 1.14 (V, 46).

**435** rf VR 2813. Rim fragment of a cylindrical cup as **414** (above). Colourless; occasional small bubbles; dulled surfaces; streaky green impurity on rim edge. PH 16mm, RD 85mm, WT 1mm. (EVE 0.2). Mid- to late 4th-century (perhaps c AD 370–90) inhumation grave 129 (V, 470).

**436** rf VR 332. Rim fragment of a cylindrical cup as **414** (above). Colourless; occasional tiny bubbles. PH 29mm, WT 1.5mm. (EVE 0.4). Late 4th-century (or later) ?reoccupation of the trench area (V, 332).

**437** rf VR 369. Handle fragment of a jug. Colourless; elongated bubbles; iridescent surfaces. Curved ribbon handle. Handle 12.5 by 5mm in section. (EVE 0.14). Mid- to late 4th-century layer (V, 210).

**438** sf JCH 159. Handle fragment. Blue/green; elongated bubbles; iridescent surfaces. Edge of curved ribbon handle with part of return trail. (EVE 0.14). 13th- to 14th-century soil layer (III, 225).

**439** sf VR 104. Base fragment. Colourless; occasional small bubbles; streakily weathered surfaces. Solid pushed-in base ring. Side grozed; base broken. BD 50mm. Unstratified (V).

**440** rf VR 1551. Base fragment; dulled surfaces. Blue/green; solid pushed-in base ring. Side and base missing. BD c 40mm. Mid to late 2nd-century occupation in Building 1.13 (V, 411).

**441** rf VR 3441. Base fragment. Some large bubbles, dulled surfaces. Blue/green; concave base broken at inner edge of base ring. Circular pontil scar with small fragments of additional glass. ID of base ring approximately 60mm, D of pontil scar 16mm. Mid- to late 2nd-century layer (X, 433).

**442** sf 27JS 158. Base fragment. Blue/green; some small bubbles; dulled surfaces. Shallowly concave base broken at edge of base ring. BD c 50–60mm. Soil layer, late 2nd-century or later (I, 406).

**443** sf VR 5249. Base fragment. Blue/green; small bubbles; strain cracks; dulled surfaces. Side curving into concave base. 25 by 19mm, WT 3–2mm. Early to mid-3rd-century disuse of oven F846 in Building 1.24 (XIII, 3233).

**444** sf VR 5197. Base fragment. Blue/green; dulled surfaces. Small fragment of concave base retaining part of trailed base

ring. 13 by 12mm. Early to mid-4th-century finds rich soil layer (XII, 2470).

#### *1st- to 3rd-century containers*

The majority of the glass containers from the suburbs and city defences sites are blue/green bottles (**445–9**, **463–7** – Isings Form 50: Cool and Price 1995, 179). As can be seen from Table 7 which includes the many pieces catalogued in archive, fragments were found at all the sites which produced Roman vessel glass other than Sussex Street. On some sites (New Road and Chester Road) bottles were the only pre-4th-century form that could be identified, and on others (10CS and MA) they were the only form that could be identified at any date. Fragments from such bottles always form a substantial part of the vessel glass assemblage from any site occupied during the later 1st and 2nd centuries, and were so ubiquitous that even sites where the main occupation is concentrated in the late Roman period are likely to produce fragments as at New Road and Chester Road.

The prismatic forms of the bottles were very common from the later 1st to the early 3rd century, but the cylindrical form went out of use early in the 2nd century. As is appropriate at these sites where there is very little glass that can be securely attributed to the 1st century, nearly all the fragments come from prismatic bottles and where the precise shape can be identified, the bottles are square. Cylindrical bottle body fragments are easily identifiable by the characteristic vertical striations which develop on the side of the bottles due to repeated removal from the probable wickerwork containers they were kept in (Cool 1996, 108, pl 13). Using this feature, it was possible to identify only one fragment in the entire bottle assemblage and that came from Chester Road (archive sf CHR 132).

Prismatic bottles nearly always have moulded patterns on the base. The majority of these are compass drawn and so can often be reconstructed and the approximate size of the bottle ascertained. Here, the small size of the fragments prevents such reconstructions being made. Base patterns consisting of circular mouldings (**445**, **448**, **464–7**) appear to have been commonest here, as on virtually every other Romano-British site.

Two square bottles (**446**, **447**) retain the corner of square or angled mouldings but insufficient is preserved to indicate whether this was the corner of a square moulding that framed a central design, or an L-shaped angle moulding (Charlesworth 1966, figs 3 and 11). **449** is a base fragment from close to the centre of the base. It retains part of a circular moulding, which was probably the central moulding, and a straight moulding outside of this. These mouldings seem to have come from a base with an uncommon pattern. This design may have been similar to that on a square bottle from Saint-Gervais Rouen (Sennequier 1985, 129, no 215). That bottle has two concentric circular mouldings separated by a square moulding rotated through 90 degrees in relation to the bottle edge. In **449**,



however, the central circle is much smaller than that on the bottle from Rouen. A square bottle from Balkerne Lane, Colchester (Cool and Price 1995, 189, 198, fig 11.12, no 2203) also has a square moulding rotated through 90 degrees enclosing circular mouldings but here there are at least two concentric mouldings at the centre and not just one as is probably the case for the fragment from 27 Jewry Street.

Other bottle forms are never as numerous as the prismatic bottles but one is represented by a fragment from Victoria Road (450). This is a base fragment from a blue/green Frontinus bottle retaining part of the letter 'O'. These bottles were made with both one and two handles (Isings Forms 89 & 128; Cool and Price 1995, 204–06, fig 11.17). The one-handled form was in use by the early 2nd century whereas the two-handled form was a 4th-century variety. The majority of the examples known from Britain have come from late Roman contexts, but a base fragment from Canterbury found in a context dated to *c* AD 150–200 (Charlesworth and Price 1987, 225, no 25) shows that the form was in use in the province during the 2nd century. The Victoria Road example comes from an early 2nd-century context, and thus provides valuable additional evidence for the early use of these bottles in Britain.

Other types of container are much rarer. There are the rims of three jars, two from Victoria Road (451 and 453) and one from Hyde Abbey (452). The outbent rolled rim forms 451 and 452 cannot be closely dated within later 1st- to 3rd-century period (Cool and Price 1995, 109), but funnel-mouthed forms appear to be commonest in the 2nd century (453) (*ibid* 112). A fourth jar may be represented by the rim fragment 454, though insufficient is preserved to be sure of this.

There are two flasks or unguent bottles that can be closely identified (455 and 469), and similar vessels are likely to be represented by the rim fragments 458, 459, and 461, neck fragments 471, 473, and 474 (also 16 blue/green neck fragments from Victoria Road in archive), and the shoulder and base fragments 462 and 475 from Henly's Garage. 453 is the body and base of an unguent bottle with a low conical reservoir of the same variety as those from grave 466 (above), while 469 comes from an unguent bottle or flask with a tall conical body. These could have either a long or a short neck, see for example the ones from 1st-century cremations in London (RCHM London III 1928, 159, fig 65.28 and 32), and were in use during the first and earlier part of the 2nd century.

Bath flasks (Isings Form 61; Allen 1986, 104–05 and 107–08; Cool and Price 1995, 156), are possibly represented by two fragments (456 and 457), though it is not possible to identify either securely.

445 Fig 46 sf VR 7026. Lower body and base fragment of prismatic bottle. Blue/green. Base design has at least one circular moulding. PH 27mm, base 48 by 21mm. (EVE 0.42). Mid- to late 2nd-century soil layer (XI, 1223).

446 Fig 46 sf NR 134. Lower body and base fragment of square bottle. Blue/green. Base design: part of 'L'-shaped angle moulding or corner of square moulding parallel to edges. PH 15mm, base 25 by 17mm. (EVE 0.28) Late Saxon fill of the Iron Age enclosure ditch F371 (II, 472).

447 Fig 46 rf VR 328. Base fragment of a (probably) square bottle. Blue/green. Base design: corner of square moulding. 22 by 20mm. (EVE 0.14). Floor in early to mid-3rd-century phase of Building 1.14 (V, 131).

448 Fig 46 sf HG 287. Base fragment of prismatic bottle. Blue/green. Base design: at least one circular moulding. One curved edge flaked to sharp edge and subsequently blunted. 38 by 38mm. (EVE 0.14). Late 3rd- to early 4th-century fill of cess pit F102 (IV, 1007).

449 Fig 46 sf 27JS 247. Fragment from near centre of prismatic bottle. Blue/green. Base design: small central circular moulding with straight moulding outside. 23 by 18mm. (EVE 0.14) Late Saxon or early medieval feature F82 (I, 450).

450 Fig 46 rf VR 2814. Base fragment of a Frontinus bottle. Blue/green; occasional small bubbles. Side curving into concave base. Base design: faint circular moulding parallel to edge, edge of ring shaped moulding, possibly the letter 'O'. 20 by 18mm. (EVE 0.125). Early 2nd-century fill of western Cirencester-roadside ditch F85 (V, 476).

451 Fig 46 sf VR 5386. Rim fragment of a jar. Blue/green; some small bubbles; iridescent surfaces. Rim outbent horizontally, tubular edge bent down and in. RD 160mm, WT 1mm. (EVE 0.17). Early to mid 3rd-century disuse of oven F846 in Building 1.24 (XIII, 3359).

452 Fig 46 rf HA 201. Rim fragment of jar. Blue/green; clouded iridescent surfaces. Outbent rim bent out, up and in. 15 by 7mm. (EVE 0.17). ?Late 3rd- to mid-4th-century disuse of Building 1.9 (XI, 278).

453 Fig 46 rf VR 143. Rim fragment of jar. Blue/green; occasional small bubbles. Funnel mouth, rim edge rolled in. PH 9mm, RD 45mm, WT 4mm. (EVE 0.14). Cobbled yard surface, mid-2nd-century or later (V, 22).

454 Fig 46 rf VR 340. Rim fragment of a jar (?). Blue/green; occasional small bubbles. Outbent rim, edge fire rounded; straight side. PH 13mm, RD 85mm, WT 1.5mm. 13th- to 15th-century soil layer (IV, 232).

455 Fig 46 rf VR 1586. Body and base fragment of a conical unguent bottle. Blue/green; small bubbles. almost complete low conical reservoir with concave base; tooling marks around base of missing mark. PH 23mm, D (maximum) of body 38mm, WT 3mm. (EVE 0.6). Early 2nd-century fill of the western Cirencester-roadside ditch F85 (V, 440).

456 Fig 46 rf VR 3437. Body fragment of a ?bath flask. Blue/green; many bubbles; iridescent surfaces. Convex-curved side. Parts of two trails in low relief. 36 by 29mm, WT 3–2mm. (EVE 0.17). Late 2nd-century phase of Building 1.23 (X, 506).

457 Fig 46 sf VR 5216. Base fragment of a ?bath flask. Blue/green; some small bubbles. side curving into small concave base; pontil scar. Side broken at edge of trail or rib. PH 9mm, BD, *c* 20–25mm, WT 2mm. (EVE 0.33). Early to mid-4th-century finds rich silting layer (XII, 2470).

458 Fig 46 rf VR 2821. Rim fragment of flask or bottle. Blue/green; some small bubbles. Outbent rim, edge rolled in; cylindrical neck. PH 9mm, RD 45mm, WT 4mm. (EVE 0.14). Early to mid-2nd-century fill of western Cirencester-roadside ditch F85 (V, 497).

459 Fig 46 rf VR 1526. Rim fragment of flask or jug. Pale green; clouded iridescent surfaces. Rim folded out, up, in and flattened. RD 35mm. (EVE 0.14). Early to mid-2nd-century layer (V, 372).

460 Fig 46 sf VR 5219. Rim fragment of jug or flask. Blue/green; iridescent surfaces. Rim folded out, up, in and flattened. RD *c* 35mm. (EVE 0.14). Early to mid-3rd-century floor F841 of oven F846 in Building 1.24 (XIII, 3331).

461 Fig 46 sf VR 5193. Rim fragment of flask or jug. Blue/green; some tiny bubbles. Funnel mouth, edge fire rounded. PH 10mm, RD *c* 35mm, T of neck 2mm. (EVE 0.14). Late 3rd- to 4th-century soil layer (X, 3232).

462 Fig 46 sf HG 280 (a). Thirteen body and two base

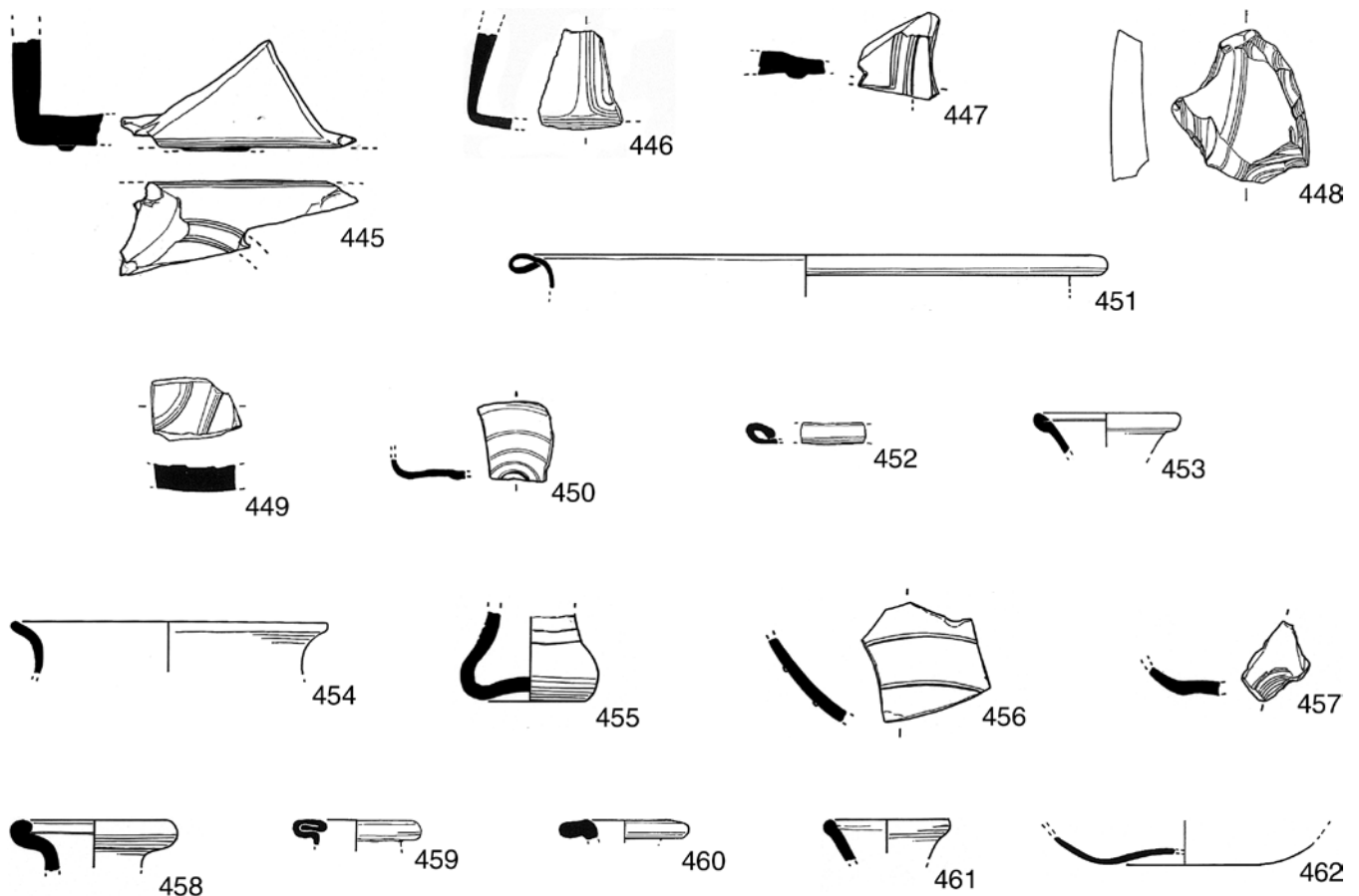


Figure 46 Vessel glass, nos 445–62, scale 1:2

fragments of globular jar or flask. Blue/green; many small bubbles; dulled iridescent surfaces. Convex-curved side; concave base. PH 8mm, BD c 40mm, WT 1mm. (EVE 0.28) Erosion from 2nd-century defensive rampart (IV, 1281).

#### *not illustrated*

**463** sf VR 7375. Rim and neck fragment of a bottle. Blue/green. Rim folded out, up, in and flattened. RD c 95mm. (EVE 0.14). Early to mid-2nd-century fill of cemetery boundary ditch F911/915 (XI, 1594).

**464** rf VR 1541. Lower body and base fragment of prismatic bottle as **446** (above). Blue/green. PH 11mm, base 20 by 11mm. (EVE 0.28). Yard surface (V, 42), mid-2nd-century or later.

**465** sf VR 5273. Lower body and base fragment of prismatic bottle as **446** (above). Blue/green. PH 14mm, base 20 by 16mm. (EVE 0.42). Early to mid-3rd-century disuse of oven F846 in Building 1.24 (XIII, 3233).

**466** rf VR 354. Lower body and base fragment of prismatic bottle as **446** (above). Blue/green. PH 16mm, base 33 by 22mm. (EVE 0.42). Late 4th-century (or later) ?reoccupation of the trench area (V, 37).

**467** rf HA 93. Base fragment of prismatic bottle. Blue/green. Base design: edge of one, probably circular, moulding. 25 by 16mm. (EVE 0.14). Late 4th or early 5th century posthole F62 (IV, 130).

**468** rf VR 3005. Lower body and base fragment of prismatic bottle as **446** (above). Blue/green. PH 15mm, base 36 by 12mm. (EVE 0.28) 13th- to 14th-century pit F22/34/149 (X, 63).

**469** sf 27JS 163. Body fragment of conical flask or unguent

bottle. Small bubbles; iridescent surfaces. Straight side sloping out from junction with missing neck. 26 by 25mm, WT 4mm. (EVE 0.2) Soil layer, late 2nd-century or later (I, 405).

**470** sf VR 5783. Rim fragment of a jug or flask as **459** (above). Blue/green. RD c 30mm. (EVE 0.14). Floor layer in 13th- to 15th-century Building 936.4 (XV, 2633).

**471** sf HA74 496. Neck fragment of jug or flask. Colourless; small bubbles; streaky iridescent surfaces. Cylindrical neck curving out to side. 23 by 14mm, WT 2mm. (EVE 0.14). Layer in ?early to mid-3rd-century Building 1.11 (XI, 304).

**472** sf VR 5783. Rim fragment of a jug or flask as **459** (above). Blue/green. RD c 30mm. (EVE 0.14). Floor layer in 13th- to 15th-century Building 936.4 (XV, 2633).

**473** rf VR 2801. Two neck fragments from a jug or flask. Yellow/green. Elongated bubbles; black impurities; strain cracks; iridescent surfaces. Cylindrical neck. D of neck 17mm, T of neck 2mm. (EVE 0.14). Mid-2nd-century fill of the western Cirencester-roadside ditch F85 (V, 434).

**474** sf SXS 113. Neck fragment of a jug or flask. Blue/green; elongated bubbles. Cylindrical. 20 by 11mm, T of neck 1.5mm. (EVE 0.2). Late Roman (?plough) soil (VIII, 336).

**475** sf HG 280 (b). Upper body fragment of globular jug or flask. Blue/green; small bubbles. Convex-curved side broken at tooled junction with neck. 20 by 19mm, WT 2mm, ID of neck c 15. (EVE 0.14). Erosion from 2nd- century defensive rampart (IV, 1281).

#### **4th-century vessel glass**

Towards the end of the 3rd century, Roman vessel glass in the north-western provinces underwent a pro-

Table 9 Distribution of 4th-century greenish colourless vessel glass

date	site					
	northern suburb		western suburb	eastern suburb		city defences
	HA	VR	NR	CHR	SJS	HG
1st century		1				
mid- to late 2nd		2				
late 3rd to mid-4th		17				2
mid-4th to early 5th	4	18		2		
later Roman		3	5			
residual/unstratified	1	13	4	26	1	2
totals	5	54	9	28	1	4
EVE	–	2.21	0.74	1.37	0.14	0.28

nounced visual change. In the 2nd and 3rd centuries the majority of the vessels were made of blue/green or good quality colourless glass. In the 4th century most vessels were made of greenish colourless glass with many small bubbles. This greenish colourless glass is found at six of the Winchester suburb and city defences sites (see Table 9), and judged by the EVE value forms just under 15% of the total vessel glass from these sites. Generally it forms a minority of the glass but in the small assemblages from Chester Road and New Road, it provides virtually the whole EVE value that can be calculated. Though the 4th century assemblage from these sites is small it does include several unusual vessels (480, 484, 485, and 491) including fragments from forms that have strong local concentrations (476, 479, and possibly 477).

Fourth-century vessel glass assemblages in Britain are always dominated by drinking vessels and these sites are no exception. The commonest forms tend to be hemispherical cups and truncated conical beakers with cracked off rims and abraded horizontal bands (Isings Forms 96 & 106; Cool and Price 1995, 88–92, fig 5.16). At Victoria Road there was one colourless conical beaker (478) and one hemispherical light green cup decorated with arcaded trails (481). Also, 481 482, 483, 496 and seven abraded body fragments from the same site are from the same range, as is possibly 479 from New Road, and an abraded body fragment from Hyde Abbey. The body fragment 502 could also have come from one of the relatively small number of beakers and cups of this range, decorated with good quality wheel cutting.

The rim 479 is slightly irregular and might be from the edge of an indentation. Fourth-century indented truncated conical beakers are very uncommon, so it is of some interest to note that one was certainly identified at the city centre site of The Brooks (unpublished rf2873) and another decorated with spiral trails over the indentations was found in Grave 63 at the Lankhills School Cemetery, and dated to AD 370–90 (Harden 1979, 215 no 51, fig 27). It is possible that like indented truncated conical bowl (Isings Form 117, Cool and Price 1987, 118), such beakers were current towards

the end of the 4th century. The late 4th-century context of the Lankhills example has already been noted and one from the cemetery at Épais-Rhus (Val-d'Oise) was found in a grave dated to the end of the 4th or 5th century (Vanpeene 1993, 50, no 081, pl XVIII).

The colourless beaker 478 now consists of 24 fragments. It is not complete but a considerably larger proportion of this vessel is extant than of any other vessel in the assemblage from Victoria Road. There were also a number of complete and near-complete pottery vessels from the same feature (F814), which was in the area to the east of the Cirencester road. It is tempting to see these as having been deposited by some agency other than casual rubbish disposal, but the circumstances in which they were deposited must remain uncertain. One possibility is that they stem from a disturbed grave, but this seems unlikely as the main concentration of late Roman graves was in the area to the west of the road.

One vessel for which a sepulchral origin can be suggested is 480, which consists of substantial parts of a cylindrical beaker which was found in two contexts within the same large medieval feature (F520). It is very likely that this vessel has been disturbed from a late Roman inhumation as it would be extraordinary for so much of it to survive if it was an ordinary residual site find. It also came from the same area of the site in which the late Roman graves were located (Trench III).

There can be no doubt of the late Roman date of this piece even though its precise form does not appear to be closely paralleled. It is made of the typical 4th-century glass; and has the same type of rim formation (cracked off and unground) and decoration (lightly abraded bands on the body) as a truncated conical beakers (above). Where it differs from them is in its cylindrical shape and small thickened base.

Beakers and cups with cylindrical bodies are rare in the 4th century. A cylindrical beaker with an out-turned rim found in a grave in a late Roman cemetery at Dales Road, Ipswich may be similar to 480 but appears, from the published photograph, to have a base ring rather than the small thickened base of the

Winchester beaker (Reid Moor and Maynard 1931–3, fig 58.b). Stemmed beakers with cylindrical bodies such as those from Burgh Castle, Norfolk (Harden 1983, 87, fig 37, 88–9) and Rainham, Essex (Hull 1929, 28, fig 1.1) are known but these have high pushed-in base rings and fire rounded rims unlike this vessel from Chester Road. The Burgh Castle vessels were found in a deposit of glass thought to have been assembled and deposited during the first quarter of the 5th century (Harden 1983, 88). This date was suggested partially on the grounds that fire rounded rims were a 5th-century phenomenon. As it is now clear, however, that fire rounded rims were in use on cups and beakers as early as the mid-4th century (Price and Cool 1983, 122, nos 42–4, fig 47), a somewhat earlier date for this group would be acceptable. Certainly the Rainham beaker is likely to be earlier than the late 4th century as it was found in an inhumation together with a coin described as a third brass probably of Tetricus II (AD 267–73). This is a coin type that normally has a relatively short period of circulation (I am grateful to Dr John Davies for advice on this matter), so these stemmed cylindrical beakers may have been made earlier in the 4th century. Small thickened bases such as this are more common in the mid-3rd century when they often occur on the hemispherical cups which appear to be one of the commonest drinking vessels at that time (Cool 1990, 172).

The combination of the traits seen in the Chester Road beaker might suggest that it was made towards the end of the 3rd century or early in the 4th century, but until similar beakers are found in well dated contexts such a suggestion must remain speculative.

**476** is a small fragment from a deep hemispherical cup with decorated with a mould blown pattern of hexagonal cells (Isings Form 107a). This 4th-century vessel type has not often been recorded from British sites, but in a recent review of the type, Price and Cottam (1995, 238) drew attention to the extraordinary concentration of fragments from such vessels in Winchester and two further 4th-century mould blown fragments may be added from the recent excavations at the Brooks (rf2122; rf3326). They drew together the dating evidence and suggested a late 4th-century date for the cups, beakers and bowls decorated with honeycomb patterns. **476** strengthens this suggestion as it was found in a mid- to late 4th-century context.

In the light of the unusual popularity of 4th-century mould blown vessels at Winchester, it is possible that the small green-tinged colourless mould blown base fragment **477** should be seen as belonging to a vessel in this range of beakers, cups and bowls. As it was found in a mid- to late 3rd-century (or possibly early 4th-century) grave, it would pre-date Price and Cottam's (op cit) date for the group by a few decades; but the alternative identification as belonging to a Flavian mould blown vessel (Price 1991, 71) seems unlikely given the paucity of Flavian material at Victoria Road.

**484** is a out-turned rim fragment which retains a horizontal projection pinched flat. It is difficult to identify what this fragment comes from. The wide

rim diameter, the horizontal projection and the narrowness of the handle as indicated by the scar on the underside of the projection, all strongly suggest that the fragment is not from a jug. Instead it is similar to the handle attachments found on scyphoi (Isings Form 39) such as the shallow yellow-brown cup from Aachener Strasse, Cologne (Fremersdorf 1959a, 32, taf 37) and the deep blue/green example from a rich first century cremation at Weisenau (Behrens 1925–6, 66, abb 5.2). These, however, were primarily of 1st-century date and both the type of glass and the context of the fragment suggest a 4th-century date. Later examples, such as the probably 3rd-century hemispherical cup found at Mehlemer Strasse, Cologne-Marienburg (Fremersdorf 1959b, 73, taf 113), are rare.

The form of the vessel represented by **485** cannot be closely identified. It consists of a wide funnel mouth with a rolled-in rim edge which might have come from either a flask or a jar. A similar rim fragment from Chesterholm found in a context dated to *c* AD235–50/60 was thought to belong to a flask (Price 1985, 208, no 20, fig 77). The depth of the funnel mouth on **485**, however, is not as great as that of the Chesterholm fragment and is thus more likely to have come from a jar. If this identification is correct, this is a valuable addition to the range of glass forms recognised at Winchester, as late Roman jars have rarely been identified either here or at other sites in Britain.

Two 4th-century flasks are represented by **486** and **487**. The latter may have come from some form of funnel mouthed flask perhaps like the globular example found with 2nd- to early 4th-century rubbish in a well at Carmarthen (Boon 1978, 84, no 29, fig 9), or the indented flask found in a grave at Butt Road, Colchester, dated to *c* AD 280 to 300/20 (Cool and Price 1995, 155, fig 9.8, no 1188). **486** is a folded and flattened rim and neck fragment. As this rim formation is not at all common on late Roman jugs or bottles, it is likely that this fragment came from a very large ovoid flask. Such flasks were in use throughout the Roman period and examples accompanying late Roman inhumations are known at, for example, Cirencester (McWhirr *et al* 1982, 132, fig 81.356) and Maldon Road, Colchester (Cool and Price 1995, 150–1, fig 9.4).

Funnel mouthed jugs with high pushed in feet (Isings Forms 120–1; Cool and Price 1995, 136 no 1160) are relatively common on 4th-century Romano-British sites, and in Winchester a complete one was found in Grave 310 dated *c* AD 390–410 at the Lankhills School Cemetery (Harden 1979, 217, no 310, fig 27). The form is represented here by **488**, **489**, and **490**. A second, less common, form of jug is probably represented by **491** found in a 4th-century context. The wide funnel rim might suggest it came from some form of beaker or small jar, but the slope of the side indicates that the body must have been biconical or inverted conical. This body shape combined with a funnel mouth is unusual in beakers or jars, but is known in a wide-mouthed jug in the Römisch-Germanische Museum, Cologne (Fremersdorf and Polonyi-Fremersdorf 1984, 74, no 170).

Bottles are represented by **492**, **493** and **498**. Of these,

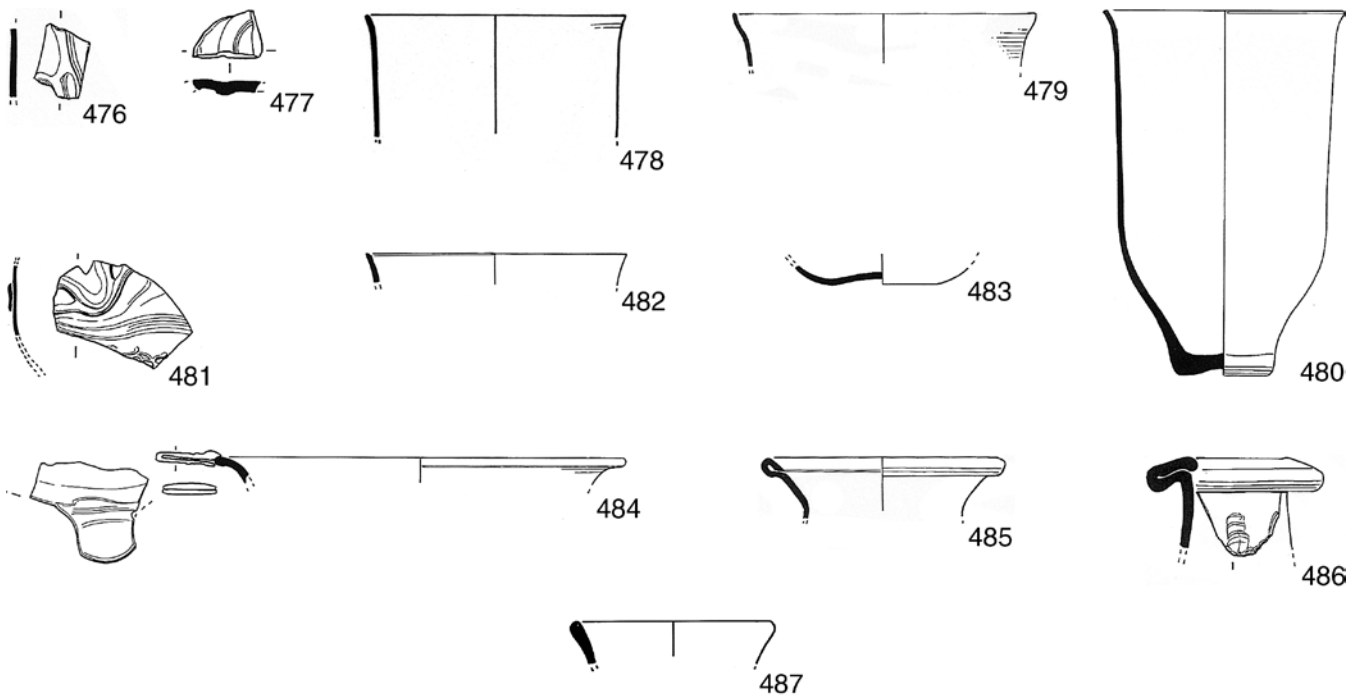


Figure 47 Vessel glass, nos 476–87, scale 1:2

**493** is a complete handle from a dolphin-handled bottle (Isings Form 100a; Cool and Price 1995, 207). These came into use during the second half of the 3rd century and were commonest in the 4th century. It is likely that **493** comes from the cylindrical form like the ones found at the Lankhills School cemetery (Harden 1979, 220, fig 27.20–1), rather than the hexagonal-sectioned mould blown variant (Fremersdorf and Polonyi-Fremersdorf 1984, 93–4, nos 208–10) which are much rarer. The reeded handle fragments **492** and **498** could have come from either Frontinus bottles (see **448**, above), or the range of funnel mouthed cylindrical bottles in use during the 3rd to 4th centuries (Isings Forms 126–7; Cool and Price 1995, 201–03, fig 11.15, nos 2245 and 2257). One body fragment, **499**, has a profile that suggests it may have come from the corrugated zone of a Frontinus bottle, but it is so small that the identification can only be very tentative.

**476** Fig 47 sf CHR 1073. Body fragment. Light green; many small bubbles; iridescent surfaces. Slightly convex-curved. Moulded ribs forming an elongated hexagonal lattice. 17 by 12mm, WT 1.5mm. (EVE 0.2) Mid- to late 4th-century soil layer (III, 562).

**477** Fig 47 rf VR 379. Base fragment of a mould blown cup, beaker, or bowl. Green tinged colourless; some small bubbles. Fragment from close to centre of concave base with part of one circular moulding, broken at edge of second. 17.5 by 12mm. (EVE 0.2). Late 3rd- or possibly early 4th-century grave 107 (V, 225).

**478** Fig 47 sfs VR 5871 and 5873. Three rim and 21 body fragments of truncated conical beaker. Colourless; many small bubbles, dulled surfaces. Curved rim, edge cracked off smoothly but not ground; straight side sloping in, one abraded band below curved rim and two on upper body. PH of joining rim fragments 30mm, RD 70mm, WT 0.5mm. (EVE 0.4) Early- to mid-4th-century fill of pit F814 (XIII, 3262).

**479** Fig 47 sf NR 392. One rim and one body fragment of truncated conical beaker. Pale green; many small bubbles. Curved rim, edge cracked off smoothly but not ground. PH 15mm, RD 80mm, WT 1mm. (EVE 0.2). Late Roman fill of the Iron Age enclosure ditch F371 (II, 488).

**480** Fig 47 sfs CHR 541 and 1069. Cylindrical beaker in 19 fragments, lacking part of rim and side. Pale green; many small bubbles; streaky iridescent surfaces. Curved rim, edge cracked off smoothly but not ground; straight side; convex-curved lower body curving into small thick base with slight kick. Two horizontal abraded bands on lower part of upper body and one band at junction between straight upper body and curved lower body. H 96mm, RD 65mm, BD 26mm, WT 1mm. (EVE 1.0). Large medieval feature (?cellar or quarry) F520 (III, 540, 546).

**481** Fig 47 sfs VR 9572 and 9692. One upper and one lower body fragment of hemispherical cup. Pale green; many small bubbles; black impurities; streaky iridescent surfaces. Convex curved side. Arcaded trail. 37 by 20 and 34 by 20mm. WT 1.5mm. (EVE 0.4). Mid- to late 4th-century fill of well F1093 (XV, 4107, 4128).

**482** Fig 47 rf VR 1529. Rim fragment of cup or beaker. Greenish colourless; small bubbles; streaky iridescent surfaces. Curved rim, edge cracked off smoothly but not ground. PH 8mm, RD c 60–70mm, WT 1.5mm. (EVE 0.2). Mid- to late 4th-century soil layer (V, 344).

**483** Fig 47 rf VR 352. Base fragment of ?cup or beaker. Greenish colourless; small bubbles. Side curving into concave base. BD c 30mm, WT 1mm. (EVE 0.2). Late 4th-century (or later) ?reoccupation of the trench area (V, 37).

**484** Fig 47 rf VR 392. Rim and handle fragment of a ?bowl. Pale greenish colourless; small bubbles. Horizontally outbent rim, edge fire rounded; folded upper attachment of handle pinched flat projecting horizontally from rim edge. RD c 110mm, WT 1mm. (EVE 0.2). Late 3rd- to 4th-century fill of well or shaft F46 (V, 270).

**485** Fig 47 sf CHR 670. Rim fragment of jar or flask. Green-tinged colourless; occasional small bubbles; green impurities. Funnel mouth edge, rolled in. PH 17mm, RD 65mm, WT 1.5mm. (EVE 0.17). Grave 512 (III, 174), dated to the late 4th century.

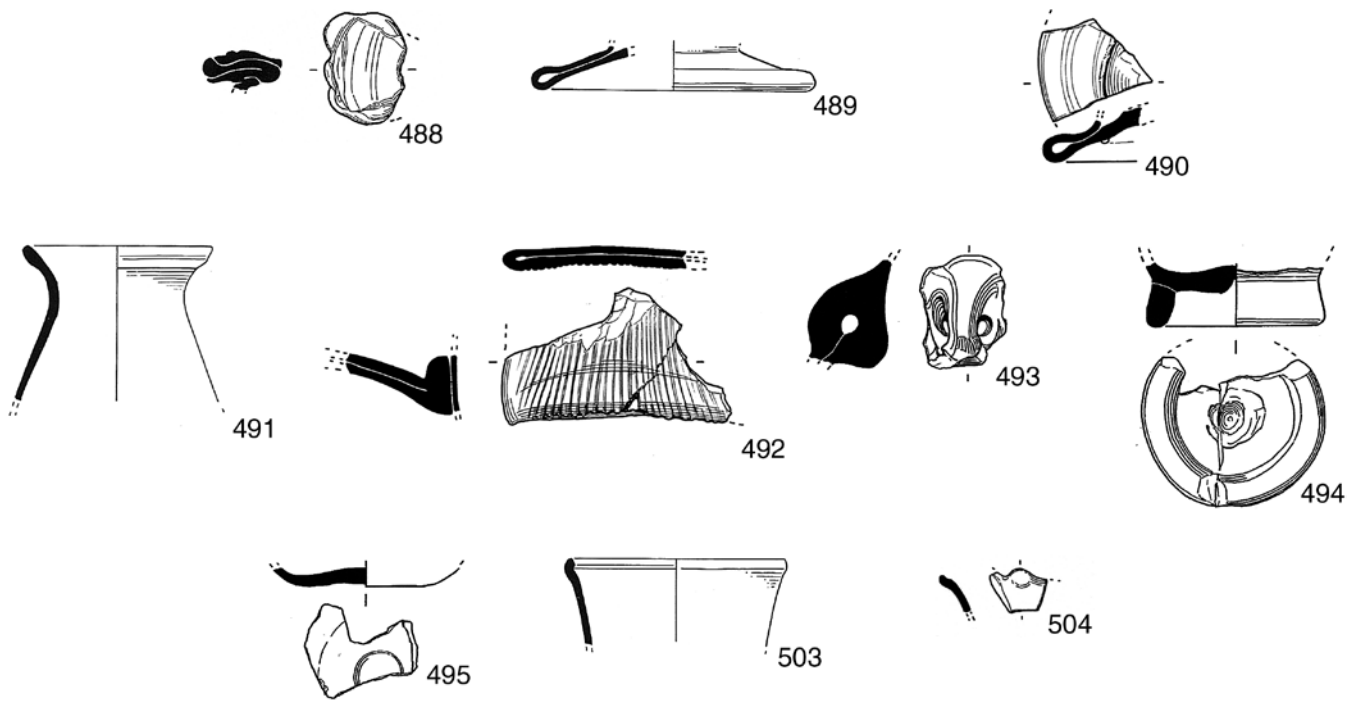


Figure 48 Vessel glass, nos 488–504, scale 1:2

**486** Fig 47 sf NR 394. Rim and neck fragment of flask. Pale greenish colourless; many small bubbles. Rim bent out, up, in and flattened. Cylindrical neck. One part of neck apparently grozed to sharp point. PH 23mm, RD 47mm, T of neck 2mm. (EVE 0.4). Late Roman fill of the Iron Age enclosure ditch F371 (II, 477).

**487** Fig 47 rf VR 1531. Rim fragment of a ?flask. Greenish colourless; many small bubbles; dulled surfaces. funnel mouth, rim edge fire rounded. RD 55mm, WT 2mm. (EVE 0.2). Mid- to late 4th-century soil layer (V, 344).

**488** Fig 48 sf HG 153. Two joining handle and rim fragments of jug. Pale green; iridescent surfaces; strain cracks. Funnel mouth, edge fire rounded; folded upper handle attachment. 29 by 20mm. (EVE 0.2). Late 3rd- to early 4th-century fill of cess pit F102 (IV, 1223).

**489** Fig 48 sf SJS 73. Base fragment of jug. Pale greenish colourless; many small bubbles; iridescent surfaces. High pushed-in base ring with hollow tube at end. Base and side missing. BD c 70–80mm. (EVE 0.14) Late Saxon soil layer (I, 162).

**490** Fig 48 sf HG 343. Two joining base fragments of jug. Flaking iridescent surfaces. High pushed-in base ring with hollow tube at end. Pontil scar. BD 65mm. (EVE 0.14). 11th- to 12-century pit F802 (III, 171).

**491** Fig 48 rf VR 1677. Rim and upper body fragment of ?jug. Pale greenish colourless; many small bubbles; streaky iridescent surfaces; strain cracks. Funnel mouth, rim edge fire thickened; straight side sloping out. PH 40mm, RD 50mm, WT 1.5mm. 4th-century fill of well or shaft F43 (IV, 410).

**492** Fig 48 sfs NR 398, 402 and 405. Three handle fragments of bottle, two joining. Green-tinged colourless; many small bubbles; black impurities. Lower part of reeded handle retaining fragment of shoulder. W at lower attachment 61mm+. (EVE 0.14). Late Saxon (II, 451, 473) and early medieval (II, 530) fills of the Iron Age enclosure ditch F371.

**493** Fig 48 rf VR 367. Neck, shoulder and handle fragment of a bottle. Pale green; small bubbles. Cylindrical neck; horizontal shoulder curving over to side. Dolphin handle trailed down neck, across shoulder and back to neck. Handle c 25 by 20mm. (EVE 0.17). Post-medieval soil layer (V, 205).

**494** Fig 48 sfs VR 5258 and 5287. Two joining base fragments. Green-tinged colourless; many bubbles streaky green impurities; iridescent surfaces. Applied true base ring; concave base with small central kick; Circular pontil scar. Side grozed. BD 48mm, D of pontil scar 15mm. Early to mid-4th-century metallised (?yard) surface F665 (XII, 2486).

**495** Fig 48 sf VR 5347. Base fragment. Pale green; many small bubbles; dulled surfaces. Side curving into shallow concave base. Circular pontil scar. BD c 35mm, WT 2mm, D of pontil scar c 12mm. Early to mid-4th-century metallised (?yard) surface F665 (XII, 2486).

#### *not illustrated*

**496** sf VR 5060. One rim and two body fragments of cup or beaker. Greenish colourless; many small bubbles; iridescent surfaces. Curved rim, edge cracked off smoothly but not ground. Abraded band below rim. PH 9mm, WT 1mm. (EVE 0.2). Mid-4th-century Building 1.25 (XIII, 3244).

**497** sf VR 2807. Neck fragment of bottle. Bright green; many elongated bubbles. Lower part of cylindrical neck. D of neck 24mm, T of neck 4mm. (EVE 0.14). Late 3rd- to early 4th-century grave 127 (V, 466).

**498** rf VR 133. Handle fragment of a bottle. Green-tinged colourless; clouded surfaces. Edge of reeded handle. Section 17+ by 4mm. (EVE 0.14). Late 4th-century (or later) ?reoccupation of the trench area (V, 33).

**499** sf VR 9598. Body fragment. Greenish colourless; small bubbles; iridescent surfaces. Mould blown fragment with shallow 'S' shaped profile. 10 by 6mm, WT 1mm. Mid- to late 4th-century fill of well F1093 (XV, 4128).

**500** sf NR 391. Base fragment. Pale green; many small bubbles; iridescent surfaces. Side curving into thick convex base. 43 by 23mm, WT 2–5.5mm. Late Roman fill of the Iron Age enclosure ditch F371 (II, 492).

**501** rf VR 4974. Base fragment. Light green; small bubbles; iridescent surfaces. Tubular pushed-in base ring with high kicked base. Circular pontil scar. Side grozed. BD c 45mm. Late Saxon soil layer (XII, 2214).

502 sf VR 5018. Body fragment. Green-tinged colourless. Some small bubbles. Straight side. Five wheel-cut lines. 20 by 15mm, WT 1mm. Late Saxon pit F762 (XII, 3217).

### *Miscellaneous and possible early medieval forms*

An unusual beaker is represented by the blue/green rim fragment 503. It appears to come from a conical beaker with a fire rounded rim which is tooled inwards. Whether this is a Roman vessel is open to question as this type of rim formation would be most unusual on a blue/green Roman beaker. It could instead belong to the early medieval funnel beaker family (Hunter and Jackson 1993, 1333, see especially fig 644 no 4664), and perhaps be dated to the 8th or 9th centuries.

No other early medieval forms can be identified but it should be noted that the bubbly green to yellow green glass of the late Roman period belongs to the same glass making tradition that continued into the early Saxon period. On sites such as Chester Road where early or middle Saxon pottery is attested (P5), the possibility that some of the undiagnostic body fragments came from 5th- or 6th-century vessels cannot be ruled out. This ambiguity has been noted elsewhere in Winchester (WS7.2, 933), but in the absence of diagnostic features such as rim form, secure identifications are impossible to make.

503 Fig 48 sf 27JS 46. Rim fragment of ?conical beaker. Blue/green; small bubbles; iridescent surfaces. Fire rounded rim, slightly rolled in; straight side sloping in. PH 21mm, RD c 60mm, WT 1.5mm. Late medieval (truncation) layer (I, 155).  
504 Fig 48 rf VR 1521. ?Rim fragment. Blue/green; occasional small bubbles; dulled surfaces. Fire rounded rim edge with small pulled-out projection. 15 by 11mm, WT 1.5mm.

### *A comparison of the vessel glass from Victoria Road and The Brooks*

The as yet unpublished glass assemblage from The Brooks provides an opportunity to compare the suburban assemblage from Victoria Road with an intra-mural site to see if there are any differences. The comparison of glass assemblages from different sites is still in its infancy but the development of the EVE methodology for quantifying glass assemblages does now allow this. The Brooks has a much larger glass assemblage than Victoria Road, but suffers from a problem of residuality. A representative 2nd- and 3rd-century assemblage has been extracted by selecting the colourless and blue/green component stratified in contexts assigned to the site phases II to IV (late 2nd to mid-5th century, see Zant 1993) which should be broadly comparable to the 2nd- to 3rd-century assemblage at Victoria Road. The 4th-century assemblage from The Brooks consists of all the glass, irrespective of context, made in the typical bubbly glass of the 4th century.

The 2nd- to 3rd-century material has been divided up into broad functional categories. Drinking vessels are open vessels with simple rims. Bowls are open

**Table 10 Comparison of the 2nd- to 3rd-century vessel glass assemblages at Victoria Road and The Brooks**

finds	site	
	Victoria Road	The Brooks
cup	40	36
bowl	9	9
jar	3	2
flask	11	20
jug	13	6
bottle	27	28
total EVE	16.5	7.15

**Table 11 Comparison of the 4th-century vessel glass assemblages at Victoria Road and The Brooks**

finds	site	
	Victoria Road	The Brooks
cup	56	73
bowl	8	13
flask/jug	19	7
bottle	18	6
total EVE	2.53	13.44

vessels that from either their size or rim form appear to be unsuitable for drinking out of and which may have been used for presenting food. Jars are closed vessels with very short necks, ideal for a solid content. Flasks are generally closed long-necked vessels without handles. Jugs are closed forms with necks and handles, bottles are also closed forms with handles but they generally have short necks and bodies that maximise their capacity. The EVE values for the various categories expressed as a percentage of the total assemblage are shown in Table 10. As can be seen the broad composition of the assemblage is very similar with only the flasks and jugs differing markedly. Given that they are both closed forms intended for holding liquids, this difference is possibly an artificial distinction produced by the typologist. If the two categories are added together, the total for the broad category are very similar.

When the 4th century assemblages are compared (Table 11) a different picture emerges. Here the functional categories have been simplified by combining the flask and jug forms from the outset and jars are not present in either assemblage. As can be seen there is a marked difference between the two. Both are dominated by drinking vessels but this is normal in the 4th century on any site. At The Brooks the closed forms form a very small proportion of the assemblage in comparison to the situation at Victoria Road where jugs and bottles form over a third of the assemblage. Admittedly the Victoria Road assemblage is very

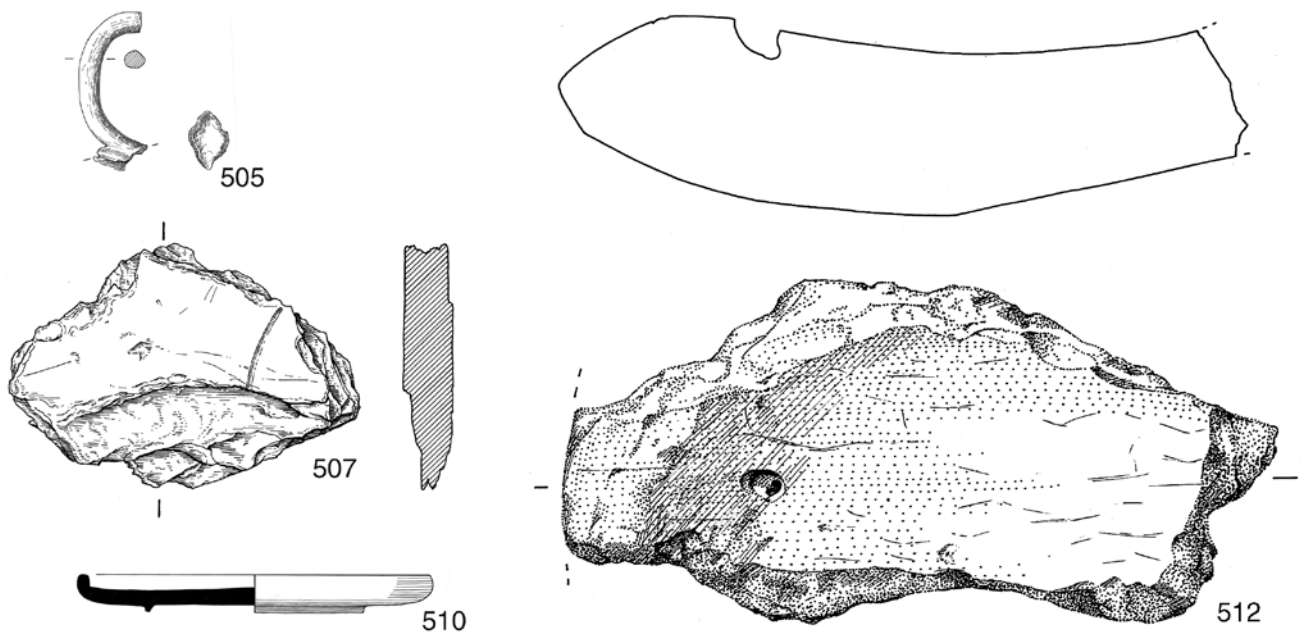


Figure 49 Metal and stone vessels, nos 505–12, scale 1:2

small, and it could be argued that no firm conclusions can be drawn because of that. Equally it could reflect a chronological difference because towards the end of the 4th century there is a marked contraction in the number of closed forms in use (Cool 1995, 13). If occupation at The Brooks continued into the 5th century, it would have the effect of inflating the number of open forms at the expense of the closed ones. However, it may be that the assemblages as tabulated are reflecting a real difference in glass use between the intra-mural and extra-mural site in the 4th century, as a very similar pattern could be detected at Colchester (Cool and Price 1995, 232). Admittedly the quantification there was by minimum numbers which, as already noted, is a less stable measure; but again an extra-mural site just beyond the walls had a much higher proportion of jugs and bottles than was seen in the contemporary intra-mural site. Study of coin assemblages has shown that from the late third century, the pattern of loss changes for sites just inside and outside town walls (Reece 1995, 203, fig 28) with the extra-mural sites being much closer to the contemporary rural pattern of coin loss than to the urban one (but *cf* Category 6). This may be hinting at a different way of life, and it could be suggested that vessel glass assemblages of The Brooks and Victoria Road may be hinting at the same thing. Only many more quantified assemblages, however, will allow us to explore this more fully.

### Metal vessel

**505** Fig 49 sf VR 1091. Part of a copper alloy ring, probably a mount from a bucket for fixing the handle. The ring has a hollow stepped moulding at the supposed attachment point. L 40mm. Mid-2nd-century fill of the western Cirencester-roadside ditch F85 (V, 413).

### ?Wooden vessel

*not illustrated*

**506** sf HG 405. Five pieces of circular iron binding, W 25mm, D c 190mm. The shortest piece may have a fleck of non-ferrous metal on it. L of pieces 175, 130, 55, 53 and 40mm. T 5mm. A somewhat unusual object, which may have come from a small wooden vessel. Mid- to late 4th-century collapse or demolition of Building 17.3 (III, 814).

### Stone vessels

#### Shale trays

**507** Fig 49 sf VR 1529. A fragment from a tray of Kimmeridge shale showing a small part of an incised circle. This decoration indicates that the tray was circular. Others, both rectangular and circular are known from Winchester (Biddle 1967, 248–50; Cunliffe 1964, fig 25, 3–4). Lawson (1976) has furnished a useful general discussion of these trays. Mid-2nd-century fill of the western Cirencester-roadside ditch F85 (V, 490).

*not illustrated*

**508** sf HG 1141. Thick fragment of shale ?tray. L (maximum) 74mm. PT 18mm. Late 2nd- to early 3rd-century fill of well F38 (IV, 1162).

**509** sf VR 30. Fragment of a ?tray. ?Manufactured hole near one edge of the fragment. L (maximum) 83mm. PT 13mm. 13th- to 15th-century soil layer (IV, 44).

#### Shale vessels

**510** Fig 49 sf VR 387. A fragment of a shale plate with a slight plain rim and low footring. D (approximately) 93mm,



Table 12 Incidence of quernstones from 27 Jewry St and Victoria Road

stone type	date				total	%
	1st to early 2nd century	2nd century	3rd century	late 3rd to 4th century		
greensand (Lodsworth)	7	2	3	5	17	59
greensand (other)	1				1	3
Niedermendig lava				3	3	10
conglomerate, possibly Forest of Dean	1	1		1	3	10
conglomerate	1				1	3
coarse grained sandstone	1		1	1	3	10
fine grained quartz sandstone or sarsen	1*				1	3

\*saddle quern

H (including footing) 9mm. Disuse of Building 1.15 (V, 98). Mid- to late 3rd century.

*not illustrated*

**511** sf HG 1. Rim fragment of a platter. Raised rim 5mm wide. Almost a straight edge, possibly a large circular platter, D approximately 300mm. PT 5mm. Late 3rd-or 4th-century erosion or hillwash deposit (II, 116).

### Mortars

**512** Fig 49 sf VR 13160. A fragment of a ?granite mortar. The inner face is worn smooth. The rim and outer surface are well-shaped but rough. The fragment may be of a deep or shallow mortar. It is impossible to assess the angle of the wall. T (maximum) 43mm. Construction of mid- to late 4th-century Building 1.22 (XV, 4121).

*not illustrated*

**513** sf VR 8806. Fragment of the base of a mortar of Quarr limestone from the Isle of Wight. Mid- to late 1st-century inhumation grave 586 (XI, 1626).

### Quernstones

Roman contexts at two sites produced quantities of quernstones. At 27 Jewry Street on the city defences, five of the ten recognisable quernstones were recovered from the makeup of a late 1st- to early 2nd-century street. Nineteen quernstones were also present in a wide range of context types – backfills of features, demolition layers of buildings and metalled surfaces – at Victoria Road in the northern suburb. In addition to these two relatively large assemblages, three fragments came from sites in the western suburb, two from earlier Roman contexts at Sussex Street and one from a late Roman context at New Road.

The predominant source of manufacture was

Lodsworth in West Sussex (Peacock 1987). Greensand querns from these quarries accounted for nearly 60% of the overall total from 27 Jewry Street and Victoria Road, and were the sole type present in the western suburb. They appear to vary little in importance through time (Table 12). Other sources included the Mayen-Niedermendig area of Germany, represented by the well-known lava quernstones, and possibly the Forest of Dean. Lava querns were confined to late Roman contexts (Table 12).

The remaining material comprised sandstones of uncertain origin; a greensand quern not from the Lodsworth area may have been of fairly local manufacture (Peacock 1987, 61–2). The only saddle quern in the collection was of sarsen or another fine grained quartz sandstone which may also be local in origin (Peacock 1985, 77). This object was probably of prehistoric origin but had been shaped after breakage.

Apart from the saddle quern, identifiable forms were invariably upper rotary stones. Why lower stones from rotary querns should be so uncommon is difficult to assess. Possibly the upper stones were less robust or sustained more wear and tear during use, and were therefore discarded more frequently.

Peacock (1987, 69–71) has reassessed Curwen's (1937) typology and dating of the Lodsworth types and found it broadly viable. These greensand querns from Winchester, although generally conforming to the shapes illustrated by Peacock (1987, 68), are in too fragmentary a condition to contribute much of significance to this reassessment. However, comparison of the thicknesses of seven greensand upper stones from the fill of a middle Iron Age feature at New Road in the western suburb (Matthews and Mounsey 2004) with the material considered here corroborates the assertion that Roman upper stones tend to be thinner than Iron Age ones (Table 13). Also, on average, 1st- and 2nd-century examples seem to be thicker than 3rd- and 4th-century ones, although here the variation is not large and might be accounted for by differential wear.

Like the greensand querns, upper rotary stones from other sources were in poor condition. The lava stones are comparable to those illustrated by Buckley

**Table 13 Thickness of Lodsworth greensand upper stones**

Type of measurement	date		
	MIA*	1st to 2nd century	3rd to 4th century
individual measurements (mm)	120; 130; 140; 145; 160; 160; 175	53; 56; 64; 88	38; 45; 47; 50; 57; 65
mean thickness (to nearest mm)	147	65	50

\* the middle Iron Age querns are published in full elsewhere (Qualmann *et al* 2004)

and Major (1983, 74, nos 2054, 2060 and 2062), having grooved decoration on the upper side and edge, and a raised rim edge to catch the grains.

If Portchester (Cunliffe 1975, 267), Neatham (Timby 1979), and Fishbourne (Cunliffe 1971, 153–4) can be taken as representative of Hampshire and the western part of West Sussex, the virtual absence of Roman lava querns at these sites is quite striking, and contrasts markedly with their occurrence in south-eastern England, particularly in Essex (see, for example, Buckley and Major 1983, 75–6). Peacock (1987, 77) has demonstrated that the Lodsworth quarries were an important regional industry in Iron Age and Roman times, which may explain why continental sources appear to have had little impact here. It is also tempting to view the late dating of the three lava querns from Winchester as a sign of the decline of the regional Romano-British industries at the end of the Roman period. However, larger samples than that discussed here would be needed to demonstrate this theory with more certainty.

Quernstones from Roman contexts at Victoria Road and 27 Jewry Street are catalogued, but are too fragmentary to be worth illustrating. Fragments which were probably from querns but which retain no worked surfaces have been excluded.

### **Rotary querns of Lodsworth greensand**

*not illustrated*

**514** sf VR 11184. Worked fragment. Eastern Cirencester-roadside ditch F258 (X, 783), early Roman, probably 1st century.

**515** sf 27JS 244. Part of upper rotary stone in two pieces. D 400mm, T (maximum) 64mm. Late 1st- to early 2nd-century gully F112 (I, 446).

**516** sf 27JS 245. Part of upper rotary stone. T (maximum) 57mm. Context as **515**, above.

**517** sf 27JS 258. Part of upper rotary stone. D 410mm, T (maximum) 53mm. Late 1st- to early 2nd-century street F70 (I, 462).

**518** sf 27JS 264. Worked fragment. Context as **517**, above.

**519** sf 27JS 270. Part of upper rotary stone. Context as **517**, above.

**520** sf 27JS 348. Fragment of upper rotary stone. Late 1st- to early 2nd-century posthole F93 (I, 487).

**521** sf VR 1526. Part of upper rotary stone. D ?460mm, T (maximum) 88mm. Mid- to late 2nd-century demolition of Building 1.13 (V, 411).

**522** sf VR 12939. Worked fragment. Mid- to late 2nd-century soil deposit (XII, 2608).

**523** sf VR 1161. Part of upper rotary stone. T (maximum) 47mm. Mid- 3rd-century disuse of Building 1.13 (V, 394).

**524** hf VR 26. Part of upper rotary stone with raised rim edge. T (maximum), 57mm. Mid- to late 3rd-century silting layer in Building 1.14 (V, 81).

**525** sf VR 4643. Part of upper rotary stone. T (maximum) 45mm. Mid- to late 3rd-century disuse of Building 1.24 (XIII, 3281).

**526** sf VR 12974. Worked fragment. Cremation grave 95 (IV, 161/421), late 3rd to early 4th century.

**527** sf VR 7863. Worked fragment. Early to mid-4th-century finds rich soil layer (XII, 2548).

**528** sf VR 7984. Part of upper rotary stone. D 450mm, T (maximum) 38mm. Early to mid-4th-century metalised surface F682 (XII, 2538).

**529** sf VR 2622. Fragment with very worn, smooth grinding surface. Late 4th-century soil deposit (X, 144).

**530** sf VR 9434. Part of upper rotary stone. D 300mm, T (maximum) 65mm. Disuse of Building 1.22 (XV, 4130), late 4th century (or later).

### **Greensand rotary quern**

*not illustrated*

**531** sf 27JS 271. Part of upper rotary stone. The stone differs from that of Lodsworth types in being slightly coarser and less abundantly glauconitic. D 330mm, T (maximum) 37mm. Late 1st- to early 2nd-century street F70 (I, 462).

### **Rotary querns of Niedermendig lava**

*not illustrated*

**532** sf VR 6740. Worked fragment. Early to mid-4th-century fill of pit F814 (XII, 3262).

**533** sf VR 9482. Part of upper rotary stone with traces of grooving on the upper surface and edge. The edge originally had a raised rim, which is now very worn. D 420mm, T (maximum) 57mm. Construction of mid- to late 4th-century Building 1.22 (XV, 4121).

**534** sf VR 12982. Part of upper rotary stone in seven pieces, with worn traces of grooving on the upper surface and edge, and with raised rim. D 480mm, T (maximum) 49mm. Late 4th-century (or later) soil layer (X, 331).

### **Rotary querns of quartz conglomerate, possibly from the Forest of Dean**

*not illustrated*

**535** sf 27JS 348. Part of upper rotary stone. D 330mm, T (maximum) 47mm. Late 1st- to early 2nd-century posthole F93 (I, 487).

**536** sf VR 7762. Worked fragment probably from a quern.

Mid- to late 2nd-century cemetery boundary ditch F709 (XII, 2664).

537 hf VR 31. Part of ?lower rotary stone. D c 470mm, T (maximum) 55mm. 4th-century fill of well or shaft F43 (IV, 393).

### **Rotary querns of uncertain origin**

*not illustrated*

538 sf 27JS 237. Part of a ?rotary quern of coarse grained sandstone which has been shaped for reuse, possibly as building stone. T (maximum), 58mm. Late 1st- to early 2nd-century gully F76 (I, 421).

539 sf VR 6504. Fragment of worked conglomerate. Late 1st- to early 2nd-century pit F853 (XIII, 3391).

540 sf VR 4648, 4650, 4652. Three joining fragments of poorly cemented coarse grained sandstone, probably from a quern. Mid- to late 3rd-century disuse of Building 1.24 (XIII, 3292).

541 sf VR 10513. Part of upper rotary stone of coarse grained sandstone. D 450mm, T (maximum) 50mm. 4th-century soil deposit (XV, 4064).

### **Saddle quern**

*not illustrated*

542 sf 27JS 522. Part of a saddle quern of fine grained quartz sandstone, possibly sarsen. Both the original edge and two of the broken edges are smoothed from reuse, possibly as a hone. Late 1st- to early 2nd-century street F70 (I, 339).

### **?Quern of Quarr limestone from the Isle of Wight**

*not illustrated*

543 sf 27JS 604. A fragment broken from an originally doughnut-shaped object. Possibly a fragment of a quern, although the stone seems unsuitable. T (maximum), 48mm. Late 1st- to early 2nd-century street F70 (I, 462).

## **Lamps**

### **Picture lamps by D M Bailey and C Matthews**

Two ceramic picture lamps were recovered from cremation graves in the early Roman cemetery at Victoria Road. Both had been burnt and both were in a fine off-white fabric with a greenish grey tinge, in which no sands were visible at  $\times 20$  magnification (?fabric TLA, P5). Their burnt condition renders the source of manufacture impossible to determine. Italy is a possibility, but central Gaul (Lyon) is more likely.

*not illustrated*

544 rf VR 4082. Picture lamp of Loeschke (1919) Type 4, with shoulder form VIa. Mid- to late 1st-century cremation grave 431 (X, 775).

545 sf VR 11849. Picture lamp of Loeschke (1919) Type 4

with shoulder form VIIb. The figure type is too lacking to be certain, but may be a gryphon (Loeschke 1919, pl. XII, 470). Mid- to late 1st-century cremation grave 438 (X, 816).

### **Open lamp by A Turner and R Ball**

*not illustrated*

546 rf VR 5415. Ceramic open lamp with straight sides, flat base, plain rim and the stubs of an applied handle remaining, Loeschke (1919) Type 12. Fine sandy red fabric with mica on the surface, possibly once mica dusted, source of manufacture unknown (fabric NFA, P5). Similar forms have been recovered, for example, at Verulamium (Wilson 1972, 368, no 6), Wroxeter (Darling 1977, 81, no 39) and Colchester (Crummey 1983, 78–9, nos 2107–08). Late 1st- or early 2nd-century soil layer (V, 459).

## **Fittings for boxes and furniture**

### **Victoria Road, grave 515**

Late 1st-century cremation burial (XI, 1219)

This grave produced a suite of iron and copper alloy fittings, from a wooden box. The copper alloy fittings include six studs of debased lion head type. Lion head studs are a feature of cremation boxes of the 1st century (Niblett 1985, fig 19, 2, and pl 11; Borrill 1981, 315–16). Although a Neronian date has been attributed to the Sheepen box (Niblett 1985, 22), debased studs of the type found here can probably be dated rather later. Grave 515 is placed in the last two decades of the 1st century.

Reconstructing the position of the fittings on the box has proved difficult. It is likely that the copper alloy studs and rings were fixed to either the top of the lid or front board, or both. At least two of the studs were used to fix the copper alloy sheet fitting 548 to the box. This probably fitted over the front part of the lid, with the smaller return lying between the lid and front board, and the longer return on the top of the lid. The rings were fixed to the box by iron double spike loops.

The iron objects recorded as 550–1 each consist of an L-shaped strap linked at each end to a looped staple. One arm of the strap, probably the longer, was attached to the lid and one to the back of the box. These items can be interpreted as forming hinges, albeit of a rather crude form. The straps would have articulated on the looped staple attached to the rear, but it seems unlikely that the lid could have fitted snugly on to the main body of the box. Although unusual, it may be noted that an analogous arrangement must have existed on a similar box discovered in a cremation grave (burial 30) at Skeleton Green, Hertfordshire (Borrill 1981; the reconstruction drawing shown in fig 121 is probably incorrect). It is, perhaps, possible that boxes with these simple and ungainly hinges were made specifically for burial and not for daily use.

552 is a lock bolt with two arms, each of which has a leaf spring attached. It is linked at the head to a looped staple which would have been set in the box lid. In the locked position, the springs would have engaged with

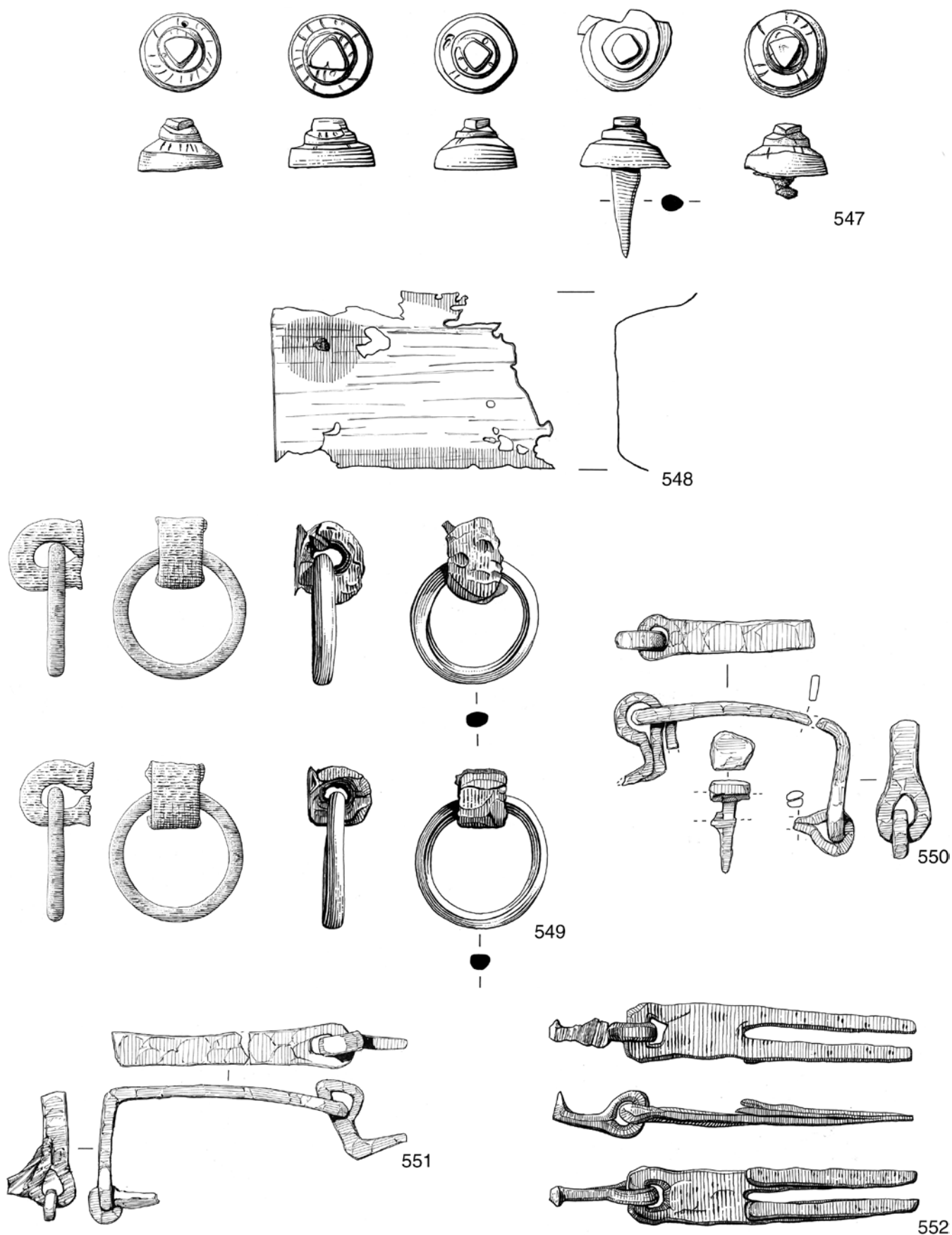


Figure 50 Box fittings, nos 547-9, scale 1:1; nos 550-2, scale 1:2

a ridge at the head of a plate within the lock chamber of the box. No trace of such a plate survived in grave 515. To open the lock, a 'lift key' (see below, Category 11) was passed through a key hole and then twisted and pulled towards the front of the box to compress the springs and allow the lid to be lifted. It is likely that in this case, the key hole was located between the two arms of the lock and a key similar to **810** (Category 11) with the T-shaped bit was used. Lock bolts similar to **552** are well known in Roman contexts and two directly comparable examples were found with caskets (burial 30 and 45) at Skeleton Green (Borrill 1981).

The wood of the box was probably beech (*fagus sp.*). From the mineral preserved wood Jacqui Watson postulates that the box was made from quarter sawn planks with a thickness of approximately 12mm at the sides and 14–15mm on the lid. The distance between the head and tip of the looped staples holding the L-shaped brackets (**550–1**), however, suggests a thickness of c 9mm. The box was held together by nails including **553–5** which have wood remains adhering to them.

**547** Fig 50 sfs VR 7016, 7113 (a) and 7380. Six (only five illustrated) copper alloy studs of debased lion head type. Average D 15mm. Only one retains its shaft. Attached to the back of this stud and pierced by the shaft is a piece of sheet copper alloy. Two other studs also have small pieces of corroded sheeting adhering to the underside. These studs served to attach a sheet copper alloy fitting to the box. Whether all six are to be associated with the surviving such fitting described below, or whether one or more other thin sheet pieces (including, perhaps, a lock plate) have decayed is uncertain.

**548** Fig 50 sf VR 7113 (b). A piece of copper alloy sheet, maximum surviving L 51mm. One long edge has been bent over to form two contiguous sides, one W 25mm, the other 16mm. The other long edge (on the broader side) has been bent over to give a very slight return. On the surviving end of the broadest face the corrosion products of a shaft in a rivet hole surrounded by the scar of a stud can be seen. The scar extends slightly over onto the adjacent face. This fitting probably went over the front section of the lid, with the narrower face lying on the top, the broader facing forwards, and the slight return lying between the lid and the top edge of the front board when the box was closed.

**549** Fig 50 sfs VR 7104, 7105 and 7113 (c). Four copper alloy rings, each with the loop of an iron double-spiked loop attached. Two clenched fragments of the shafts of the loops also survive (sf 7113c), together with an unclenched nail shaft and a fourth obscure iron fragment. ID of the rings 18mm.

**550** Fig 50 sf VR 7109. An L-shaped iron hinge strap (now in two pieces), pierced at each end with looped staples (now incomplete) in the holes. L of arms 83 and 45mm, W of arms 10mm. The best preserved staple has L 30, W 16mm.

**551** Fig 50 sf VR 7111. An L-shaped iron hinge strap (now in two pieces) pierced at each end, with a U-shaped staple in one hole and a looped staple in the other. L of arms 85 and 40mm, W of arms 10mm. L of looped staple 26, W of staple 12mm.

**552** Fig 50 sf VR 7113 (d). An iron lock bolt with two arms, each of which has a leaf spring attached. The head is pierced for suspension and is linked to an incomplete looped staple. L 106mm, W 19mm.

not illustrated

**553** sf VR 7113 (e). Nine fragments from iron nails with flat

roughly rounded heads and shanks of rectangular cross section; corrosion-replaced wood adheres.

L	W	T	
35	13	4	tip missing
32	15	6	tip missing
28	–	4	shank
32	–	6	shank, piece of glass fused on
11	–	2	shank, piece of glass fused on
15	–	3	shank (L-shaped)
26	–	3	shank
23	–	3	shank
12	–	2	shank tip

**554** sf VR 7114. Two complete iron nails, four shanks and one head, of similar form to **553** above; corrosion-replaced wood adheres.

L	W	T	
12	16	6	
25	5	3	complete
27	7	3	complete
27	–	3	shank
25	–	3	shank
20	–	3	shank
15	–	3	shank
–	18	–	head

**555** sf VR 7379. One complete iron nail and two shanks of similar form to **553** above; corrosion-replaced wood adheres.

L	W	T	
32	13	4	complete
28	–	–	shank
17	–	–	shank

### Victoria Road, grave 621

Late 1st-century cremation (XV, 4299)

An unidentified item of wooden furniture with bone inlay or veneer was found in this cremation burial. Many of the pieces of bone are badly burnt and distorted, and it seems likely that more were completely consumed by the heat of the pyre. They may have been attached to a box, but a larger piece of furniture such as a chair (or even a couch) cannot be dismissed.

While some pieces indicate a probable rectangular framework for a rectangular element in the piece of furniture, and thus suggest a box or chest, the other shapes are so varied that it is difficult to hazard a guess as to size or shape. The similarity of the fragment **582** to the piece on the edge of the sliding lid from box **595** should be noted.

Some pieces were probably fixed in place by glue (Schmid 1968, 194–6; Nicholls 1979, 10; Crummy 1981, 282). The others were almost certainly held in place by pegs such as **585** like fragments from Richborough (Henderson 1949, pl 58; Wilson 1968, pls 61–2; and those from Colchester, Crummy 1983, especially 82–4, fig 87, nos 2155, 2157, 2158), or a combination of glue and pegs. The fittings are divided here into pegged and unpegged groups. One peg was recovered.

A variety of bones could have been used to make the fittings. While the lozenge-shaped piece of inlay **562** was probably cut from a long bone, many of the small thin pieces of inlay could have been made, for example, from scapulae.

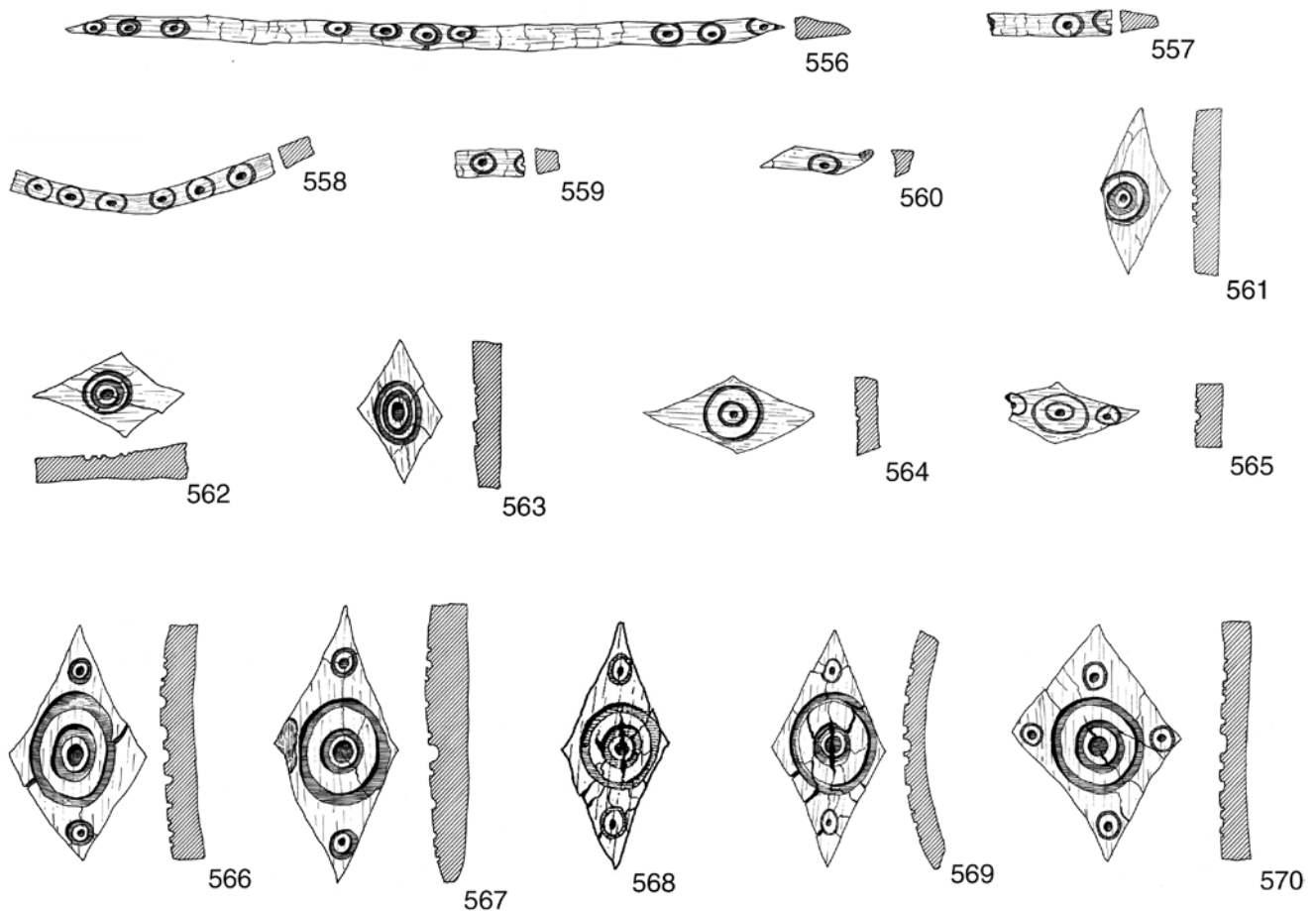


Figure 51 *Fittings, nos 556–70, scale 1:1*

Five further pieces almost certainly belong to the group from grave 621 but were found residual in graves 600 and 605, and in the fill of the late Roman well F1093. As the pieces from grave 600 were inside the cremation urn, it must be concluded that they were deliberately placed there having been left at the pyre site. The pieces are listed here after the main group.

### Unpegged pieces

#### *narrow strips with single ring-and-dot decoration*

**556** Fig 51 sf VR 9799/9811/9813. A complete length with each end cut slantwise to enable a neat fit with an adjacent strip. There is a group of three single ring-and-dot motifs at each end, and a group of four set in the centre. L (curved slightly, probably the result of heat) 91mm, W 4mm maximum, depth 7mm maximum.

**557** Fig 51 sf VR 9818. A short fragment broken at each end, with two single ring-and-dot motifs at one end. L 15mm, W 3mm, depth 6mm maximum.

**558** Fig 51 sf VR 9820. A fragment broken at each end, with continuous single ring-and-dot decoration. L (curved) 34mm, W 3mm, depth 4mm.

**559** Fig 51 sf VR 9821. A short fragment broken at each end, with one single ring-and-dot motif and part of another. L 10mm, W 4mm, depth 4mm.

**560** Fig 51 sf VR 9822. A short fragment cut slantwise at one

end, and possibly cut at the other to form a parallelogram. There is a single ring-and-dot motif set slightly off-centre. L 14mm, W 3mm, depth 6mm.

#### *small lozenges with a large double ring-and-dot motif set centrally*

**561** Fig 51 sf VR 9800. L 21mm, W 8mm, depth 3mm.

**562** Fig 51 sf VR 9801. The underside of this lozenge is curved and has traces of cancellous tissue, possibly indicating that it was cut from a long bone. L 19mm, W 11mm, depth 4mm.

**563** Fig 51 sf VR 9803. L 18mm, W 10mm, depth 4mm.

**564** Fig 51 sf VR 9816. L 20mm, W 9mm, depth 3mm.

#### *lozenges with a large double ring-and-dot motif set centrally and two single ring-and-dots, one at each elongated end*

small:

**565** Fig 51 sf VR 9790. L (incomplete) 16mm, W 17mm, depth 4mm.

large:

**566** Fig 51 sf VR 9788. L 30mm, W 17mm, depth 4mm.

**567** Fig 51 sf VR 9789. L 36mm, W 15mm, depth 6mm.

**568** Fig 51 sf VR 9802. L 30mm, W 14mm, depth 4mm.

**569** Fig 51 sf VR 9819. L 30mm, W 14mm, depth 4mm.

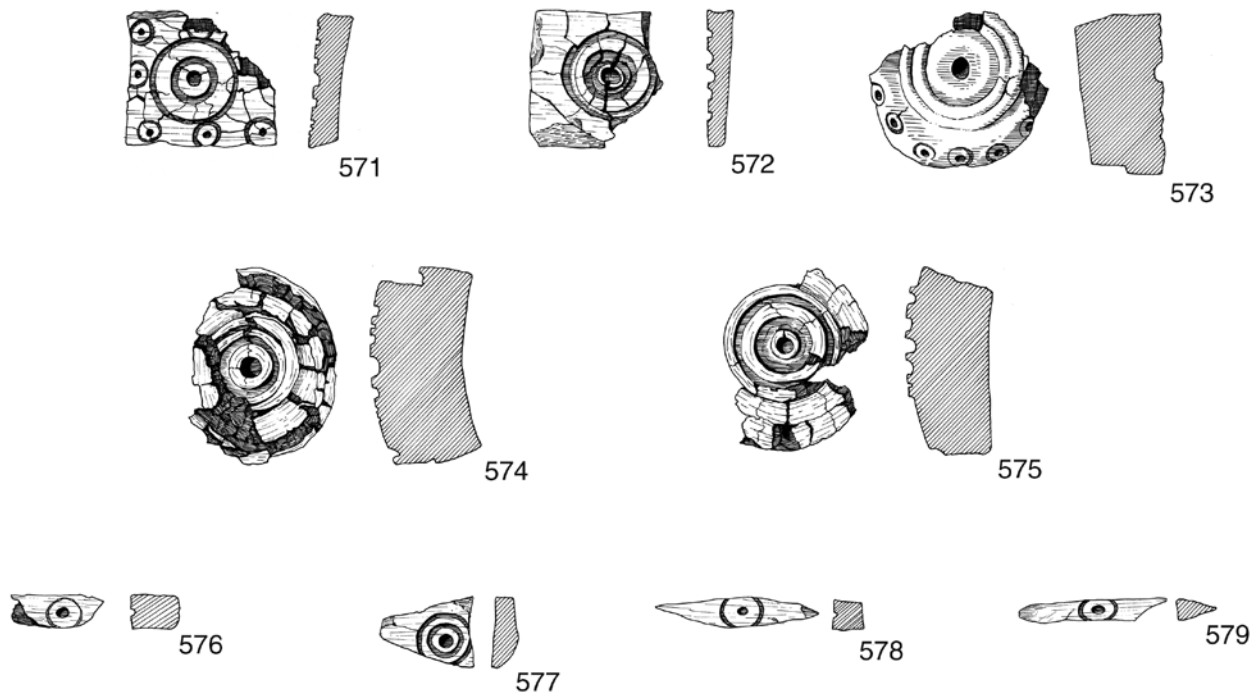


Figure 52 Fittings, nos 571–9, scale 1:1

*lozenge with a large double ring-and-dot motif set centrally and a single ring-and-dot motif in each corner*

**570** Fig 51 sf VR 9793. L 30mm, W 21mm, depth 4mm.

#### *squares*

**571** Fig 52 sf VR 9795. Most of a square with a large double ring-and-dot motif set centrally and a border of single ring-and-dots (three along each edge). 18 by 17mm, depth 4mm.

**572** Fig 52 sf VR 9814. Most of a ?square with a large double ring-and-dot motif set centrally. Only one side is complete, and this may suggest that the fragment is part not of a square but of a strip. The complete side measures 17mm, depth 4mm.

#### *circles*

**573** Fig 52 sf VR 9794. A fragment of a circular piece with central concentric circular mouldings (rather than multiple ring-and-dot) and an outer ring of single ring-and-dot motifs. The object is shaped rather like a stopper with a narrower section below the upper decorated face. D of upper part approximately 26mm, D of lower part approximately 24mm, depth 10mm.

**574** Fig 52 sf VR 9806. A fragment of a circular piece with central triple ring-and-dot motif. The upper part of the wall has been destroyed. D at the lower end 24mm, depth 12mm.

**575** Fig 52 sf VR 9810. A fragment of a circular piece with central double ring-and-dot motif which stands proud of the outer field of the decoration. The wall has been destroyed except in one small area which indicates that the object was stopper-shaped as **573**. Approximate diameter 26mm, depth 11mm.

#### *miscellaneous fragments*

**576** Fig 52 sf VR 9785. A fragment probably from a thin strip as above, but one edge is curved. The piece bears a single ring-and-dot. L 10mm, W 4mm, depth 7mm.

**577** Fig 52 sf VR 9804. A triangular fragment with one (short) broken edge and a double ring-and-dot motif of a similar size to those on the small lozenges with a large double ring-and-dot motif set centrally. L 12mm, W 9mm, depth 4mm.

**578** Fig 52 sf VR 9809. A long narrow ?elliptical piece with a centrally-placed single ring-and-dot. L 20mm, maximum W 4mm, depth 4mm.

**579** Fig 52 sf VR 9812. A fragment probably from a thin strip but very damaged. There is a single ring-and-dot placed more or less centrally. One end may be cut slantwise. L 18mm, W 3mm, depth 6mm.

#### **Pegged pieces**

**580** Fig 53 sf VR 9781–9783. A strip with the long edges marked by diagonal cuts running from a marginal groove and the surviving short end by two grooves. As the pattern of both double and single ring-and-dot motifs seems to be symmetrical, it is likely that only a few millimetres of the strip are missing. There are four holes, almost certainly peg-holes. The strip was probably originally straight with a flat underside and owes its present shape to heat. Surviving L 103mm, W 14mm.

**581** Fig 53 sf VR 9784. A fragment of a strip similar to **580** above, broken across 2 peg-holes. L 39mm, W 15mm.

**582** Fig 53 sf VR 9785/9787/9791. An irregularly-shaped strip with one long edge marked by diagonal cuts running from a marginal groove as the two previous pieces. The narrower end of the strip is cut into steps. The wider end is broken. The strip is decorated with a pattern of double and single ring-and-dot motifs and pierced by three peg-holes. L 53mm, maximum W 25mm.

**583** Fig 53 sf VR 9815. A fragment possibly from a strip

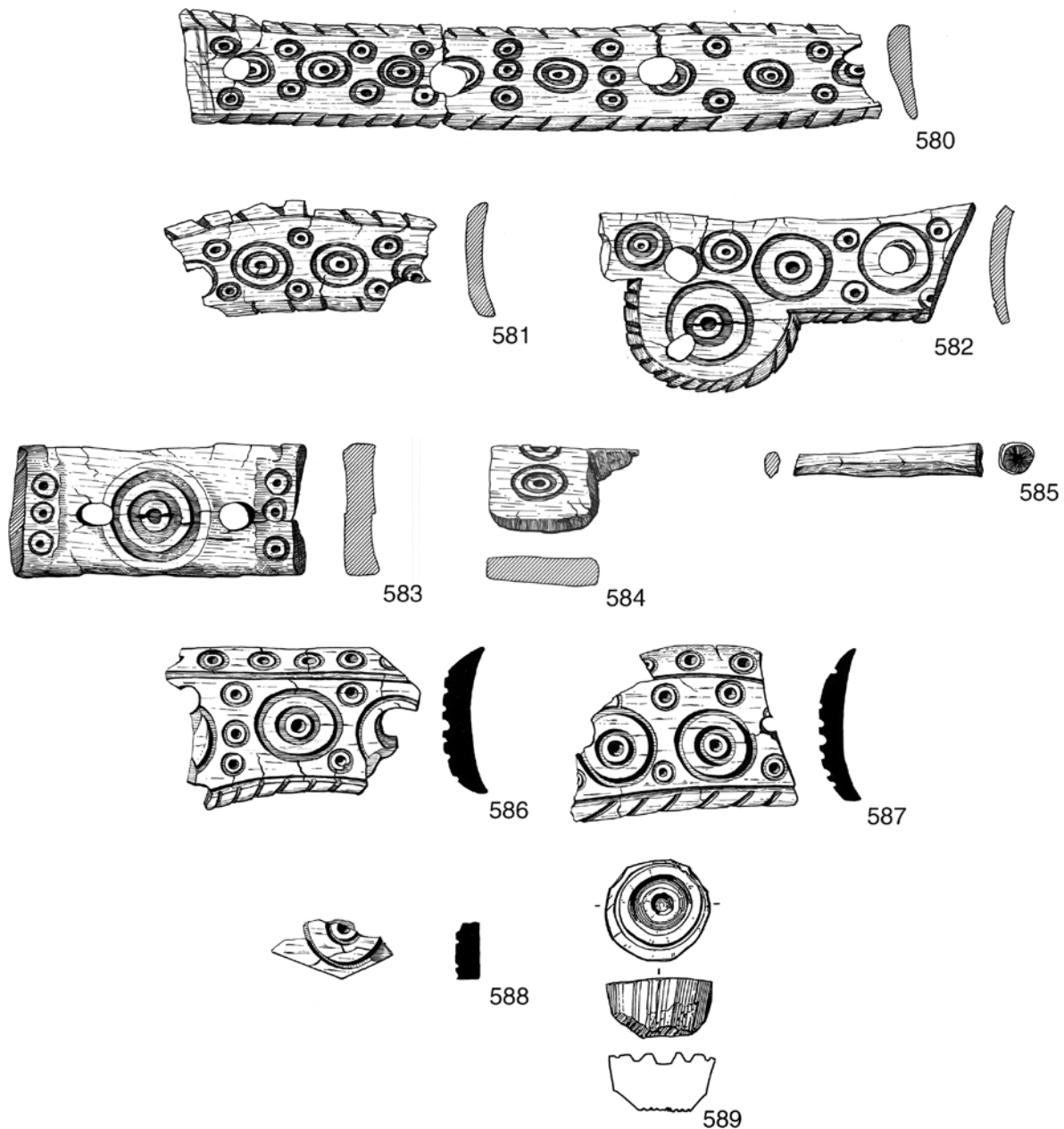


Figure 53 *Fittings nos 580–9, scale 1:1*

similar to **582** above, decorated with double ring-and-dot motifs. L 11mm, maximum W 18mm.

**584** Fig 53 sf VR 9780. A plain piece compared to the previous strips, with a central large double ring-and-dot raised above the surrounding area and flanked by two peg-holes. The narrow ends are raised slightly and marked by three single ring-and-dots. The raised sections are chamfered slightly at the ends. L 44mm, W 17mm.

### Peg

**585** Fig 53 sf VR 9805. A long peg with blunt tip (?broken) and top marked with a ring-and-dot. L 27mm, maximum diameter 5mm.

### Pieces occurring ?residually

**586** Fig 53 sf VR 8603. A curved strip with diagonal cuts bounded by a marginal groove on one edge, with a line of single ring-and-dot motifs also bounded by a groove on the other, and a central pattern of ring-and-dots, as **587** below. The strip has broken across one peg hole at one end, set in the middle of a large ring-and-dot motif, and across two peg-holes at the other end, one right on one edge, and one just within the marginal groove on the other side. L 34mm, maximum W 23mm. Late 1st- to early 2nd-century cremation grave 605 (XIV, 3869).

**587** Fig 53 sf VR 8605 (a) A curved strip with diagonal cuts within a marginal groove on one edge and a line of single ring-and-dot motifs within a groove on the other, and a



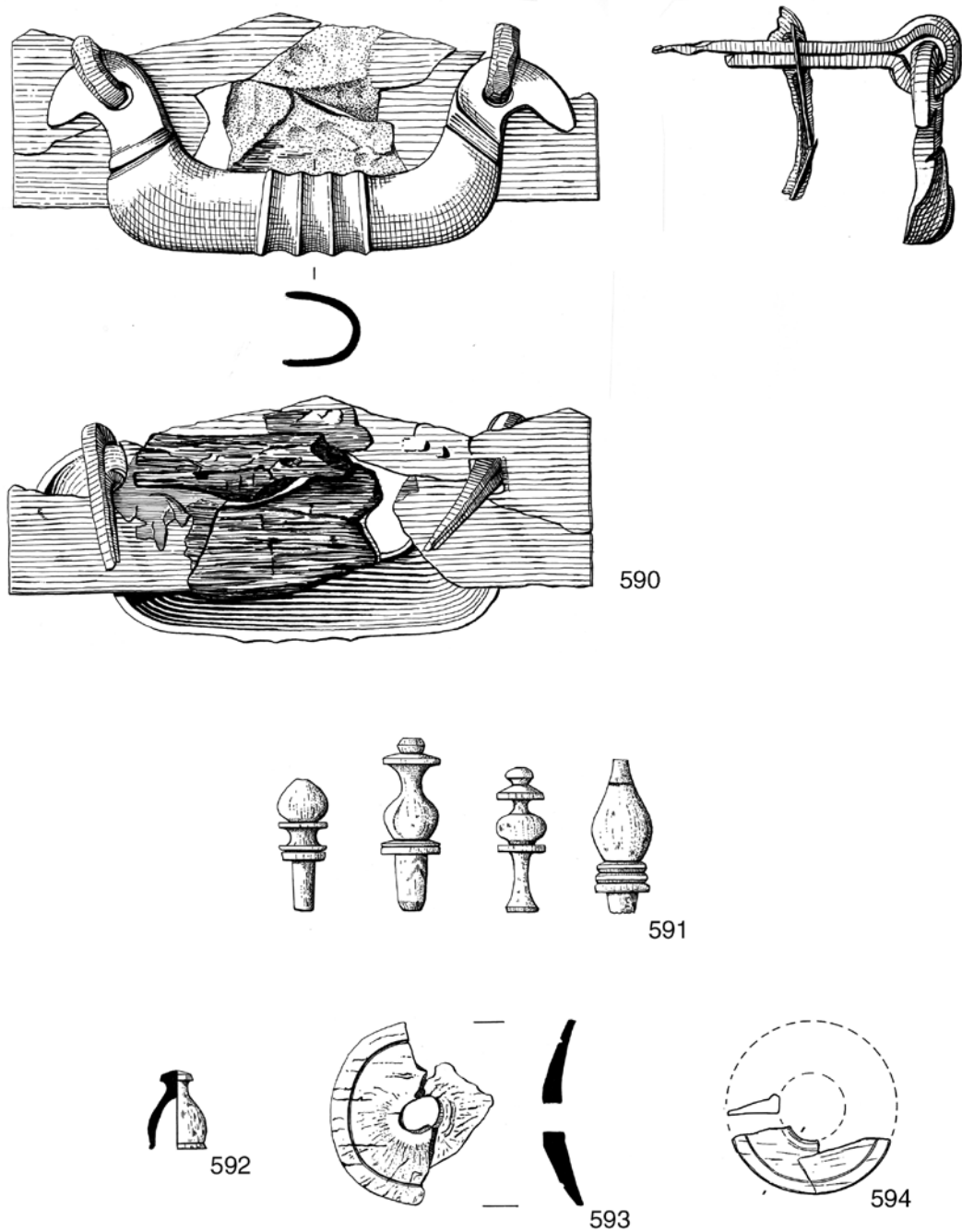


Figure 54 Box and furniture fittings, nos 590-4, scale 1:1

central pattern of ring-and-dots. Broken across a peg hole at each end. L34mm, maximum W 24mm. (b) Either a very thin ?elliptical fragment as 578, or a fragment of a lozenge with a single ring-and-dot in each elongated end. (c) A fragment of a lozenge with a central double ring-and-dot and single ring-and-dot motifs in the elongated ends. Mid-2nd-century cremation grave 600 (XIV, 3852).

588 Fig 53 sf VR 10523. A fragment of a large lozenge with a central double ring-and-dot. Mid-2nd-century cremation grave 600 (XIV, 3852).

589 Fig 53 sf VR 9661. Thick roughly-shaped roundel with incised concentric circles. D 14 mm, T 8.5 mm. This is probably residual from grave 621. Mid- to late 4th-century fill of well F1093 (XV, 4135).

### Victoria Road, grave 466

Mid-2nd-century cremation (XII, 2616)

590 Fig 54 sf VR 5713. A wooden box with copper alloy sheathing at the corners and a copper alloy drop handle. The sheathing was fixed to the box by nails with an iron shaft and globular copper alloy head. Though the pieces were well planned, they cannot now be reconstructed with certainty. However, at least one piece was not simply a right-angled bracket, but formed a corner fitting over three contiguous faces, probably two sides and the top. The absence of hinges suggests that the box had an unhinged lid, though

the position of the drop-handle apparently on the front of the box and in the centre, suggests a lid raised with a motion from front to back, as if it were hinged. The box seems to have been made of maple (*Acer sp.*), and to have held the cremated human bone.

All the sheathing is listed in archive as sfs 5691–2, 5700, 5713, 5724, 5737, 5923, 5924 and 5936. Sf 8403 covers the box as a whole. Two widths are apparent in the sheathing, 34mm and 40mm.

The nails are catalogued in archive as sfs 5685, 5689, 5714, 5725, 5732, 5738, 5852, 10690 and 10689. Seven were recovered complete and five incomplete. Overall, their dimensions lacked uniformity, ranging from 38–57mm in L, 2–7mm in T and 5–20mm in W of head.

The drop-handle, sf 5713, was fixed to the box by split-spike loops which also held a backing-plate, or escutcheon, to the box. The handle is of debased dolphin style, the heads little more than flat curved terminals. There are mouldings just below the heads and in the centre of the handle. Apart from at the terminals, the handle is hollow underneath and is 75mm long. The ends of the split spike loops have been broken. Their surviving lengths are 40mm and 43mm.

### **Victoria Road, grave 442**

Late 2nd- to early 3rd-century cremation (X, 832)

This group of bone fittings was associated with over 600 burnt nails and 39 burnt copper alloy studs (Category 11), which may have been part of the same object. Such a large quantity of nails suggests that several pieces of furniture were burnt on the pyre before transfer to the grave pit. This appears to be supported by the copper alloy studs and the bone objects from the grave, pegs and discs identified as being used in the construction of composite bone and wood hinges for cupboards and chests (Fremersdorf 1940, Abb 26). The copper alloy studs have features associated with gripping leather and may be from an item of furniture such as a couch or box. However, two important points should be noted.

First, no tubular bone hinge pieces were found – a surprising absence as these objects are relatively solid, and so more likely to survive the fire than the pieces that were recovered. The pegs and discs may therefore be from something other than hinges, especially as seven terminal pegs presuppose four hinges, which would strengthen the likelihood of at least a few tubular hinge pieces surviving, or wooden hinge pieces were used.

Second, the number of nails will almost certainly be only a part of the total actually burnt on the pyre; therefore, if they derive from furniture, they represent a great many, mostly large items. Alternatively, the nails may represent a metalworker's hoard or a woodworker's stock.

**591** Fig 54 sf VR 2852 (a). Seven burnt bone pegs with decorative mouldings, three incomplete (not illustrated). These are almost certainly pegs used to fix composite bone and wood hinges on items of furniture and all seem to be terminal pegs (Fremersdorf 1940, Abb 26). L of the largest 24mm.

**592** Fig 54 sfs VR 3355 and 3363. Three burnt bone cap terminals (one illustrated) probably to be associated with the hinge pegs and discs above. Two complete, one incomplete. L of the two complete caps 11 and 12mm respectively.

**593** Fig 54 sf VR 2852 (b). Fragments of at least four burnt and distorted bone lathe-turned discs with large central

perforation (one illustrated). Three have a thin marginal groove. In cross-section these discs appear to be convex, with a flattened underside. By their association with the bone pegs above, they would seem to be terminal discs used on composite bone and wood hinges as discussed in Fremersdorf (1940, cf especially Abb 13 and 26) and therefore derive from an item of furniture, probably either a box or a cupboard. D of the most complete disc 26mm. Three similar discs came from an amphora-burial at Colchester, grave 302 (Hull 1963, 145, fig 81, 6a–c) dated to about AD 190.

**594** Fig 54 sf VR 2602. Two fragments from a thin bone disc of triangular section with low rounded rim around a large central perforation, very similar to **593**. Residual in 13th- to 14th-century pit F43 (X, 243).

### **St Martin's Close, Winnall, grave 36**

Late 4th- to 5th-century inhumation (36)

At the head of a coffined inhumation of a young woman aligned west–east was a wooden box containing an antler comb (**315**). The box had been decorated with bone veneer fixed with small bone pegs. Though the wood had rotted away and the inlay strips subsequently displaced, the on-site photographs enabled their original position on the box to be determined. The pieces are illustrated both individually (Figs 55–6) and in an isometric reconstruction (Fig 57). Many are now slightly distorted, and some, or all, may have shrunk.

All six faces of the box were veneered, the sides apparently completely so, but the centre of the top and base were left free. This 'framing' may either have exposed the wood, or both lid and base may have been open to display the connecting-plates of the comb. The latter reconstruction is preferred and shown in the isometric drawing, as the comb is a special-order item and fitted snugly into the box, which must have been purpose-made (Crummy 2001, 105). The open area on the base of the box is the same length, but slightly wider, than the connecting-plates of the comb: that on the lid is slightly shorter, but the same width.

The box was approximately 144mm long by 89mm wide as shown by the strips from the base (a–d). The wooden side panels were 10mm thick, as shown by the narrow strips (l–n) which fitted on to the top edge of the sides. The panels must have been jointed together as no nails were recovered. The external depth of the box was 22mm, given by the side and back end strips (e–f, o). The lid slid open, pulled by a substantial rounded 'grip' covered on the top by the curved strip (k) and on the outer edge by (q). It was about 6mm thick (apart from at the projection), shown by (q) and by the front end strip (p), which is reduced by that amount in height for most of its length along one long side, apart from at the very ends, which rose to cover the full height of the side panels (the left hand end projection has broken off and is missing). The sloping edges of (q) and of the surviving projection on (p) show how the lid was seated into the side panels.

The pegs fixing the veneer to the wood are set apparently at random, but the strips of bone may not have been completely flat before being fixed on, and the

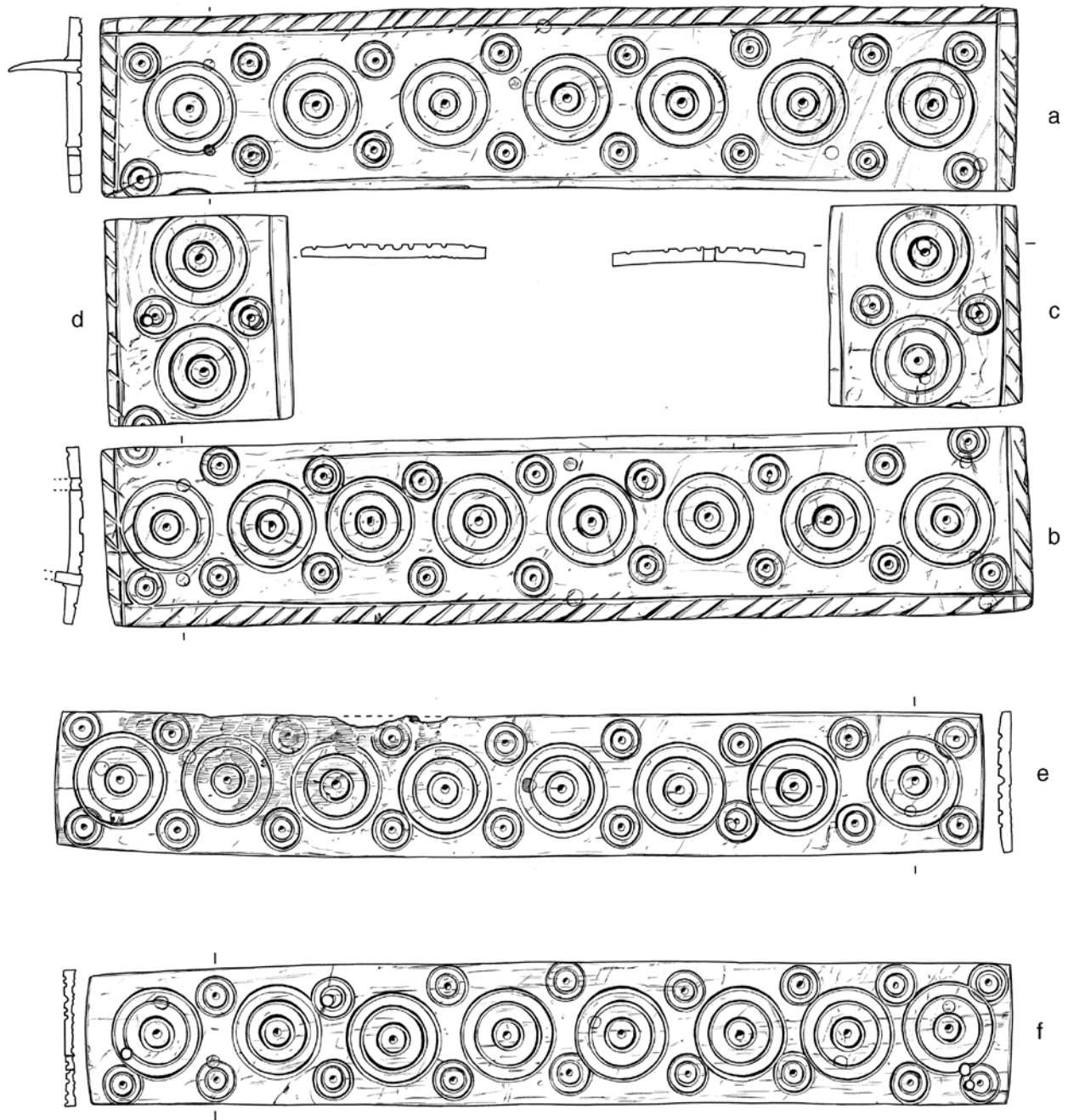


Figure 55 Box fittings - base and long edges of no 595, scale 1:1

position of the pegs may have been largely dictated by the need to work against this natural resistance. The construction of the wooden box was also a factor. Two pegs were often set closely together either side of joints in the wooden panels, for example, at one end of (m). The pegs are so well fitted that they are virtually undetectable on the surface. So close a fit was essential as the inscribed decoration was applied after the box was made, shown by the way it cuts across surviving pegs (for example, on (g) and (m)) and across adjoining strips (for example, the junctions of (a/d), (b/d), (c/d), (p/q)). This feature of the construction proved to be particularly useful in reconstructing the lid.

A bone-veneered box with a sliding lid was found at Heilbronn, Germany, and is of similar date to the St Martin's Close box (Goessler 1932, 294). Veneer from a lockable box was found at Richborough, Kent, in a 4th-century pit (Wilson 1968, 106, pls LXI-LXII), though the box was considered to be 2nd-century as it lay among redeposited material of that date in the top of the pit (Pearce 1968, 34). A second group of fragments of bone veneer from Richborough came from near the bottom of the inner ditch on the west side of the stone fort (Henderson 1949, 152, pl LVII). Coin evidence from the ditches suggests that this veneer may be as early as late 3rd-century or as late as Theodosian (Bushe-Fox

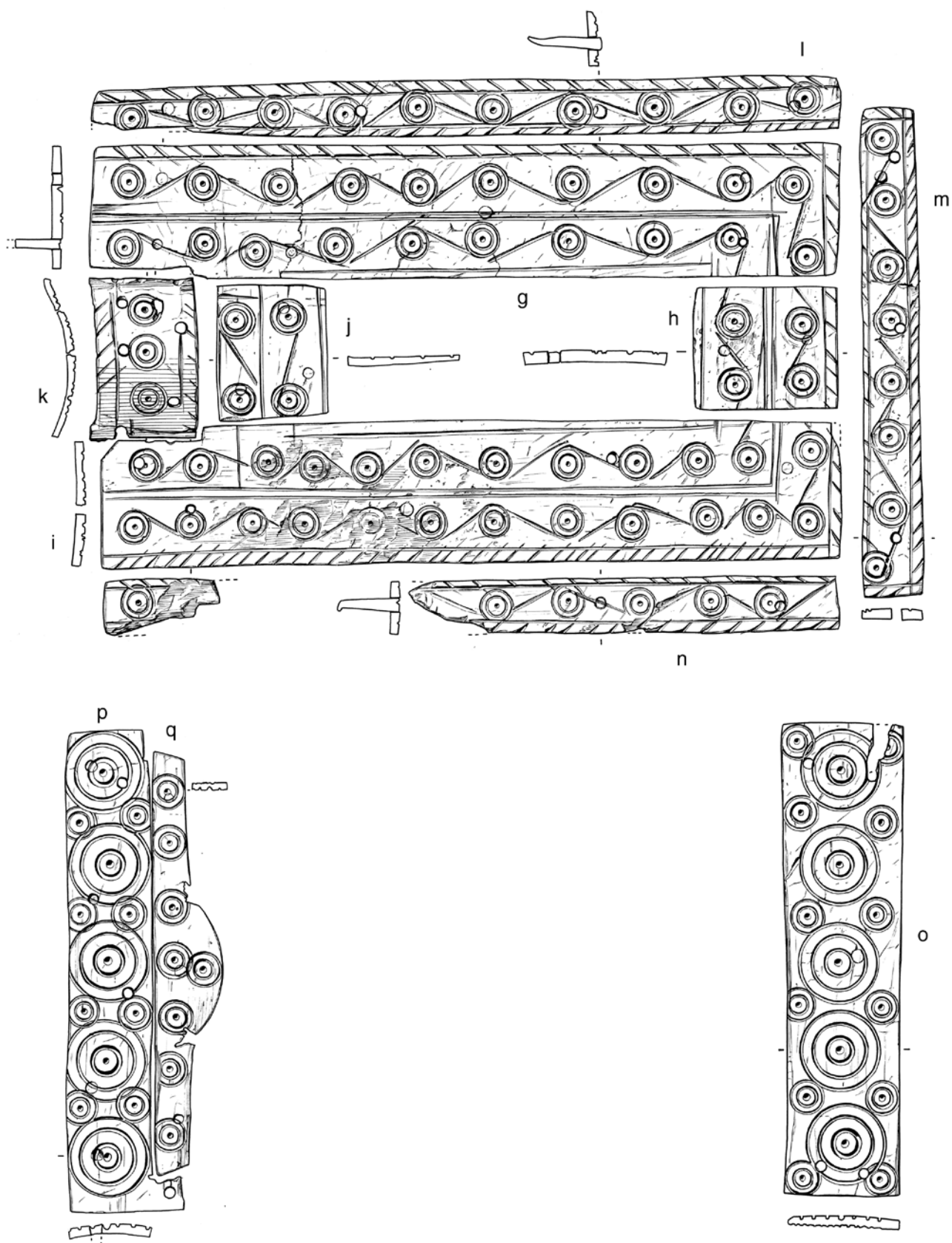


Figure 56 Box fittings – top and short sides of no 595, scale 1:1

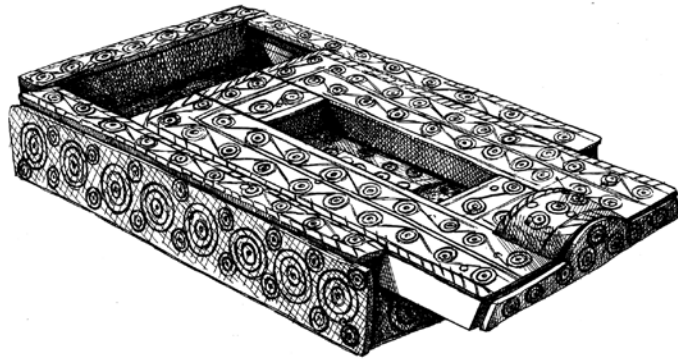


Figure 57 Reconstruction of box no 595, scale 1:2

1949, 70–1). The veneer in all three cases is decorated with inscribed patterns based around ring-and-dot motifs, lines, and feathering. The Heilbronn box also features a chi-rho.

**595** Figs 55–7 sf SMCW 331.

Fig 55 (a–d) Two long and two short strips forming a 29mm wide frame 144mm long by 89mm broad. The outside edges are marked by marginal grooves and feathering, the inner by a less well-defined groove. The main element of the decoration shows large triple ring-and-dot motifs flanked by smaller double ring-and-dots. These strips form the base of the box.

(e–f) Two strips, one L 144mm, W 22mm, the other L 143mm, W 20.5–22mm. Decoration similar to (a–d), with eight triple ring-and-dot motifs flanked by small double ring-and dots. At the narrower end of (f) one double ring-and-dot has not been cut. These covered the two long sides.

Fig 56 (g–k) Two long, two short, and one short curved strip forming a frame 133mm long by 71mm broad. The outside edges of (g–i) are marked by a marginal groove and feathering, the inner by a groove. The latter groove is picked up on (j). Double ring-and-dot motifs joined by a zig-zag line give two parallel rows of scroll decoration separated by a pair of grooves. On (j) the two rows of scrolling are separated by a single groove, which is picked up on (g) and (i) to run across their innermost row. The curved piece (k) has a marginal groove and feathering along both long edges, and a central row of three double-ring-

and-dots. This piece fitted between one end of (g) and (i), which are slightly trimmed to accommodate it.

(l–n) Three narrow strips forming a 10mm wide three-sided frame approximately 143mm long by 89mm wide. The long edges are grooved and feathered, and a line of scroll decoration is set down the centre. One end of one strip (n) has broken away and the other end has decayed. The site photographs clearly show (l) adjacent to (g). These pieces covered the edges of the two long side panels and of the back panel.

(o) Strip similar to (e–f), L 85mm, W 22mm. This piece covered the back panel.

(p) Strip similar to (e–f) and (o) but reduced in width for most of its length along one side by about 5–6mm. One of the end projections formed by this reduction has broken off. This strip covered the front panel.

(q) Narrow strip with central convex projection and slightly sloping sides. L 72/76mm, W 6mm, rising to 12mm at the centre of the projection. This piece covered the front edge of the lid and curved 'grip'.

**Other box fittings**

**596** Fig 58 sf VR 915. A thick bone lozenge, probably cut from a metapodial. The face is ornamented with a row, set lengthwise, of three single ring-and-dot motifs. L 39mm, W 21mm, T (maximum) 5.5mm. This piece is very similar to

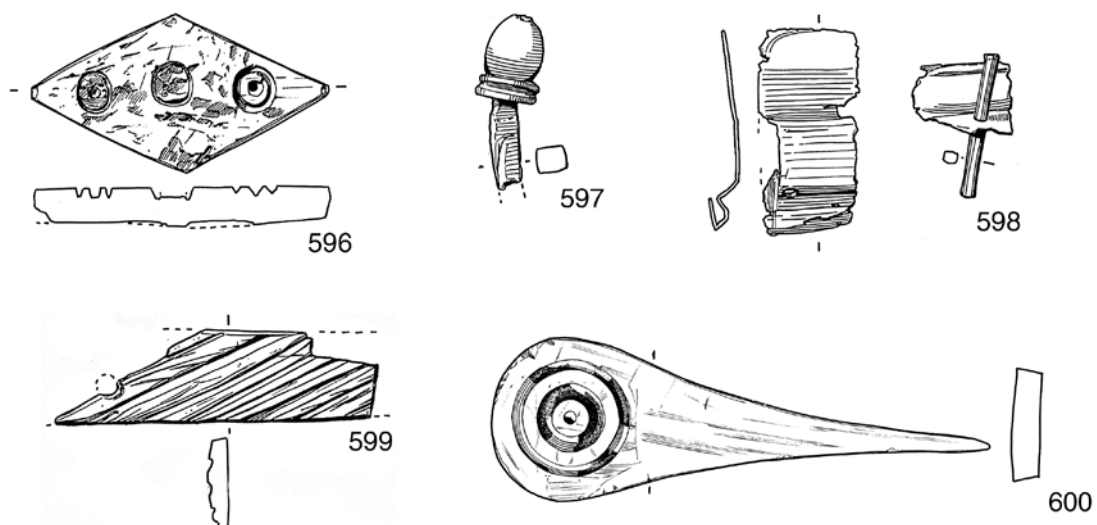


Figure 58 Box fittings, nos 596–600, scale 1:1

lozenges recovered from the early Roman cremation grave 621 (556–589) at Victoria Road, but the trenches (V and XV) were separated by the Cirencester road, which lessens the likelihood of this piece being from the same object. Mid second to mid-3rd-century soil layer (V, 345).

**597** Fig 58 sf HG 446. A rectangular-section copper alloy shaft on to which is set a gilt copper alloy moulded terminal, consisting of an ovoid above two reels. Probably a fitting from a box or other item of furniture. L 23mm. Floor in late 2nd- to 3rd-century phase of Building 17.3 (III, 802).

**598** Fig 58 sf VR 555. Four fragments of copper alloy sheet, one pierced by a rivet hole, another holding a long (21mm) rivet. Perhaps a box fitting. All four pieces retain a three- not two-dimensional form and have clearly not been attached to a simple flat surface. Many of the edges are finely and irreg-

ularly serrated. Two further pieces of sheet metal from this small find number are small offcuts. Late 3rd- to 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 153).

**599** Fig 58 sf 27JS 654. A fragment of a thin bone strip, broken across a rivet- or peg hole set towards one edge. The upper surface is decorated with slanting grooves. L 43mm, W 12mm. Possibly post-Roman. Late Saxon pit F54 (I, 374).

**600** Fig 58 sf JCH 11. Bone inlay piece of exaggerated oval form. The rounded end is decorated with a large double ring-and-dot motif. L 65mm, T 3.5mm. Similar pieces come from Bierton, Buckinghamshire, Cirencester, Gloucestershire, Wroxeter, Shropshire, and on the continent from Xanten, Germany, and Augst, Switzerland (Greep 1986, 74). 17th- to 18th-century soil layer (III, 88).

## 5 Objects used for recreational purposes

This small assemblage consists principally of counters of bone, pottery and tile. They include a group of 29 counters from an early 3rd-century cremation burial, while a 1st-century cremation produced a well-worn bone die.

### Counters

#### Bone counters

Two of the types identified at Colchester, Types 1 and 3 (Crummy 1983, 91–2), were present in this assemblage from Winchester.

#### Type 1. Plain

**601** Fig 59 sf VR 7263. A plain bone counter with a central indentation made by a lathe centre. The counter seems to have been burnt slightly, and the edge is damaged in places. D 18mm, T 4mm. Though plain counters such as this are found in levels ranging in date throughout most of the Roman period, it is possible that they are a specifically 1st- and 2nd-century type. Late 1st-century cremation grave 501 (XI, 1321).

**602** Fig 59 sf VR 7378. Two plain bone counters each with a central perforation. One, 17 mm D and 3 mm T, has a simple rounded edge. The other, 19 mm in D and 4 mm T, has bevelled edges. In view of the central perforations it is possible that these objects are not counters (an alternative is disc beads). The perforations are worn, but not irregularly as

might be expected if the objects were suspended. Late 1st- to early 2nd-century cremation grave 578a (XI, 1582).

**603** Figs 60-1 sf VR 3169. A set of 29 counters deposited in a grave. The set is one short for the game of *duodecim scripta*, which was a race and captive game similar to backgammon (Allason-Jones 1989, 164). A set with thirty glass counters was found with the remains of a wooden board on a 4th-century lead coffin in the mausoleum of Lullingstone villa (Liversidge 1973, 350). A brief survey of sets of game counters shows that the majority come from southern Britain (Cotton 2001).

All of the pieces have lathe centre marks on the dished face, but few have a perfectly circular edge. They vary considerably in diameter, though 21mm is common, and most exhibit on the flat side and the edge, the opposed pair of angled faces which demonstrates manufacture from long bones. Many also have scratched graffiti or other marks on the flat side, with X being particularly common, and a few are also incised on the edge. These edge graffiti are cut with the flat face of the counter uppermost. Cremation grave 408 (X, 571), dating to the first half of the 3rd century.

Each counter bears on the obverse the indentation of a lathe centre.

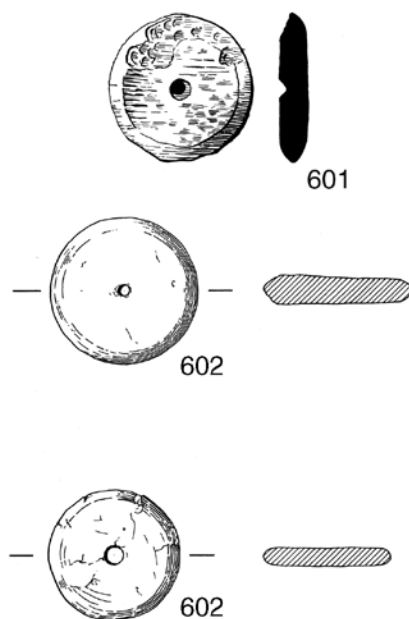


Figure 59 Bone counters, nos 601–2, scale 1:1

- 1 D 23mm, T 4.5mm. An X is incised on the reverse.
- 2 D 21mm, T 3.5mm. There are six very small pits close to the edge on the reverse, set in two lines of three. Three of the pits, those closest to the edge, are very indistinct.
- 3 D 21mm, T 5mm. Incised on the reverse are a faint six-pointed star, a single pit and a short straight line.
- 4 D 18mm, T 3mm. On the obverse there are three short incisions radiating outwards from the centre mark, and a small X or overcut V on the rim.
- 5 D 21mm, T 5mm. Plain.
- 6 D 21mm, T 4mm. There are four large pits drilled into the reverse.
- 7 D 25mm, T 3.5mm. There are faint, possibly random lines scratched into the obverse, and the reverse has been divided into six segments, two lines of three, by three incised lines. In the largest, central segment is an N, or, viewed the other way up, possibly a IV. In an adjacent end segment there may be a blundered or partially eradicated N. This segment also contains a small pit, and in the segment above it there are several small pits set close to the edge. These latter do not appear to be deliberate, and may represent all that remains of a patch of cancellous tissue.
- 8 D 24mm, T 4mm. Plain.
- 9 D 21mm, T 3mm. Plain.
- 10 D 21mm, T 3.5mm. On the reverse is an incised X and 7 shallow pits set in a rough circle. On the edge is incised X (or V crossed out) VIIN.
- 11 D 23mm, T 4mm. Incised on the reverse is either a V set on a ground line, or the Greek character II.
- 12 D 15mm, T 3.5mm. Plain.
- 13 D 17mm, T 4mm. Plain.
- 14 D 20mm, T 4mm. Incised on the reverse is an X with each line cut many times but not in exactly the same place.
- 15 D 19mm, T 3mm. There are faint scratchings on the reverse, probably an X set between the arms of a V.
- 16 D 22mm, T 3.5mm. On the obverse a graffiti X crosses the centre mark. There are four pits on the reverse and a

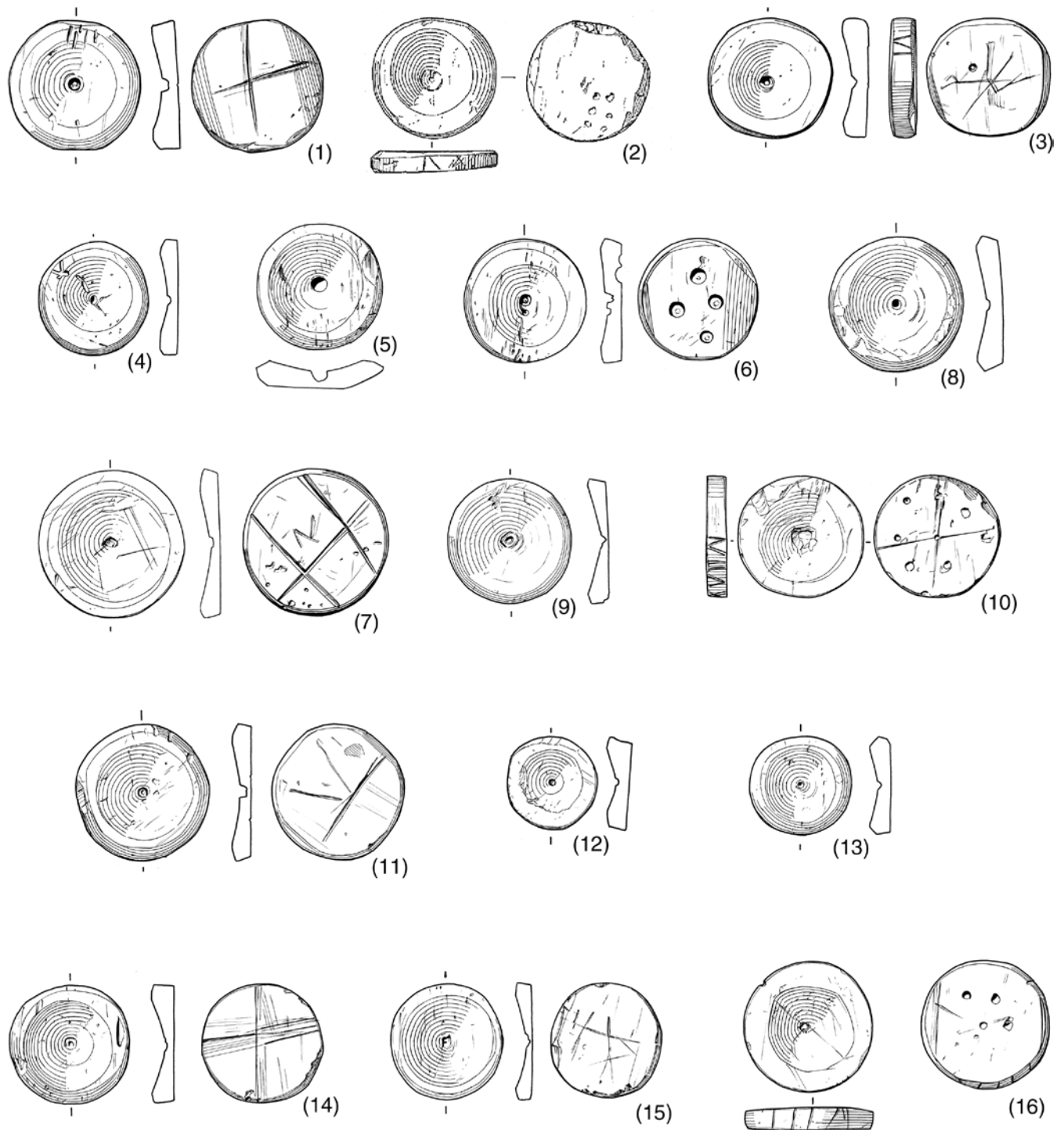


Figure 60 Bone counters, no 603 (1-16), scale 1:1

- faintly incised M. Cut into the edge is a deep I, set apart from a less positively cut VIII (or NIII).
- 17 D 19mm, T 4mm. On the reverse is an incised N or IV.
- 18 D 23mm, T 4mm. On the reverse is an incised X with a third line running from one arm of the X to the edge.
- 19 D 19mm, T 4mm. There is an incised X on the reverse.
- 20 D 16mm, T 3mm. There is an incised X on the reverse.
- 21 D 15mm, T 3.5mm. An incised X on the reverse intersects with three of four pits.

- 22 D 20mm, T 4mm. On the reverse is an incised X cut like that of (14) and over a considerable area.
- 23 D 18mm, T 5mm. Plain.
- 24 D 18mm, T 5mm. There is an incised X on the reverse.
- 25 D 19mm, T 3.5mm. Plain.
- 26 D 19mm, T 4mm. Plain.
- 27 D 21mm, T 4mm. There is a very faint X on the obverse, crossing the centre mark. On the reverse is an equally faint ID.



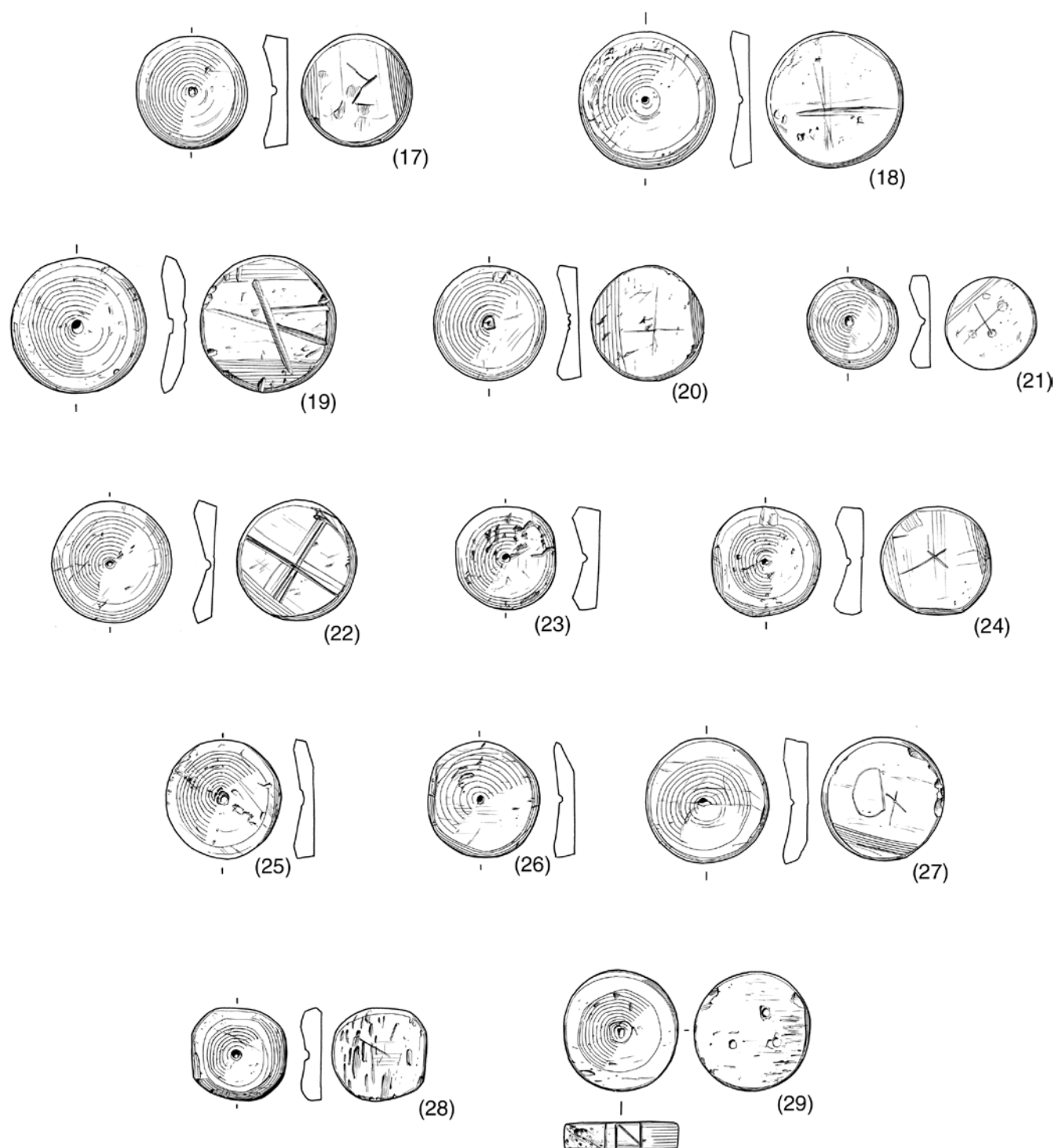


Figure 61 Bone counters, no 603 (17-29), scale 1:1

28 D 17mm, T 3.5mm. On the obverse is a small incised X. The reverse shows much cancellous tissue.

29 D 20.5mm, T 5mm. There are two, possibly three pits on the reverse, and NI cut into the edge.

not illustrated

604 sf VR 3194. Complete. The upper face is countersunk.

The reverse is flat. Upper edges are bevelled. D 22mm, maximum T 4mm. Posthole F221 in structure associated with cremation grave 414 (X, 615), dating to the first half of the 3rd century.

605 sf VR 9739. Complete. The upper face is countersunk. The reverse is flat. D 20.5mm, T 3mm. Late 2nd-century soil layer (XV, 4235).

606 sf HA 83. Complete. The upper face is countersunk. The reverse is flat. Upper edges are bevelled. D 19mm, maximum

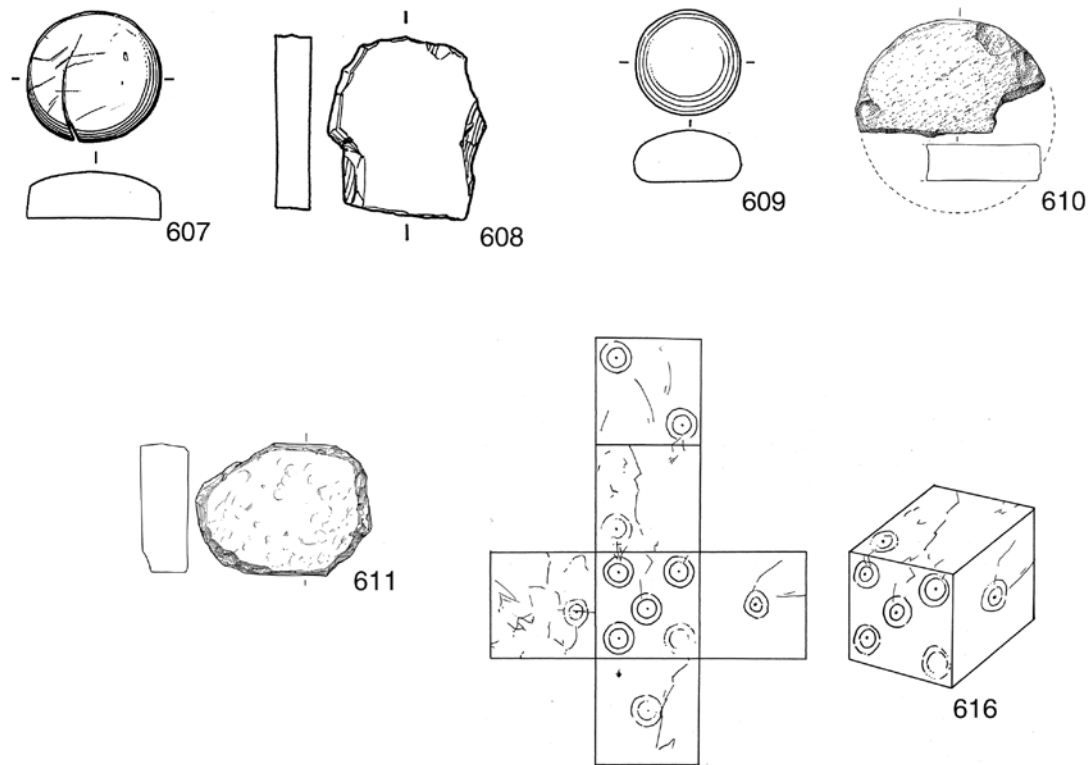


Figure 62 Counters and die, nos 607–09, & 616, scale 1:1; 610–11, scale 1:2

T 3mm. Silting in hollow way / street F10 (II, 18). Late 3rd to mid-4th century.

12mm. The object was possibly reworked and used in post-Roman times. Late Saxon pit F809 (XIII, 3132).

### Type 3. Convex

**607** Fig 62 sf VR 193. A small counter with a convex upper face. D 17mm, T 6mm. Convex counters are not common site finds, but they can be dated to the late Roman period (MacGregor 1978, 33). Late 4th- to early 5th- century (or later) ?reoccupation of the trench area (V, 36).

### Pottery counters

These are defined as counters following Crummy (1983, 67, 93). They have no abraded surface but bear an edge ground for at least part of its circumference.

*not illustrated*

### Glass counters with a contribution by H E M Cool

**608** Fig 62 sf VR 5875. Counter. Body fragment of prismatic bottle grozed to subrectangular shape. 22 by 19mm. Early to mid fourth century fill of pit F814 (XIII, 3262). (HEMC)

**609** Fig 62 sf NR 138. Counter of opaque milky turquoise glass. D 14mm, T 6mm. Soil layer over late Roman burials in the Iron Age enclosure ditch F371 (II, 477).

**612** sf HA 304. Complete. Wall sherd. Fabric ZC. D 28mm, maximum T 6mm. ?Mid- to late 2nd-century Building 1.5 (XI, 440).

**613** rf VR 1365. Fragment. Wall sherd. Grey ware, fabric ZM. D approximately 50mm, T 6mm. ?Central perforation, D 7.5mm. Roman. Construction of mid- to late 3rd-century phase of Building 1.14 (V, 81).

**614** sf HA 330. Fragment. Wall sherd. Amphora, Dressel 20, fabric ADA. One straight edge ground. Perforated. T 12mm. Roman. ?Late 3rd- to mid-4th-century disuse of Building 1.9 (XI, 285).

### Stone counters

**610** Fig 62 sf VR 2976. A fragment of a micaceous sandstone counter, with smoothed edges. D 50mm, T 10mm. Third or fourth century pit F168 (X, 647).

**611** Fig 62 sf VR 4519. A fragment of a strip of Purbeck marble wall veneer, trimmed roughly into an oval counter. Parts of the parallel straight sides of the strip remain, W 36mm. Though the trimmed edges have not been smoothed off completely, they appear worn. Maximum D 48mm, T

### Tile counters

*not illustrated*

**615** sf SJS 551. D 73mm, T 16mm. ?Roman fabric, with moderate coarse subangular and subrounded pink and white quartz, moderate mica and sparse, poorly distributed

clay pellets up to 8mm. Possibly a rough-out. Neither surface abraded. Medieval soil layer (I, 283).

### **Die**

**616** Fig 62 sf VR 6223. A worn bone die, 15 by 14.5 by 14mm. The faces representing five and two are identifiable, though one motif (double ring-and-dot) of the five is nearly worn away. Using these faces as a guide, the

positions of the other numbers can be guessed, following the rule that opposite faces total seven. The face where 6 should be shows many scratches, including at least one very faint double ring-and-dot. The central motif for 3 can be distinguished, and possibly the dot of one of the other motifs. The face where 4 should be is very rough, but one dot possibly with parts of the double ring may be seen in one corner. The edges of the die are worn, and the smoother faces seem to be polished by much handling. The die may be charred. Late 1st- to early 2nd-century cremation grave 556 (X, 1037).

## 6 Objects employed in weighing, measuring, and commerce

The weighing equipment includes an iron steelyard with two lead weights. This section also includes the coins, some of which were grave deposits. Two coins were perforated for suspension and may have been worn as amulets.

### Steelyard with weights

**617** Fig 63 sf VR 5138. Part of an iron steelyard, with two lead weights and fragmentary chains for suspension of the weights. A large part of the steelyard arm is missing (surviving L 105mm), though both fulcra survive. The arm is of circular section (D 5mm) but is flattened at the surviving pierced terminal. The original surface of the iron is almost certainly missing and no marks indicating a scale remain. However, the presence of two differently sized lead weights and two fulcra indicates that it would have been possible to balance off loads of considerably varying weights. Small fragments of the chain are attached to one fulcrum loop, the arm and the weights. The remaining pieces are loose and it is not possible to ascribe them to a particular position.

The larger of the weights has a rounded base and a thickened midline with the upper part slightly dished near the midline. H 43mm, D 38mm. It weighs 207.61g or 7.6 *unciae*. There is an iron suspension loop set in the top. The chain by which this weight would have been suspended probably rounded the total weight of the object up to 9 *unciae* (three quarters of a *libra*). The lower part is covered with a palimpsest of many faintly scratched numerals, among which Xs and Is predominate. There may also be Vs, though, given the careless standard of the scratches, it is impossible to tell if some marks are over-extended Vs or under-extended Xs. No individual whole numbers can be picked out. There are more scratched numerals on the upper part; one group clearly reads XII.

The smaller weight is an evenly formed piece with rounded midline. H 31mm, D 25mm. It weighs 80.63g or 2.95 *unciae*. Again, missing ironwork probably made up the weight to three *unciae* (one quarter of a *libra*). An iron rod of rectangular section passes through the object and is formed into a suspension loop (circular in section) at the upper end. As with the larger weight, there are several faint scratches on the surface, none of which can be deciphered. Mid- to late 3rd-century disuse of Building 1.24 (XIII, 3319).

### Steelyard

This fragment of a copper alloy beam arm is marked on all four faces. Steelyards were usually fitted with two suspension hooks, one on either side of the arm, providing two different fulcra for measuring two different graduated scales, the greater usually starting where the smaller stopped or overlapping slightly (Henderson 1949, 131; Ward-Perkins and Claridge 1976, no 248). A steelyard from Pompeii weighed from 1–14 units on one scale, and 10–50 on the other, and the scales on one from Colchester probably ran from 1–6

and 6–40 units (Crummy 1983, 99). On the latter, larger units in each series were noted on the lower adjacent faces, which also appears to be the case here. Assuming the Winchester fragment worked in a similar way, it appears that the four 'Is' therefore represent four units, probably Roman pounds, the two 'Xs' 20 units.

**618** Fig 63 sf 10CS 106, Small fragment of a steelyard arm. L 37mm, polygonal in section, maximum width 6.5mm. The ends appear to have been cut, suggesting that the metal was intended for recycling. One broad face has a row of dots set at 2mm intervals, the other a row of short notches set at about 5–6mm intervals. A notch lies between two of the dots, presumably representing a greater unit equivalent to that between the notches on the other side. However, it is not set neatly within the series, being 1 mm from one neighbouring dot, and 2mm from the other. This notch coincides with the series of four Is on the lower adjacent broad face. The other narrow face is marked with a pair of Xs, set more or less between two notches on the adjacent face. Mid- to late 2nd-century metallised surface (I, 185).

### Other weights

**619** Fig 64 sf VR 3203. A lead weight of standard biconical form. The (almost certainly iron) attachment for suspending the weight is missing, but it must have been set into the lead (as in the larger weight catalogued as **617**). H 77mm, D 77mm. The object weighs 1.419kg, about 5.5 *librae*. Such a large weight is perhaps most likely to have been used on an equal armed balance (*libra*), rather than a steelyard (*statera*), the principle of the latter being that a comparatively light counterbalance enables heavy weights to be measured. Soil layer of the first half of the 2nd century (X, 494).

*not illustrated*

**620** sf VR 831. Biconical lead weight. Traces of iron shaft and possible suspension loop. Weighs 115g (4.21 *unciae*). H 30mm, D at widest part 34mm. Mid- to late 4th-century soil layer (V, 236).

### Coins

#### *The copper coins of Gaius and Claudius from Victoria Road by R Kenyon*

#### Introduction

Four coins of Claudius and two of Gaius were recovered from early Roman levels at Victoria Road (Table 14; Plate 1). A further coin of Claudius and one of Agrippa occurred residually in late Roman contexts. The Agrippa coin had been countermarked during the late Claudian or Neronian period and is further

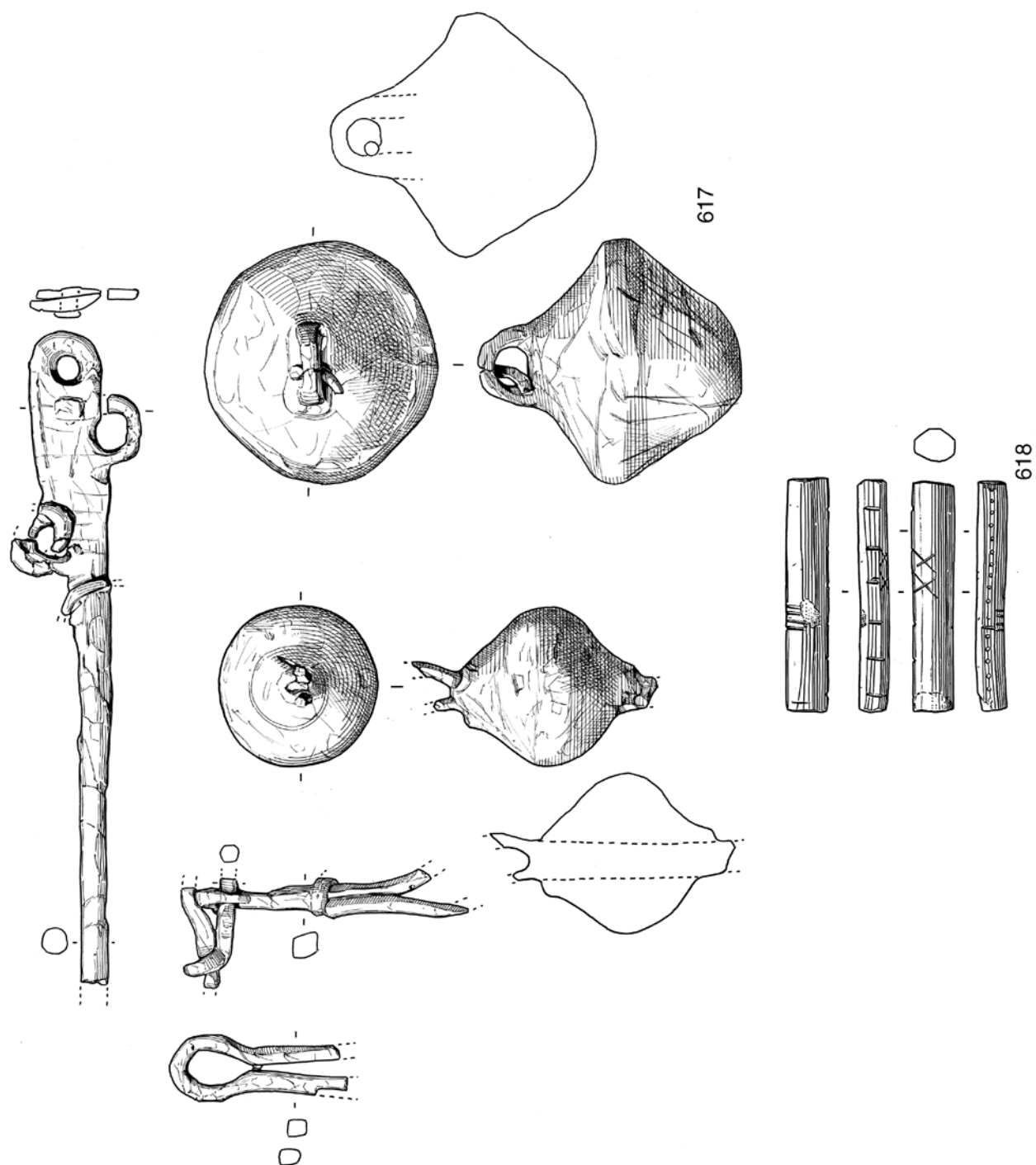


Figure 63 Steelyards and weights, nos 617-18, scale 1:1

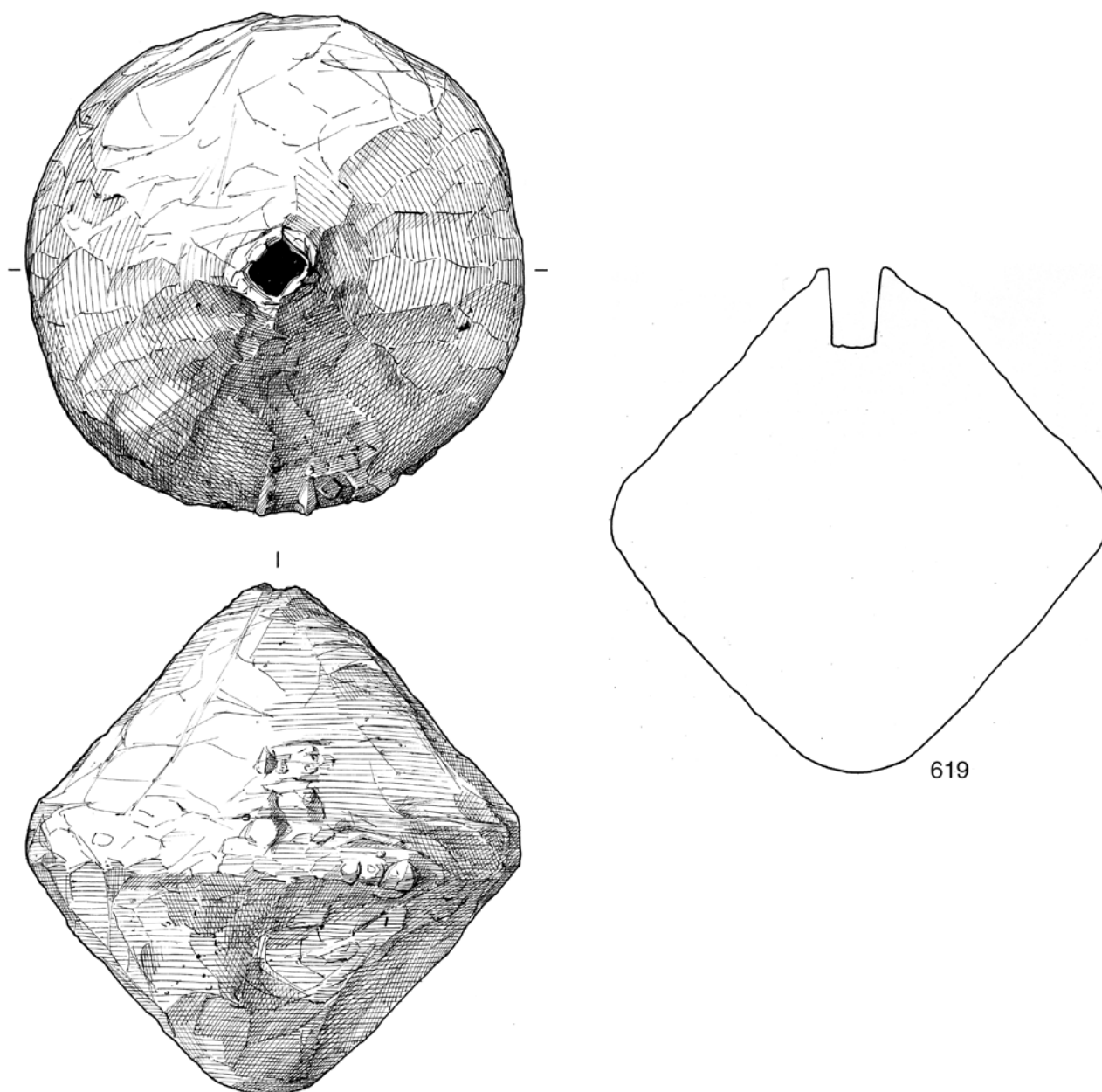


Figure 64 Lead weight, no 619, scale 1:1

Table 14 Coins of Gaius and Claudius and their contexts (Victoria Road)

sf	context	RIC	description	size	axis	weight	condition
3246	levelling prior to construction of	38	Gaius as, copy	23.2mm	6	3.90g	very worn
3319	Cirencester road, ?mid-1st century (X, 657, 784)	58	Gaius as, clumsy copy	28.0mm	6	9.35g	good
5559	final silting over Iron Age hollow way F856, mid-1st+ (XIII, 3424)	100	Claudius as, literate copy	27.5mm	7	11.33g	worn
3251	cremation grave 430, mid- to late 1st (X, 740)	100	Claudius as, literate copy	28.2mm	6	7.30g	worn
3291	cremation grave 434, mid- to late 1st (X, 759)	100	Claudius as, clumsy copy	25.6mm	10	9.10g	good
3300	cremation grave 438, late 1st (X, 816)	100	Claudius as, copy	28.0mm	5	4.95g	corroded

note: the axis has been measured in the same way as the coins from Colchester (Kenyon 1987, 27)



sf VR 3251



sf VR 3300



sf VR 3319



sf VR 3291



sf VR 5559



sf VR 3246



Plate 1 Irregular issues of Gaius and Claudius from Victoria Road, scale 1:1 (photo: Robert Kenyon)

discussed by John Davies (below). The other Claudian *as* had been perforated for suspension on a necklace and was very worn and corroded. It is merely listed in the summary catalogue by John Davies to be found at the end of this section.

### The coins of Gaius

Imitative bronze coins of Augustus, Tiberius and Gaius were produced in Gaul before the conquest of Britain, in order to alleviate a shortage in the supply of bronze coins from the mint at Rome. The majority of these coins were struck in the reigns of Tiberius and Gaius (Giard 1975, Pls. i-iv). Many of Gaius's bronze coins were subsequently converted to a more acceptable currency by overstriking with irregular Claudian dies at Gaulish mints (Giard 1970, 48-51).

Although no die links to the continent can be found, it is not unreasonable to assume that these two Gaian coins from Winchester were struck in Gaul and afterwards travelled to Britain in the purse of one of the occupying troops or attendant followers. Thus they escaped the fate of overstriking by irregular Claudian dies in Gaul, and were lost, probably in the earliest years after the conquest.

### The coins of Claudius

The location of minting operations for the production of Claudian bronze coins has recently been the subject of an important study by two French scholars (Besombes and Barrandon 2000). They conclude that 'concurrent with purely local striking (illicit mints) and the output of the official mint of Rome several official mints located in Gaul and the Iberian peninsula were the source of an abundant supply of copper and brass coins issued over a period of time' (Besombes and Barrandon 2000, 161). It is their view, based on the illustrations of coins published (Kenyon 1987, plates 1-5), that the origin of many of the (die-linked) Claudian coins found at Colchester is one of the two postulated 'official' mints operating in the Iberian peninsula (Besombes and Barrandon 2000, 176-7, footnote 39) and not Colchester as suggested in that report (Kenyon 1987, 34).

However, the coins that are analysed here, and the majority of coins described in the Colchester report, are overtly irregular in form and module and are not the products of an official mint.

### Minting standards

*Note: The reference to die size, that is, the diameter of the dotted border around the portrait of the reverse design, rather than the actual size of the coin itself is necessary, as the die sizes cluster, whereas the coins are not always uniform in size or shape.*

The clearly defined phases of building at Colchester and the *terminus ante quem* of its destruction

during the Boudiccan revolt, together with the large numbers of imitative Claudian bronze coins recovered, has enabled the definition of three main phases of production and circulation of coins found there. Furthermore, comparison of weight and die size in Claudian bronze coins from other sites in Britain produces similar results, and suggests that the three 'standards' encountered in Colchester also occur throughout the province (Kenyon 1987, 36–8).

The coins imitated are those of Claudius's first issue (AD 41–42), those without the title P(ater) P(atriae). Each successive phase of irregular minting produced coins to a further reduced module and each of these 'standards', in turn, became models for imitation at a reduced weight themselves. The phases are summarised as follows:

- c* AD 43 – *asses* struck by 30–31mm dies to a weight of 10–11g
- c* AD 47 – *asses* struck by 27–28mm dies to a weight of 8–9.5g
- mid-50s AD – *asses* struck by 25mm dies to a weight of 4.5–6g

Three of the four irregular Claudian coins from early Roman Victoria Road employed dies measuring *c* 28mm (the dotted border of sf VR 3300 was unclear). Excluding the heavily corroded coin sf VR 3300, their weights range from 7.3 to 11.33g. This suggests that all of the coins were struck with the dies of the second phase of minting, either to different weights, or with sf VR 5559 being an overstrike on an earlier (heavier) Imperial *as*.

Careful examination of sf VR 5559 confirms that it is an overstrike. The most obvious of the very slight signs are those on either side of the truncation of the bust on the obverse, and within the letter C to the right of Minerva on the reverse. Unfortunately, it is impossible to identify the undertype from these few details. The slightly low weight of sf VR 3251 may be accounted for by some wear during circulation and the heavy cleaning it underwent to allow identification, particularly of the reverse design. It seems, therefore, that the coins were produced contemporaneously between *c* AD 47 and the mid-50s. It is more likely that they were minted earlier than later in that range as the weights are to the upper limit of the weight standard.

Sf VR 5559 was lost in the final silting over a hollow way marking a route into the Iron Age enclosure at Oram's Arbour. The other three coins were deposited in graves belonging to the cemetery that was established in the same area. At first sight sf VR 3291 has the appearance of wear in the high spots of the obverse portrait, but closer examination reveals this not to be the case. The details on those high spots seem to have become encrusted with corrosion deposits and were removed during conservation, leaving a bald area. In fact the coin exhibits little indication of circulation and may have been deposited in grave 434 shortly after its manufacture and distribution.

### *Imitative skill in die cutting*

The coins exhibit a range of die sinking skills which is not seen amongst the Claudian coins minted at Rome (Kenyon 1987, 24–6). Comparison with coins illustrating the recent proposal for a Gallic or Iberian origin for official Claudian bronze coins (Besombes and Barrandon 2000, plates v–ix) would seem to indicate a Gallic origin for this assemblage of Winchester provenanced coins. These coins exhibit characteristic obverse features that relate to specie of Besombes and Barrandon's 'la petite tete' series. However, the Winchester coins could not be mistaken for official issue; individually they exhibit features that betray their illicit origin.

Sf VR 3251 has a well formed obverse portrait, circumscribed by a literate legend composed of large letters. They are a little clumsily formed but they do employ serifs. The reverse design is less well engraved; the proportion of the limbs is inaccurate and the modelling of the figure is not to the same standard as that of the obverse portrait. It seems that there were at least two die sinkers at work, the more skilful engraver concerning himself with the obverse design and the less skilful with the reverse die. It is possible that a third die sinker was involved with the production of the obverse legend.

The other two Claudian coins (sf VR 3300 is too corroded to make any comment), each exhibit a similar limited degree of die sinking skill, but they do differ in that sf VR 5559 is more accurate and better modelled than sf VR 3291.

### *Die links*

The occurrence of sf VR 3291 in a cremation grave at Winchester provides a die link to Gaul. Twenty die linked coins belonging to the same group were identified in a large deposit of coins discovered at St Leonard, Mayenne, France (Giard 1970, 51–2). Giard noted ten other examples to expand this Romano-Gallic group. The most characteristic aspect of this die group is the distinctive treatment of the drapery under the raised arm of Minerva and of her skirt on the reverse die. This group can now be expanded by sf VR 3291 and two other British coins, one from Old Winteringham, Humberside and another from Swanton Morley, Norfolk.

Apart from sf VR 3291, no other absolute die link can be identified, but the reverse die of sf VR 3251 exhibits very strong stylistic affinities with that of a coin from Maldon Road, Colchester (Kenyon 1987, 30–1, table 13, sf MRC 84, and pl 2.6). The similar-weighted Colchester coin (7.43g) is well worn, particularly the obverse, but the reverse is clear enough to allow positive identification of the stylistic link. In general the two dies show similarities in depicting the posture and stature of the advancing Minerva. In detail, the shape of the helmets are identical; the proportions and shapes of the arms are very similar; the shapes of the gaps between the underarm and the left arm holding the shield and the



body are identical; the drapery at the hip is similar, as is the shape of the large letter 'S' in the field.

The stylistic similarities are such that it could safely be said that the dies were engraved in the same mint workshop, if not by the same hand. The obverse dies do not die link. It was practice, in regular coinages, to produce two reverse dies for every obverse die. It is therefore possible, if this irregular mint followed that practice, that these dies were part of a large operation and one could expect to find a number of related die links, each combination of which was capable of producing a large number of coins (Sellwood 1963, 217ff).

How and when coin travelled from Colchester or *vice versa* is open to conjecture, but a military connection is not an unreasonable one to make, as these coins were probably used as part payment for the legionary forces (Kenyon 1987, 25). The context of the Colchester coin is of the early 2nd century, where it is probably residual (*ibid* 30–1).

## Conclusions

This assemblage of imitative coins reflects the types of currency in use in the military and newly established civil centres of Britain in the early years of occupation, a mixture of older Imperial *aes* and newly struck Claudian coins. The die sizes and weights suggest that the Claudian coins were struck after *c* AD 47, but the absence of coins struck to the further reduced module and weight of the third phase may be indicative of their deposition and loss before the distribution of new coins. The amount of wear on the Vesta coin of Gaius and the fact that the 'Agrippa' coin could be the product of a Claudian die sinker suggests that all of the coins were lost, or marked as votive offerings at about the same time.

The contexts in which the coins were found may suggest a refinement. The two Gaius *asses* were recovered from the levelling undertaken prior to the construction of the Cirencester road, which probably predated the establishment of the cemetery, whilst one of the Claudian *asses* (sf VR 5559) came from the hollow way. Although the number of years separating the activity associated with the routeways and the digging of the earliest graves need not have been great, it is conceivable that some or all of the three grave coins were curated and especially selected for burial. This is also possibly the case with some of the brooches (Category 1).

The military connections of these coins have been emphasised throughout this report and it is no surprise to find three associated with routeways. A Roman military presence in the cemetery may also be implied, however.

## The other Roman coins by J Davies

During excavations carried out between 1961 and 1969, mostly within the walls of Roman Winchester,

792 coins were recovered (Reece 1972). In addition, 109 were recorded from the cemetery at Lankhills (Reece 1979). Some 250 coins from The Brooks area of the town (Zant, forthcoming) and from Staple Gardens (Winchester Museums Service in archive, site SG84) have since been studied, but they are not considered in detail here. Rather, this report gives particulars of nearly 600 Roman coins from seventeen sites in the suburbs and on the defences (Table 15).

This assemblage adds greatly to the numismatic picture from the town and its suburbs. The coins in question are mainly examples of the lowest denominations in circulation at any given time. As such, they comprise a representative sample of the everyday currency of the Roman town throughout its history. They include grave finds, stray finds and hoard finds.

In the following text, figures and catalogue, reference is made to coin Issue Periods. These, numbered from I to XVI, and covering the entire chronological span of Roman Britain, are those employed by Richard Reece (1972, 271). The catalogue offered at the end of this section is a summary one; full details are to be found in the archive.

## The northern suburb

A total of 422 Roman coins have been listed from excavations at six sites in the northern suburb. The largest group comes from Victoria Road with a total of 370. Forty-eight come from Hyde Abbey and a single coin comes from each of the remaining sites. The numbers of coins have been summarised in Table 16 in which they have been broken down into Issue Periods.

A number of the coins were found in graves belonging to the northern cemetery and these are tabulated separately (Table 16). From the early cemetery on the eastern side of the Cirencester road there were three Claudian *asses* (see Kenyon, above), and a further *as* of Antoninus Pius was recovered from within a cremation urn. The other three coins come from late Roman inhumation graves and are of the 4th century, being of Issue Periods XIIIb, XVa (graves 59 and 39 at Victoria Road) and XVI (grave 16 at Hyde Street). These are in keeping with the coin list for Lankhills, also in the northern cemetery, where 94% of the finds were of 4th-century date (Reece 1979).

There is a second group of coins which has also been separated from the ordinary site finds. Sixty-one coins were recovered from the backfill of a well at Victoria Road (F1093). The majority of these had a restricted range of types and dates. Forty-seven came from a single context (XV, 4135), 39 of which are *Fel Temp Reparatio*, falling horseman, imitations struck during the years AD 354–64. These coins must be considered to be the major component of a hoard group. A further five coins of similar date came from adjacent contexts (XV, 4128, 4125). The hoard, which is reckoned to have a minimum size of 52 items, contains coins dating between the years AD 335 and 364. No remains of a ceramic container were encountered in association and the original container had either broken or had been organic and has since

Table 15 Summary of Roman coins

area	site code	site name	number of coins
northern suburb	HA	Hyde Abbey	48
	HAB	Hyde Abbey Barn	1
	HYS	Hyde Street	1
	LIDO	The Lido	1
	SBS	St Bartholomew's School	1
	VR	Victoria Road	370
total			422
western suburb	CT	Crowder Terrace	19
	NR	New Road	29
	45RR	45 Romsey Road	3
	SXS	Sussex Street	11
total			62
eastern suburb	CHR	Chester Road	40
	SJS	St John's Street	5
total			45
city defences	HG	Henly's Garage	35
	JCH	Jewry Street-Crown Hotel	2
	27JS	27 Jewry Street	10
	MA	Magdalene Almshouses	2
	SSS	St Swithun's Street	1
total			50

perished. It is possible that other coins from the well were originally part of the hoard.

Of the 52 coins assigned to the hoard, six are issues of the house of Constantine (AD 335–48), three are types of Magnentius (AD 350–53) and the remaining 43 are 'falling horseman' copies. The *Fel Temp Reparatio* imitations were produced prior to the years when the plentiful Valentinianic coinage entered Britain, and are relatively common on most sites. Large numbers have been recorded from some sites, such as Brean Down, Somerset (Boon 1965) and in hoards from Lydney (Wheeler *et al* 1932) and Uley (Reece 1980; 1993), both in Gloucestershire. The smallest of these coins reached just 2–3mm in diameter, as recorded at Brean Down, but the smallest of the Victoria Road coins is 5mm, with 70% measuring between 12 and 8mm.

The remaining coins from Victoria Road can be considered to be site finds deposited by the process of casual loss. Ten coins dating to the years AD 260–84 are considered from other evidence to be residual in the graves in which they were found and have been included in Table 16 amongst the finds relating to casual loss. The list opens with a Republican *denarius* (which has not been considered in the quantification tables as it was lost before it could be fully identified). Next comes an *as* of Agrippa, with coin loss then continuous through to the early 3rd century. Coin numbers

drop after the mid-2nd century, with a steep rise in the second half of the 3rd century. The 4th-century loss peaks between AD 330 and 348 and continues right through to the end of the Romano-British period.

There are several coins of particular interest. The Republican *denarius* is likely to have been brought to Britain at the time of the Conquest or during the following decades. In 1st-century Britain, most silver coins were still those of the Republic. Coinage is always lost from a large pool of circulating issues and the initial currency was only topped up and not replaced under successive emperors. Reece (1987) estimates that by the AD 50s, Republican issues formed about 50% of silver coins in use, and by the end of the century, they may have formed 30–40% of *denarii*.

One issue of Antoninus Pius is an *as* which carries the reverse type of *Britannia*. It has been noted that the type did have close association with Britain (Todd 1966; Walker 1988), in that it appears to predominate amongst British finds. It seems that *Britannia asses* were specifically struck for circulation within the province of Britain. Another of the asses (Plate 2, sf VR 5333) carries a countermark. This issue of Agrippa is very worn on both faces and the countermark has been rendered illegible, although is almost certainly one of the following: *TIAV*, *TIC.A* or *TIBCLAVIMP*. Of these possibilities, *TIAV*, which is known to have been used

Table 16 Issue Periods, northern suburb

period	site						total	%	irregular
	HA	HAB	HYS	LIDO	SBS	VR			
I	–	–	–	–	–	1	1	0.3	
IIa	–	–	–	–	–	2	2	0.6	2
IIb	–	–	–	–	–	2	2	0.6	2
III	–	–	–	–	–	5	5	1.4	
IV	1	–	–	–	–	7	8	2.3	
V	2	–	–	–	–	6	8	2.3	
VI	2	–	–	–	–	14	16	4.6	
VIIa	2	–	–	–	–	4	6	1.7	
VIIb	–	–	–	–	–	2	2	0.6	
VIII	4	–	–	–	–	5	9	2.6	
IXa	2	–	–	–	–	–	2	0.6	
IXb	–	–	–	–	–	5	5	1.4	
X	6	1	–	–	–	46	53	15.4	
XI	8	–	–	–	–	78	86	24.9	77
XII	1	–	–	–	–	1	2	0.6	
XIIIa	1	–	–	–	–	16	17	4.9	
XIIIb	7	–	–	–	–	49	56	16.2	24
XIV	5	–	–	1	–	29	35	10.1	23
XVa	6	–	–	–	1	18	25	7.2	5
XVb	–	–	–	–	–	1	1	0.3	
XVI	–	–	–	–	–	4	4	1.2	
	47	1	–	1	1	295	345		
1st to 2nd C	1	–	–	–	–	1	2		
3rd to 4th C	–	–	–	–	–	16	16		
graves	–	–	1	–	–	6	7		
hoard	–	–	–	–	–	52	52		
total	48	1	1	1	1	370	422		



sf VR 5333



sf VR 3428



Plate 2 Agrippan *as*, worn on both faces, and siliqua of Julian Augustus, scale 1:1 (photo: John Crook)

on Agrippan *asses* (Kraay 1956, 127), is the most likely. This countermark is also known from late Claudian *aes* and it must be given a broad Claudio-Neronian date.

The presence of a number of precious metal issues is a notable feature of the Victoria Road coin list. Silver coins include a reduced *siliqua* of Julian Augustus (Plate 2, sf VR 3428), which has been dated AD 360 to 363. A silver denarius of Trajan was recovered, and there are nine silver denarii which span the years 156 to 221, representing the period when *aes* comprised a declining component of the currency of Britain.

The coins from Hyde Abbey are a smaller group, 48 in total. This group lacks the earliest coin types recorded at Victoria Road and begins with an issue of Trajan (AD 98–117). Neither does this group continue beyond the AD 370s, perhaps because activity at both sites was in decline by this time, except for the use of the cemetery at Victoria Road. There is a high propor-

**Table 17 Issue Periods, western suburb**

period	site				total	%	irregular
	CT	NR	45RR	SXS			
I	–	–	–	–	–		
IIa	–	–	–	–	–		
IIb	–	–	–	–	–		
III	–	–	–	1	1	1.8	
IV	–	–	–	–	–		
V	–	–	–	–	–		
VI	–	–	–	–	–		
VIIa	–	–	–	–	–		
VIIb	–	–	–	–	–		
VIII	–	–	–	–	–		
IXa	–	–	–	–	–		
IXb	–	–	–	–	–		
X	1	4	–	1	6	10.9	
XI	3	3	–	1	7	12.7	7
XII	–	1	–	1	2	3.6	
XIIIa	–	1	–	–	1	1.8	
XIIIb	11	4	–	3	18	32.7	4
XIV	1	10	–	1	12	21.8	10
XVa	1	3	–	1	5	9.0	
XVb	–	1	–	–	1	1.8	
XVI	–	2	–	–	2	3.6	
	17	29	–	9	55		
3rd to 4th C graves	2	–	–	2	4		
	–	–	3	–	3		
total	19	29	3	11	62		

tion of 2nd- and early 3rd-century coin present, but the peaks of loss belong to the late 3rd and mid-4th centuries (Periods X to XI, and XIIIb).

The other three sites in the northern suburb each produced a single Roman coin. Those from St Bartholomew's School and the Lido belong to the second half of the 4th century. The coin from Hyde Abbey Barn is earlier, dating from AD 259–68. The paucity of coins from these sites probably reflects the absence of excavated deposits of Roman date.

#### The western suburb

The Roman coins from excavations in the western suburb of the Roman town comprise a much smaller group than that from the northern, with a total of 62 items. Coins come from four individual sites, of which the assemblage from New Road is the largest. The numbers for each site are shown in Table 17, again broken down into Issue Periods.

Twenty-nine coins were recovered from New Road. None was in graves, although late Roman inhumations were recorded there. They show a tight chronological range, restricted to Issue Periods X–XVI (AD 259–402). The largest component belongs to Period XIV (348–64), accounting for one third of the finds from the site. The second largest site group comes from Crowder Terrace, with nineteen coins. These again comprise a restricted 3rd- to 4th-century assemblage, but the end date is slightly earlier than New Road, at AD 378. The eleven coins from Sussex Street show a similar chronological grouping but with the addition of a single 1st-century *sestertius* of the Emperor Vespasian (AD 69–79). 45 Romsey Road produced just three coins, all of later 4th-century date, from grave 21.

There were no rare or unusual issues present, as all of the coins were bronze or copper types. A third of the total are irregular issues, of which the ten 'falling horseman' copies form the largest component. Eight of these came from New Road. Of the late 3rd-century issues, the seven irregular *antoniani* outnumber the

Table 18 Issue Periods, eastern suburb

period	site		total	%	irregular
	CHR	SJS			
I	–	–	–		
IIa	–	–	–		
IIb	–	–	–		
III	–	–	–		
IV	–	–	–		
V	–	–	–		
VI	–	–	–		
VIIa	–	–	–		
VIIb	–	–	–		
VIII	–	–	–		
IXa	–	–	–		
IXb	–	–	–		
X	2	1	3	8.6	
XI	4	–	4	11.4	4
XII	–	–	–		
XIIIa	4	–	4	11.4	
XIIIb	15	–	15	42.9	5
XIV	2	1	3	8.6	1
XVa	3	1	4	11.4	
XVb	–	–	–		
XVI	2	–	2	5.7	
	32	3	35		
1st to 2nd C	1	1	2		
3rd to 4th C	1	1	2		
graves	6	–	6		
total	40	5	45		

regular types. The remaining irregular coins are copies of Constantinian *folles*.

The assemblage from the western suburb contrasts markedly with that of the northern, the lower numbers and restricted date range reflecting a lower level of activity on the excavated sites during the Roman period.

### The eastern suburb

A total of 45 Roman coins were recovered from two sites in the eastern suburb, at Chester Road and St John's Street, providing a comparably-sized assemblage to that from the western side of the Roman town. A chronological breakdown is shown in Table 18.

The group from Chester Road is by far the larger of the eastern groups, at 40 coins. With the exception of a single illegible *as*, this is an exclusively late Roman group, dating between AD 268 and 402. Five coins were from a single grave (579) and another grave (553)

produced one Theodosian coin. These are tabulated separately (Table 18).

The group of five coins from grave 579 include three *antoniniani* of Victorinus (AD 268 to 270), which exhibit clear surface detail and were associated with the remains of cloth. These were accompanied by two issues of Probus (276 to 282), both from the mint of Rome. These are in very fine condition and show no evidence of circulation. They also retain the remnants of a silver wash and were fused together when excavated. It is likely, then, that a purse containing all five was deposited in grave 579, sometime between AD 276 and 282.

Although coins of Victorinus are common site finds in Britain, they seldom outnumber those of Tetricus I, as at Chester Road. The issues of Probus are rare in Britain, although they are slightly more common in hoards, and two within an assemblage of this size is particularly unusual. It seems possible, then, that these coins had been especially selected for interment.

The main coin loss at Chester Road starts with late 3rd-century *antoniniani*, of the Emperors Tetricus I and the deified Claudius II, together with four irregular issues. Continuous loss is represented from AD 324/5 through to 402. Constantinian issues predominate overall, accounting for 40% of the legible coins. The most prolific period of loss was between AD 330 and 348. Ten official *folles* were accompanied by five irregular issues of those years. The group finishes strongly with two Theodosian bronzes.

Despite the small size of the group from St John's Street (just five coins), some uncommon site finds are present. This is perhaps because there was some limited evidence of Roman burial recovered from the trench (I), although the coins themselves were residual in medieval and post-medieval contexts.

The *antoninianus* of Gallienus (sf SJS 103) still has traces of silvering adhering to its surface, which are the remnants of a silver wash. Silvered *antoniniani* of that emperor are comparatively rare in Britain, being more common among the coinage sent to the provinces of the eastern Mediterranean.

Of the 4th-century issues, the silver reduced *siliqua* of Julian Augustus, dating from the years AD 360–63, is a noteworthy find. This issue of the mint of Lugdunum is legible but approximately one third of the flan is missing. The latest datable coin present is a Valentinianic *Gloria Romanum* issue, dating from the years AD 364–78.

### The city defences

The coins come from five sites on the defences, two near the north gate (Jewry Street, Crown Hotel and 27 Jewry Street), two near the south gate (Henly's Garage and St Swithun's Street) and one in the south eastern corner (Magdalene Almshouses). A chronological breakdown of the coins is given in Table 19.

The only sizable group is from Henly's Garage. Just three issues predate the 3rd century. These *aes* issues all show heavy wear and could have been lost much later than their date of striking (although probably before they were deposited in the contexts from which they

Table 19 Issue Periods, city defences

period	site					total	%	irregular
	HG	JCH	27JS	MA	SSS			
I	–	–	–	1	–	1	2.2	
IIa	–	–	–	–	–	–		
IIb	–	–	–	–	–	–		
III	1	1	1	1	–	4	8.9	
IV	–	–	–	–	–	–		
V	1	–	–	–	–	1	2.2	
VI	–	–	–	–	–	–		
VIIa	–	–	–	–	–	–		
VIIb	–	–	–	–	–	–		
VIII	–	–	–	–	–	–		
IXa	–	–	–	–	–	–		
IXb	–	–	–	–	–	–		
X	7	1	2	–	–	10	22.2	
XI	16	–	2	–	–	18	40.0	18
XII		–	–	–	–			
XIIIa	1	–	1	–	–	2	4.4	
XIIIb	1	–	2	–	–	3	6.7	2
XIV	1	–	1	–	–	2	4.4	2
XVa	3	–	–	–	–	3	6.7	
XVb	–	–	–	–	–	–		
XVI	1	–	–	–	–	1	2.2	
	32	2	9	2	–	45		
1st to 2nd C	1	–	–	–	–	1		
3rd to 4th C	2	–	1	–	1	4		
total	35	2	10	2	1	50		

were recovered). Such early bronzes did circulate as late as the mid-3rd century, compensating for the lack of new bronze coins in circulation during those years.

The late 3rd-century coins predominate in this assemblage, accounting for 72% of the closely identifiable site finds. The majority of these were recovered from two features cut into the late Roman rampart, a cess pit (F102), which produced 13 coins and a well (F113), which produced four. Of the 7 *antoniniani* of the years AD 260–74, three belong to the Central Empire (Gallienus, Salonina and Claudius II) and four to the Gallic Empire. Of the latter group, three are issues of Victorinus, all from the Cologne mint, and one of Tetricus I. Sixteen irregular *antoniniani* comprise the most common single category of finds from the site. These coins mainly exhibit large diameters, close to that of the official *antoniniani*. One example of particular note is that of Victorinus with reverse type *Invictus* (sf HG 394), which carries a silvered surface not commonly encountered in this series.

The remaining coins span the entire 4th century. There are just seven that are closely identifiable. Three belong to the Valentinianic period (AD 364–78), while the remainder are distributed between Issue Periods XIIIa and XVI.

Just a single coin was found at the other southern site at St Swithun's Street. This is another late issue but unfortunately it was not closely datable.

Of the two northern sites, Jewry Street, Crown Hotel produced just a *sestertius* of Domitian (AD 81–96) and a single *antoninianus* of Aurelian (270–75). The 27 Jewry Street site produced nine coins. The earliest was a *denarius* of Vespasian (AD 69–79). The seven remaining identifiable coins all belong to the years AD 260–364. Five of these are irregulars, two *antoniniani* and three of the 4th century.

In contrast to the northern and southern city defences groups, both coins from Magdalene Almhouses, in the south-east, have an early date. The earliest is a pre-

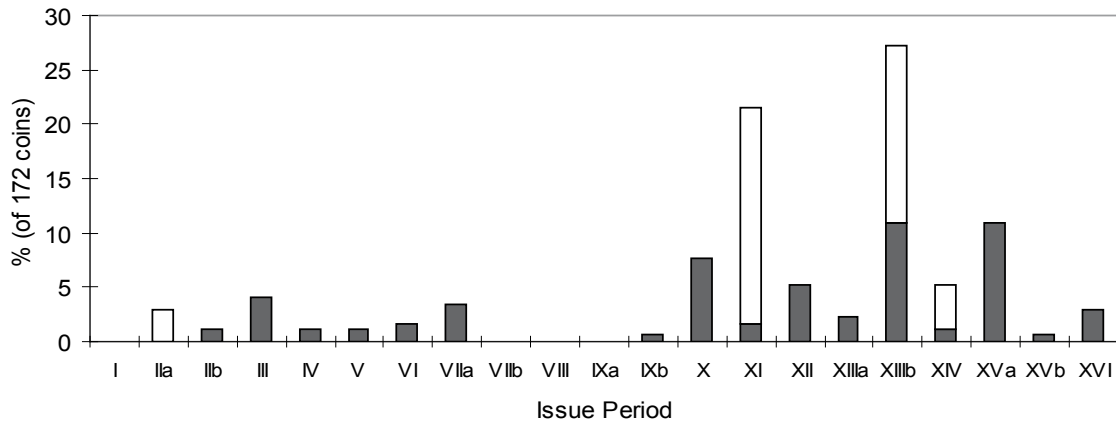


Figure 65 The Brooks: Roman coins by Issue Period

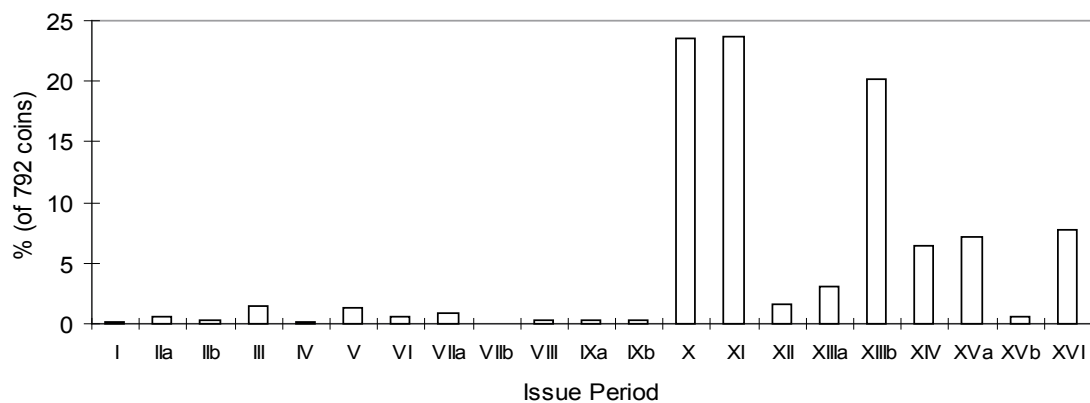


Figure 66 Excavations 1961–69: Roman coins by Issue Period

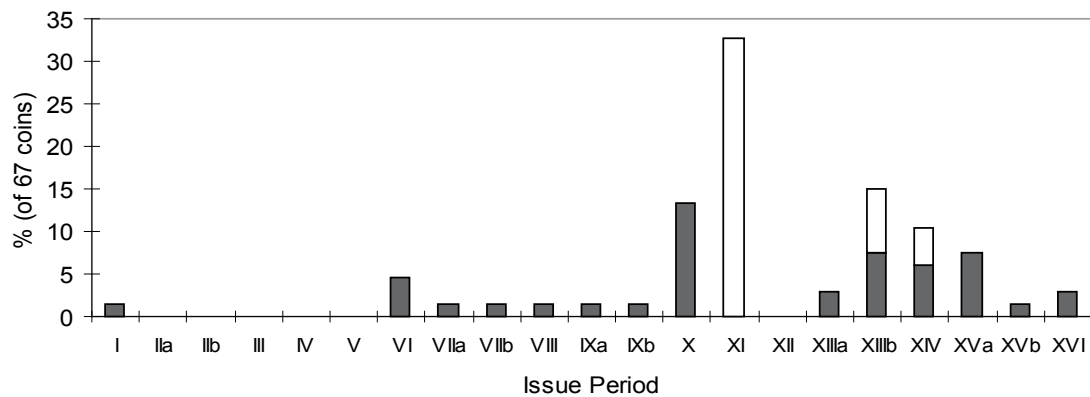


Figure 67 Staple Gardens: Roman coins by Issue Period

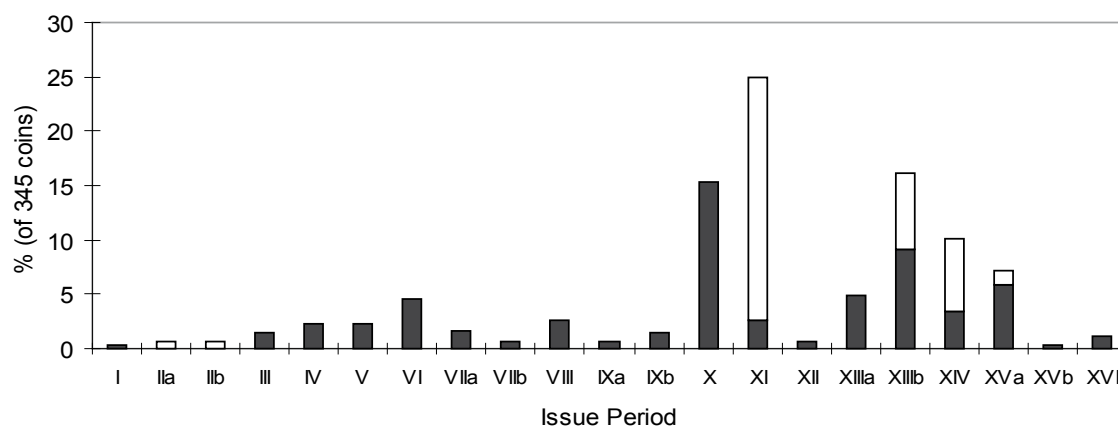
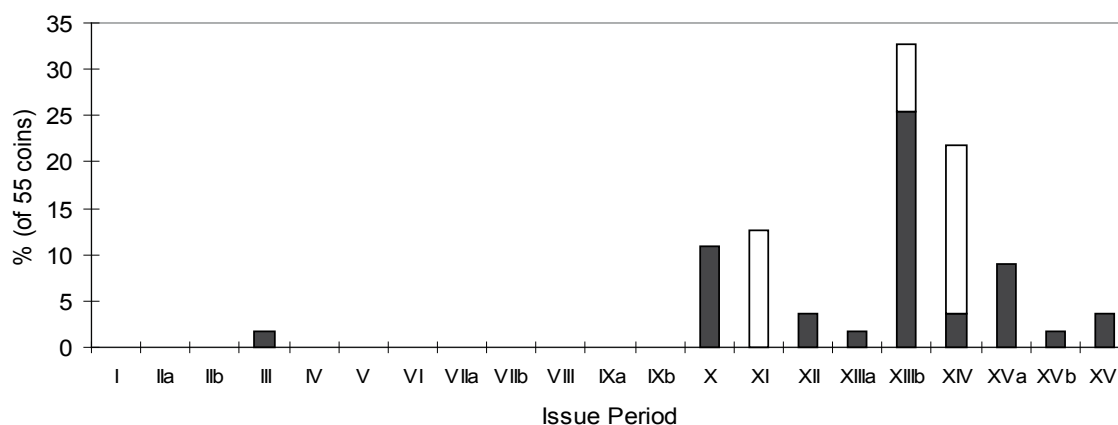
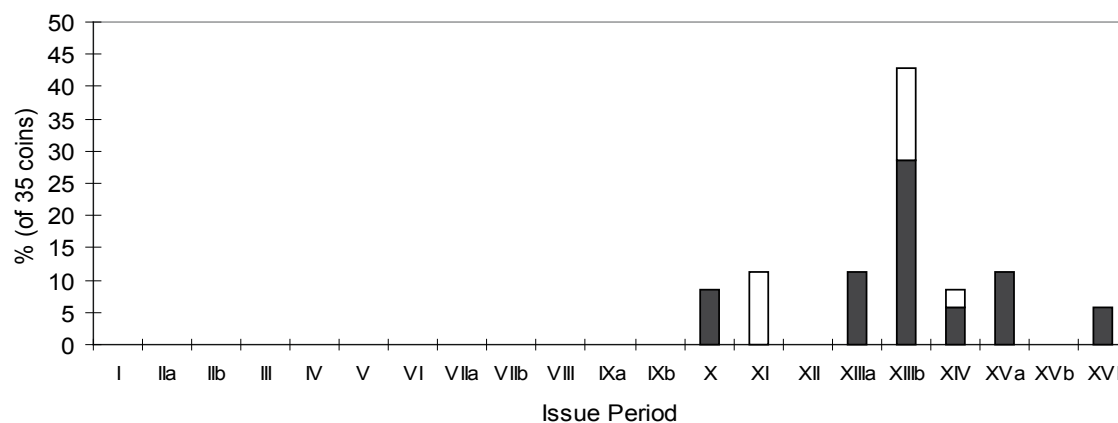
Conquest *denarius* of Augustus, dating c 29–27 BC. The second coin is an illegible *as* of Domitian (AD 81–96).

The city defences sites are seen to contrast with the groups from the western and eastern suburbs. The emphasis of coin loss is earlier than in the extra-mural groups, with 1st- and 2nd-century coins present and heavier loss during the late 3rd century than the 4th century. This is probably again related to the nature of the occupation of these sites, and to other factors such as truncation and the concentration of late 3rd-century coins in just two features at Henly's Garage.

## Discussion

*Note: white bars in figs 65 and 67–72 indicate irregular issues.*

The main pattern in the coin loss at these diverse areas in the suburbs and on the defences of Roman Winchester can be most clearly identified and compared in the form of histograms. Figs 65–7 show the patterns obtained from the excavations carried out from 1961–69, those apparent from The Brooks (after Zant, forthcoming), and from Staple Gardens (archive

Figure 68 *Northern suburb: Roman coins by Issue Period*Figure 69 *Western suburb: Roman coins by Issue Period*Figure 70 *Eastern suburb: Roman coins by Issue Period*

report by the present author), in order to provide a background of assemblages from intra-mural sites. The pattern of The Brooks broadly resembles that of the other intra-mural sites, with a full chronological span and peaks in Periods X to XI and XIIIb to XVa, and with a strong Period XVI. Figures 68–72 show sites discussed in the present report, according to their locations within each of the suburban areas, or on the defences.

The coins from northern suburb (Fig 68) show a

similar chronological spread to that of the intra-mural sites, with appreciable early loss followed by a late 3rd-century peak (Period XI) and a strong 4th-century loss continuing through to Period XVI. The pattern recorded from the western and eastern suburbs are somewhat different (Figs 69–70). Apart from a single *sestertius* of Vespasian from the former group, loss starts in earnest during the late 3rd century, in Period X. Late 3rd-century loss is strong, but unlike the assemblages from the intra-mural and northern suburb sites, there is a strong peak



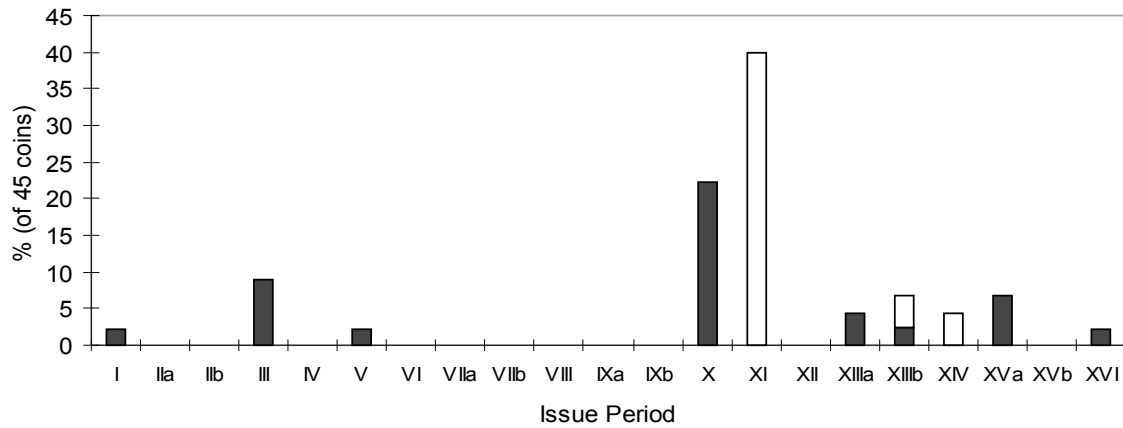


Figure 71 City defences: Roman coins by Issue Period

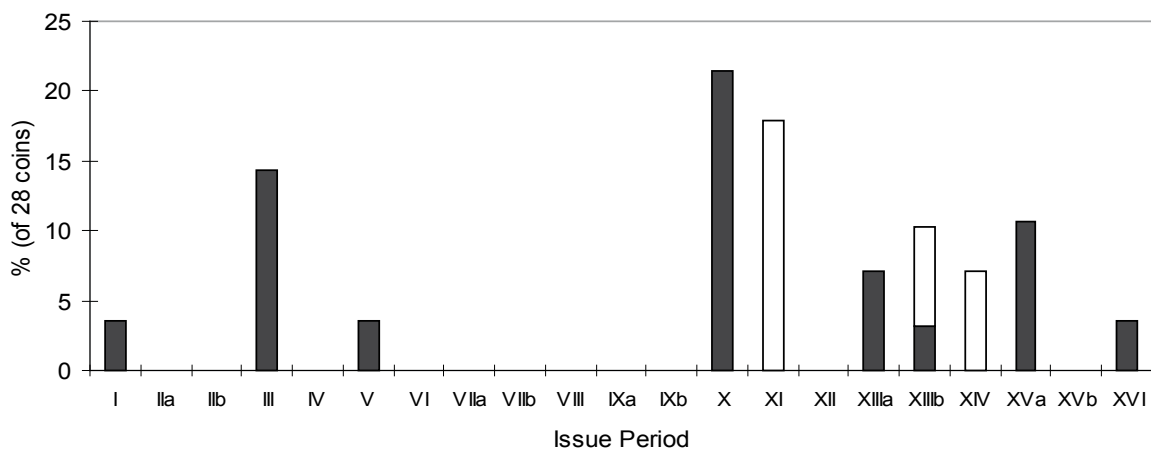


Figure 72 City defences: Roman coins by Issue Period excluding HG Fs 102 & 113

in the mid-4th century (Period XIIIb) in both cases. Loss again continues through to Period XVI.

The city defences pattern is different once again (Fig 71). Several early coins were recovered, but the assemblage is totally dominated by coins of the years AD 259–94 (Periods X and XI), which account for over 60% of the assemblage. Fourth-century loss is appreciable but represents only a minor component of the group. However, if the assemblages from the two features (F102 and F113) cut into the late Roman rampart at Henly's Garage are removed from the totals (leaving rather a small sample), the pattern can be seen to resemble that of the intra-mural sites more closely (Fig 72).

It is also noted that all of the Period XI coin from these features comprises irregular *antoniniani* with no regular coins of the period present at all. These 'barbarous radiates', together with two from 27 Jewry Street represent 42% of the total coin lost on the city defences sites. The precise reason for the production of these irregular issues and the mechanism by which they entered circulation is still far from clear. It may be that these particular issues were struck specifically for use by those employed in construction work associated with the defences during the 270s and 280s.

This is in keeping with the structural evidence from the Henly's Garage site, which shows that the rampart was widened and strengthened twice, the second time during the late 3rd century.

In Table 20, the coinage from each of the areas has been summarised in the form of four chronological phases, as originally employed by Reece (1974). The percentages distinguish the stronger early loss encountered in the northern suburb, and to a lesser extent, on the city defences and intra-mural sites. Phase B, representing the late 3rd century, is strong in all areas, but in the cases of the western and eastern suburbs, later 4th-century coin predominates. Phase C coin, belonging to the early 4th century, is always low on British sites.

Reece (1974; 1995) has shown that coin loss in Romano-British towns can be distinguished from that of rural sites. In the case of town sites, coins of the late 3rd century (Phase B) are found to be roughly equal in number to, or to outnumber, those of the later 4th century (Phase D). When Phase B coins are plotted against those of Phase D on a graph, urban site values lie above the mean ratio B:D, whilst rural sites lie below that line. The values for the Winchester sites have been plotted in Fig 73 and show clearly that the extra-mural groups from the western and eastern suburbs function as rural groups, whereas that

**Table 20** Relative numbers of Roman coins in four main phases

Phases	Sites							
	northern suburb		western suburb		eastern suburb		city defences	
	number	%	number	%	number	%	number	%
Phase A to AD 259	66	19.1	1	1.8	–	–	6	13.3
Phase B AD 259–94	139	40.3	13	23.6	7	20.0	28	62.2
Phase C AD 294–330	19	5.5	3	5.5	4	11.4	2	4.4
Phase D AD 330–402	121	35.0	41	69.1	24	68.6	9	20.0

**Table 21** 1st- and 2nd-century coin denominations

Period	Issuer	denarius	sestertius	dupondius	as	irregular
I, to AD 41	Augustus	–	–	–	1	–
IIb, 54–69	Gaius	–	–	–	–	2
	Claudius	–	–	–	–	5
III, 69–96	Vespasian/ Titus	1	2	–	3	–
	Domitian	–	–	1	3	–
IV, 96–117	Nerva	1	–	–	–	–
	Trajan	2	1	2	2	–
V, 117–138	Hadrian	–	6	–	3	–
VI, 138–161	Antoninus Pius	2	1	3	7	–
VIIa, 161–180	Marcus Aurelius	1	2	1	2	–
VIIb, 180–193	Commodus	1	1	–	–	–
total		8	13	7	21	7

from the northern suburb is urban in its composition. A similar predominance of later 4th-century coin is found amongst coin groups from just outside the walls of other Roman towns, for example at Colchester, Caistor-by-Norwich, Catterick, and Chelmsford.

The coin denominations of the 1st and 2nd centuries are shown in Table 21. *Asses* and then *sestertii* are shown to be the most common denominations, with nothing smaller than the *as* having been recovered. *Dupondii* and *denarii* are represented in roughly equal numbers. The figures do not show one type as having replaced another over time. *Sestertii* are most common under Hadrian (AD 117–38) and *asses* are so under Antoninus Pius (AD 138–61). Finds of each of these denominations are spread right across the 1st and 2nd centuries.

In Table 22, the coin types representing the 4th century are shown. This serves to illustrate the changing coin types issued during those years, through the *folles* to the late small bronzes. The most commonly represented issuers are Constantine I, Constans and Constantius II during the first half of the century and Valentinian I and Valens during the second half. The irregular coinage is also quantified against the types copied and shows the *Urbs Roma* and *Fel Temp Reparatio* 'Falling Horseman' copies to have been the most numerous types.

A breakdown of the mints of origin of the 4th-century coins is shown in Table 23 and Fig 74. London is surprisingly under-represented in the early years. Coins from London tend to be prominent on British sites until the closure of that mint in AD 326. Trier is

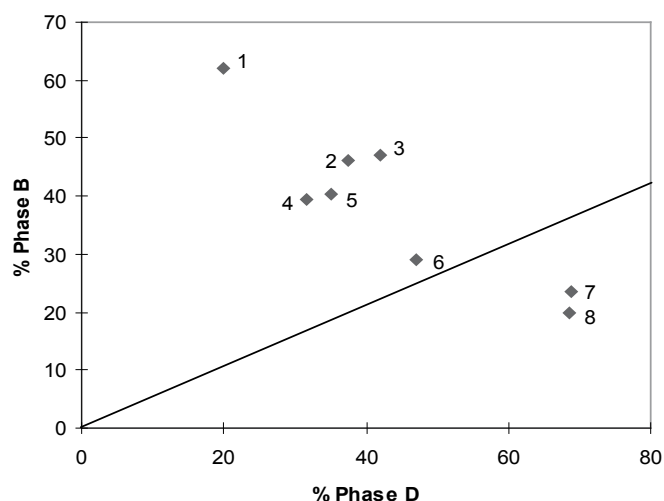


Figure 73 Scattergram of coin values for Winchester sites, plotting percentages from Phases B (late 3rd century) against Phase D (late 4th century)

#### Key

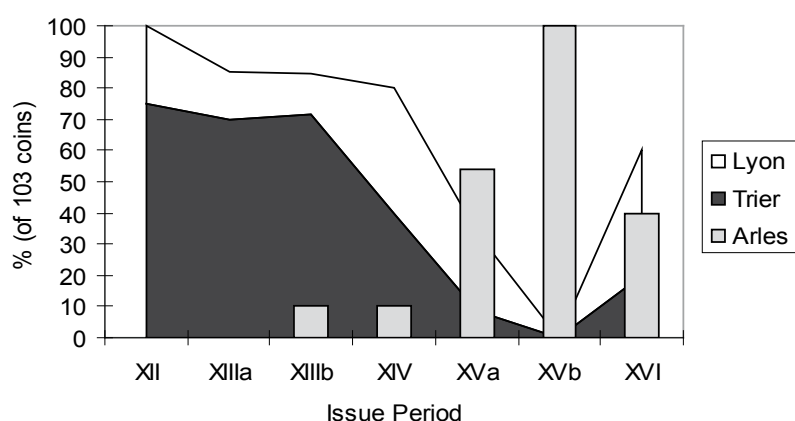
- 1 City defences without Fs 102 & 113
- 2 Staple Gardens
- 3 1961–69 excavations
- 4 City defences including Fs 102 & 113
- 5 Northern suburb
- 6 Brooks
- 7 Western suburb
- 8 Eastern suburb

Table 22 4th-century coin types

period	issuer	AR	folles	AE2	AE3	AE4	irregular
XII, AD 294-317	Constantius	–	2	–	–	–	–
	Galerius	–	1	–	–	–	–
	Constantine I	–	2	–	–	–	–
XIIIa, AD 317-30	Constantine I	–	9	–	–	–	–
	Constantine II	–	3	–	–	–	–
	Crispus	–	5	–	–	–	–
	Helena	–	2	–	–	–	–
	House of Constantine	–	3	–	–	–	–
XIIIb, AD 330-48	Constantine I	–	5	–	–	–	2
	Urbs Roma	–	7	–	–	–	7
	Constantinopolis	–	8	–	–	–	6
	Constantine II	–	5	–	–	–	2
	Constans	–	11	–	–	–	7
	Theodora	–	10	–	–	–	2
	Helena	–	3	–	–	–	–
	House of Constantine	–	1	–	–	–	8
XIV, AD 348-64	Constans	–	–	2	2	–	1
	Constantius II	–	–	1	–	–	–
	Magnentius	–	–	3	–	–	6
	Gallus Caesar	–	–	1	–	–	–
	Julian Augustus	3	–	–	–	–	–
	House of Constantine	–	–	–	1	–	–
	FTR, FH	–	–	–	–	–	26
XVa, AD 364-78	Valentinian I	–	–	–	7	–	2
	Valens	–	–	–	8	–	2
	Gratian	–	–	–	5	–	–
	House of Valentinian	–	–	–	11	–	1
XVb, AD 378-88	Gratian	–	–	–	1	–	–
	Flavius Victor	–	–	–	–	1	–
XVI, AD 388-402	Valentinian II	–	–	–	–	1	–
	Theodosius I	–	–	–	–	–	–
	Eugenius	–	–	–	–	1	–
	House of Theodosius	–	–	–	–	10	–
total		3	77	7	35	13	72

**Table 23** 4th-century mint distribution

mint	Issue Period														total	%
	XII		XIIIa		XIIIb		XIV		Xva		XVb		XVI			
	no	%	no	%	no	%	no	%	no	%	no	%	no	%		
London	–	–	3	15	–	–	–	–	–	–	–	–	–	–	3	2.9
Amiens	–	–	–	–	–	–	1	10	–	–	–	–	–	–	1	1.0
Trier	3	75.0	14	70.0	28	71.7	4	40.0	2	8.3	–	–	1	20.0	52	50.5
Lyons	1	25.0	3	15.0	5	12.8	4	40.0	6	25.0	–	–	2	40.0	21	20.4
Arles	–	–	–	–	4	10.3	1	10.0	13	54.2	1	100.0	2	40.0	21	20.4
Aquillea	–	–	–	–	–	–	–	–	2	8.3	–	–	–	–	2	1.9
Siscia	–	–	–	–	–	–	–	–	1	4.2	–	–	–	–	1	1.0
Rome	–	–	–	–	1	2.6	–	–	–	–	–	–	–	–	1	1.0
Thessalonica	–	–	–	–	1	2.6	–	–	–	–	–	–	–	–	1	1.0
total	4		20		39		10		24		1		5		103	

*Figure 74* The main 4th-century mints

shown to be well-represented throughout the century, supplying most of the coin until its decline after the fall of Magnentius in AD 353. Arles became dominant during the Valentinianic period (AD 364–78), after which Arles, Trier, and Lyon were all important.

## Conclusions

The Roman coins from Winchester in general exhibit features typical of other Romano-British urban sites. There is strong 1st- and 2nd-century loss from the northern suburb and from intra-mural sites, which also exhibit steady loss right through to the end of the 4th century. The pattern from the city defences is similar, except amongst particular assemblages which may be directly related to the manning of the defences during the late 3rd century. Outside the walls, to the west and east, coin loss starts later, at the same time as loss is seen to undergo a dramatic increase within the main town, after AD 260. Loss then continued to rise on these suburban sites, through to the mid-4th century.

Coin loss continued right to the end of the Roman period in all areas of the town discussed here. It finishes most strongly at the extra-mural sites of the

western and eastern suburbs. After a strong mid-4th-century presence there, the values for the final years of Roman Britain (Issue Period XVI) are also strong.

The summary catalogue is ordered differently from the other catalogue entries in this volume. Further information on the contexts from which the coins were recovered can be found in Part 1.

## Graves in the northern cemetery

### *Victoria Road, grave 430*

#### **Mid- to late 1st-century cremation (X, 740)**

sf VR 3251. Claudius irregular *as*, RIC 1: *as* 100, AD 43–64.

### *Victoria Road, grave 434*

#### **Mid- to late 1st-century cremation (X, 759)**

sf VR 3291. Claudius irregular *as*, RIC 1: *as* 100, AD 43–64.

### *Victoria Road, grave 438*

#### **Late 1st-century cremation (X, 816)**

sf VR 3300. Claudius irregular *as*, RIC 1: *as* 100, AD 43–64. Poor condition, possibly residual.

### *Victoria Road 1981, grave 1*

#### **Mid- to late 2nd-century cremation (XVII, 12)**

sf VR 10242. Antoninus Pius *as*, RIC 3: 669, AD 140–44. Inside cremation urn.

**Victoria Road, grave 59****Mid- to late 4th-century inhumation (IV, 304)**

sf VR 497. Constantine II, RIC 7: 556, AD 333–34. Possibly still in circulation at the time the grave was dug.

**Victoria Road, grave 39****Mid- to late 4th-century inhumation (IV, 270)**

sf VR 611. Gratian, RIC 9, Arles 15, AD 367–75.

**Hyde Street, grave 16****Late 4th-century inhumation (I, context not issued)**

sf HYS 6. House of Theodosius, *Victoria Augg.* AD 388–402.

**The hoard****Victoria Road, F1093****Mid- to late 4th-century fill of well (XV, 4125, 4128, 4135)**

sf VR 9647. Helena, RIC 8, Trier as 78, AD 337–40.

sf VR 9761. Constantine II, RIC 8, Arles as 1, AD 337–40.

sf VR 9673. House of Constantine, RIC 8, Constantinople 37, AD 337–40.

sf VR 9624. House of Constantine, irregular, RIC 8, Trier as 80, AD 341–46.

sf VR 9705. House of Constantine, irregular, GE1, AD 341–46.

sf VR 9702. Constans, RIC 8, Trier 186, AD 347–48.

sf VR 9688. Magnentius, illegible, AD 350–53.

sf VR 9672. Magnentius, irregular, RIC 8, Amiens as 5, AD 350–53.

sf VR 9670. Magentius, irregular, AD 350–53.

sfs VR 9625, 9627–9, 9637–41, 9644–6, 9648, 9652–4, 9664, 9666–8, 9674–5, 9701, 9703–4, 9706–16, 9718–19, 9730, 9757, 9843 and 9864. 43 House of Constantine, irregular *Fel Temp Reparatio*, Fallen Horseman, AD 354–64.

**Northern suburb****Hyde Abbey****Struck between AD 96 and 117 (Issue Period IV)**

1 Trajan, indet. *denarius*

**Struck between AD 117 and 138 (Issue Period V)**

2 Hadrian, indet. *sestertius*, indet. *as*

**Struck between AD 138 and 161 (Issue Period VI)**

2 Antoninus Pius, RIC 3: 779, indet. *dupondius*

**Struck from AD 161 to 180 (Issue Period VIIa)**

1 Marcus Aurelius, RIC 3: 1114

1 Faustina II, indet. *as*

**Struck from AD 193 to 222 (Issue Period VIII)**

2 Julia Domna, RIC 4: 546, 574

1 Caracalla, RIC 4: 120

1 Macrinus, RIC 4: 39

**Struck from AD 222 to 238 (Issue Period IXa)**

2 Severus Alexander; RIC 4: 27, indet. *denarius*

**Struck from AD 259 to 275 (Issue Period X)**

1 Gallienus, RIC 5: 245

2 Claudius II, RIC 5: 33, 48

1 Postumus, RIC 5: 323

2 Tetricus, Elmer: 780, 786

**Struck from AD 275 to 294 (Issue Period XI)**

8 Barbarous radiates

**Struck between AD 294 and 317 (Issue Period XII)**

1 RIC 6, Trier 602a

**Struck between AD 317 and 330 (Issue Period XIIIa)**

1 RIC 7, Trier 455

**Struck from AD 330 to 348 (Issue Period XIIIb)**

1 RIC 8, Trier 196

1 RIC 7, Arles 341

1 other regular coin: Constantine II, GE2

4 irregular coins: *Constantinopolis*, GE1, GE2, 2V

**Struck from AD 348 to 364 (Issue Period XIV)**

1 RIC 8, Trier 236

1 RIC 8, Lyon 218

3 irregular coins: Magentius (2), FTR (FH)

**Struck from AD 364 to 378 (Issue Period XVa)**

1 RIC 9, Trier as 7b

2 RIC 9, Lyon 20a, 20c

1 Arles GR

2 irregular coins: GR, SR

**1st or 2nd century**

1 illegible *as*

**Hyde Abbey Barn****Struck between AD 259 and 275 (Issue Period X)**

1 Postumus, Elmer: 565

**The Lido****Struck between AD 348 and 364 (Issue Period XIV)**

1 irregular coin: FTR (FH)

**St Bartholomew's School****Struck between AD 364 and 378 (Issue Period XVIa)**

1 RIC 9, Arles as 17a

**Victoria Road****Republic**

Worn Republican *denarius* (described from a photograph); obv: Head of Roma, helmeted to r.; rev: Dioscuri, riding r.

**Struck from AD 54–69 (Issue Period IIB)**

1 Agrippa indet. *as* (countermarked)

2 Gaius irregular *asses*, RIC 1: as 38, as 58

2 Claudius irregular *asses*, RIC 1: as 100

**Struck from AD 69–96 (Issue Period III)**

2 Vespasian, indet. *as*, indet. *sestertius*

1 Vespasian/Titus, indet. *as*

3 Domitian, RIC 2: 394, 719, indet. *dupondius*

**Struck from AD 96 to 117 (Issue Period IV)**

1 Nerva, RIC 2: 43

6 Trajan, RIC 2: 466, 564, 676, Robertson 86, indet. *dupondius*, indet. *as*

**Struck from AD 117 to 138 (Issue Period V)**

4 Hadrian, RIC 2: 669, indet. *sestertius* (3)

1 Sabina RIC 2: 1026

1 Aelius, indet. *as*

**Struck from AD 138 to 161 (Issue Period VI)**

11 Antoninus Pius, RIC 3: 290a, 472, 552a, 598, 700, 802, 828, 934, as 935, 1317, indet. *sestertius*

1 Faustina I, RIC 3: as 1155

1 Marcus Aurelius, RIC 3: as 1322

1 Faustina II, RIC 3: 1405

**Struck from AD 161 to 180 (Issue Period VIIa)**

1 Marcus Aurelius, RIC 3: 969

1 Faustina II, indet. *as*

1 Lucilla, indet. *sestertius*

1 L. Verus, RIC 3: 555

**Struck between AD 180 and 192 (Issue Period VIIb)**

2 Commodus, RIC 3: 208, indet. *sestertius*

Struck from AD 193 to 222 (Issue Period VIII)

2 Septimius Severus, RIC 4: 97, 197

1 Caracalla, RIC 4: 166

1 Macrinus, indet. *denarius*

1 Elagabalus, RIC 4: 46

**Struck from AD 238 to 259 (Issue Period IXb)**

1 Gordian III, RIC 4: 148

1 Philip I, RIC 4: 47

1 Valerian I, RIC 5: 124

1 Valerian II, RIC 5: 9

1 Gallienus, RIC 5: 339

**Struck from 259 to 275 (Issue Period X)**

5 Gallienus, RIC 5: as 176, 180, 236, 572, indet. *antoninianus*

1 Salonina, RIC 5: 13

11 Claudius II, RIC 5: 45, 48, 65, 66/7, 266, indet. *antoninianus* (6)

2 Postumus, Elmer: as 131, as 382

9 Victorinus, Elmer: as 653, 682, 683 (2), 697, 699 (2), 743, 744

10 Tetricus I, Elmer: 764, 774, 775, 780, 783, 786, 786/7 (2), 789, indet. *antoninianus*

4 Tetricus II, Elmer: 769, 778, 791, as 791

1 indet. *antoninianus*

**Struck from AD 275 to 294 (Issue Period XI)**

1 Tacitus, RIC 5: 61

1 Probus, RIC 5: 31

6 Carausius, RIC 5: 300, 301, as 878, irregulars as 816, 912, indet. *antoninianus*

69 Barbarous radiates

**Struck between AD 294 and 317 (Issue Period XII)**

1 RIC 6, Lyon 308

**Struck from AD 317 to 330 (Issue Period XIIIa)**

3 RIC 7, London 174, as 185, 197

9 RIC 7, Trier 209, 258, 303, as 303, 372, 399, 449 (2), 508

1 RIC 7, Thessalonica 38

2 other regular coins: Constantine I *Beata Tranquillitas*, House of Constantine illegible

**Struck from AD 330 to 348 (Issue Period XIIIb)**

8 RIC 7, Trier 526 (2), 529, 537, 546, 547, 591 (2)

9 RIC 8, Trier 82, 93, 181, 186, 195, 196 (2), 206, Constans GE1

1 RIC 7, Lyon 246

1 RIC 7, Arles 371

2 RIC 8, Arles 78, 92

1 RIC 8, Rome as 6

7 other regular coins: *Constantinopolis* (5), *Urbs Roma* GE1 (2)

20 irregular coins: GE1 (6), GE2 (2), *Urbs Roma* (5), *Constantinopolis* (3), 2V (4)

**Struck from AD 348 to 364 (Issue Period XIV)**

1 RIC 8, Amiens as 11

1 RIC 8, Trier 271

2 RIC 8, Lyon 186, 191

1 RIC 8, Arles 297

3 other regular coins: Constans FTR (hut), Constans FTR (phoenix), House of Constantine illegible

20 irregular coins: Constans, Magnentius (3), FTR FH (16)

**Struck from AD 364 to 378 (Issue Period XVa)**

1 Trier, GR

2 RIC 9, Lyon 10a, other

7 RIC 9, Arles as 7d, 15 (4), SR, other

1 RIC 9, Aquileia 11a

1 Ric 9, Siscia 15a

3 other regular coins: GR (2), SR

3 irregular coins: Valentinian I (2), Valens

Struck between AD 378 and 388 (Issue Period XVb)

1 Gratian illegible

**Struck from AD 388 to 402 (Issue Period XVI)**

2 RIC 9, Arles as 30, as 58

2 other regular coins: House of Theodosius *Victoria Augg*

**1st or 2nd century**

1 illegible *as*

**1st to 3rd century**

1 illegible *antoninianus* or *denarius*

**3rd or 4th century**

12 illegible, one of which (sf VR 3059) was perforated twice for suspension on a necklace.

### Grave in the western cemetery

#### 45 Romsey Road, grave 21

##### Late 4th-century inhumation (26)

sf 45RR 12. Constantine I, RIC 8, Trier 529, AD 330–31.

sf 45RR 13. House of Theodosius *Victoria Augg*, AD 388–402.

sf 45 RR 11. Eugenius, CK 171, AD 392–94.

### Western suburb

#### Crowder Terrace

**Struck between AD 259 and 275 (Issue Period X)**

1 Tetricus I, Elmer: 786/7

**Struck from AD 275 to 294 (Issue Period XI)**

3 Barbarous radiates

**Struck from AD 330 to 348 (Issue Period XIIIb)**

1 RIC 7, Trier 529

2 RIC 8, Trier 63, 210

2 RIC 7, Lyon 239, 246

3 other regular coins: Theodora *Pietas Romana*, 2V, House of Constantine illegible

3 irregular coins: GE2, *Urbs Roma* (2)

**Struck between AD 348 and 364 (Issue Period XIV)**

1 irregular coin: FTR FH

**Struck between AD 364 and 378 (Issue Period XVa)**

1 RIC 9, Arles as 16b

3rd to 4th century

2 illegible

### New Road

**Struck from AD 259 to 275 (Issue Period X)**

2 Gallienus, RIC 5: 193, 280

1 Claudius II, RIC 5: 48

1 Tetricus I, Elmer: 786

**Struck from AD 275 to 294 (Issue Period XI)**

3 Barbarous radiates

**Struck between AD 294 and 330 (Issue Period XII)**

1 RIC 7, Trier 341

**Struck from AD 330 to 348 (Issue Period XIIIb)**

2 RIC 8, Trier 79, 83

1 RIC 8, Lyon 52

1 irregular coin: *Urbs Roma*

**Struck from AD 348 to 364 (Issue Period XIV)**

2 RIC 8, Trier 228, 260

8 irregular coins: FTR FH

**Struck from AD 364 to 378 (Issue Period XVa)**

2 RIC 9, Arles as 9, 19a

1 House of Valentinian, SR

**Struck between AD 378 and 388 (Issue Period XVb)**

1 Arles CK 561

**Struck from AD 388 to 402 (Issue Period XVI)**

1 Arles CK 562

1 Valentinian II *Victoria Augg*

### Sussex Street

**Struck between AD 69 and 96 (Issue Period III)**

1 Vespasian, indet. *sestertius*

**Struck between AD 259 and 275 (Issue Period X)**

1 Tetricus I, Elmer: 787

**Struck between AD 275 and 294 (Issue Period XI)**

1 Barbarous radiate

**Struck between AD 294 and 317 (Issue Period XII)**

1 RIC 6, Trier 508b

**Struck from AD 330 to 348 (Issue Period XIIIb)**

2 RIC 8, Trier 55, 195

1 *Urbs Roma*

**Struck between AD 348 and 364 (Issue Period XIV)**

1 irregular coin: FTR FH

**Struck between 364 and 378 (Issue Period XVa)**

1 House of Valentinian, SR

**3rd to 4th century**

2 illegible

### Graves in the eastern cemetery

#### Chester Road, grave 579

##### Late 3rd-century cremation (III, 685)

sf CHR 938. Victorinus, Elmer: 743, AD 268–70.

sf CHR 1492. Victorinus, indet. *antoninianus*, AD 268–70.

sf CHR 1493. Victorinus, Elmer: 741, AD 268–70.  
 sf CHR 937. Probus, RIC 5: 186, AD 276–82.  
 sf CHR 1491. Probus, RIC 5: 120, AD 276–82.

### ***Chester Road, grave 553***

#### **Late 4th-century inhumation (III, 615)**

sf CHR 738. House of Theodosius *Victoria Augg*, AD 388–402

### **Eastern suburb**

#### ***Chester Road***

##### **Struck from AD 259 to 275 (Issue Period X)**

1 Claudius II, RIC 5: 261

1 Tetricus I, Elmer: 786

##### **Struck from AD 275 to 294 (Issue Period XI)**

4 Barbarous radiates

##### **Struck from AD 317 to 330 (Issue Period XIIIa)**

2 RIC 7, Trier 451, 515

2 RIC 7, Lyon 148, 202

##### **Struck from AD 330 to 348 (Issue Period XIIIb)**

4 RIC 7, Trier 523 (2), as 525, 526

2 RIC 8, Trier 42, 199

2 RIC 7, Lyon 254, 257

2 other regular coins: GE1, Theodora *Pietas Romana*

5 irregular coins: GE1, GE2 (2), *Constantinopolis*, 2V

##### **Struck from AD 348 to 364 (Issue Period XIV)**

1 Magnentius *Felicitas Reipublicae*

1 irregular coin: FTR FH

##### **Struck from AD 364 to 378 (Issue Period XVa)**

2 RIC 9, Lyon as 10a, 21a

1 RIC 9, Aquileia 11b

##### **Struck from AD 388 to 402 (Issue Period XVI)**

1 RIC 9, Lyon as 44

1 House of Theodosius *Salus Reipublicae*

##### **1st or 2nd century**

1 illegible *as*

##### **4th century**

1 illegible AE coin

### ***St John's Street***

##### **Struck between AD 259 and 275 (Issue Period X)**

1 Gallienus, RIC 5: 206

##### **Struck between AD 348 and 364 (Issue Period XIV)**

1 RIC 8, Lyon 218

##### **Struck between AD 364 and 378 (Issue Period XVa)**

1 House of Valentinian GR

##### **1st or 2nd century**

1 illegible *as*

##### **3rd or 4th century**

1 illegible AE coin

### **City defences**

#### ***Henly's Garage***

##### **Struck between AD 69 and 96 (Issue Period III)**

1 Vespasian, indet. *as*

##### **Struck between AD 117 and 138 (Issue Period V)**

1 Hadrian, indet. *sestertius*

##### **Struck from AD 259 to 275 (Issue Period X)**

1 Gallienus, indet. *antoninianus*

1 Salonina, RIC 5: as 5

1 Claudius II, indet. *antoninianus*

3 Victorinus, Elmer: 697 (3)

1 Tetricus I, Elmer: 786

##### **Struck from AD 275 to 294 (Issue Period XI)**

16 Barbarous radiates

##### **Struck between AD 317 and 330 (Issue Period XIIIa)**

1 RIC 7, Trier 208A

##### **Struck between AD 330 and 348 (Issue Period XIIIb)**

1 irregular coin: *Magnentius Victoriae DD NN Aug et Cae*

##### **Struck from AD 364 to 378 (Issue Period XVa)**

2 RIC 9, Arles 7d, indet. AE3

1 House of Valentinian SR

##### **Struck between AD 388 and 402 (Issue Period XVI)**

1 House of Theodosius *Victoria Augg*

##### **1st or 2nd century**

1 illegible *dupondius* or *as*

##### **3rd or 4th century**

2 illegible AE coins

### ***27 Jewry Street***

##### **Struck between AD 69 and 96 (Issue Period III)**

1 Vespasian, indet. *denarius*

##### **Struck between AD 259 and 275 (Issue Period X)**

1 indet. *antoninianus*

##### **Struck from AD 275 to 294 (Issue Period XI)**

2 Barbarous radiates

##### **Struck between AD 317 and 330 (Issue Period XIIIa)**

1 RIC 7, Trier 303

##### **Struck from AD 330 to 348 (Issue Period XIIIb)**

2 irregular coins: Constantius II GE2, *Urbs Roma*

##### **Struck between AD 348 and 364 (Issue Period XIV)**

1 irregular coin: FTR FH

##### **4th century**

1 illegible AE coin

### ***Jewry Street, Crown Hotel***

##### **Struck between AD 69 and 96 (Issue Period III)**

1 Domitian, indet. *sestertius*, illegible figure seated left

##### **Struck between AD 259 and 275 (Issue Period X)**

1 Aurelian, RIC 5: 343

### ***Magdalene Almshouses***

##### **Struck before AD 41**

1 Augustus, RIC 1: 274

##### **Struck between AD 69 and 96 (Issue Period III)**

1 Domitian, indet. *as*

### ***St Swithun's Street***

##### **3rd or 4th century**

1 illegible AE coin

## 7 Objects used for, or associated with, written communication

Only iron styli were recovered, one from an inhumation grave. The absence of seal-boxes in an assemblage of this size is unusual, but may be a reflection of the nature of the occupation.

### Styli

There are two styli from Roman contexts at Victoria Road and St Martin's Close (**621**, **623**), and one from a clay loam deposit representing the disuse of the Roman site at Victoria Road (**622**). Two others were found residual in post-Roman contexts at Victoria Road (**624**, **626**) and one (**625**) was found unstratified in Trench V at the same site. Although iron styli exhibit considerable formal variation, there is no recognised classification which relates this to chronology in any detail. Reference is, however, made below to Manning's (1985a, 85) four broadly defined types.

The simplest of the Winchester styli is **623** which has a small triangular eraser and a shank which expands slightly towards the base where it steps in before it tapered to a point now missing. This stylus may be identified as an example of Manning's Type 2 (1985a, 85).

**622**, **624**, **625** and **626** are similar in having shanks which expand towards the base before tapering to the point, and they are also decorated. The head of **624** is missing, but it was probably the most elaborately finished. It has a pattern of encircling grooves and panels of fine criss-cross relief work. On **622** and **625**,

the shank is encircled by grooves which were inlaid with brass wire. Only the lower part of **626** survives and it is decorated with fine criss-cross grooves. The eraser of **622** is short, square and wedge-shaped while on **625** it is a more elongated triangular shape. All these styli broadly correspond to the examples illustrated by Manning as representative of his Type 4 (1976, 34; 1985, 85).

**621** may also be placed in Type 4, but is of a rather unusual form in that it has a parallel-sided shank with an encircling relief collar at each end dividing it from the tip and the eraser. The latter has carefully formed concave sides. Immediately inside the collars the shank is also encircled by inlaid brass bands. Although the feature may have no chronological significance, it may be noted that the brass collar at the base can be paralleled on a stylus from a context dated *c* AD 180–220 at Baldock (Manning and Scott 1986, 152–3, fig 66, 521).

**621** Fig 75 sf VR 1025. It has a shank with a rounded cross-section which has a copper alloy collar at each end. There is a short pointed tip and the eraser has concave sides and a wedge-shaped tip. L 152mm, shank T 4mm, eraser L 20mm. Construction (slot F69) of late 2nd or early 3rd-century phase of Building 1.15 (V, 60).

**622** Fig 75 sf VR 291. The eraser is widened and flattened towards a wedge-shaped tip. The shank is at its thickest near the base before tapering to a point. At the thickest part, the shank is encircled by grooves which were inlaid with brass wire (much now lost); there are also single inlaid grooves in two places further up the shank. L 103mm, shank T 8mm, head L 8mm, W 10mm. Late 4th- to early 5th-century soil layer (V, 61).

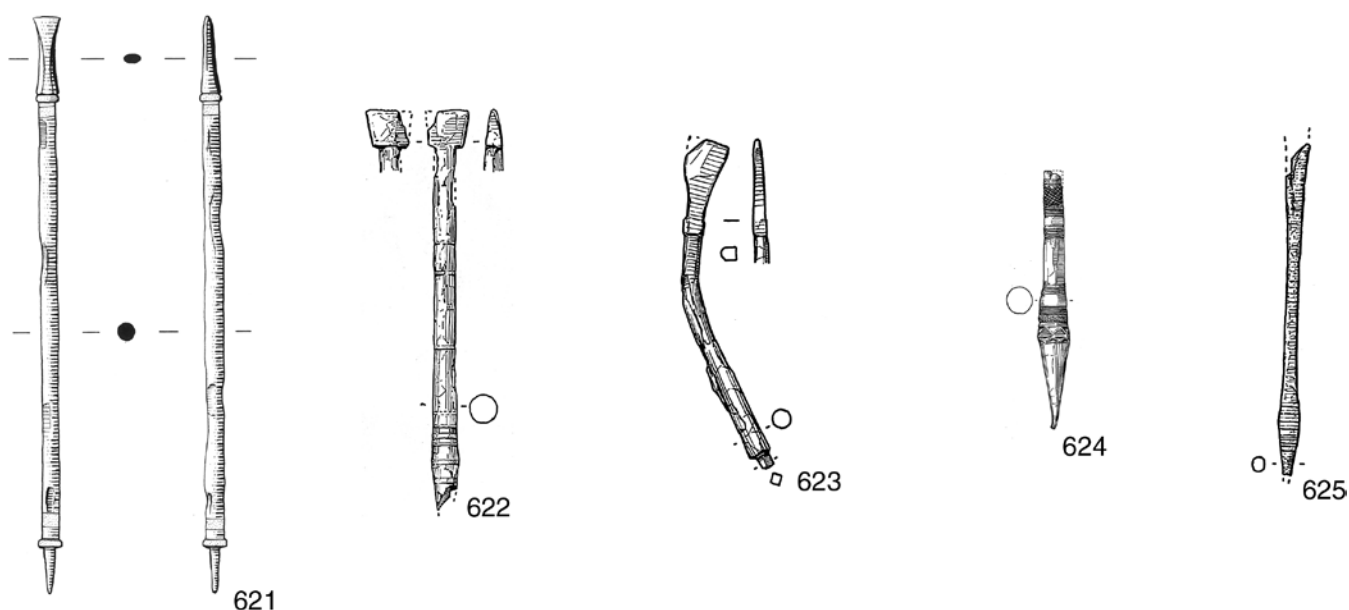


Figure 75 Styli, nos 621–5, scale 1:2



**623** Fig 75 sf SMCW 642/ 663. Triangular eraser at head, shank expands slightly towards the base, before stepping in and tapering towards the point which is missing. L 97mm, head W 9mm. Inhumation grave 13, dated late 4th to 5th century (13).

**624** Fig 75 sf VR 73. Head missing, shank expands below the break before tapering to a pointed tip. It is decorated with a complex pattern of encircling grooves and facets containing criss-cross relief work. L 68mm, W 8mm. Late Saxon or early medieval ditch F13 (V, 241).

**625** Fig 75 sf VR 0. The shank thickens below the centre

to a point a little above the tip and widens from the centre towards the now incomplete eraser. There are five inlaid non-ferrous bands around the shank at its thickest point. L 88mm, T 5mm. Unstratified (V).

*not illustrated*

**626** sf VR 0. The lower part of a stylus shank. There are fine criss-cross surface grooves. L 61mm, W 8mm. 19th- to 20th-century feature F951 (XIV, 3703).

## 8 Objects associated with transport

This assemblage consists largely of hipposandal fragments, mostly from late Roman contexts. Also present are parts of two bits and an antler fitting, possibly from a harness.

### Strap-loop

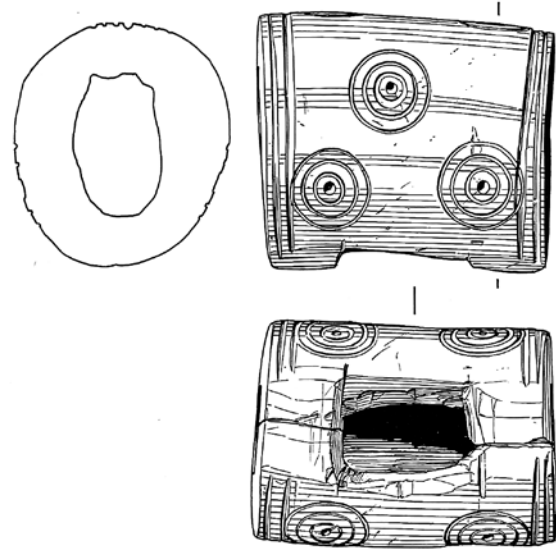
Parallels for this perforated ring of antler from Victoria Road are to be found amongst the objects referred to as 'toggles' from the Iron Age hillfort at Danebury (Sellwood 1984, 378–80), particularly in the decoration (for example, *ibid* fig 7.2, 3.41) and the wear patterns along the axis of the ring near the hole (*ibid* 380). The Victoria Road piece came from the first of two Roman phases of reuse of a pre-existing hollow way, which marked a route into the Iron Age enclosure at Oram's Arbour (Qualmann *et al* 2004). This and the Danebury parallels suggest that it may be Iron Age in date, or could have been lost by a member of the native population at around the time of the Conquest.

Two similar pieces were found on the Roman Balcerne Lane site at Colchester (Crummy 1983, fig 209, 4747–8). One (*ibid* 4747), from a late 3rd-century context, is plain and may possibly have been abandoned before completion; the other (*ibid* 4748), found unstratified, and probably from a *Bos* metatarsus, is decorated with marginal grooves and an incised cross, with the area to either side of the rectangular hole left plain and worn (possibly also cut first) so as to be almost flat. Like 627 and many of the rings from Danebury (Sellwood 1984, 380), the impression is of an object visible on all sides except the area of the hole.

The Danebury examples are thought to have functioned as general-purpose fasteners. They are, however, smaller than 627, rarely exhibit stress fractures and tend to have rounder holes. This and, again, the context, may indicate that this particular object has been correctly identified as a horse harness, irrespective of its date.

**627** Fig 76 sf VR 5672. An antler fitting, perhaps used in a similar fashion to a harness strap loop, to secure the junction of two leather straps. L 38mm, W 30mm.

The fitting, slightly curved, has been cut from a section of antler beam, or low down on a large tine, and some of the inner porous core has been removed. What remains shows no sign of wear and it is thus unlikely that a strap passed through the central perforation. The external face is decorated with pairs of marginal grooves, and a triple ring-and-dot ornament. A roughly rectangular perforation has been cut through the wall on the inner side of its natural curve. Traces of the scored guidelines marking the desired position of the hole remain at top and bottom. The pairs of marginal grooves have not been cut above and below the hole, probably because these areas were covered over when the object was in use. There may be traces of wear on these



627

Figure 76 Strap loop, no 627, scale 1:1

patches, and it is possible that the marginal grooves have been at least partially worn away, though the sides of the hole and the sharpness of the remaining guide lines suggest only minimal wear. However, the object has fractured from top to bottom across the hole, again suggesting that stress was applied in this area.

While possible wear and the absence of marginal grooves indicate that the area to the top and bottom of the rectangular hole was obscured during use, the presence of decoration around the rest of the object suggests that both its sides were visible. This would be the case if the object were used to secure two divergent leather straps, knotted one on each side of the rectangular hole. Silting (XIII, 3414) over early Roman metallurgy of the Iron Age hollow way, F856. Mid-1st century AD or later.

### Bit links

*not illustrated*

**628** sf VR 1208. Iron. One eye is missing, shank has rounded cross-section. L 80mm, eye D 20mm, shank T 8mm. Ephemeral structures probably representing the earliest Roman buildings in the trench (V, 58). Mid- to late 2nd century.

**629** sf VR 909. ?Incomplete snaffle bit link of iron: it exists as a shank with a rounded cross-section and a circular eye at one end. L 74mm, shank T 7mm, eye D 21mm. Late 4th- or early 5th-century soil layer (V, 344)

### Hipposandal parts

There are two incomplete hipposandals with the rear hook surviving from Victoria Road (634 and 635).

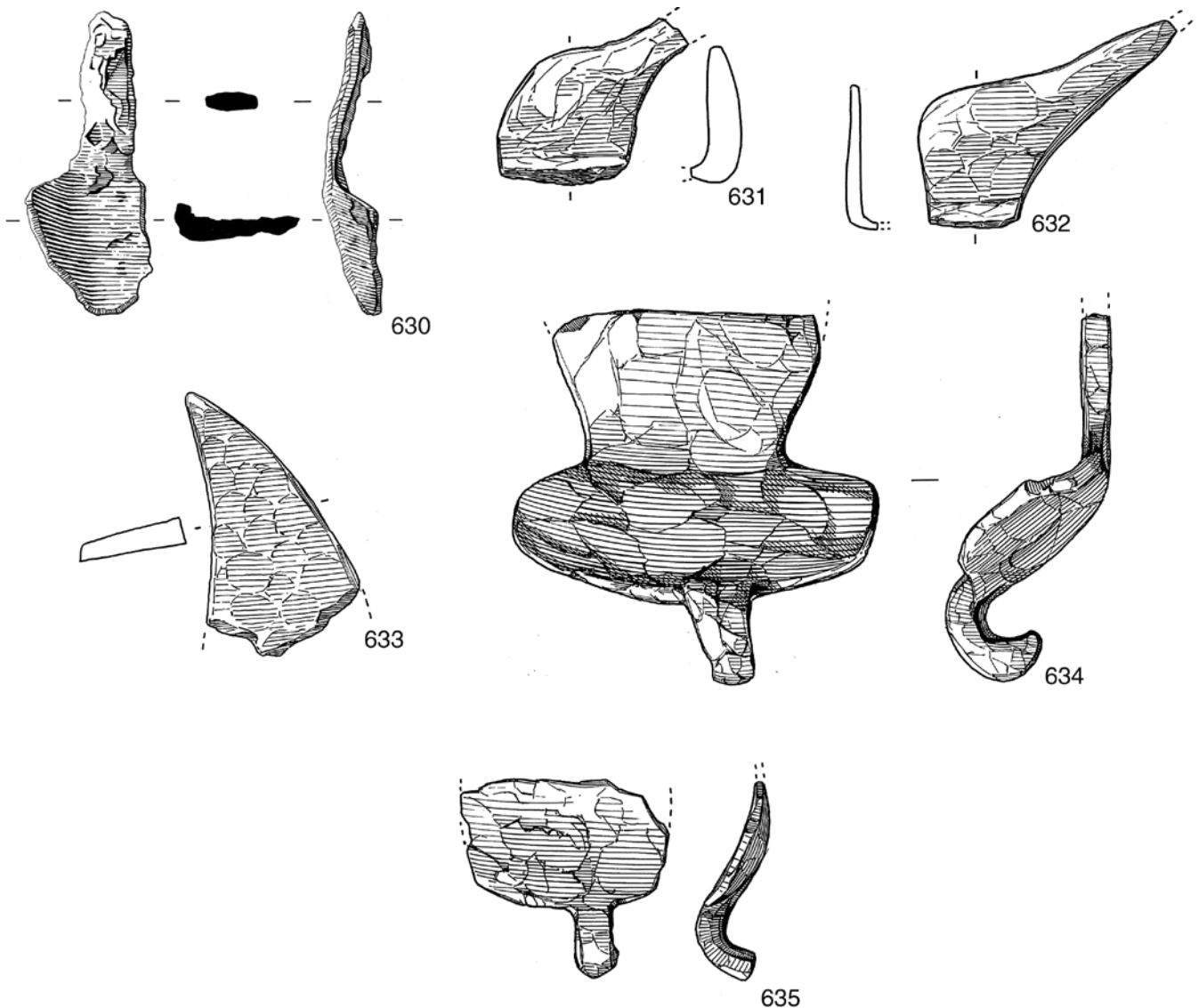


Figure 77 Hipposandal parts, nos 630-5, scale 1:2

630-33 and 636-38 are the wing plates from hipposandals. 631, 632 and 633 were probably discarded along with other scrap items, including 634, in 4th-century deposits in Trench XII at Victoria Road (Category 15). In addition, there are three wings which were found in the soil layers marking the disuse of the site at Victoria Road at the end of the Roman period, and residual in post-Roman contexts, and two residual wings, one each from Crowder Terrace and 27 Jewry Street.

It is not possible to be certain to which of the known types of hipposandal (Manning 1985a, 63-6), these objects belong, but because 642 is relatively elongated and does not appear to taper significantly it may come from a Type 2 where the wings meet in a loop above the toe.

**630** Fig 77 sf VR 1242. Wing. L 88mm, W 35mm. Gully F81 (V, 444), associated with a mid-2nd-century phase of the western Cirencester-roadside ditch (F85).

**631** Fig 77 sf VR 5169. Wing of hipposandal. L 65mm, W 40mm, T 5mm. Early to mid-4th-century finds rich soil layer (XII, 2470).

**632** Fig 77 sf VR 5324. Wing of hipposandal. L 82mm, W 39mm. Early to mid-4th-century metallised (yard?) surface F665 (XII, 2486).

**633** Fig 77 sf VR 5330 Wing of hipposandal. L 80mm, W 40mm, T 4mm. Early to mid-4th-century metallised (yard?) surface F665 (XII, 2486).

**634** Fig 77 sf VR 5438. Rear part only. It exists as a plate curved at 45 degrees in the centre where there is also a pronounced waist. The upper part has convex sides and a straight top from which the hook projects. The lower part widens away from the waist and is incomplete. L 110mm, W 105mm. Early to mid-4th-century finds-rich soil layer (XII, 2517).

**635** Fig 77 sf VR 2538. Part of the heel. It exists as an incomplete slightly curved plate, one side is convex and near the centre of it there is an incomplete hook set at right angles. L 55mm, W 57mm, T 2mm. Late 4th- to early 5th-century soil layer (X, 144).

*not illustrated*

**636** sf VR 260. Wing. L 60mm, W 30mm. Mid- to late 3rd-century phase of Building 1.14 (V, 72).

**637** sf VR 620. Wing. L 65mm, W 40mm. Mid- to late 3rd-century phase of Building 1.15 (V, 87).

**638** sf HA 171. Incomplete heel and tang only. L 83mm, W 57mm. ?Mid 3rd- to early 4th-century Building 1.9 (XI, 380).

**639** sf VR 945. Wing of a hipposandal (as **633** above). L 70mm, W 37mm, T 3mm. Late 3rd- to early 4th-century cremation grave 95 (IV, 421).

**640** sf VR 610. L 50mm, W 45mm. Late 4th- to early 5th-century soil layer (IV, 263).

**641** sf VR 3978. L 50mm, W 35mm. Late Saxon soil layer (XII, 2286).

**642** sf 27JS 251. Relatively elongated. Arms L 116mm, W 40mm. Late Saxon or early medieval pit F82 (I, 450).

**643** sf CT 13. Hipposandal wing. L 67mm, W 33mm. Late 12th- to 14th-century ditch F12 (V, 26).

**644** sf VR 938. L 60mm, W 37mm. 13th- to 15th-century soil layer (V, 178).

## 9 Buildings and services

Evidence of the construction and general appearance of Roman structures was recovered from many sites, in the form of window glass, wall plaster, mortar, daub, *opus signinum*, ceramic tile, tesserae, building stone and roofing tile, and metal fixtures and fittings. These diverse materials were rarely recovered in situ however, and even finds from secondary deposits were limited in number, in comparison with the entire assemblage. Conversely, what did survive as parts of structures is sometimes not strictly building material, but shows secondary use of artefacts originally made for another purpose. This can be seen, for example, in Building 1.26 at Victoria Road, where a broken pottery storage jar was employed in the construction of a hearth (F1094) (P3), and at 27 Jewry Street, where the metalling for the intra-mural street F70 was partly made up of amphorae (P2 and 5) and broken quernstones (Category 4).

Although building materials from a number of deposits were identified as possibly deserving of more detailed study during the English Heritage (MAP2) assessment, further consideration suggested that full publication might be unjustified, due to the small size of the sample of finds, to their poor condition, and their unhelpful contexts (above). In any event, funding for further work was unforthcoming. A summary of the information gleaned during the assessment stage of the project is offered here, however, so that readers can assess the potential for themselves.

At Victoria Road, in the northern suburb, Buildings 1.12–1.26 (dating from c AD 150 to the end of the Roman period) produced a quantity of ceramic tile, some building stone, and stone roofing tile. However, none of this material was in particularly good condition, and the assemblage from each individual building was small. It is questionable, therefore, whether it was purpose-made or crafted for the construction of the buildings, whether it was opportunistically reused to strengthen parts of buildings like the pot from Building 1.26 (above), or whether it was merely dumped on the site (see also Part 4). Daub, the latter used particularly in the construction of ovens F846 (Building 1.24) and F1100 (Building 1.22) might, along with timber, have been the main construction method. It is even possible that the buildings had thatched roofs (P3).

At St Martin's Close in the eastern cemetery (P1), many of the late Roman graves had been lined with stone (Purbeck) roofing tiles, and several ceramic tiles had been used to cover the remains interred in grave 38. Again, it is unlikely that these had been especially made for the construction of graves. The feature over the burial in F57, one of two graves within the remains of a masonry structure, produced a quantity of building materials. These comprised a stack of mortar-bonded ceramic tiles, some with traces of painted plaster and

one with an iron nail still in situ, a quantity of stone roofing tiles and over 500 loose pieces of painted plaster. It seems possible, in this case, that part of a building (perhaps a town house, or even the masonry structure itself) had been dismantled and interred as an element of the burial rite. The sample of tile from St Martin's Close was thought insufficiently large by itself to warrant full publication (although at first sight it appeared to be, due to the complete or near-complete state of the pieces). However, at least partial reconstruction of the painted schemes on the plaster seemed feasible and a full report on this material appears below.

Amongst sites on the circuit of the city defences (P2), a masonry town house located just within the walls near the south gate and occupied from the 2nd to the 4th centuries (Henly's Garage, Building 17.3) produced some stone roofing tiles, and fragments of ceramic tile, daub, mortar, and painted plaster, small in number but in fairly good condition. At 27 Jewry Street (on the northern part of the circuit) a pipe coupling similar to one from Fishbourne (Cunliffe 1971, 47, Type 33) was found associated with the intra-mural street F70, and further stone roofing tiles were associated with a late Roman building there.

The sources of manufacture of the ceramic tiles could not be established without further study, but the provenances of the building stone were more easily identifiable. The local chalk and flint were used, but much building stone was, of necessity, imported. Jurassic rock from the Dorset coast was a particularly important source, providing hard shelly limestone; 'marble', especially from Purbeck, was used; Bembridge limestone was also imported from the Isle of Wight; and tertiary deposits of the Hampshire Basin provided further material, such as sandstone. Oolitic limestone, perhaps from the Bath area, is a fairly important component of the assemblage, as is glauconitic greensand. From further afield (western Britain) came Old Red Sandstone, and there is the occasional find of imported marble, perhaps of Mediterranean origin. Sandstone seems to have been the favoured material for facings and veneer, sandstone and Purbeck limestone for roofing tiles, and other limestones and greensand for blocks.

The range of tesserae from the suburbs and defences sites is more limited than that recovered in situ at The Brooks (Johnston in Zant 1993, 74, 98–100). Light coloured tesserae were usually of chalk, although occasionally of Purbeck marble. Red ceramic tesserae were also present, and, more unusually, a green glass tessera was found at Victoria Road.

There were 44 fragments of window glass, but only six from Victoria Road, three from Hyde Abbey and one from Henly's Garage were directly associated with

Roman buildings, whilst five were residual in post-Roman contexts. Most of the fragments were cast matt or glossy blue-green glass, primarily of 1st- to 3rd-century date, but there were two pieces of 4th-century blown light green glass (one each from Victoria Road and Chester Road). A full catalogue of the material (by H E M Cool) is retained in the archive.

Quite a number of loose iron fixtures and fittings and a large quantity of loose nails were recovered. Of these, a scatter were associated with buildings at Hyde Abbey, Victoria Road, and Henly's Garage. However, as it is uncertain whether most would have come from structures, furniture, or – where graves were present – coffins, they are catalogued in Category 11.

### **The painted wall plaster from St Martin's Close**

*by A Thompson*

The wall plaster recovered from St Martin's Close was recorded in a number of contexts, the majority (I, 115, 116 and 120) being the fill of a shaft which contained a lead-lined coffin burial (F57). Comprising small fragments from which no full reconstruction of the original painted scheme(s) was possible, the wall plaster has clearly been deliberately deposited as fill material, although it appears there has been considered selection of the fragments deposited.

### **Construction**

The basic raw materials for mortar production, lime and sand, are found locally; chalk deposits from the ridge on which the site lies and sand deposits from the River Itchen will have been utilised.

The mortar is coarse, either creamy coloured (with lumps of chalk and fragments of stone and pottery) or pink coloured, from the inclusion of brick and pottery dust (also containing chalk lumps). Some of the recovered fragments have two layers of mortar and in some cases the pink coloured mortar forms the upper layer. Where this upper layer of pink coloured mortar occurs it would appear that, as a slightly less coarse mortar than the creamy coloured material, it has been used as a levelling layer. Certainly, numerous painted fragments of wall plaster with just pink coloured mortar have a flat lower surface indicative of an application to a mortar base, the surface of which has been evened out before applying an upper layer.

One large fragment demonstrates that the plaster was keyed to the surface to which it was applied. This suggests that the receiving surface was smooth, probably of stone, which needed to be pecked (deliberately tooled to provide holes) to receive the mortar. Other fragments illustrate the imprint of wicker work on their rear surfaces, demonstrating that they originally belonged to a timber-framed wall.

There are examples from the site of painted decoration being applied direct on to the pink coloured mortar and, as is more usual in Roman Britain, the

painted decoration being applied on to a limewash layer, which forms a thin skim over the mortar.

### **Pigments**

The pigments found on the painted plaster include white, black, blue, yellow and red, which were obtained from chalk, carbon, blue frit, yellow ochre, and hematite (red ochre) respectively. Obviously, the colours to be seen on the plaster include some which are the result of mixing two or more of the pigments together to create, for example, orange-brown, maroon and mustard yellow. There has been some fading of the original pigments on the fragments, but it is possible to differentiate, for example, orange-brown from maroon, and yellow from mustard yellow in the painted schemes. Notable only for its complete absence was green (derived from green earth), which was readily available and therefore deliberately omitted.

### **Schemes**

*Note: a table providing piece-by-piece descriptions of the various painted elements is deposited in the archive.*

The painted schemes on the mortar and plaster were crudely applied, the brush stroke marks on the painted surfaces indicating that the fresco technique was utilised, with the pigments applied to damp plaster. On some fragments there are uneven lines, with splashes partially painted over and on others splashes remain undisguised.

However, the presence of brush strokes is useful in assisting the vertical alignment of the painted designs, given that the painters will have applied the pigments using easier vertical rather than horizontal strokes. Unfortunately it is not possible to ascertain from the brush strokes which is the top and which the base of fragments, so in the descriptions of the scheme elements, the features to the left of a fragment could originally have been to the right and *vice versa*.

The painting largely comprises simple two dimensional panel schemes, the most common form of wallpainting design throughout the Roman period. Such schemes consisted of large rectangular main fields (often in white, as evidenced in this assemblage) separated by intervals of different colours which could create frames for the main fields.

In the following description of the schemes the widths of individual elements are given using the classification by Davey and Ling (1982, 81): a line is anything less than 5mm wide, a stripe is 5 to 20mm, a band 20 to 200mm and a zone is anything more than 200mm wide. Given the fragmentary nature of the surviving schemes, colours at the edges cannot be accurately defined as for example a line or stripe, so are described as at least a line, stripe, band, or zone according to the width of colour surviving. The similarities in the seven schemes outlined below suggest

that it is probable that the schemes are variations of panels from within the same room or building.

#### **Scheme 1**

Orange-brown and yellow bands are separated by a white stripe (probably the panel ground colour). One fragment also has an irregularly edged black band.

#### **Scheme 2**

With variations, this scheme involves a white ground with light blue lines, stripes and bands, orange-brown lines or stripes, yellow stripes and black lines.

#### **Scheme 3**

Light blue band with convex angle (from the edge of a window or door) with a black stripe to one side and an orange-brown and light blue stripe on a white ground to the other side. Probably associated with Scheme 2.

#### **Scheme 4**

Fragments from window or door surrounds involving orange-brown with concave and convex angles, light blue, yellow, black and orange-brown stripes.

#### **Scheme 5**

White ground with black line and orange-brown frame. Sometimes the orange-brown frame has a yellow stripe on the inside, edging the white ground, and on other fragments a third black edge is identifiable. In one instance black diagonal stripes or bands are present on the white ground. On another fragment black criss-crossing lines form a diamond pattern on the white ground within two sides of an orange-brown frame, also with a black band, which is convex-angled and indicative of a window or door fragment.

#### **Scheme 6**

White ground with black lines and black or light blue frame with yellow black stripes respectively. One fragment also has an orange-brown stripe.

#### **Scheme 7**

This scheme is similar to Schemes 1 and 2, but the colour maroon as well as orange-brown is utilised. On a white ground light blue, orange-brown, maroon and yellow stripes or bands are to be found in a variety of sequences, the maroon sometimes forming the frame of the white field.

### **Additional features**

Whilst it is clear that the painted decoration largely comprised panel schemes with white main fields framed by a variety of colours and sequences of colours, there are hints of more elaboration from several fragments. Curving lines, wavy lines overlying other colours, as well as the diamond pattern on the fragment mentioned above, all suggest that the frames and the main fields contained within the frames were not intended to be basic panel schemes. Insufficient of the schemes survive to enable reconstruction but it is possible that curving lines may represent a painted arch or column base, such as have been found within the main field at York (Davey and Ling 1982, 204–05) or between main fields as at Leicester (*ibid* 124–7). Indeed the use of white and black lines within frames may have been an attempt to create perspective by lines of light and shadow within the linear-based frames. There are also hints that some of the panel frames were decorated with colour blobs, a feature found at a number of other British sites including Boxmoor, Caerwent, and Acton Scott, Shropshire (*ibid* 33, 43 and 50).

### **Discussion**

With regard to dating, panel schemes are found throughout the Roman period in Britain. Red fields with black frames were popular in the 1st and 2nd centuries whilst white fields appear more often from the 3rd century onwards (Davey and Ling 1982). The wall plaster from St Martin's Close shows no evidence of having been redecorated, and it represents a single phase of painting.

The wall plaster was recovered in fragments from the fill of the shaft which contained a lead-lined coffin burial (F57) and in particular from a tile cist which lay approximately over the head of the lead coffin. The presence of convex and concave angled plaster fragments among the assemblage is further evidence that the plaster is secondary in its burial deposit, as such fragments will have originally surrounded (a) window(s) or door(s) in a room or building. What is also notable is the lack of fragments with just white paint, which would have comprised the main fields. This clearly indicates that the fragments deposited were selected, with preference given to the more colourful pieces. There is no evidence from the assemblage of dado, frieze or ceiling plaster, but it cannot be said if these are missing or were never present.

Burial F57 and the adjacent grave (F50) appear to have cut through an earlier monument formed by a mound of redeposited chalk revetted by a masonry wall. Given that the wall plaster is secondary in its burial deposit, it is possible that it was from this earlier monument that it was obtained. The very fragmentary nature of the plaster could be explained as being the result of its forced removal from walls. However, the paucity of plain white fragments, which would have made up most of the original panel schemes, is indicative of selection of the more colourful fragments, and so could be due to deliberate action.

## 10 Tools

As well as craft tools, most of which are awls, this section includes general purpose knife blades, hones, and a variety of handles. Among this latter group are two openwork hare and hound handles. A third example from Hampshire was found at Upham (Worrell 2002, no. 4, fig. 4) and a fourth at Worthy Park near Winchester, where, curiously, it had been placed in an Anglo-Saxon grave along with other Roman objects (Hawkes with Grainger 2003, 53–6).

### Craft tools

This small collection of craft tools was recovered from a variety of Roman sites, two in the northern suburb and three on the defences. The wide distribution suggests that they largely represent crafts which were carried out on a small scale, rather than on a more specialist basis.

#### Chisel

This is a large chisel, which would probably have been used in ironworking or stoneworking.

**645** Fig 78 sf HG 403. Iron. Burred head. L 230mm, W 21mm. Robbing or demolition of Building 17.3 (III, 811), mid- to late 4th century (or later).

#### Tanged Chisel

This object is probably a small tanged chisel and is comparable to a possible late Iron Age example from Hod Hill illustrated by Manning (1985a, 24, B44).

**646** Fig 78 sf VR 5373. Iron, with a triangular blade which is curved over slightly and flows directly into a tapering tang. L 63mm, W 16mm, T 5mm. Early to mid-4th-century metal (yard) surface F665 (XII, 2486).

#### Shears

**647** from Victoria Road is half of a pair of iron shears found amongst what is probably the waste from a smith's workshop (Category 15). In addition, an incomplete iron blade, possibly from a pair of shears, came from Hyde Abbey.

**647** Fig 78 sf VR 5266. In two pieces which do not join. (a) consists of the majority of a blade; its back was evidently straight before sloping down towards the tip which is missing. L 91mm, W 29mm, T 3mm (illustrated), (b) consists of the upper part of the blade and a short length of arm. L 91mm, W 29mm, T 4mm. Early to mid-4th-century metal (yard) surface F665 (XII, 2486).

**648** Fig 78 sf HA 71. Blade and tang incomplete. The blade back is straight and the cutting edge is slightly convex. There is no shoulder between blade and tang (possibly shears blade). L 60mm, W 19mm. Mid- to late 4th-century fill of ditch F37 (II, 96).

#### Awls

Four of these iron objects, three from Victoria Road and one from Jewry Street, Crown Hotel, are probably simple awls with two tapering arms. A small tanged object **650** from Hyde Abbey is also likely to be an awl and it has a thin non-ferrous strip around the tang. An incomplete tapering strip of much the same size which is less obviously an awl, but with a similar non-ferrous band is **649**.

**649** Fig 78 sf 27JS 550. Exists as an incomplete tapering strip which has a non-ferrous band around one end. L 48mm, T 5mm. Illustration taken from X radiograph. Floor layer in Building 35.7 (I, 392); late 2nd- to mid-3rd-century.

**650** Fig 78 sf HA 0. It has a short tang with a non-ferrous band around it, broken at each end. L 58mm, W 6mm. ?Mid- to late 3rd-century Building 1.9 (XI, 297).

#### not illustrated

**651** sf JCH 290. L 90mm, W 10mm. Rectangular cross-section. Disuse of Building 35.1 (III, 225), 2nd century.

**652** sf VR 0. L 98, Arms L 63 and 35mm. Rectangular cross-section. Late 3rd- to 4th-century soil layer (XIII, 3232).

**653** sf VR 5259. In two pieces and corroded. Two tapering arms of equal length, ?rectangular cross-section L 114mm, T 8mm. Early to mid-4th-century metal (yard) surface F665 (XII, 2486).

**654** sf VR 439. Tip at one end missing, rounded cross-section. L 108mm, T 8mm. 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 85).

#### Scraper

**655** Fig 78 sf VR 9583. Most of an iron blade of semi-circular form set in a bone handle, possibly a rib. L 39mm, W 61mm. Such a blade is most suited to a scraping action, and this piece may perhaps be compared to a leatherworker's lunette knife (Manning 1985a, 39). On both sides of the handle at one end, traces of the guidelines for marking the spot at which to cut the bone can be seen. Mid- to late 4th-century fill of well F1093 (XV, 4125).

#### Bone handles

**656** Fig 79 sf VR 737. A fragment of a handle with three grooves set in a zig-zag close to the end. A complete example of this type was recovered from the Middleborough site in



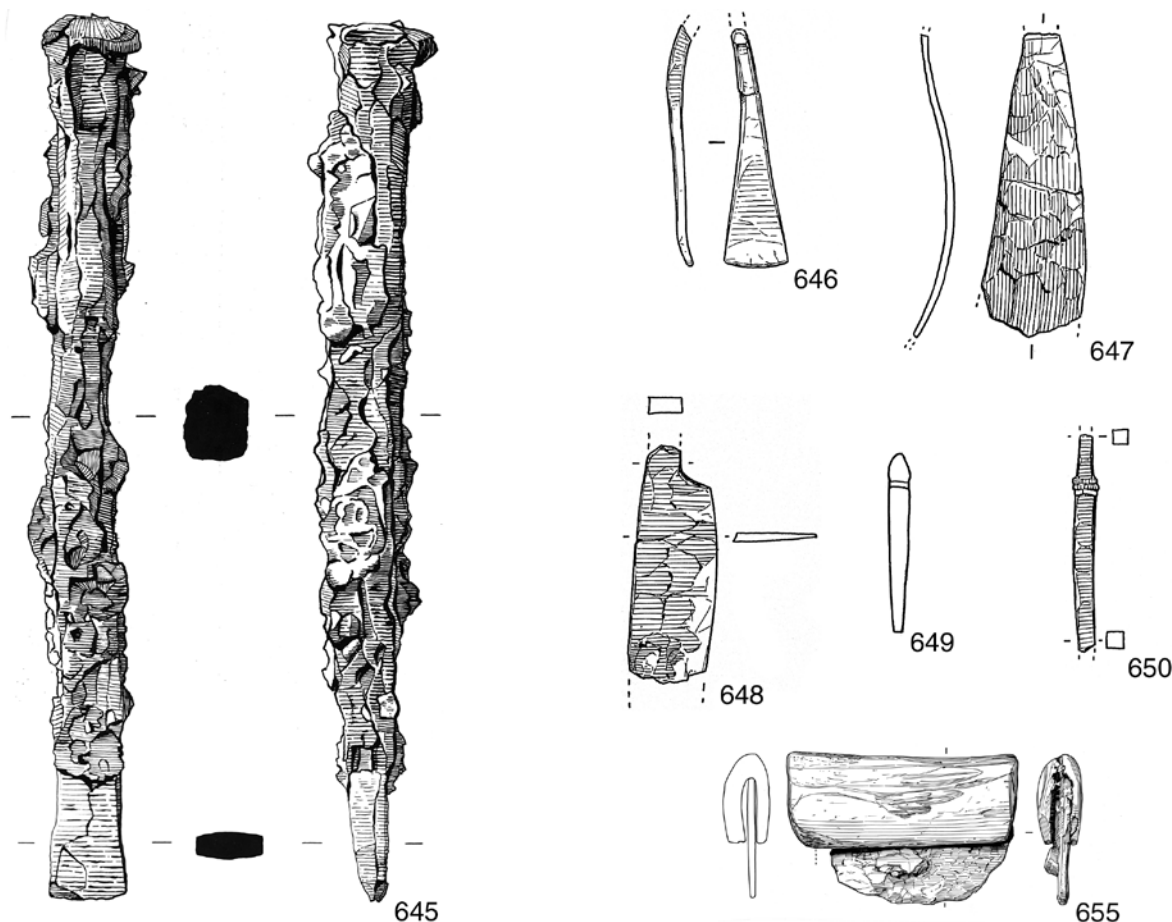


Figure 78 Craft tools, nos 645–50, 655, scale 1:2

Colchester in a context dated from the mid-2nd century to c AD 300 (Crummy 1983, fig 110, no 2392). The object is heptagonal in section, and the zig-zag was completed by running in one direction on two contiguous faces, which is also seen on this piece from Victoria Road. L (surviving) 68mm, W (maximum) 25mm. Mid-2nd-century feature (?hearth) F77 (V, 401).

**657** Fig 79 sf HG 259. A complete waisted handle made from a long bone. Part of the tang survives inside the handle, its upper end fixed in an iron washer precisely shaped to fit the bone. Two lines of ladder decoration set at top and bottom have been roughly incised into one face of the handle, and one line set centrally into the other. L 95mm, W (maximum) 29mm. Late 3rd- to early 4th-century fill of cess pit F102 (IV, 1223).

**658** Fig 79 sf HG 692. A fragment of a bone handle of square section. L 65mm, 13 by 13mm. Each face is decorated with a row of single ring-and-dot motifs. Robbing or demolition of Building 17.3 (III, 811), mid- to late 4th century (?or later).

*not illustrated*

**659** sf HA 375. Part of plain bone handle with iron tang. L (incomplete) 112mm. Late 3rd- to 4th-century suburban street F9 (I, 20).

**660** sf VR 5254. Tang with flattened end set in a bone cylinder. L 61mm, D 18mm. Early to mid-4th-century metallised (?yard) surface F665 (XII, 2486).

### Copper alloy handles

Though these hare and hound handles are similar, differences are to be found between them in every detail of the form, of both pedestal and animals, as well as in size and in the slight variation of the copper alloy composition. Though the handles were cast, many of the features were finished off on the cold metal. For example, the open elements were cast much thinner than the rest of the mould, and cut out later. This is particularly apparent on the Victoria Road handle.

The animals on these two handles are very stylised; the hare, in particular, may not have been identified as such without the accompanying hound and other more realistically crafted handles on the same theme.

Hattatt (1989, fig 36, nos 242–3) illustrates two handles of this type. The animals on the former, from Saxmundham, Norfolk, are recognisably hare and hound, with eyes and ears simply but clearly marked. The latter, from Thetford, Norfolk, falls between the Saxmundham handle and the two from Winchester, being more stylised than the former, but less so than the latter. The type is common, but no detailed study has yet been undertaken.

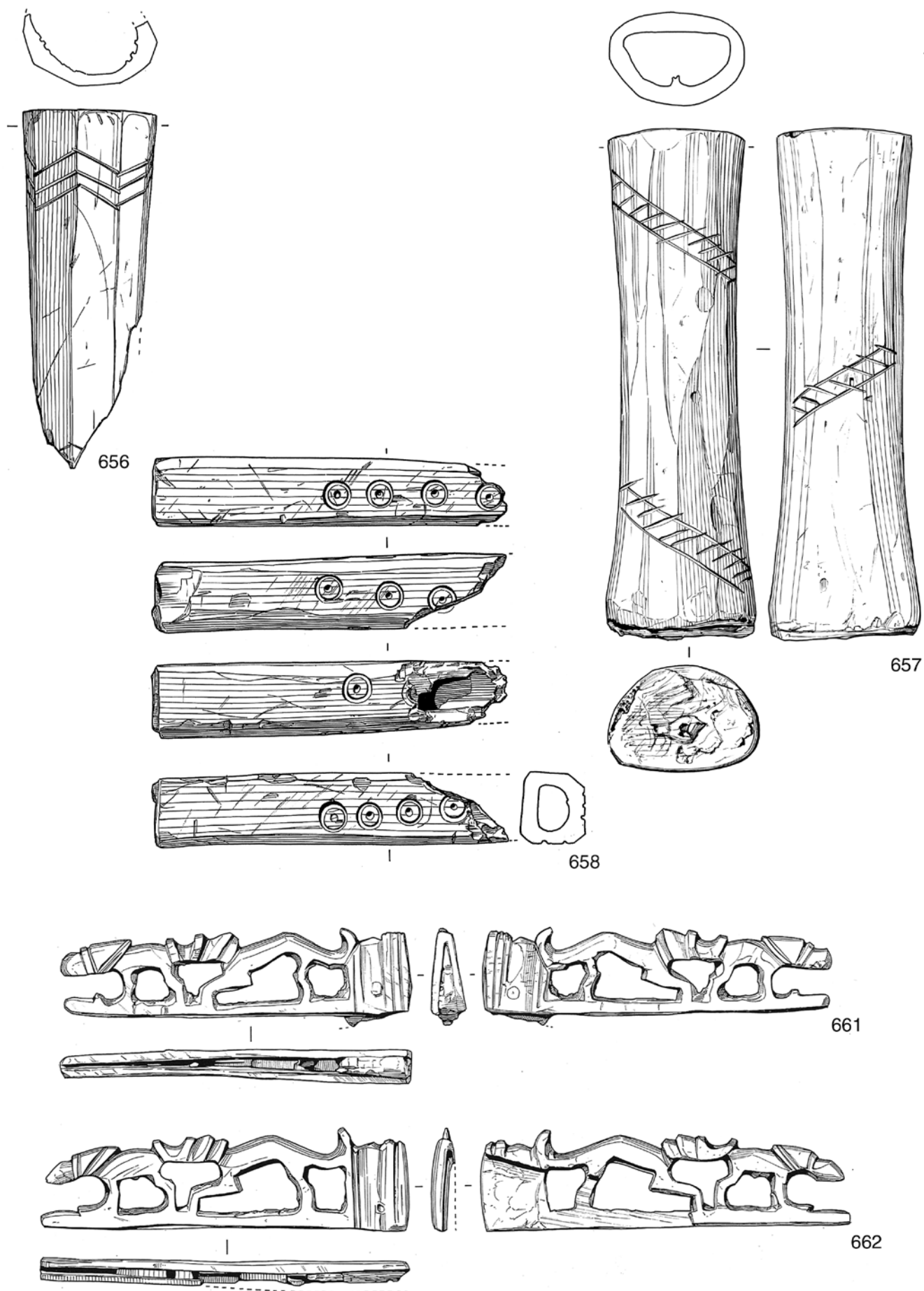


Figure 79 Tool handles, nos 656-8, 661-2, scale 1:1

**661** Fig 79 sf VR 701. An openwork handle from a folding knife. L 66mm, W (maximum) 17mm. The iron blade was fixed by, and pivoted on, an iron rivet. The rivet has survived, but only a fragment of the iron blade remains. The slot in the handle clearly shows that, when unfolded, the exposed part of the blade had a straight back and that the edge was also straight and tapered upwards to the tip. It is unlikely to have exceeded 52mm in length and 8–10mm in width. The handle, of leaded bronze, shows a hound chasing a hare and apparently biting its rump. A ground line and the tail of the hound link the animals to a short 'pedestal' on which the blade is riveted. This pedestal has two narrow mouldings at the end nearest the hound, and three at the blade end. Inhumation grave 58b (IV, 300), dated mid- to late 4th century.

**662** Fig 79 sf HA 72. An similar handle, of leaded bronze or gunmetal. L 70mm, W (maximum) 19mm. Part of one side of this handle has broken away. Some discolouration of the copper alloy is all that remains of the iron blade and rivet. The pedestal has two thick mouldings at the blade end. Mid- to late 4th-century fill of ditch F37 (II, 96).

### Knives (blades)

There are eighteen knives, of which nine are incomplete and details of their original form cannot be determined, but a further nine survive in a more complete state. There is no recognised classification of Roman knives which systematically describes variation in individual formal features and relates them to chronology in any detail. The most comprehensive classification presently available is probably that by Manning (1985a, 108) which will be referred to where possible below.

The tang of **670** is missing, but there was clearly no distinct shoulder at the junction with the blade. The blade itself is triangular with a back sloping down to the tip where there is an unusual rolled terminal; the cutting edge is straight. This knife comes from a 4th-century context, but may be an example of Manning's Type 8 which, he suggests, is predominantly 1st-century (1985a, 113).

The small blade of **672** has a straight back and a tip in line with the top of the tang; there is no shoulder between blade and tang. The cutting edge curves up sharply at the tip. This knife probably belongs to Manning's Type 11 (1985a, 114). A copper alloy collar survives which had originally encircled the handle at the junction of blade and tang.

**669** is a blade with a convex back and cutting edge, and a rounded tip which was probably in line with a centrally set tang. **664** is similar. These knives appear to belong to Manning's Type 15 (*ibid* 115), one of the most common in Roman Britain. A fine unbroken knife, **671**, from grave 27 in the Hyde Street late Roman cemetery also appears to belong to Type 15, but an unusual feature is a marked thickening of the back of what is otherwise a very thin blade. There is also a distinct weld line running along the centre of the blade.

**663** and **675** are similar to one another in size and form. The back of **663** curves gently down to a pointed tip which is on the mid line of the blade; the cutting edge is slightly S-shaped due to wear. The tang is incomplete, but is pierced for the attachment of the handle near the junction with the blade. The back of

**675** appears to be straight and parallel to the cutting edge before sloping down towards the tip which is missing, but would have been pointed. The knife is also pierced for attachment to the handle at the junction of blade and tang. **663** comes from a Flavian context and **675** from a late 2nd- or 3rd-century context. These two blades appear to correspond to Manning's Type 16 (1985a, 116), but it may also be noted that **663**, in particular, is closely comparable to a knife from a probable 3rd-century context at Fishbourne (Cunliffe 1971, 134–5, fig 60, 44).

Amongst the incomplete knives it may be noted that **668** has two unusual concave areas in its lower edge at the rear where it is unfortunately broken. The function of these features is unclear, but may have been related to fitting the knife into an openwork handle.

**666** is an unusual bladed tool which is unfortunately incomplete. It consists of small block, pierced in the centre, to one side of which is attached a short length of blade. This object was possibly part of a draw knife, the handle of which was fitted to the block component.

**663** Fig 80 sf VR 9993. In two pieces. The blade back curves gently downwards from the shoulder to the tip. The cutting edge is straight but curves upwards very slightly at the tip. The tang is set on the centre line of the blade, it is incomplete and pierced by a small hole near the junction with the blade. L 137mm, blade L 109mm, W 24mm. Pit F282, associated with late 1st-century phase of Building 1.23 (X, 872).

**664** Fig 80 sf VR 7159. The blade back appears to be straight and roughly horizontal before curving down to the tip. The cutting edge is convex. The blade is slightly bent and the tang is bent over at 90 degrees at the shoulder. L c 82mm blade T 5mm, W 17mm. Illustration taken from X radiograph. Late 1st- to early 2nd-century cremation grave 503 (XI, 1322).

**665** Fig 80 sf VR 3523. Knife or sickle blade. It is broken at the tip. The back is slightly convex and the cutting edge slightly concave. The tang is largely missing. L 88mm, W 31mm, T 5mm. Eastern Cirencester-roadside ditch F258 (X, 751). Probably late 1st-century date.

**666** Fig 80 sf VR 1239. An unusual bladed tool, consisting of a small block rectangular in cross-section which is pierced in the centre. Projecting from one end is a short length of blade which is incomplete. L 100mm, W 33mm, T 9mm. Early to mid-2nd-century fill of the western Cirencester-roadside ditch F85 (V, 413).

**667** Fig 80 sf VR 1165. Blade broken at each end. The back is slightly convex and the cutting edge is slightly concave. L 54mm, W 19mm, T 3mm. Silting/ levelling over backfilled western Cirencester-roadside ditch F85 (V, 410), mid- to late 2nd century.

**668** Fig 80 sf VR 1212. Incomplete blade only. The back is straight up to the break and the cutting edge is slightly convex. At the junction of blade and tang there are two deliberately formed concave areas in the lower side which may have been piercings or may result from need to attach an openwork handle. L 85mm, W 24mm. Silting/ levelling over backfilled western Cirencester-roadside ditch F85 (V, 410), mid- to late 2nd century.

**669** Fig 80 sf VR 3213. The blade tapers, the back is slightly convex, the tip is at half the blade's width. The cutting edge is straight before curving up. There is a sloping, slightly concave shoulder. The tang is largely missing, but was set centrally on the blade. L 81, blade L 68mm, W 26mm. 3rd- or 4th-century pit F168 (X, 637).

**670** Fig 80 sf VR 5562. Blade only. It is at its thickest at the junction with the tang, from this point the back slopes down

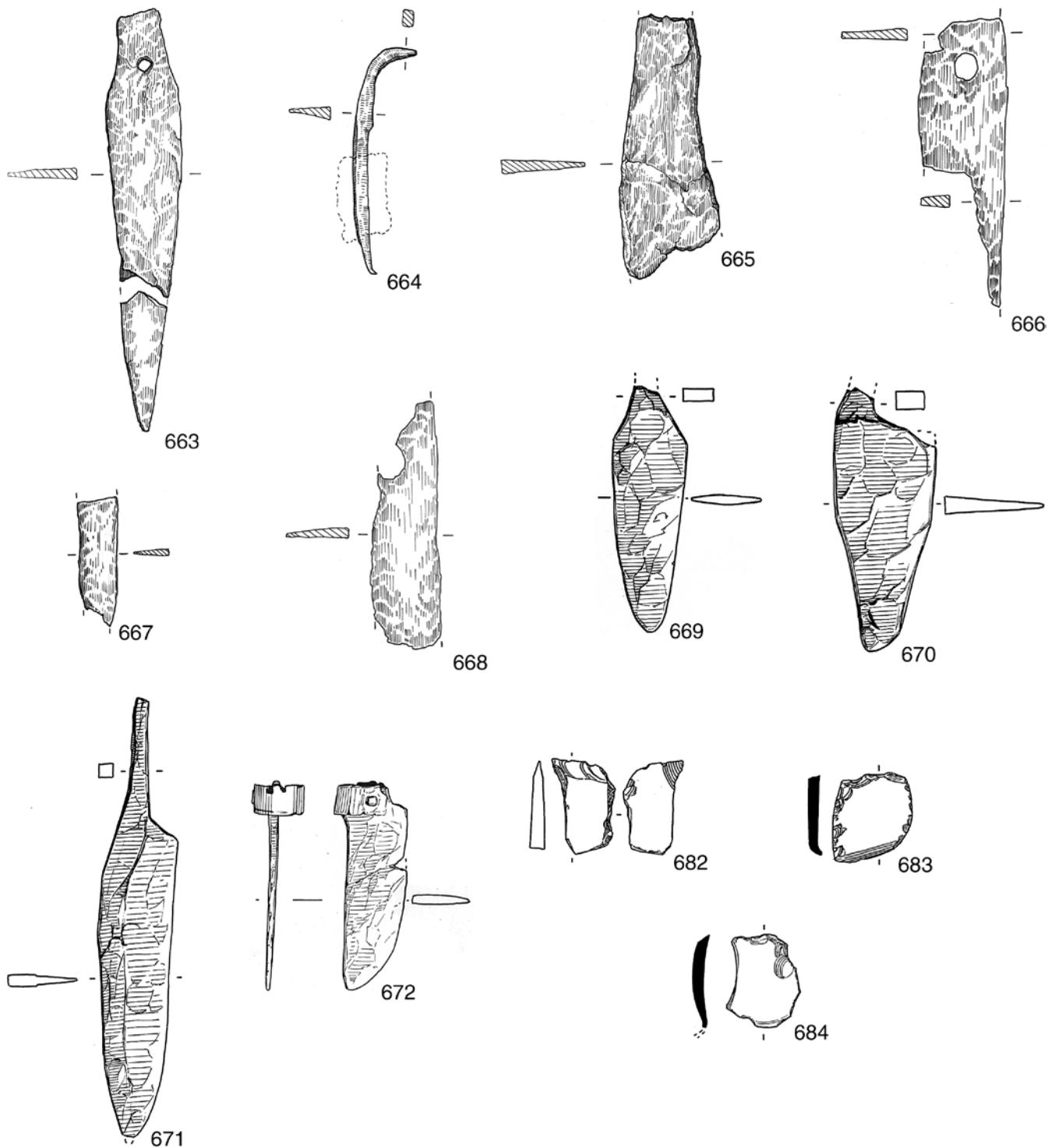


Figure 80 Knives and tools of reworked glass, nos 663–72, 682–4, scale 1:2

to the tip where there is a small rolled terminal. The cutting edge is straight. L 80mm, W 44mm, T 5mm. Early 4th-century finds-rich soil layer (XII, 2538).

**671** Fig 80 sf HYS 15. Knife; blade back has a sloping shoulder which is convex at the top and then straight downward sloping before curving down to tip which is at half the blade's width. The cutting edge is slightly convex. The blade back is thicker than the rest. A weld line running along the centre of the blade is visible. L 145mm, blade L 104mm, W 22mm, T 3mm. Inhumation grave 27 (I, context not issued), dated mid-4th to early 5th century.

**672** Fig 80 sf VR 214. The blade has a straight back which

continued the line of the tang. The cutting edge is slightly convex before curving upwards sharply at the tip. The tang is broken below a copper alloy ring, attached with a non-ferrous pin, which gripped the end of the handle at the junction of tang and blade. L 70, blade L 62mm, W 19mm, T 2mm. Late 4th-century (or later) ?reoccupation of the trench area (V, 33).

*not illustrated*

**673** sf VR 3522. Incomplete blade only. The back slopes down to the tip from the break and the cutting edge is straight. L

53mm, W 24mm, T 6mm. Eastern Cirencester-roadside ditch F258 (X, 751). Probably late 1st century.

**674** sf VR 2803. Blade only. The back slopes up to a point c 30mm from the shoulder and then makes a slight angle before sloping down to the tip. The cutting edge is slightly convex. A weld line is visible on X-radiograph running along the centre of the blade. L 60mm, W 14mm. Late 2nd- to early 3rd-century soil layer (X, 526).

**675** sf VR 3137. In four pieces. The back is straight to a point c 85mm from the shoulder and then slopes down at c 15 degrees towards the tip which is missing. The cutting edge is straight and parallel to the back before curving down towards the tip. There is a slight shoulder and the tang is largely missing. It is pierced at the junction of blade and tang. L c 150mm, W 28mm. Late 2nd- to 3rd-century soil layer (X, 432).

**676** sf VR 295. Blade only, very corroded, tip missing. L 70mm, T 7mm. Late 2nd-century or later soil layer (V, 63).

**677** sf VR 2929. The blade is incomplete. The back and cutting edge are straight and parallel. There is a slight sloping shoulder and the tang is incomplete. L 43mm, W 10mm. Compacted chalk surface (?yard) associated with mid to late 3rd-century phase of Building 1.23 (X, 603).

**678** sf VR 0. Blade incomplete. The back and cutting edge are straight and parallel up to the break. There is no shoulder between blade and tang. L 63mm, blade L 40mm, W 12mm. Late 3rd-century to early 4th-century grave 109 (V, 285).

**679** sf VR 550. End of blade. Back and cutting edge convex. L 68mm, W 40mm, T 2mm. Late 3rd- to early 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 153).

**680** sf NR 139. End of blade only. The back is straight before curving down to the tip. The cutting edge straight before curving up to the tip. L 42mm, W 12mm. Late Roman fill of the Iron Age enclosure ditch F371 (II, 477).

**681** sf VR 810. Incomplete blade only. The back is straight, the cutting edge is irregular. L 80mm, blade L 45mm, W 23mm. 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 136).

### Tools of reworked glass by H E M Cool

These fragments have one or more edges worked in a manner similar to flint knapping, so that a sharp edge is produced and the fragments can be used as tools. This can be recognised with certainty in seven cases and may also have occurred on **687**.

In the case of the five pieces from Victoria Road, thick body fragments from bottles have been used. The vessel from which the Sussex Street example was made cannot be closely identified from just a base fragment. Two other reworked fragments, one from New Road (**486**) and one from Henly's Garage (**447**) were from the base of a prismatic bottle and the rim and neck of a flask, respectively. Being of more noteworthy form, they have been catalogued with the other vessel glass (Category 4).

This type of reuse appears to be uncommon but that is probably the result of analysts only recently becoming aware of the phenomenon. In many cases, it is likely that fragments of vessel glass would have been more readily available on a Roman site to act as a raw material for the manufacture of tools such as scrapers than flint would have been. Since three of the fragments are from post-Roman contexts, it is possible that such re-use continued after the end of the Roman

period, although, in all cases the fragments could merely be residual.

**682** Fig 80 rf VR 3823. Tool. Body fragment of prismatic bottle. One short edge flaked to a sharp edge. 33 by 16mm. Mid- to late 2nd-century pit F254 (X, 701).

**683** Fig 80 sf VR 5480. Tool. Body fragment of a square bottle. One edge flaked to a sharp edge, now blunted. 27 by 27mm. Early to mid-4th-century finds-rich soil layer (XII, 2508).

**684** Fig 80 sf SXS 54. Tool. Blue-green concave base fragment with pontil scar grozed to produce a sharp edge. 31 by 21mm. 13th- to 14th-century ditch F2 (VIII, 203).

### not illustrated

**685** rf VR 5074. Tool as **682** above. 21 by 15mm. Late 1st- to early 2nd-century fill of the western Cirencester-roadside ditch F85 (V, 413).

**686** rf VR 3941. Tool. Body fragment of prismatic bottle, one edge flaked to a sharp edge, now blunted. 28 by 16mm. Late Saxon ditch F588 (XII, 2358).

**687** rf VR 3925. ?Tool. Shoulder fragment of a ?bottle, one edge possibly deliberately grozed. 22 by 21mm. Late Saxon soil layer (XII, 2125).

### Hones

The majority of these were of a micaceous calcareous sandstone, perhaps from Kent (Crummy 1983, 111), or possibly from a closer source. Two others of sandstone represent the Bristol and Mendip area, but the sources of the remainder are uncertain. In some cases, building stone was apparently reused. Hones of the same stone types occurring in post-Roman contexts may be residual (Part 3, Category 10).

**688** Fig 81 sf VR 1524. An end fragment from a worn rectangular hone of ragstone. L 44mm. Mid-2nd-century fill of the western Cirencester-roadside ditch F85 (V, 446).

**689** Fig 81 sf VR 2735. An oval-section hone of ragstone. L 84mm, T (maximum) 24mm. The centre is worn down to 15 by 17mm. both ends may be original. Late 2nd-century soil layer (X, 431).

**690** Fig 81 sf VR 1026. A fragment of a rectangular-section hone of ragstone. L 70mm, transverse section 24 by 30mm. One end is rough but is probably original; the other is broken. There are signs of wear on all faces, particularly on the narrower two. Construction of Building 1.15 (V, 60), late 2nd to mid-3rd century.

**691** Fig 81 sf VR 9575. A very worn mudstone hone or polishing stone. L 101mm, T (maximum) 15mm. Both ends are rounded and the section is roughly triangular, being worn much more along one long side than the other. It was probably originally rectangular. There are lines of nicks along all three long edges, and other nicks and grooves on both surfaces. 4th-century fill of well F1096 (XV, 4118).

**692** Fig 81 sf CHR 878. A fragment of an oval-section hone of ragstone. The hone shows typical mid section tapering, but is distinctive in that the broken end is worn. The fragment appears to have been used, not discarded, after it was broken. L 52mm, W (maximum) 27mm, T (maximum) 17mm. Inhumation grave 573 (III, 654), dated mid- to late 4th-century.

**693** Fig 81 sf HA 278. One end of a small rectangular-section hone of ragstone. L 38mm, transverse section 10 by 14mm. Wear is concentrated near the break, probably the approxi-

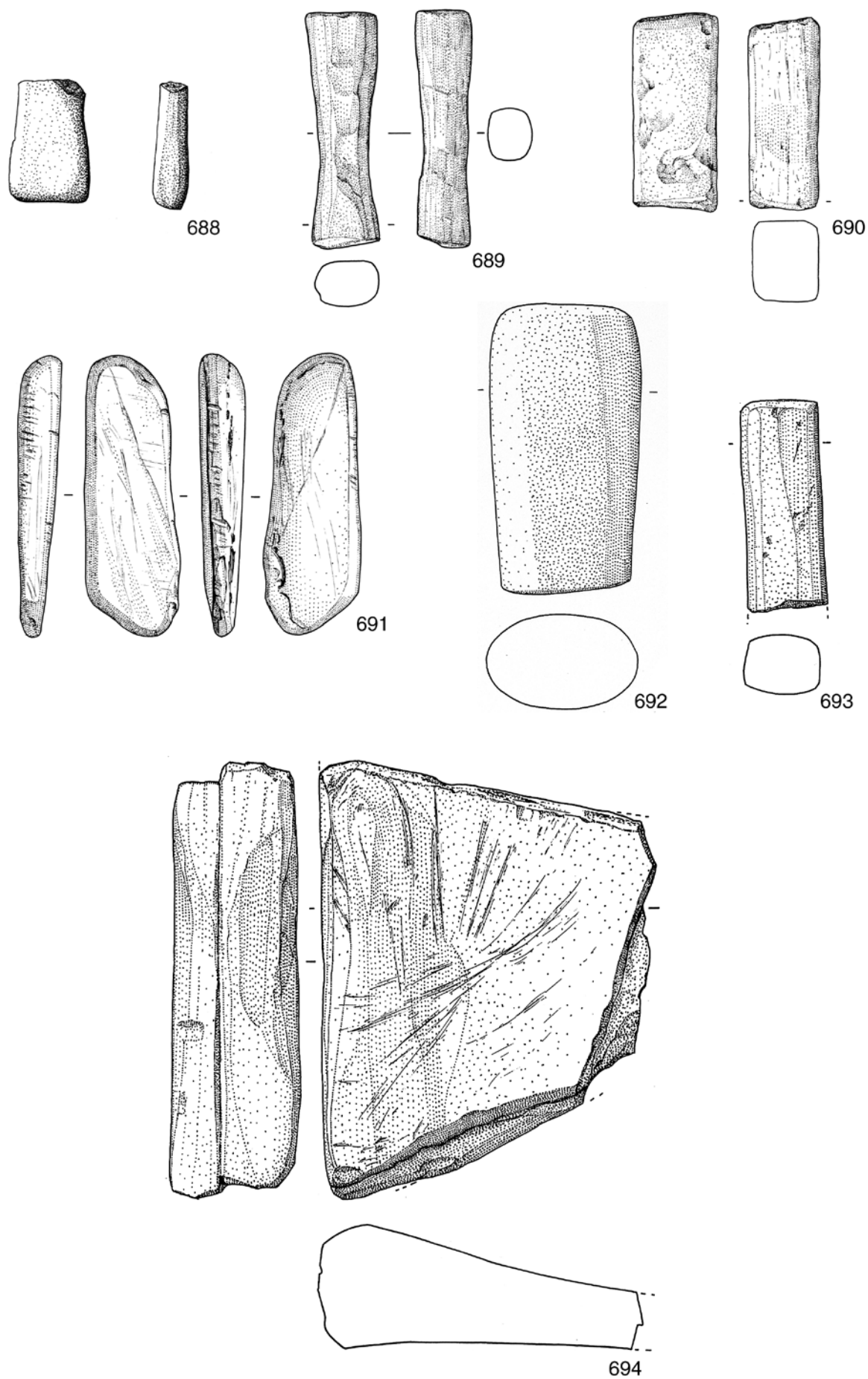


Figure 81 Hones, nos 688-94, scale 1:2

mate centre of the hone. Late 4th- to early 5th-century (or later) soil layer (XI, 240).

**694** Fig 81 sf VR 564. A fragment of a micaceous sandstone slab, with what appear to be non random wear marks on one surface and the surviving edge. The main groove on the edge is natural split in the stone. This piece is of a stone type suitable for use as a hone, and does appear to have served that function, though probably as a secondary use. The section tapers markedly but smoothly away from the edge, suggesting heavy wear in the central part, more likely to have been caused by a circular grinding or polishing movement than by sharpening. Maximum 74 by 58mm, T 22mm. Late 4th-century (or later) ?reoccupation of the trench area (V, 33).

*not illustrated*

**695** sf VR 5278. Fragment of a hone of sub-rectangular section. Section maximum 18 by 16mm. L (incomplete) 42mm. Ragstone. Early to mid-4th-century metallised (?yard) surface F665 (XII, 2486).

**696** sf VR 5663. Fragment of a hone of elliptical section. Section maximum 19 by 10mm. L (incomplete) 45.5mm. Ragstone. Early to mid-4th-century finds rich soil layer (XII, 2508).

**697** sf VR 5750. Fragment of a hone of elliptical section. Section maximum 21 by 14mm. L (incomplete) 30mm. Ragstone. Early to mid-4th-century finds rich soil layer (XII, 2551).

**698** sf VR 7612. ?Hone of ?triangular section. Section maximum 35 by 19mm. L 56mm. A compact mudstone, probably not local. Early to mid-4th-century metallised (?yard) surface F665 (XII, 2486).

**699** sf NR 306. Fragment of a hone of Mendip red sandstone.

Section 110 by 20mm. L 160mm. Late Roman fill of the Iron Age enclosure ditch F371 (II, 483).

**700** sf VR 639. Fragment of a hone of ?rectangular section. Section maximum 37 by 20mm. L (incomplete) 53mm. Ragstone. 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 84).

**701** sf VR 6950. Fragment of a hone of rectangular section. Section maximum 23 by 17mm. L (incomplete) 48mm. Ragstone. Early to mid-4th-century fill of pit F814 (XIII, 3262).

**702** sf VR 9436. Fragment of a hone of D-shaped section. Section maximum 19 by 15mm. L (incomplete) 47mm. Ragstone. Mid- to late 4th-century fill of well F1093 (XV, 4135).

**703** sf VR 10146. Fragment of a ?hone. Flat stone, worn towards ?centre. Section maximum 160 by 85mm. D approximately 220mm. Old red sandstone tile, ?reused. Mid- to late 4th-century fill of well F1093 (XV, 4212).

**704** sf VR 10162. Fragment of ?circular polishing stone of very fine grained sandstone. Section maximum 65 by 62mm, T 31mm. Chalk rubble F1151, construction of Building 1.27 (XV, 4352), late 4th-century or later.

**705** sf VR 561. Fragment of a hone of ?rectangular section. Section maximum 36 by 17mm. L (incomplete) 52mm. Pennant grit. Late 4th- to early 5th-century (or later) soil layer (V, 8).

**706** sf VR 13158. Fragment of a hone of ?rectangular section. Section maximum 24 by 4mm (incomplete). L (incomplete) 23mm. Ragstone. Late 4th- to early 5th-century (or later) soil layer (V, 8).

**707** sf VR 12457. Fragment of a hone of ?elliptical section. Section maximum 29 by 10mm (incomplete). L (incomplete) 35mm. Ragstone. Disuse of Roman site (XV, 4115), late 4th or early 5th century (or later).

# 11 Fasteners and fittings

This section includes those fittings that would more properly belong with household items, buildings and services, or even dress and military equipment, if their function were more obvious from (what remains of) their form (*cf* Crummy 1983, 115).

## Nails and studs

### Copper alloy nails

#### With a globular, bun-shaped, or biconical head

*not illustrated*

**708** sf VR 1289. A very small nail, maximum D of head 3.5mm. Square section shaft, L 7mm. Late 1st- to early 2nd-century fill of the western Cirencester-roadside ditch F85 (V, 476).

**709** sf VR 1207. A nail almost certainly derived from furniture upholstery. D of head 5 mm. Polygonal section shaft, L 21mm. Mid- to late 2nd-century silting over the western Cirencester-roadside ditch F85 (V, 410).

#### With a flat head

*not illustrated*

**710** sf VR 1167. D of head 4 mm. Square section shaft, tip missing. L (bent) 12mm. Early to mid-2nd-century soil layer (V, 397).

**711** sf VR 8562. D of head 6mm. Square section shaft. L 10 mm. Mid-2nd-century cremation grave 600 (XIV, 3852).

**712** sf VR 1098. Maximum D of head 7mm. Polygonal to square section shaft. L 25 mm. Mid- to late 2nd-century silting over the western Cirencester-roadside ditch F85 (V, 410).

**713** sf VR 10816. D of head 7.5mm. Square section shaft, incomplete. L 10mm. Early to mid-3rd-century disuse of oven F846 in Building 1.24 (XIII, 3233).

**714** sf VR 394. D of head 7mm. Square section shaft. L 33mm. Mid- to late 3rd-century phase of Building 1.15 (V, 98).

#### With a convex head

*not illustrated*

**715** sf VR 3188. D of head 8mm. Square section shaft, incomplete. L 10mm. Early to mid-2nd-century occupation (F208) of Building 1.23 (X, 593).

**716** sf VR 9883. D of head 9 mm. Square section shaft. L 10 mm. Mid-2nd-century cremation grave 619 (XV, 4269).

**717** sf VR 301. Head damaged. D 8mm. Square section shaft, incomplete. L 6mm. Metallised (?yard) surface (V, 63), mid-2nd century and later.

**718** sf VR 1035. D of head 11mm. Square section shaft, bent,

incomplete. L 20mm. Construction of Building 1.15 (V, 57), late 2nd or early 3rd century.

**719** sf VR 3222. D of head 10mm. Square section shaft, bent. L 20mm. 3rd- or 4th-century pit F168 (X, 639).

**720** sf VR 3226. D of head 9mm. Square section shaft, bent, incomplete. L 19mm. 3rd-or 4th-century pit F168 (X, 642).

**721** sf VR 5294. Head slightly flattened on top. D 11mm. Square section shaft, incomplete. L 11.5mm. Early to mid-3rd-century disuse of oven F846 in Building 1.24 (XIII, 3233).

**722** sf VR 5926. Part of head missing. D 9mm. ?Square section shaft, tip missing. L 14mm. Early to mid- 3rd-century disuse of oven F846 in Building 1.24 (XIII, 3343).

**723** sf VR 1005. D of head 10mm. Square section shaft, incomplete. L 14.5mm. Mid- to late 3rd-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 361).

**724** sf VR 252. Elliptical head 11 by 9mm. Square section shaft, bent. L 17mm. Mid- to late 3rd-century phase of Building 1.14 (V, 45).

**725** sf VR 1014. D of head 8mm. Square section shaft, tip missing. L 15.5mm. Mid- to late 3rd-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 361).

**726** sf VR 5134. Part of head missing. D 9.5mm. Square section shaft, tip missing. L 15.5mm. Mid- to late 3rd-century disuse of Building 1.24 (XIII, 3281).

**727** sf VR 8527. Head slightly flattened on top. D 10mm. Square section shaft, tip missing. L 14mm. Late 3rd-century gully F982 (XIV, 3777).

**728** sf SXS 101. With conical head, broken. L 12mm, D 9mm. Late Roman ploughsoil (VIII, 300).

**729** sf SXS 120. With conical head, broken. L 12mm, D 11mm. Late Roman ploughsoil (VIII, 301).

**730** sf HA 1. Part of head missing. D 11mm. Square section shaft, incomplete. L 17.5mm. Late 3rd-century or later metallising for street F10 (I, 11).

**731** sf HA 135. Conical head. D 11mm. Square section shaft, incomplete. L 15mm. ?Late 3rd- to mid-4th- century disuse of Building 1.9 (XI, 278).

**732** sf VR 5154. D of head 8mm. Square section shaft. L 12mm. Early to mid-4th-century metallised (?yard) surface F661 (XII, 2469).

**733** sf VR 5413. Part of head missing. D 9mm. ?Square section shaft, incomplete. L 14mm. Early to mid-4th-century finds-rich soil layer (XII, 2508).

**734** sf VR 5576. D of head 10mm. Square section shaft, bent. L 12mm. Early to mid-4th-century finds rich soil layer (XII, 2551).

**735** sf VR 5579. Conical head. D 9.5mm. Square section shaft, tip missing. L 15mm. Early to mid-4th-century finds rich soil layer (XII, 2551).

**736** sf VR 432. D of head 8mm. ?Rectangular section shaft, incomplete. L 14mm. 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 83).

**737** sf VR 8545. D of head 11mm. Shaft broken off at top. ?Rectangular section. L 5mm. 4th-century fill of pit F981 (XIV, 3845).

**738** sf VR 593. D of head 9mm. Square section shaft. L 13mm. Mid- to late 4th-century inhumation grave 22 (IV, 217).

**739** sf VR 9721. D of head 11.5mm. ?Square section shaft, bent. L 16mm. Mid- to late 4th-century fill of well F1093 (XV, 4135).



**740** sf VR 427. Conical head. D 9mm. Square section shaft. L 19mm. Late 4th- to early 5th-century (?and later) soil layer (V, 15).

**741** sf VR 2392. D of head 10mm. Square section shaft, bent, incomplete. L 15mm. Construction (posthole F71) of late 4th- to early 5th-century phase of Building 1.23 (X, 165).

**742** sf VR 9553. D of head 13mm. Square section shaft, incomplete. L 14.5mm. Late 4th- to early 5th- century (?and later) soil layer (XV, 4064).

### Iron nails

The ironwork from Roman sites included in this volume is dominated numerically by nails of which there are several hundred. The vast majority of the Roman nails are very similar in form, in having roughly flat and rounded heads, and shanks of rectangular cross-section with wedge-shaped tips. In addition, however, there are a number of nails, usually relatively large, with triangular or sub-triangular heads which only project from two sides of the shank. They conform to Manning's (1985a, 136) Type 2. It may also be noted that a few heads are dome shaped.

The nails may be divided into two groups according to their context. The first group come from graves and the second from deposits derived from occupation. The nails from graves have been studied in more detail than those from occupation-derived deposits, which latter are listed on a context by context basis in the archive.

### Nails from the early Roman cemetery at Victoria Road

These were counted (or in one case weighed) by context, and measured to give width of head, length and maximum shank thickness. These details remain in archive, but form the basis of the following discussion.

In terms of numbers of nails, as in many other respects (P1 and Appendices to Part 2), cremation grave 442 was quite exceptional. Recorded under sf VR 2850 there were c 1200g of nails and nail fragments. There were over 450 individual specimens all of which were quite small, few being over 30mm in length. A further 540g of nails and nail fragments was recorded under sf VR 3380 which included c 150 individual specimens which were again mostly under 30mm in length. In addition a further 19 nails from the grave were recorded individually. In total, therefore, grave 442 contained over 600 nails. These were found in association with bone fittings, perhaps from a box or a piece of furniture **591–3** (Category 4) and 39 copper alloy studs **743** (below).

Excluding those from grave 442, some 230 nails and approximately 150 additional shanks were found in the cremation graves. The number in each individual grave varied somewhat with 50 graves having between one and five (including headless shanks) while 16 produced more than five. The largest numbers come from grave 431 with 57 (including headless shanks) and grave 440 with 40 (including headless shanks).

The average length of some 140 nails which are either unbroken or only lacking their tips, (excluding those from grave 442), was c 43mm; only 13 were over 70mm long,

including three from grave 624 which at nearly 100mm were the longest in the assemblage. The average head width was c 15mm. This pattern is in marked contrast to that of the length of the coffin nails from the later Roman cemeteries in Winchester (see below). The significance of the difference is not immediately apparent, but is presumably related to differing functions.

The original purpose of the nails in the cremation graves is usually hard to determine, although the nails in grave 515 (**553–5**) clearly came from the wooden box described with household objects (Category 4). On the basis of the disposition of the nails, the presence of wooden boxes may be proposed in other graves. In both grave 540 and grave 565, the cremation and accompanying infant burial were probably contained in a box. In grave 624 the eleven nails were found around the perimeter of the pit suggesting that the entire contents of the grave, the cremated bone and three pots, had been in a box. In grave 470, three nails and two nail shanks were found around the neck of the urn which suggests it may have had a nailed wooden lid. The disposition of the nails in grave 622 suggests there may have been nailed wooden object, perhaps some form of lid, placed on top of the grave.

In some graves, the nails probably came from a wooden object or objects which had been burnt with the deceased. This appears to be the origin of the numerous nails in grave 442 and they may have been associated with the item of furniture from which the bone objects in the grave derived. The nails from graves 431, 438 and 440 had burnt wood and clay adhering to them and must also have come from objects, perhaps coffins or biers, incinerated on the funeral pyre. In grave 431 two pairs of nails, sf VR 3266 and sf VR 3275, were fused together as if originally from the corner of a box or chest. In grave 504 and grave 517A there were nails in the cremation urn which had been burnt and had cremated bone fused to them.

The nails from the inhumation graves do not suggest that any of the adults were buried in coffins, but two infant inhumations, G411 and G599, probably had nailed coffins.

### Nails from the late Roman cemeteries

Roman graves have been recorded in all three of the suburbs, northern, western and eastern, included in this series of publications (Part 1 and P1), and most, although perhaps not all of the nails recovered appear to be from coffins. The quantity of nails found on sites in the western cemetery was small, either, as in the case of New Road, because few burials were coffined, or, as in the case of several sites on Romsey Road, because recording had to be carried out in haste. Similarly, of the 27 graves excavated at Hyde Street in the northern suburb, none certainly had coffins, and of a further 27 that could only be salvage-recorded, evidence of only one coffin was recovered. However, larger samples of nails came from the sites at Victoria Road (northern cemetery), and Chester Road and St Martin's Close (eastern cemetery).

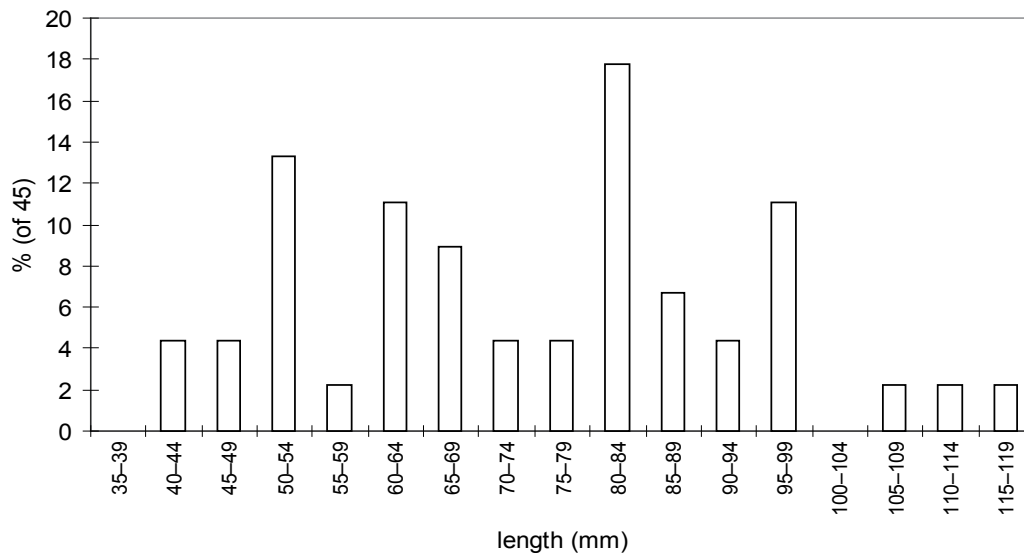


Figure 82 Nails from graves at Victoria Road, AD 270-320

Nails from these latter sites have been measured to give width of head and length. This information has been reserved in archive but has been used to inform the discussion below and to generate Figures 82-6. Figures 82-5 show nail lengths for the different burial areas at Victoria Road (northern cemetery) and Chester Road (eastern cemetery) in the late 3rd to mid 4th century, and in the mid to late 4th century. There is a gap between *c* 320 and 350 in the VR dating because it is believed that the cemetery area was disused at that time. The real contrast in lengths, though, is between both of these sites and St Martin's Close in the eastern cemetery (Figure 86), which may be later than both (see Part 1). A sample of the nails from all three sites was also examined by Jacqui Watson (Ancient Monuments Laboratory) for mineral-replaced wood.

#### *Victoria Road*

The late Roman graves found at Victoria Road produced approximately 1330 nails and nail shanks. For the most part these seem to have been from wooden coffins, although there was evidence that some of the few cremations recorded on the site were interred in boxes. It may first be noted that seven graves produced substantially more than the highest number of nails (*c* 39) at Chester Road and Lankhills (*c* 50). Some 110 nails came from the fill of grave 127, 89 from grave 36 and 87 from grave 101. In these cases and in other inhumations where large numbers of nails were recovered, the site records suggest the presence of boxes in addition to coffins, or that nails were used for decorative as well as constructional purposes, or both.

No certain examples of triangular heads were recorded in the Victoria Road graves, although there are a few examples of domed heads. Of 170 unbroken nails from graves which certainly had coffins, the average length was 78.5mm, the average head width 17.5mm and the range in length 30 to 124mm. This suggests very stoutly made coffins.

Of greater interest are seven small nails which the X-radiographs indicate have heads plated with a non-ferrous metal, probably tin (one from G108, three from G109 and three from G127, all in Phase 955), although without intrusive investigation this cannot be proved. Nails and other objects plated with tin are well known from contexts of the 8th century onwards, but as far as the writer (PJO) is aware, no other nails or other objects plated with tin are known from Romano-British contexts, although locks and other items plated with copper have been recorded. Should these nails be confirmed as tin-plated then this would be an important discovery.

Figures 82 and 83 show a slight tendency towards an increase in nail length through time, although this may be influenced by the greater numbers of possible boxes in graves dated *c* AD 270 to 320, as presumably some of these would have been made of thinner boards than the coffins. The nails from two graves of this date, 107 and 108, came from coffins of oak (*Quercus* sp.).

#### *Chester Road*

Over 500 nails and nail shanks were recovered from late Roman contexts at Chester Road, the vast majority of which were from coffins. Sixty-eight graves produced nails, but there was considerable difference in the occurrence of nails among the graves. Twelve graves recorded as having coffins produced only one nail, but at the other end of the scale there were as many as 39 from grave 624. No obvious reason for the differences suggests itself, as separate boxes do not seem to have been a feature of the Chester Road cemetery.

There are few nails of unusual form in the assemblage, although there were three examples of nails with triangular heads (two from grave F38, and one from grave F33).

It may be noted that the lengths of the 194 unbroken nails are between 30 and 130mm with the average length being 67mm while *c* 70% have lengths between

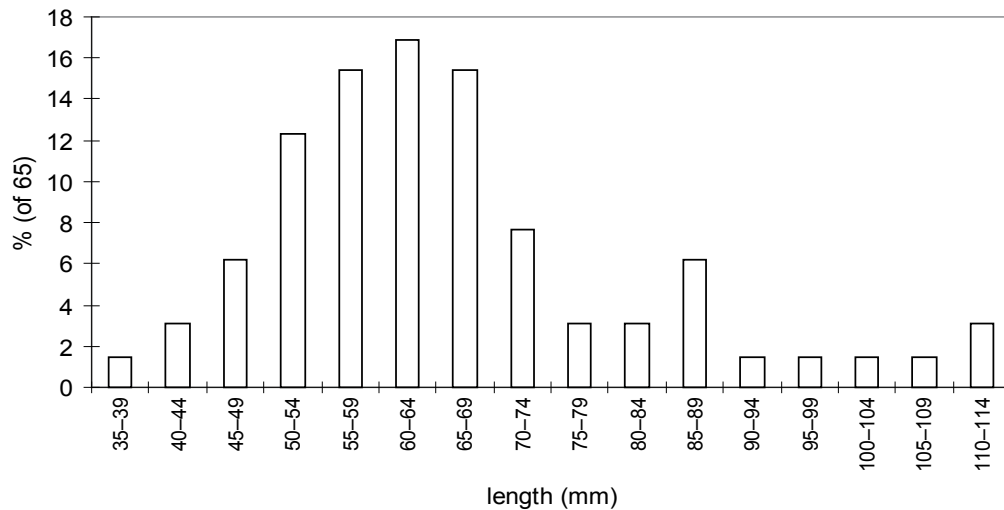


Figure 83 Coffin nails from Chester Road, AD 270-350

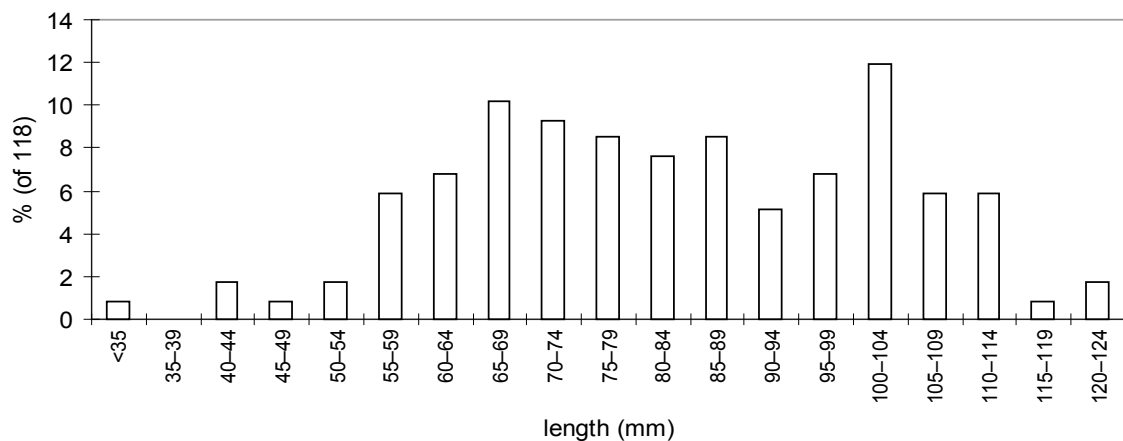


Figure 84 Nails from graves at Victoria Road, AD 350-90

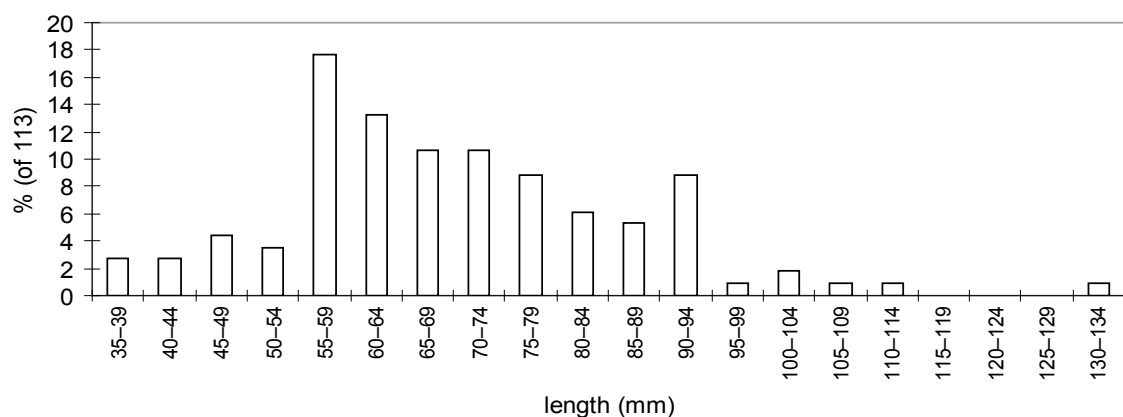


Figure 85 Coffin nails from Chester Road, AD 350-90

50mm and 80mm (Figs 84-5). Although the average nail length at Victoria Road is even longer, corresponding thickness of timber implies that some of the coffins from Chester Road also employed very substantial planks. Nail head width is on average 18.5mm.

The pattern of nail length in the Chester Road graves

appears to correspond with that observed in the 4th-century graves in the Lankhills cemetery. Here there was a peak, made up of 35% of the total, in nail length between 61 and 80mm (Clarke 1979, 333). At Chester Road there was also a peak between 61 and 80mm with *c* 40% of the complete nails in this range (Figs

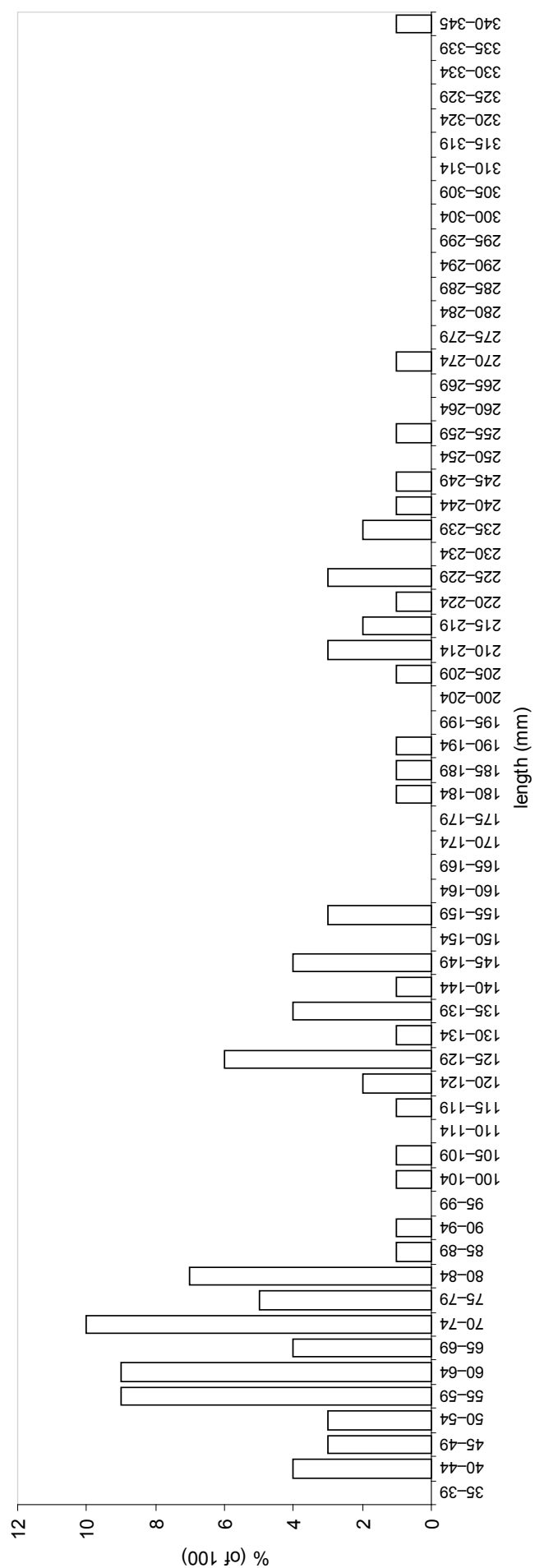


Figure 86 Graph of coffin nails from St Martin's Close

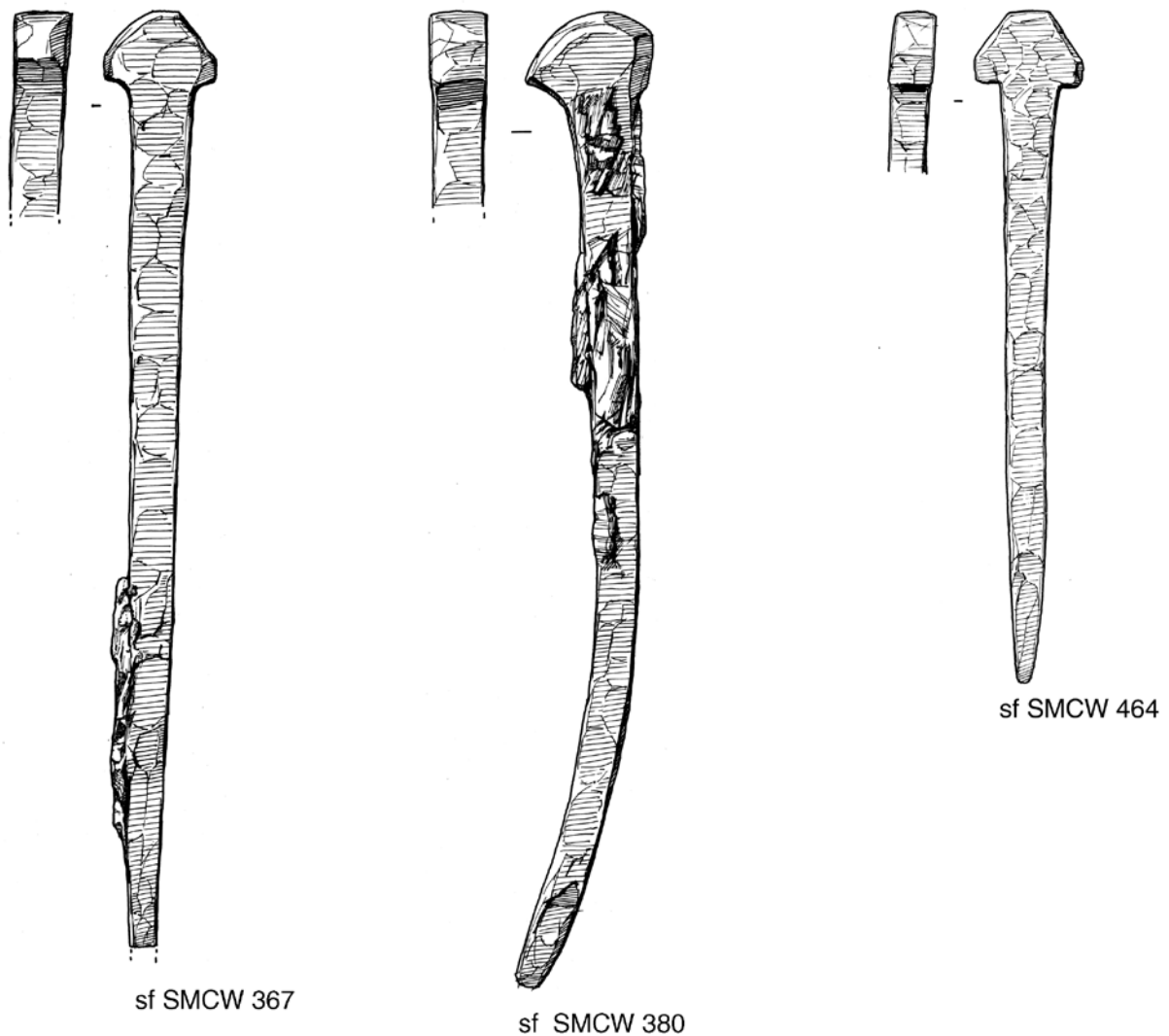


Figure 87 Coffin nails from St Martin's Close, scale 1:2

84 and 85). The Lankhills data was again evidence for the use, on at least some occasions, of very substantial planks for coffins in the 4th century (*ibid* 337). Like the nails from Victoria Road, the Chester Road nails show a slight trend towards increased length in the mid- to late 4th century. Here, it is more certain that the vast majority of the nails come from coffins.

#### St Martin's Close

Some 180 nails were recorded from St Martin's Close. Twenty graves produced nails, five containing only one, four with less than ten and the rest between thirteen and nineteen. Graves with notably large numbers of nails were absent, in contrast to Chester Road and Victoria Road. Most of the nails were clearly from coffins, but the sixteen nails from the grave in F57, a rich burial cut into the remains of a structure, perhaps a mausoleum (P1, Appendix 2) fell into two groups: relatively small, among which unbroken examples ranged between 40 and 65mm in length, and very long of which the one unbroken example was 270mm. In

this one case, the site records suggest that the smaller nails may have come from a separate box, but there was no wood preserved on them, although there were also some other possible box fittings (834–6).

In general (Fig 86), of 102 near-complete nails, a range in length from 40 to 340mm was recorded, giving an average length of 112mm. Head width was on average 21mm. Fifty-four, of which the majority came from just five graves (37, 39, 50, 53 and the richly furnished grave F57), have a triangular head (sf SMCW 367, sf SMCW 380 and sf SMCW 464 are illustrated on Fig 87); on occasions the sides of the head are slightly concave and many have flattened tops which must arise from hammering. The lengths of the 40 unbroken examples of this form vary between *c* 120 and 270mm with an average length of 168mm; 12 are over 200mm. These figures suggest that the nails were used in very substantial timber coffins. The preserved wood remains indicated boards of thickness 55–80mm, and 86–97mm in grave 39 and grave F57 respectively, in which case, the triangular heads stood proud from the wooden surface of the coffin. It may be noted that examples of such nails recorded in the Lankhills cemetery came

primarily from graves thought to be of the later 4th century (Clarke 1979, 333–6) and the graves from St Martin's Close are believed to date from c AD 370 onwards.

The nails from grave F57 came from a lead lined coffin made of ash (*Fraxinus* sp.) and the panels represented have mainly radial surfaces. The coffin in grave 39 was also of mainly radially split ash and sufficient is preserved to see that slow-grown ash with around 15 rings over 20mm was used. By contrast, the coffin from grave F52 was of oak (*Quercus* sp.).

## Conclusions

Examination of the peaks in Figures 82–6 and the preserved wood remains suggests that coffin construction changed little throughout the later Roman period, except, possibly, with the introduction of the nails with triangular heads in the late 4th century. This seems to coincide with a decline in the use of oak in favour of ash, but a bigger sample would need to be examined to be certain that this pattern was not merely a case of personal preference on the part of the deceased or their relatives.

## Copper alloy studs

### With a flat head

743 Fig 88 sf VR 2851/3344/3346–54/3356–62. Thirty-nine burnt and distorted copper alloy studs (and fragments of at least eight others) with an average D of 11.5mm (two only are illustrated); also two smaller studs, one 7mm and one 9mm D. The larger studs have concentric mouldings and a turned down outer edge, elements designed to provide a firm grip on the surface, probably leather, to which the studs were fixed. The uniformity of the group implies that they derived from either a single object or several related objects. If only one item is involved, then probably it was of wood fitted with leather, or solely of leather. No stud has a complete shaft, but the surviving shaft fragments are slender. These studs were found along with the other grave goods from cremation grave 442 (X, 832), belonging to the second half of the 2nd century or early 3rd, in the amphora sf VR 3869 (P5).

It is perhaps unwise to guess at their origin, but, if they are not associated with the other objects from this burial then they may come from a simple leather item such as a belt, or, if they are associated with their fellow grave goods, an item (or several items) of furniture may be involved, such as a bench, couch, or stool, or a leatherbound box.

### not illustrated

744 sf VR 1285. A stud with concentric convex mouldings and down-turned rim, probably used on leather. D of head 14 mm. Circular section shaft. Tip missing. L 4 mm. Early 2nd-century silting layer (V, 475).

745 sf VR 1229. This stud has a very thick head, slightly thicker on one side than the other. D of head 12 mm. Square section shaft, tip missing. L (clenched) 8 mm. Mid-2nd-century fill of the western Cirencester-roadside ditch F85 (V, 432).

746 sf VR 1064. Fragment of a stud. D of head 12mm with slight convex moulding at the rim. Square section shaft, incomplete. L 3mm. Metalled (?yard) surface, mid-2nd century onwards (V, 42).

747 sf VR 3129. Fragment of stud head. D 11mm. Late 2nd-century phase of Building 1.23 (X, 504).

748 sf VR 5244. Fragments of head and top of shaft of stud. Early to mid-3rd-century disuse of oven F846 in Building 1.24 (XIII, 3320).

749 sf VR 556. Fragment of a stud. D of head 11mm. ?Square section shaft, incomplete. L 3mm. Small feature, F15 (V, 154) in the fill of the western Cirencester-roadside ditch and cemetery boundary F12, dated mid- to late 3rd century.

750 sf VR 1000. Fragment of stud head. D 40mm. Mid- to late 3rd-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 355).

751 sf VR 913. Fragment of a stud. Part of head is missing. ?Square section shaft, incomplete. L 3.5mm. Late 3rd-century or later soil layer (V, 344).

752 sf VR 756. Head is broken and has very slight convex moulding at the rim. D of head 13mm. Square section shaft, incomplete. L 5mm. Late 3rd- to early 4th-century inhumation grave 70 (IV, 325 F12).

753 sf VR 839. Fragment of stud head. Bent. Late 3rd- to 4th-century fill of well or shaft F46 (V, 264).

754 sf VR 5484. Stud with an ?originally flat head now slightly convex. There is a slight moulding on the under-surface near the rim. D 30mm. Rectangular section shaft. L 7mm. Early to mid-4th-century finds rich soil layer (XII, 2508).

755 sf VR 719. Head broken. Shaft broken just beneath head. 4th-century fill of well or shaft F43 (IV, 393).

756 sf VR 725. Small flat 'head'. D 3.5mm. Polygonal section shaft. L 8.5mm. Probably stud shaft. Inhumation grave 91 (IV, 398), dated late 4th to early 5th century.

### With a convex head

#### not illustrated

757 sf VR 3189. Slightly convex head with repousse decoration. D 10mm. ?Circular section shaft, bent. L 76mm. Soil layer of the first half of the 2nd century (X, 540).

758 sf VR 5466. A stud, probably originally convex, now with flattened central area. D of head 23mm. Square section shaft, tip missing. L 9mm. Soil layer of the first half of the 2nd century (XIII, 3283).

759 sf VR 1230. Maximum D of head 10mm. Rectangular section shaft. L 14mm. Early to mid-2nd-century silting over the western Cirencester-roadside ditch F85 (V, 413).

760 sf VR 1095. The head of this stud has a slight convex rim and high domed centre. D of head 14mm. Square section shaft, tip missing. L 8mm. Mid- to late 2nd-century silting over the western Cirencester-roadside ditch F85 (V, 410).

761 sf VR 2747. Head and shaft separate. D of head 12mm. Rectangular section shaft, incomplete. L 9.5mm. Cremation grave 408 (X, 571), first half of the 3rd century.

762 sf HA 335. Convex head but flattened on the top. D 9mm. Square section shaft, bent, incomplete. L 11mm. Construction of building 1.11 (XI, 316), ?3rd century.

763 sf VR 5285. Head only, in six pieces. Very slight convex moulding near rim. Mid- to late 3rd-century disuse of Building 1.24 (XIII, 3362).

764 sf VR 857. Fragment of stud head. D 25mm. Late 3rd- or early 4th-century inhumation grave 107 (V, 225).

765 sf VR 9551. Fragment of stud head. Distorted. D 18mm. Early 4th-century soil layer (XV, 4063).

766 sf VR 1031. Fragment of stud head. Distorted and folded. D 22mm. Mid- to late 4th-century soil layer (V, 344).

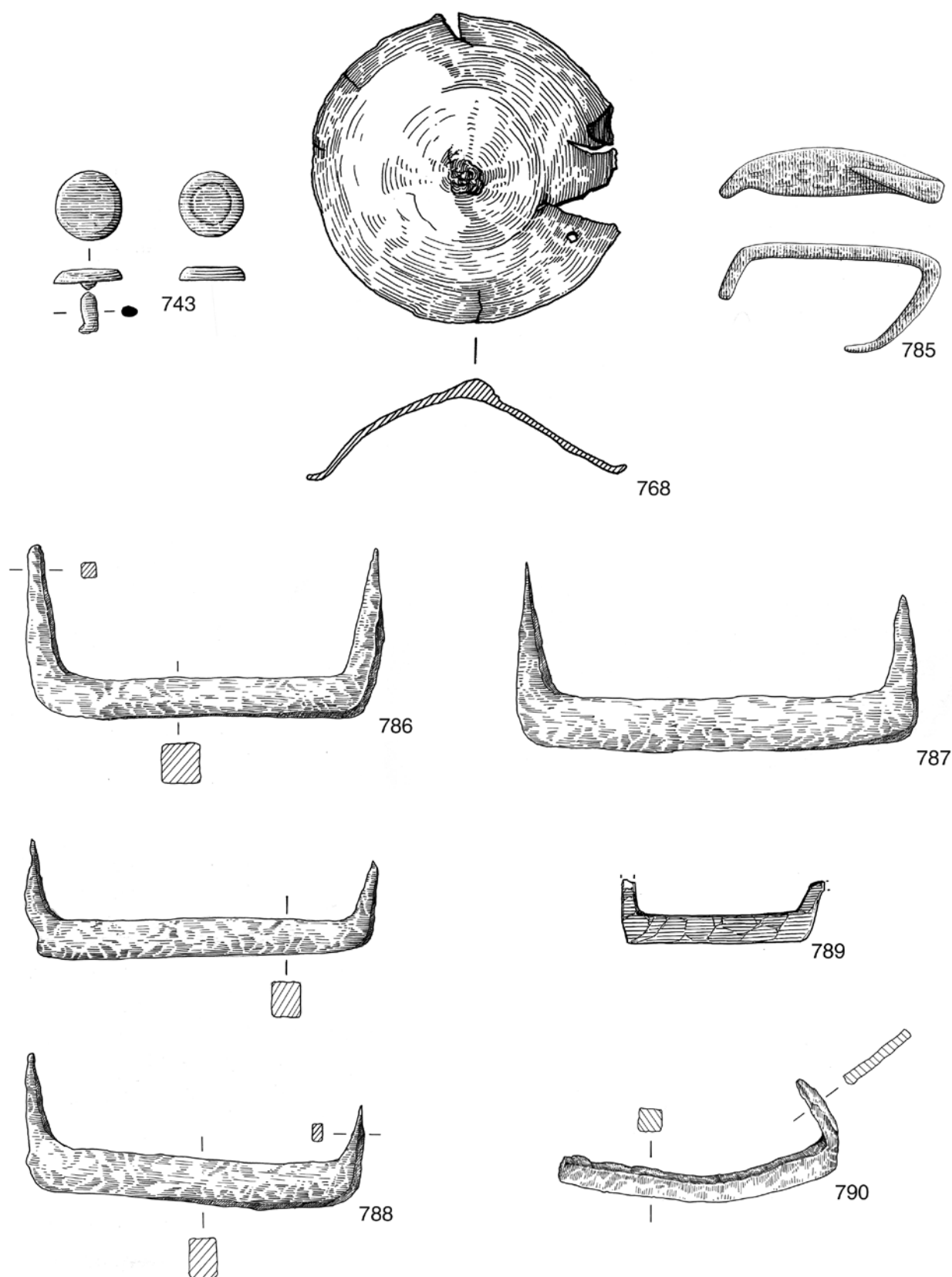


Figure 88 Studs, boss and joiner's dogs, nos 785-90, scale 1:2: nos 743 & 768, scale 1:1

**767** sf VR 3051. Fragment of stud head. D 20mm. Late 4th-century (?or later) soil layer (X, 144).

### **Boss**

**768** Fig 88 sf VR 7336. Copper alloy hollow boss with roughly thickened 'nipple'. This object appears to lack any means of attaching it to a larger item. D 52mm, H 16mm. Grave-like feature (no human remains were recovered) 579 (XI, 1590). Late 1st century.

### **Staples and joiner's dogs**

There are sixteen iron staples (excluding those from the box **548–55** in VRG515, which are catalogued with household furnishings in Category 4). All are rectangular except for **780** and **784** which are U-shaped and **771** and **779** which are looped. Nine rather larger and more robust iron objects of similar form to the rectangular staples may be described as joiner's dogs (Manning 1985a, 131). Of the latter it may be noted that three (**787** and **788**) very similar in form and size were recovered together at Victoria Road in a soil layer over the second phase of Building 1.23, from which they may have originally derived.

### **Staples**

L = distance between the outside faces of the arms.

#### *not illustrated*

**769** sf VR 1532. Two staples corroded together. Early to mid-2nd-century fill of the western Cirencester-roadside ditch F85 (V, 413).

**770** sf VR 1243. Rectangular, one arm missing, other is out-turned. L 40mm, W 20mm. Mid-2nd-century gully F81 (V, 444).

**771** sf JCH 167. Looped. L 50mm, W 16mm. Mid-2nd-century disuse of Building 35.1 (III, 225).

**772** sf HA 339. Rectangular, one arm missing. L 20mm, W 72mm. Building 1.9 (XI, 395), ?mid- to late 3rd century.

**773** sf HA 150. Rectangular. L 23mm, W 44mm. ?Late 3rd- to mid-4th-century disuse of Building 1.9 (XI, 269).

**774** sf HA 265. Rectangular, one arm missing. L 49mm, W 75mm. ?Late 3rd- to mid-4th-century disuse of Building 1.9 (XI, 278).

**775** sf HA 361. Rectangular. L 25mm, W 30mm. ?Late 3rd- to mid-4th-century disuse of Building 1.9 (XI, 278).

**776** sf VR 10099. Rectangular. L 40mm, L arms 12mm. 4th-century fill of well F1096 (XV, 4382).

**777** sf VR 5450. Rectangular. L arms 25mm, W 53mm. Early to mid-4th-century finds rich soil layer (XII, 2517).

**778** sf VR 5907. A rectangular staple to which are fused three tacks (two at one end, one at the other) pointing in the same direction as the staple arms. L 50mm, L arms 20mm, W 5mm. Early to mid-4th-century fill of pit F814 (XIII, 3262).

**779** sf VR 6742. Looped. L 55mm, L arms 32mm. Early to mid-4th-century fill of pit F814 (XIII, 3262).

**780** sf HA 0. U-shaped, arms incomplete. L 25mm, W 27mm. ?Mid to late 4th-century metallurgy in Building 1.10 (XI, 275).

**781** sf CHR 647. Rectangular. L 40mm, L arm 35mm, T 4mm. Late 4th-century inhumation grave 531 (III, 565).

**782** sf VR 0. Rectangular. L 27mm, L arms 24mm, W 4mm. Late 4th- or early 5th-century soil layer (V, 344).

**783** sf VR 187. Rectangular, arms incomplete? L 55mm. Late 4th- or early 5th-century soil layer (V, 26).

**784** sf SMCW 343. U-shaped. L 28mm, W 15mm. Grave 36 (36), late 4th to 5th century.

### **Joiner's dogs**

All have rectangular cross-section

**785** Fig 88 sf VR 224. One arm incomplete. The head has convex sides. L 40mm, W 67mm, T 16mm. Silting over ?yard surface F2 (V, 22), mid- to late 2nd century onwards.

**786** Fig 88 sf VR 9775. The arms taper to a point. W 123, arms L 59 and 57mm, T 15mm. Soil layer of the first half of the 2nd century (XV, 4213).

**787** Fig 88 sf VR 9742. The arms taper to a point. W 138mm, T 18, arms L 65 and 50mm. Mid- to late 2nd- century soil layer (XV, 4236).

**788** Fig 88 sf VR 9743. Two identical objects. The arms taper to a point. (a) W 121mm, T 16, arms L 41 and 30mm. (b) W 116mm, T 16, arms L 49 and 36mm. Mid- to late 2nd-century soil layer (XV, 4236).

**789** Fig 88 sf VR 10042. The arms are incomplete. W 63mm, T 8mm. Floor in Building 1.19 (XV, 4214), late 3rd century.

**790** Fig 88 sf VR 440. One arm is missing. W 96mm, L arm 35mm, W 9mm. 4th-century fill of western Cirencester-roadside ditch and cemetery boundary F12 (V, 85).

#### *not illustrated*

**791** sf HA 0. L 80mm, L of arms 19mm, T 7mm. ?Early to mid-3rd-century Building 1.7 (XI, 383).

**792** sf 10CS 131. Rectangular, both arms incomplete. L 23mm, W 104mm, T 7mm. Cobbled surface predating the late 2nd-century defensive rampart (I, 222).

### **Hinges**

#### **Hinge pivots**

Simple L-shaped hinge pivots of iron.

**793** Fig 89 sf VR 798. The guide arm tapers to a point and the shank has a wedge-shaped end. Guide arm L 59mm, T 5mm, shank L 47mm, W 18mm. Late 3rd- to 4th-century fill of well or shaft F18 (V, 180).

#### *not illustrated*

**794** sf 27JS 241. Guide arm L 40mm, shank L 75mm. Early to mid-2nd-century ditch F76 (I, 425).

**795** sf 27JS 211. Guide arm L 40mm, shank L 65mm. Mid-2nd-century posthole (I, 546).

**796** sf VR 212. Shank incomplete. Guide arm L 35mm, shank L 30mm, W 10mm. Late 2nd- to early 3rd- century phase of Building 1.14 (V, 29).

**797** sf HYS 0. Tips of both arms missing. Guide arm L 45mm, Shank L 40mm. Mid- to late 3rd-century feature F7 (I, 9).

**798** sf HA 246. Guide arm L 35mm, shank L 56mm. ?Late 3rd- to mid-4th-century disuse of Building 1.9 (XI, 268).



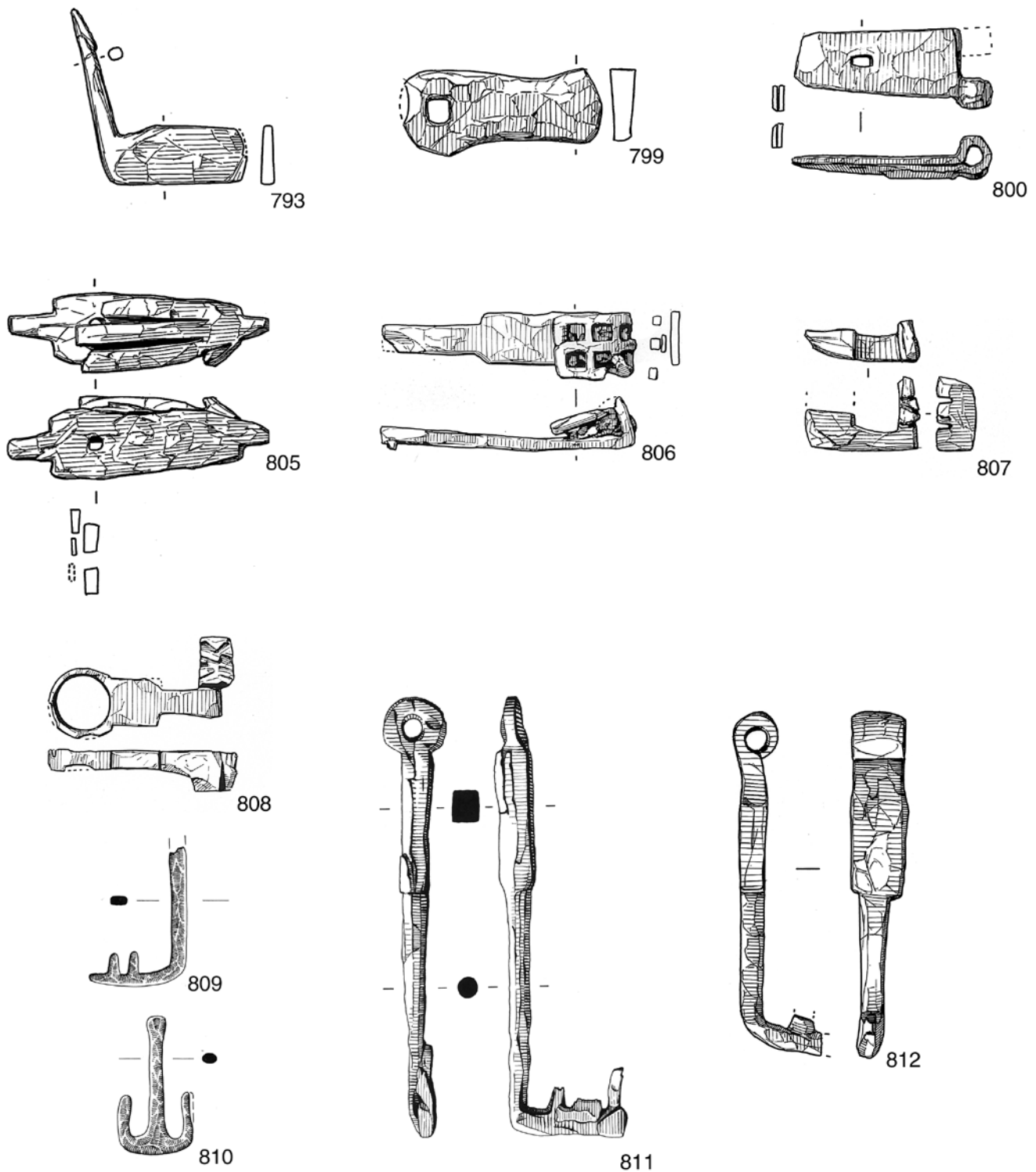


Figure 89 Hinge pivots, hinge straps, locks, slide- and lift keys, nos 793, 799–800, 805–12, scale 1:2

### Hinge Straps

The majority are incomplete iron hinge straps which have an eye made by drawing out the head and curving it over. **802** is a small strap which is curved over at one end to form a loop and may have come from a box or casket. **800**, with a projecting socket at one corner, probably belonged to a small cupboard or similar item of furniture.

**799** Fig 89 sf VR 5452. At one end there is a rounded eye formed by drawing out the end of the strap and curving it over. The strap narrows below the eye and the sides are then parallel up to the break. L 63mm, W 20mm. Early to mid-4th-century finds rich soil layer (XII, 2517).

**800** Fig 89 sf VR 13017. A rectangular strap, pierced with a rectangular hole; at one corner there is a projecting socket and there was probably another at the other corner on the same side. L 65mm, W 21mm, T 5mm. Unstratified.

*not illustrated*

**801** sf JCH 153. Incomplete looped eye at one end, broken at the other, pierced once. L 55mm, W 19mm. 2nd-century disuse of Building 35.1 (III, 225).

**802** sf VR 2986. ?Pierced twice, and looped over into an eye at one end. L 77mm, W 13mm, loop D 14mm. Mid- to late 3rd-century feature F96 (X, 698).

**803** sf HA 159. One end is broken, the other has a rounded eye formed by drawing out the end of the strap and curving it over. L 48mm, W 28mm. ?Late 3rd- to mid-4th-century disuse of Building 1.9 (XI, 269).

**804** sf VR 9580. Incomplete hinge strap or vessel suspension fitting. At one end there is an eye formed by drawing out the end of the strap and curving it round. The strap is probably pierced below the eye. L 48mm, W 36mm. 4th-century fill of well F1096 (XV, 4119).

## Locks and keys

### Locks

The iron lock bolt **805** from grave 110 at Victoria Road consists of a central plate, pierced once near the head, which has arms projecting from the head and base. Adhering to one face are three leaf springs joined at the base. Locks employing bolts of this form would have been suitable for use on chests or boxes (Ottaway 1992, 660–2). When locked the leaf springs, whose shared base was fixed to the inner face of the chest, pressed against a ridge, now corroded away, at the head of the central plate. The arm projecting from the head engaged in a loop or staple forming part of a hasp and thus held the chest lid closed. To unlock, a 'lift' or 'slide' key with an L-shaped bit (see below) was inserted through the chest key-hole and twisted through 90 degrees so that the bit fitted in the hole at the head of the central plate. The key was pulled back slightly to release the springs and the bolt could be slid along to free the hasp.

Although keys with bits possessing one or more teeth suitable for locks of this type are common in Romano-British contexts (see below), the bolts are not. This suggests that the majority of these keys were employed with other types of lock (Manning 1985a, 90–3). Other examples of sliding lock bolts comparable to **805** in Romano-British contexts appear to be confined to one from Lakenheath, Suffolk (Manning 1985a, 66) and another possible example from a 4th-century context at Wroxeter (WC77, sf767; Quita Mould, pers comm). While these bolts may have been an innovation of the later Roman period, they do not become common until the 7th to 9th centuries. Locks of this latter period have frequently been found on chests reused as coffins at such sites as Dacre, Cumbria (Ottaway, unpublished a), Ailcy Hill, Ripon (Ottaway 1996) and Thwing, north Humberside (Ottaway unpublished b). The occurrence of **805** in a grave raises the possibility that not only the lock bolt type, but the custom of burial in a locked or lockable chest has its origins in the later Roman period. However, there was no other evidence of a coffin or box from grave

110 and it is possible that the object is residual (or even intrusive).

**805** Fig 89 sf VR 930. An iron sliding bolt. The central plate is pierced once and narrows from the head to the base; the shoulders are straight at the head. The arms are incomplete. Three springs adhere to the inner face. L 90mm, central plate L 53mm, W 24mm. Late 2nd- or 3rd-century inhumation grave 110 (V, 295).

**806** Fig 89 sf VR 194. An iron bolt from a tumbler lock as defined by Manning (1985a, 92). A grid of six apertures at one end and an incomplete 'tang' at the other. L 110mm, W 20mm, T 2mm. Late 4th- to early 5th-century (or later) ?reoccupation of the trench area (V, 36).

## Keys

### Slide keys

There are two small iron 'slide keys' of the type defined by Manning (1985a, 93), and both are of Manning's Type 2. Two further keys, catalogued in Part 3 (Category 11, **2559**, **2584**) could possibly be Roman in origin.

**807** Fig 89 sf HA 542. A small L-shaped slide-key. The bit has two straight grooves separated by one diagonal groove. The other arm is incomplete. Bit L 23mm, arm L 39mm. Metalled surface F31 (XI, 275) in ?mid- to late 4th-century Building 1.10.

**808** Fig 89 sf VR 215. The upper half of the stem is thicker than the lower. At the head there is a circular eye. The bit is straight with teeth arranged in a criss-cross pattern. Stem L 52mm, W 15mm, T 5mm; bit L 25mm, W 10mm, T 10mm. Late 4th- to early 5th-century (or later) ?reoccupation of the trench area (V, 33).

### Lift keys

There are two near complete iron examples of what Manning (1985a, 90) has defined as 'lift keys', although in view of the discussion of **805** above they may, in some circumstances, be better described as 'slide keys' (Ottaway 1992, 673–5). In addition, there are three examples of which only the bit and lower stem survives. Except for **810**, all these keys have L-shaped bits, all probably with 2 or 3 projecting teeth. **810** is the only example of a T-shaped bit; as noted in Category 4, it might have been suitable for use with a lock such as **552**.

**809** Fig 89 sf VR 319. Lower part of stem and L-shaped bit, tip missing, two (?originally three) surviving teeth. L 47mm, bit L 33mm. Silting (V, 75) over metalled (?yard) surface F2. Mid- to late 2nd century onwards.

**810** Fig 89 sf VR 375. Lower part of stem and T-shaped bit. L 47mm, bit W 25mm. Mid- to late 3rd- century phase of Building 1.15 (V, 87).

**811** Fig 89 sf VR 780. L-shaped bit with three teeth; the lower part of the stem has a rounded cross-section and the upper part expanded slightly and has a rectangular cross-section. At the head a suspension eye. L 151mm, bit L 39mm. 4th-century fill of well or shaft F43 (IV, 420).

**812** Fig 89 sf 27JS 232. The bit is L-shaped, but incomplete. The lower part of the stem has a rounded cross-section; it is widened and flattened at its midpoint with a straight shoulder on either side, the sides are then parallel. There is

a looped terminal at the head. L 115mm, stem W 16mm, T 8mm. 11th- to 12th-century well F4 (I, 235).

*not illustrated*

**813** sf VR 813. Base of stem and L-shaped bit with three teeth. L 52mm, W 18mm, T 2mm. Late 2nd- to 3rd-century pit F27 (V, 211).

### Lever lock keys

There are three examples, one near complete and two incomplete, of iron keys which were rotated to operate the sliding bolts in 'lever locks', as defined by Manning (1985a, 94). **814** from Victoria Road had a non-ferrous bow, now missing, and has a socket at the tip of the stem implying a spindle projecting from the back of the lock. **815** also from Victoria Road is an unusual specimen as it has an L-shaped stem, the tip of which is hollow. It is difficult to see this stem form as other than a hindrance to the use of the key unless some unusual form of lock was involved. The bit of this key was a reverse S-shape and comparable to that seen on **816** which exists as a bit and the end of a socketed stem.

**814** Fig 90 sf VR 645. Bow missing, it was probably non-ferrous and fitted over a distinct tang at the head of the stem. The stem has a socket at the tip and the bit is incomplete. L 65mm stem T 9mm. 4th-century fill of well or shaft F43 (IV, 346).

**815** Fig 90 sf VR 9658. Stem has a hollow tip, it is curved at 90 degrees in centre, at the head is a looped terminal with recurved tip, the bit has broken off, but was a reverse S-shape. L arms of stem 80mm and 120mm, W 15mm, T 8mm. Mid- to late 4th-century fill of well F1093 (XV, 4135).

**816** Fig 90 sf CHR 678. S-shaped bit and end of stem, hollow at tip. L 46mm, W 38mm. Mid- to late 4th-century inhumation grave 541 (III, 576).

### Corner brackets

*not illustrated*

**817** sf VR 5429. Iron, very corroded. One arm is pierced near the end, the other is incomplete. Arms L 50 and 30mm, W 35mm. Early to mid-4th-century finds-rich soil layer (XII, 2508).

**818** sf VR 747. Corner bracket of iron, now incomplete: one arm. The sides are concave and it is flattened and widened into a large rounded, pierced terminal. It is also pierced in the centre. It may have served to strengthen one corner of the coffin in this grave. Other examples come Lankhills (Clarke 1979, 336–41). L 113mm, W 37mm. Mid- to late 4th-century inhumation grave 90 (IV, 397).

### Hooks

There are two probable hooks of iron, but of different form.

**819** Fig 90 sf HA 168. ?Wall hook. A long and substantial shank with a wedge-shaped tip and very small up-curving

hook at the opposite end. L 148mm, W 25mm, T 5mm. ?Early to mid-3rd-century Building 1.11 (XI, 371).

**820** Fig 90 sf VR 855. ?S-hook. It consists of a tapering shank of rectangular cross-section which has a C-shaped hook at one end; there is a slight step at the base of the hook. The shank curves at the other end as if to form a second hook. L 125mm, T 8mm. Inhumation grave 105 (V, 273), late 4th to early 5th century.

### Linch pin

*not illustrated*

**821** sf SXS 483. Iron linch pin of Roman type. Widens at the head where it is looped over. L 150mm, W 42mm, T 13mm. Unstratified (VIII).

### Double spiked loop

*not illustrated*

**822** sf VR 5001. Half of a double-spiked loop of copper alloy with a tapered blade. L 62mm. Unstratified (XII).

### Clench bolt

*not illustrated*

**823** sf HG 445. Iron, L 66mm. Floor of 3rd- and 4th-century Building 17.3 (III, 861).

### Drop handles

*not illustrated*

**824** sf VR 1243. ?Drop handle of copper alloy, incomplete. L 36mm, W 20mm, T 5 mm. Early to mid-2nd-century fill of the western Cirencester-roadside ditch F85 (V, 444).

**825** sf HA 141. Small drop handle of iron, incomplete, curved with looped terminal. L 60mm. ?Late 3rd- to mid-4th-century disuse of Building 1.9 (XI, 278).

### Knob

*not illustrated*

**826** sf CT 6. Solid piece of copper alloy, originally cylindrical or spherical in shape, but broken at both top and bottom. The centre is vertically pierced by an iron rod. The surface, where extant, is much polished as if from handling. Perhaps the remains of a knob or handle. D 32mm, D of iron core approximately 9mm. Mid- to late 4th-century fill of pit F10 (V, 34).

### Fastening

*not illustrated*

**827** sf NR 223. Copper alloy strip folded over on itself to form a loop. The main part of the strip, W 3mm, widens

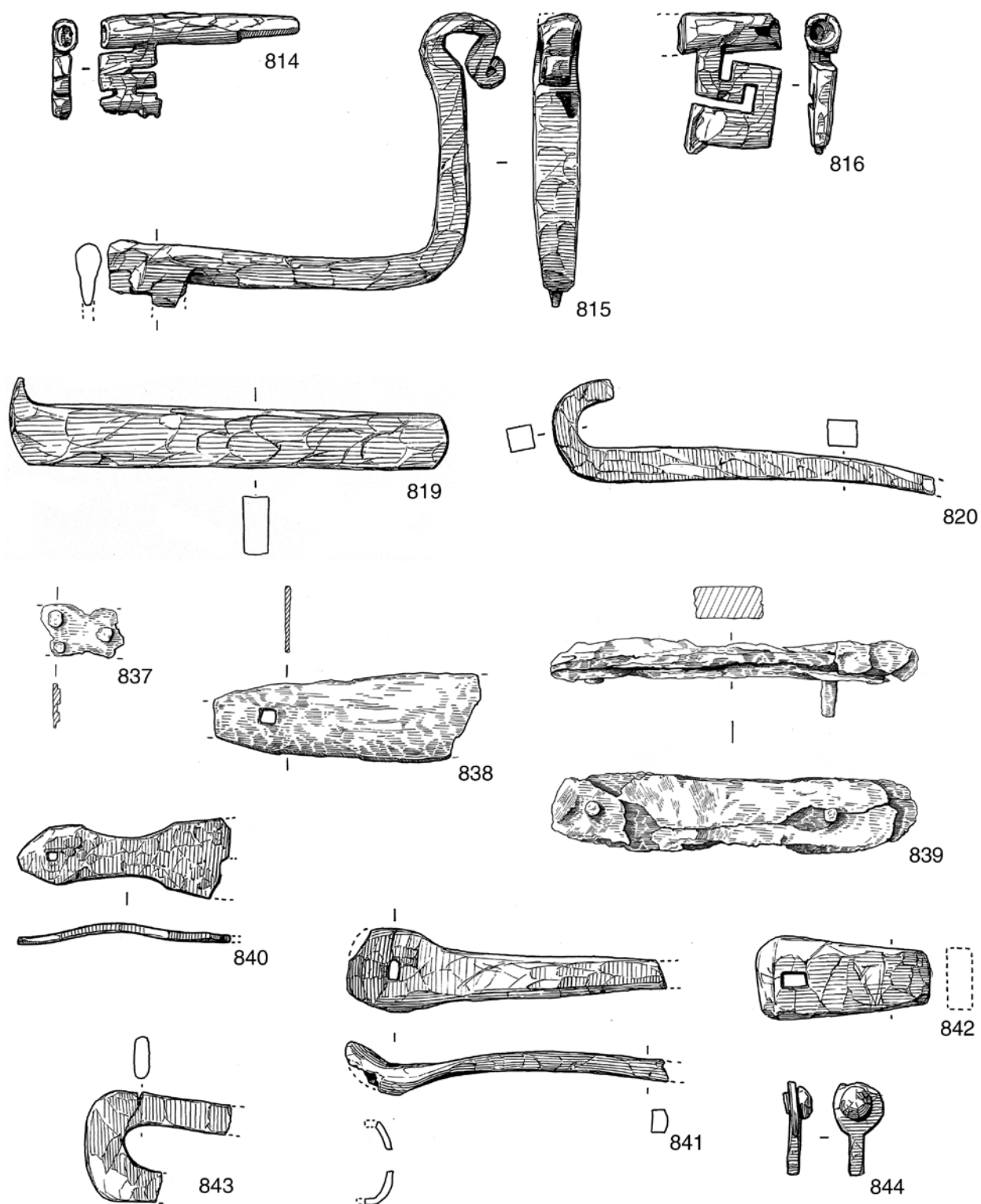


Figure 90 Lever lock keys, hooks, and pierced plates and straps, nos 814–16, 819–20, 837–44, scale 1:2

below the loop and is bent widthways (6mm) to secure it. L 24mm. Probably some kind of fastening. Late Roman fill of the Iron Age enclosure ditch F371 (II, 484).

## Binding

*not illustrated*

**828** sf VR 3270. Four fragments of copper alloy, possibly binding. Maximum L 22mm. Mid- to late 1st-century cremation grave 431 (X, 742).

**829** sf VR 1240. A small sheet of copper alloy folded over to form a tube. L 14mm, D 2mm. Early to mid-2nd-century silting over the western Cirencester-roadside ditch F85 (V, 413).

**830** sf VR 1299. A straight length (36 mm) of copper alloy binding of penannular section, 4 mm in D. One end of the binding survives. There are groups of grooves at intervals along its length. Early to mid-2nd-century fill of the western Cirencester-roadside ditch F85 (V, 444).

**831** sf NR 146. Fragmentary sheet of copper alloy broken at copper alloy rivet. A double sheet of copper alloy folded over is attached by means of another rivet to one side. 32 by 19mm. A third rivet with a fragment of sheet has broken off. 15 by 11mm. Possibly part of the same decorative binding as **832**, below. Late Roman fill of the Iron Age enclosure ditch F371 (II, 477).

**832** sf NR 221. Fragmentary double sheet of copper alloy riveted together. 17 by 18mm. Possibly part of the same decorative binding as **831**, above. Late Roman fill of the Iron Age enclosure ditch F371 (II, 483).

## Mount or fitting

*not illustrated*

**833** sf SXS 96. Small rectangle of copper alloy sheet with possible traces of notched decoration on two edges. 21 by 15mm. One corner is broken, and the other preserves traces possibly of a rivet for attachment. Late Roman ploughsoil (VIII, 314).

## Sheet metal and fragments from grave F57 at St Martin's Close

The identification of the small fragments of copper alloy from this late 4th- to 5th-century grave is uncertain. Four tiny pieces came from the area of the upper body and two from the east (foot) end of the grave. These latter may be associated with fragments of ?tin-lead and copper alloy sheet metal and other copper alloy fragments that also came from this area, where the site records indicate there was a tile cist. Sheet metal may indicate the presence of a box, but there was no mineralised wood preserved on these pieces, nor were any obvious contents noted from the same area (the comb **314** – Category 2 – was recovered from near the head).

*not illustrated*

**834** sf SMCW 650. Four tiny fragments of copper alloy. Two appear to have been heat affected.

**835** sf SMCW 653. Many fragments of well preserved thin metal (?tin-lead) sheet, three fragments of copper alloy sheet, and other copper alloy fragments. Some of the pieces of ?tin-lead sheet appear to have traces of raised decoration, but these may be corrosion bubbles.

**836** sf SMCW 657. Two tiny fragments of copper alloy. One is globular and has probably been heat affected.

## Pierced plates and straps

A miscellaneous collection of largely incomplete pierced iron plates and straps may be identified as broken fittings such as bindings, brackets and hinges, from furniture or structures. Victoria Road produced around 60, Hyde Abbey just under 20 and a few come from the smaller sites.

The majority of the objects require little comment, although a number of the objects from graves are of interest. **839** is a plate found in grave 505 at Victoria Road, which is probably all that remains of a box or other iron-bound wooden object either placed in the grave or burnt on the pyre before deposition in the grave with the cremated bones. **837** from grave 605 is a small plate, which may have come from a casket originally containing the cremated bones. **866** from Victoria Road may have been part of a coffin fitting probably a corner bracket. Finally, **843** from grave 556 at Chester Road, now unfortunately incomplete, may originally have been a small plate with two rounded ends and a central slot. Its function is unclear, but it has wood remains on one face and it is possible that it fitted around the key hole for a lock employing a sliding bolt similar to **805** (above). The inhumation was coffined but produced no other evidence that it had accommodated a container with a lock.

It is possible to suggest a use for some of these objects by consideration of their stratigraphic contexts. For example, five from Victoria Road, six from Hyde Abbey and four from Henly's Garage came from the demolition or disuse phases of structures, indicating a potential original function as building ironwork. A metallised surface, F665, perhaps a yard, and silting above and below it at Victoria Road (XII) produced a number of pierced iron objects, associated with slag, scrap metal, and other broken metal objects, implying that the plates and strips had been collected together for reworking. This is discussed further in Category 15. Nevertheless, the vast majority were distributed fairly evenly throughout deposits of differing types, and were probably recovered at some remove from the context in which they were used.

The objects are rectangular or roughly rectangular unless stated otherwise.

**837** Fig 90 sf VR 8581. Plate. One side is straight, the other now irregular, ends broken. Pierced three times. Each hole has a round headed rivet in situ. L 28mm, W 18mm, T 3mm. Late 1st- to early 2nd-century cremation grave 605 (XIV, 3869).

**838** Fig 90 sf VR 772. Plate, sides convex, narrows towards one end, broken at both. L 91mm, W 30mm. Mid-2nd-century fill of the western Cirencester-roadside ditch (V, 417).

**839** Fig 90 sf VR 7116. Plate. It narrows at both ends, and at

one end there is a short projection, another may have existed at the other end but it is broken here. Pierced twice, nails in situ. One face has wood adhering to it. L 120mm, W 23mm, T 13mm. Mid-2nd-century cremation grave 505 (XI, 1259).

**840** Fig 90 sf VR 2984. A strap which has a rounded pierced terminal at one end, below this the strap's sides are slightly concave before it widens again around a nail hole, at which point the object is broken. L 70mm, W 25mm. 3rd- or 4th-century pit F168 (X, 684).

**841** Fig 90 sf VR 5435. Consists of a length of strap which is broken at one end and widens towards the other where there is a rounded, pierced terminal (?wall-tie). L 105mm, W 28mm. Early to mid-4th-century finds-rich soil layer (XII, 2508).

**842** Fig 90 sf VR 5437. Plate, one end rounded, widens towards the other where it is pierced. L 53mm, W 28mm, T 5mm. Early to mid-4th-century finds-rich soil layer (XII, 2517).

**843** Fig 90 sf CHR 771. In two pieces. It may have been a U-shaped plate of which one arm is now missing. Alternatively a plate with rounded ends and a central slot. What remains is pierced three times. Wood remains survive on one face (?a lock plate). L 50mm, W 50mm, T 2mm. Late 4th-century grave 556 (III, 620).

**844** Fig 90 sf VR 2540. Consists of a rounded, pierced terminal with short length of strap. L 30mm, W 15mm. Late 4th- to early 5th-century (?and later) soil layer marking the disuse of the Roman site (X, 144).

#### *not illustrated*

**845** sf VR 10562. Plate. Nail in situ. Ditch F513 (XI, 1718), mid-1st century or earlier.

**846** sf MA 128. Broken at both ends, pierced twice. L 35mm, W 13mm. Late 1st- to early 2nd-century soil layer (II, 27).

**847** sf VR 1068. Plate, pierced near one end. L 55mm, W 17mm. Early to mid-2nd-century soil layer (V, 397).

**848** sf VR 1084. Plate, broken at each end, pierced by a rectangular hole which has a rivet set in it. L 47mm, W 27mm, T 10mm, rivet L 13mm. Early to mid-2nd-century fill of the western Cirencester-roadside ditch F85 (V, 413).

**849** sf VR 1200. Plate. Incomplete, one straight side, rest irregular. There is an incomplete rectangular hole close to one of the irregular sides. L 27mm, W 26mm, T 2mm. Early to mid-2nd-century fill of the western Cirencester-roadside ditch F85 (V, 413).

**850** sf VR 5497. Plate, pierced in the centre. L 49mm, W 48mm, T 5mm. Soil layer of the first half of the 2nd century (XIII, 3399).

**851** sf VR 3248. (a) Plate, pierced twice, rivets in situ. L 39, W 17mm, T 3mm. (b) Plate, pierced once, rivet in situ. L 35mm, W 16mm. (c) Plate, pierced once, L 21mm, W 18mm. Mid-2nd-century cremation grave 429 (X, 732).

**852** sf VR 245. Plate, in four pieces, pierced three times. L 70mm, 25mm, 22mm, 20mm, W 14mm. Silting over metallised (?yard) surface F2 (V, 59), mid- to late 2nd century onwards.

**853** sf VR 271. Plate, broken across hole on one side. L 20mm, W 15mm. Silting over metallised (?yard) surface F2 (V, 62), mid- to late 2nd century onwards.

**854** sf VR 505. Strip, broken at both ends, one rectangular hole. L 45mm, W 11mm. Silting over metallised (?yard) surface F2 (V, 11), mid- to late 2nd century onwards.

**855** sf 10CS 105. One end broken, other rounded, pierced nearby. L 60mm, W 32mm. Late 2nd-century defensive rampart (I, 180).

**856** sf VR 3289. (a) Plate, broken at both ends, slightly curved. L 53mm, W 22mm. (b) Plate, broken at one end,

pierced near the other. L 52mm, W 18mm. Demolition of mausoleum F272 (X, 780), ?late 2nd to 3rd century.

**857** sf HA 310. Two pieces, broken at both ends, pierced once. The X-radiograph shows fine striations on the surface of the sort usually associated with the keying for non-ferrous plating, but none survives. L 80mm, W 35mm. ?Early to mid-3rd-century Building 1.7 (XI, 403).

**858** sf VR 0. Plate, L 69mm, W 27mm. Early to mid-3rd-century disuse of oven F846 in Building 1.24 (XIII, 3364).

**859** sf VR 5307. Pierced plate fragment. Early to mid-3rd-century disuse of oven F846 in Building 1.24 (XIII, 3366).

**860** sf VR 206. Plate, roughly triangular, pierced twice. L 44mm, W 28mm. Mid- to late 3rd-century phase of Building 1.14 (V, 39).

**861** sf VR 257. Plate, pierced once, convex sides, one end rounded, one end broken. L 32mm, W 29mm. Mid- to late 3rd-century phase of Building 1.15 (V, 41).

**862** sf VR 981. One side irregular, square hole in centre. L 43mm, W 33mm. Mid- to late 3rd-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 361).

**863** sf VR 985. Plate, pierced once, broken at one end. L 68mm, W 28mm. Mid- to late 3rd-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 364).

**864** sf VR 5138. Strip, pierced at one end, broken at the other. L 60mm, W 12mm. Mid- to late 3rd-century disuse of Building 1.24 (XIII, 3319).

**865** sf VR 3212. Plate, slightly curved, broken at both ends, pierced near one corner. L 70mm, W 45mm, T 4mm. 3rd- or 4th-century pit F168 (X, 653).

**866** sf VR 0. Strip, broken at one end and at the other there is an incomplete rounded, pierced terminal. L 72mm, W 6mm, terminal W 18mm. Late 3rd- to early 4th-century grave 108, gf 91 (V, 219).

**867** sf VR 848. Plate, rectangular slot in centre. L 23mm, W 18mm. Late 3rd- to 4th-century fill of well or shaft F46 (V, 264).

**868** sf VR 860. Plate, pierced once, broken at one end. L 40mm, W 20mm. Late 3rd- to 4th-century fill of well or shaft F46 (V, 264).

**869** sf VR 947. Plate, pierced once, slightly curved, broken at both ends. L 53mm, W 19mm. Grave 109 (V, 209), dated late 3rd to early 4th century.

**870** sf HG 150. Pierced once. L 35mm, W 30mm. Late 3rd- to early 4th-century fill of pit F102 (IV, 1007).

**871** sf HG 307. One side straight, others irregular, pierced once. L 35mm, W 25mm. Late 3rd- to early 4th-century fill of pit F102 (IV, 1223).

**872** sf HA 54. Pierced once. L 35mm, W 22mm. Late 3rd- to 4th-century street F10 (II, 11).

**873** sf HA 73. L-shaped, wider arm broken at end and pierced with a rectangular hole, the other arm has a rounded cross-section and is incomplete. Arms L 48mm, W 16mm, L 35mm, W 4mm. Late 3rd- to mid-4th-century fill of property boundary ditch F37 (II, 96).

**874** sf HA 149. Broken at one end across hole, curved over at the other and tapers. L 55mm, W 12mm. ?Late 3rd- to mid-4th-century disuse of Building 1.9 (XI, 269).

**875** sf HA 151. In three pieces, pierced with a rectangular hole at one end. L 88mm, W 21mm. ?Late 3rd to mid-4th-century disuse of Building 1.9 (XI, 269).

**876** sf HA 263. Broken at both ends, pierced twice. L 67mm, W 21mm. ?Late 3rd- to mid-4th-century disuse of Building 1.9 (XI, 278).

**877** sf HA 264. Rectangular end of strap, pierced once. L 22mm, W 22mm. ?Late 3rd- to mid-4th-century disuse of Building 1.9 (XI, 278).

**878** sf VR 837. Plate. Tapers towards to one end. At the wider end it has straight shoulders before developing into a tapering strip. L 120mm, plate L 47mm, W 22mm. Late

3rd- to 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 151).

**879** sf CHR 650. Incomplete, one straight side and one end rounded, pierced nearby. L 52mm, W 24mm. Soil layer (III, 566), late 3rd century and later.

**880** sf VR 648. Plate, broken at both ends, at one across a piercing. L 30mm, W 25mm, T 5mm. 4th-century fill of well or shaft F43 (IV, 388).

**881** sf VR 653. Plate, one straight side, others irregular, broken on one side across a piercing. L 55mm, W 30mm. 4th-century fill of well or shaft F43 (IV, 159).

**882** sf VR 717. Plate, broken at both ends, pierced once, hole has nail in situ. L 75mm, W 22mm. 4th-century fill of well or shaft F43 (IV, 392).

**883** sf VR 763. Plate, broken at one end, near the other a rectangular hole. L 86mm, W 23mm. 4th-century fill of well or shaft F43 (IV, 417).

**884** sf VR 778. Plate in three pieces. The sides are slightly concave, pierced once, at one end it widens and at the other it is bent over. L 180mm, W 28mm. 4th-century fill of well or shaft F43 (IV, 420).

**885** sf VR 815. Broken at each end, pierced twice. L 60mm, W 23mm. 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 136).

**886** sf VR 8550. Plate, pierced once, widens slightly from one end to the other. L 52mm, W 47mm, T 7mm. 4th-century fill of pit F981 (XIV, 3845).

**887** sf VR 0. Plate, narrows slightly towards one end which is pierced. L 28mm, W 10mm. 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 83).

**888** sf VR 0. Plate, one end broken, other end rounded and pierced. L 50mm, W 25mm. Floor in Building 1.20 (XII, 2414), early to mid-4th century.

**889** sf VR 5148. Plate, one end rounded, pierced nearby, other end broken. L 79mm, W 23mm. Early to mid-4th-century finds-rich soil layer (XII, 2467).

**890** sf VR 5164. Plate, broken at both ends, pierced once. L 42mm, W 19mm. Early to mid-4th-century finds-rich soil layer (XII, 2470).

**891** sf VR 5170. Plate, one end rounded, pierced nearby, other end broken. L 73mm, W 35mm, T 4mm. Early to mid-4th-century finds-rich soil layer (XII, 2470).

**892** sf VR 5210. Pierced plate fragment. L 37, W 15mm. Early to mid-4th-century finds-rich soil layer (XII, 2470).

**893** sf VR 5217. Rounded end of strap, pierced once. L 30mm, W 27mm. Early to mid-4th-century finds-rich soil layer (XII, 2470).

**894** sf VR 5339. Plate, rounded at both ends, pierced twice. L 85mm, W 30mm. Early to mid 4th century metallised (?yard) surface F665 (XII, 2486).

**895** sf VR 5341. Rounded end of strap, pierced once. L 40mm, W 29mm. Early to mid-4th-century metallised (?yard) surface F665 (XII, 2486).

**896** sf VR 5351. Plate, pierced once, two straight sides meet at 90 degrees, other sides irregular. L 58mm, W 50mm. Early to mid-4th-century metallised (?yard) surface F665 (XII, 2486).

**897** sf VR 5396. Plate, pierced once, one end rounded, other straight, nail in situ. L 41mm, W 35. Early to mid-4th-century metallised (?yard) surface F665 (XII, 2486).

**898** sf VR 5425. Plate, broken at both ends, pierced twice. L 90mm, W 22mm. Early to mid-4th-century finds-rich soil layer (XII, 2508).

**899** sf VR 5821. Plate, one straight side, rest irregular. L 46mm, W 26mm. Early to mid-4th-century finds-rich soil layer (XII, 2548).

**900** sf VR 9552. Plate, one end broken, the other end was probably rounded, there is a large hole in centre of object (?end of hinge strap). L 35mm, W 32mm. Early to mid-4th-century soil layer (XV, 4063).

**901** sf HA 237. Widens, broken at narrower end, pierced twice. L 64mm, W 13mm. Building 1.10 (XI, 280), ?mid- to late 4th century.

**902** sf HA 0. It consists of an eye on the end of a short length of shank. L 34mm, W 22mm, T 10mm. Disuse of ?mid- to late 4th-century Building 1.10 (II, 49).

**903** sf HA 0. One end broken, other end rounded, pierced nearby. L 48mm, W 12mm. Slot F149 in Building 1.10 (XI, 291), ?mid- to late 4th century.

**904** sf HA 268. Broken at both ends, pierced once. L 75mm, W 16mm. Slot F149 in Building 1.10 (XI, 291), ?mid- to late 4th century.

**905** sf HA 308. Broken at both ends across holes. L 93mm, W 20mm. Disuse of ?mid- to late 4th-century Building 1.10 (XI, 300).

**906** sf VR 1275. Strip, one end broken, at the other it tapers and is curved over. Pierced in the centre. L 64mm, W 10mm, T 5mm. Mid- to late 4th-century inhumation grave 129 (V, 470).

**907** sf VR 9631. Plate, pierced once, broken at both ends, widens slightly opposite two nail holes, one has nail *in situ*. L 81mm, W 16mm. Levelling for construction of mid- to late 4th-century Building 1.22 (XV, 4144).

**908** sf VR 9658. Plate, one end broken, rectangular slot in centre. L 25mm, W 21mm. Mid- to late 4th-century fill of well F1093 (XV, 4135).

**909** sf HG 395. Broken at one end, pierced twice. L 61mm, W 16mm. Mid- to late 4th-century (or later) collapse or demolition of Building 17.3 (III, 811).

**910** sf HG 405. In five pieces. The shortest piece may have a fleck of non-ferrous metal on it. D c 190mm (pieces: L 175, 130, 55, 53 and 40mm) W 25mm, T 5mm. Mid- to late 4th-century (or later) collapse or demolition of Building 17.3 (III, 814).

**911** sf HG 406. Broken at each end, pierced twice? L 95mm, W 20mm. Mid- to late 4th-century (or later) collapse or demolition of Building 17.3 (III, 814).

**912** sf HG 407. One end rounded, pierced nearby. L 80mm, W 20mm. Mid- to late 4th-century (or later) collapse or demolition of Building 17.3 (III, 814).

**913** sf HA 103. Broken at both ends across hole. L 81mm, W 15mm. Late 4th- to early 5th-century soil layer (VII, 40).

**914** sf HA 244. Rectangular end of strap, pierced once. L 30mm, W 24mm. Late 4th to early 5th century soil layer (XI, 251).

**915** sf HA 288. Irregular strip, broken across a hole at one end. L 43mm, W 12mm. Late 4th- to early 5th-century pit F179 (XI, 351).

**916** sf VR 219. A plate the edges of which are curved over. L 48mm, W 30mm. Late 4th- to early 5th-century soil layer (V, 30).

**917** sf VR 856. Plate, pierced once, broken both ends, widens from one to the other. L 45mm, W 25mm. Inhumation grave 105 (V, 273), late 4th to early 5th century.

**918** sf VR 466. A plate broken at one end. L 50mm, W 32mm. Late 4th to early 5th century (or later) ?reoccupation of the trench area (V, 125).

**919** sf HA 296. Two pieces, irregular shape, each pierced with rectangular holes. L 69mm, W 50mm, L 57mm, W 50mm. Late 4th- to early 5th-century (?and later) soil layer (XI, 240).

**920** sf HA 0. Pierced once. L 16mm, W 10mm. Late 4th- to early 5th-century (?and later) soil layer (XI, 264).

**921** sf VR 2516. Plate. L 54mm, W 40mm. Late 4th- to early 5th-century (?and later) soil layer marking the disuse of the Roman site (X, 144).

**922** sf VR 2633. Plate, broken both ends, one side irregular. Pierced in centre. L 58mm, W 22mm. Late 4th- to early 5th-century (?and later) soil layer marking the disuse of the Roman site (X, 144).

**923** sf VR 2815. Plate, broken at both ends, sides irregular, pierced in centre. L 56mm, W 22mm. Late 4th- to early 5th-century (?and later) soil layer marking the disuse of the Roman site (X, 200).

**924** sf CHR 165. A plate which narrows and is then broken, large hole at the wider end (?hinge strap). L 40mm, W 20mm. Late 4th- to early 5th-century (?and later) soil layer (I, 149).



## 12 Objects associated with agriculture, horticulture, and animal husbandry

Horse trappings are catalogued with the objects associated with transport (Category 8).

### Spade shoes

There are four incomplete spade shoes, all from Victoria Road. Three examples (925–7), as noted below (Category 15), may have been discarded during recycling as scrap. They are of the round-mouthed form designated Type 1 by Manning (1985a, 44). Each piece exists as roughly half a blade with a projecting arm, which on 926 is complete with a pierced lug at the end. 928 is a blade fragment with an incomplete projecting arm.

925 Fig 91 sf VR 5291. It exists as one half of a convex blade

with an incomplete arm. L 95mm, W 35mm, T 11mm. Early to mid-4th-century metal (yard) surface F665 (XII, 2486).

926 Fig 91 sf VR 5361. Incomplete convex blade with an arm which widens upwards, has a U-shaped section and there is a pierced lug at the top. L 113mm, W 31mm. Early to mid-4th-century metal (yard) surface F665 (XII, 2486).

927 Fig 91 sf VR 5432. It exists as one half of a convex blade with an incomplete arm. L 105mm, W 100mm, T 15mm. Early to mid-4th-century finds-rich soil layer (XII, 2508).

*not illustrated*

928 sf VR 1201. Fragment of spade shoe or hoe blade. The broken end is curved over. The other end has an incomplete arm or tang projecting from it. L 70mm, W 74mm, T 4mm. Levelling over backfilled western Cirencester-roadside ditch F85 (V, 410), mid- to late 2nd century.

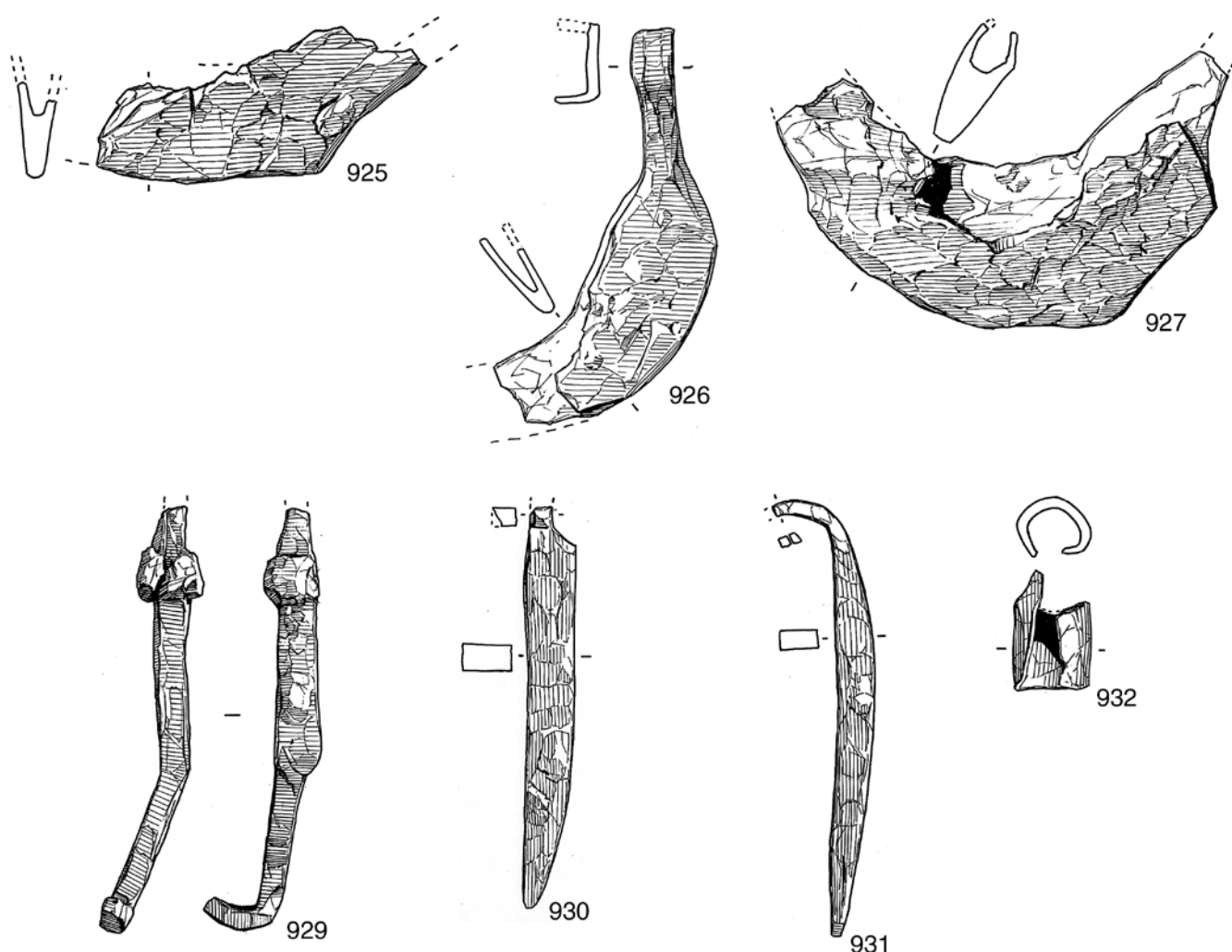


Figure 91 Spade shoes, rake tines, and ?ox-goad, nos 925–32, scale 1:2

**Rake tines**

There are three rake tines, all from Victoria Road. Two (929 and 930) have, before thickening below the tang, the step on one side which is very characteristic of these objects (Manning 1985a, 59). 931 is a similar object, but there is no step.

**929** Fig 91 sf VR 3282. It has a step between the prong and the tang which is bent over at 90 degrees, tip missing. L 122mm, W 12mm, T 5mm. Demolition of mausoleum F272, ?late 2nd to 3rd century (X, 777).

**930** Fig 91 sf VR 3286. Broken above the step between prong and tang. L 115mm, W 12mm, T 5mm. Demolition of mausoleum F272, ?late 2nd to 3rd century (X, 777).

**931** Fig 91 sf VR 879. Tang curved over at 90 degrees, prong expands below tang before tapering to tip. L 125mm, W 10mm, T 5mm. Mid- to late 3rd-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 299).

following further research at Vindolanda fort, it seems equally like that they are a simple form of ink pen (Birley 1994, 19). These objects may have been accidental inclusions in the graves rather than deliberately buried grave goods. A similar object was found in Grave 55 at Lankhills (dated AD 350 to 370), but was not thought to be associated with the burial (Clarke 1979, 327; fig 70, 625F).

**932** Fig 91 sf VR 0. Rolled tubular socket, commonly found on these objects. L 33mm, D 18mm. Late 3rd- to early 4th-century inhumation grave 76, gf 61 (IV, 339).

*not illustrated*

**933** sf VR 0. Socket made from a thin coiled strip. L 35mm, D 11mm. Mid- to late 4th-century inhumation grave 129, gf 11 (V, 470).

**Ox goads (?)**

There are two objects from late Roman graves at Victoria Road initially identified as ox goads, although

## 13 Military equipment

Very little military equipment was recovered, and most of it is later Roman. Early pieces are three tubular fittings, initially thought to be beads and therefore placed in Category 1 (181, 187, 188). Subsequent publications have shown that they occur primarily on military sites or those with military associations, and so they should more correctly be included here. Though their precise function remains unknown they are best described as ferrules. Other examples come from Usk, Corbridge, and Colchester (Manning 1995; Niblett 1985; Bishop and Dore 1989).

The later pieces are remarkable for their range and quality, particularly the ornate strap end 934, which comes from a phase of disuse in the occupation of Building 1.24 dated to the early to mid-3rd century. Three of the pieces are belt fittings of late 4th-century type, the strap plates 935, 936, and 938, and all may have been deposited as a result of casual loss. An exception may be 938 which came from a well that contained a coin hoard with an end date of AD 364. A military presence in Winchester in the later 4th century was shown by a number of the grave goods from the Lankhills cemetery (Clarke 1979, 257–91), and work currently in progress by Mark Corney (pers comm) suggests that military activity in *Britannia Prima* centred on the *civitas* capitals.

**181** Fig 92 sf VR 3308. A copper alloy grooved ferrule, L 16mm, D 12mm. Late 1st-century cremation grave 440 (X, 822).

**934** Fig 92 sf VR 5272. A stout gunmetal strap end with five projections on the underside for attachment to a belt. The central projection is broken. There is a single pierced lug at the inner end. The face is decorated with raised ivy leaves and bunches of grapes and is plated with silver containing a little gold. L 60mm, W (maximum) 32mm. Early to mid-3rd-century phase of disuse of oven F846 in Building 1.24 (XIII, 3233).

**935** Fig 92 sf VR 740. A plain propeller shaped belt stiffener of copper alloy with two projections, both now broken, on the underside for attachment to the leather. L 32mm, W (maximum) 15mm. Mid- to late 3rd-century phase of Building 1.14 (V, 44). ?Intrusive – possibly from machine damage.

**936** Fig 92 sfs NR 226 and 227. A copper alloy repoussé-decorated strap attachment-plate in two pieces. L (folded) 46mm, W 37mm. The plate is of double leaf form, and would have served to attach either a buckle or a strap-end to a leather belt. One rivet of the two used, set centrally to fix the strap and the plates together, remains, held in the lower plate. A roughly cut, almost circular washer is fixed on to the rivet's lower end. The upper end is smaller than the rivet hole in the top-plate and may have been fitted with a cap. The upper plate is decorated with a marginal row of dots. Within the frame of dots is a circle of smaller dots containing five (perhaps six) small cross motifs set around a central dot. The circle is flanked by the two rivet holes, which have thus been incorporated into the design. Between the innermost

rivet hole and the cut-out at the fold is a motif formed of two lines and three dots. Scratched guide lines are visible on the top plate beneath the design and also on the lower plate. They form a rectangle with diagonals running towards the centre, and seem to have been used to position the cut-out. Later Roman turf line in the Oram's Arbour Iron Age enclosure ditch F371 (II, 488).

**937** Fig 92 sf VR 963. A tinned gunmetal strap end of miniature *beneficiarius* lance form. The centre rib on the front of the object was probably not tinned, and would have provided a contrasting colour (of yellowish brown) to the tinned (silver-coloured) flanges. L 52mm. From auxiliary equipment, this is one of a type occurring in the Rhineland forts from the end of the 2nd to the late 3rd century (Oldenstein 1976, 157, Taf. 39, especially no. 373). The Winchester piece is likely to be of 3rd century date. A fragment of a similar strap end, but of single- rather than doubled-plate form is known from South Shields (Bishop and Coulston 1989, fig. 39, no. 2). 4th century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 136).

**938** Fig 92 sfs VR 9662 and 9663. A buckle and belt-plate, the latter bent back and in three pieces. Illustrated as if opened out. Total L 48mm, W of buckle (excluding projections) 15mm. W (maximum) of plate 15mm. The buckle is more-or-less triangular, with a knobbed projection rising from each outer corner and from the centre of the outer long side. Into each knob is roughly cut the form of a human face. There are slight traces of an iron buckle tongue. The upper plate of the double-leaf belt-plate is decorated with repoussé dots. The plate is corroded and damaged, and was repaired in antiquity. The pattern of dots is thus obscured. It may have been of interlinked circles. The repair was effected at the end closest to the buckle with a plain double-leaf plate slightly narrower than the original. The same hole was used for the repair as for the original fitting. Mid-to late 4th-century fill of well F1093 (XV, 4135).

**939** Fig 92 sf VR 182. An iron scabbard slide with brass inlay consisting of delicate vine scroll motifs within a frame (Hundt 1960, 'angular leaf' Type, Abb. 1, 2–4). The inner edge of the frame is straight, the outer, like the central spiralling branch and the leaves, serrated. Had both edges been straight, the rigidity of the lines may have detracted from the naturalistic vegetal decoration, and the serration was almost certainly intended to soften and deformalise the frame. Both rear projections for attaching the slide are broken. L 113mm, W (maximum) 15mm.

Iron scabbards of this kind are common in the Rhineland forts (Oldenstein 1976, Tafn 15–17), and include four with similar inlaid brass vine scroll decoration (*ibid* Taf 15, nos 66–9). The decoration on at least one of the four (*ibid* no 68, from Zugmantel) is sufficiently well preserved to show a similar serrated line to the outer end of the frame, which may also occur on one of the two examples from Saalburg (*ibid* no 69). A very similar piece comes from a site in Winchester excavated by Martin Biddle (Winchester Museums Service archive, sf AST 96), another from Kirkby Thore (Tullie House Museum, Carlisle), and a very poorly preserved fragment is among the military finds from Vindolanda (Jackson 1985, fig 47, no 5).

These slides are also made in bone and copper alloy (Oldenstein 1976, Tafn 12–14), though plain iron examples are the most common. Their method of attachment is clearly illustrated by Oldenstein (*ibid* Abb. 11–12). Probably 3rd century date. Mid- to late 4th-century soil layer (V, 26).

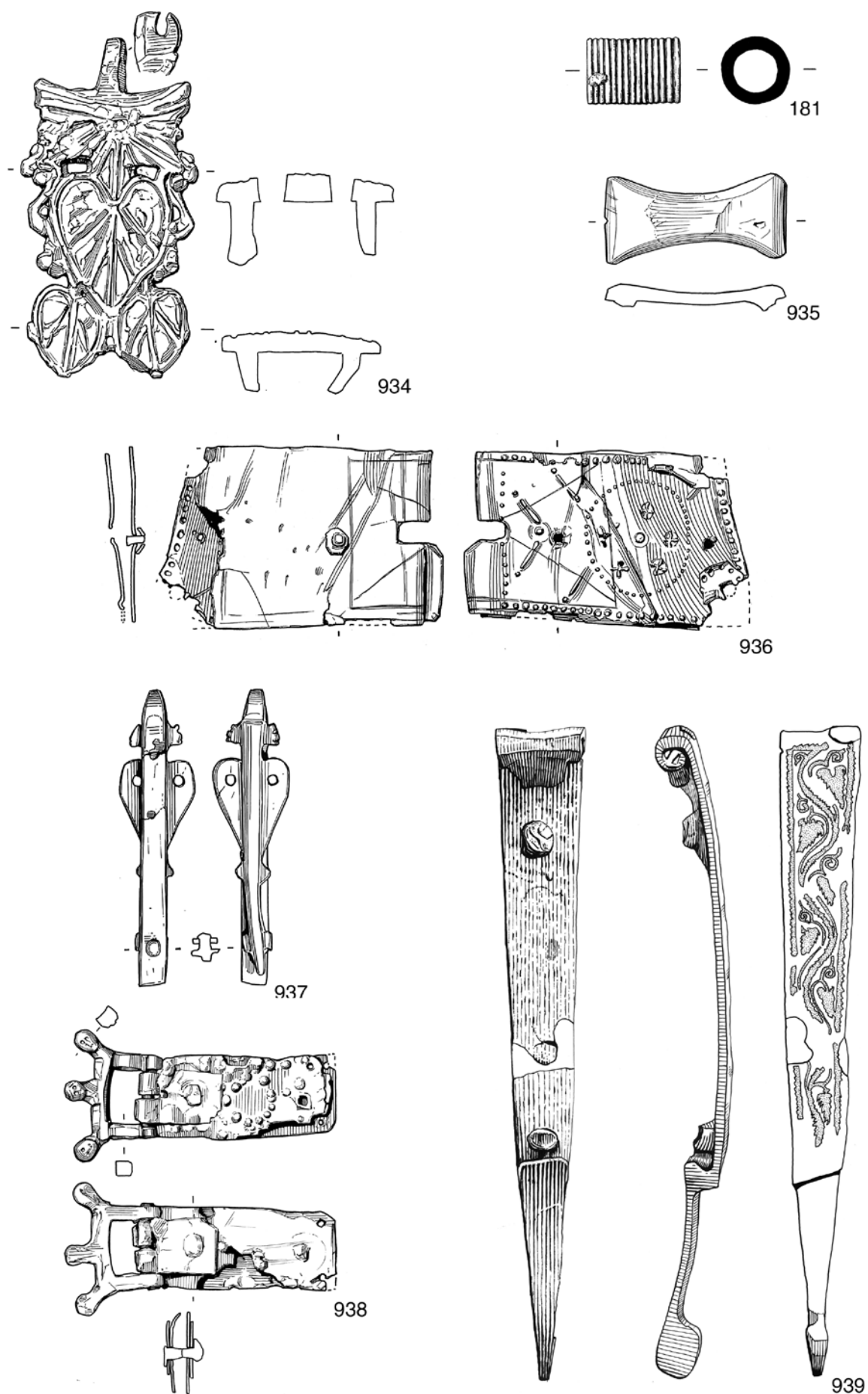


Figure 92 *Military equipment, nos 181, 934-9, scale 1:1*

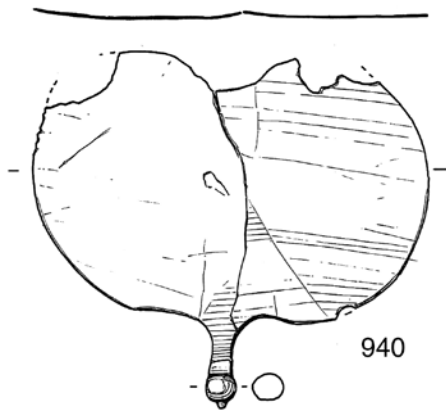


Figure 93 Cavalry harness pendant, no 940, scale 1:1

**940** Fig 93 sf VR 3105. Fragmentary ?heart-shaped cavalry harness pendant, with simple bud terminal. Surviving L 46mm, W 53mm. A date in the mid to late 1st century is certain, but the precise form of this pendant cannot be determined. It is most likely to be of Bishop's Type 7 (1988, fig 46, esp. 7b). Residual in 13th- to 14th-century pit F166 (X, 439).

*not illustrated*

**187** sf VR 2849. A copper alloy grooved ferrule and a fragment of another. Both have been burnt and distorted. L (of complete example) 14mm, D (maximum, squashed) 13mm. Late 1st-century cremation grave 440 (X, 823).

**188** sf VR 3321. A burnt and distorted copper alloy grooved ferrule. L 17mm, D (maximum, squashed) 15mm. Late 1st-century cremation grave 440 (X, 823).

## 14 Objects associated with religious beliefs and practices

While almost all of the recovered figurines and model or votive objects come from Victoria Road, only two were from graves in the early cemetery: a Jupiter-Taranis wheel (947) and a miniature iron fire shovel (946). The Celtic influence shown by the wheel is also evident in the fragment of a pipeclay horse figurine (942) from a non-funerary deposit, and by the inclusion of horse burials in the cemetery (P1 and P4). The cult of the Celtic horse goddess, Epona, appears to have originated in Gaul, and was adopted with enthusiasm by the Romans, who spread it to other provinces. As well as being the guardian of equine animals, she has Mother goddess and funerary aspects, associated with health and fertility in this life and the next (Toynbee 1973, 197, 385, note 234).

Both Venus (941) and the *dea nutrix* (943) were venerated as protectors of domestic life and fertility. These ceramic figurines, cheaper than bronzes, supplied the demand for cheap votive offerings, particularly as additions to the family divinities in household shrines. They were mass-produced in Central Gaul during the 2nd century, and found ready markets in the north-west provinces of the Empire, including Britain. London undoubtedly served as the chief port of entry and centre of distribution.

A boss, possibly a miniature shield boss, from a grave-like feature that contained no human remains

(G579) is catalogued with fasteners and fittings (Category 11, 768), as the identification is uncertain.

An unusual brooch (43) has been catalogued in Category 1, as it is uncertain whether it should be associated with religious beliefs.

### Figurines

**941** Fig 94 sf VR 1525. A fragment of the face from a pipeclay pseudo-Venus figurine (Jenkins 1959, 60–76). The fragment is burnt. L 38 mm. Early to mid-2nd-century soil layer (V, 372).

**942** Fig 94 sf VR 5537. A fragment of the head and neck of a pipeclay figurine of a horse. The animal seems to be more stylised in design than naturalistic, with a large eye shown by two curved lines, and a mane formed of parallel lines, representing the type of mane which rises in a stiff ridge from the back (as in the older breeds of ponies and horses). The forelock comes from a point well below the top of the mane. Two moulded lines indicate a collar. L approximately 72 mm. Green (1976, Pl XXI, e, g) illustrates two pipeclay horse fragments. One, from Wroxeter, Shropshire, is bridled. The other from Canterbury, Kent, may be a parallel for this example. Soil layer of the first half of the 2nd century (XIII, 3355).

**943** Fig 95 rf VR 3157. Fragment of a pipeclay figurine of a mother goddess (*dea nutrix*) seated in a high-backed basket chair. Only the right hand side of the chair and some of the lower part of the figure are present. H 63mm, W 26mm. The basket-work of the chair is shown by small nicks on its front edge. The folds of the goddess's tunic form a sharply defined V below the knee, matched on nursing mother goddess figurines from London (Jenkins 1986, 5.7; Green 1997, fig 38). 13th- to 15th-century soil layer (X, 46).

*not illustrated*

**944** sf MA 119. Base of ceramic ?figurine of ?sitting animal. Late 2nd-century defensive rampart (I, 52).

### Votive and model objects

For **945**, a bell, see under miscellaneous jewellery in Category 1.

**946** Fig 96 sf VR 6224. A iron object with a short 'blade' which narrows towards a straight end. Above this the handle is spirally twisted for a short distance before being flattened out; at the head is a looped terminal. L 170mm, blade L 38mm, W 28mm.

The identification of VR6224 as a fire shovel is based primarily on its similarity to a somewhat larger example from the Carrawburgh Mithraeum which was probably used at an altar during religious ceremonies (Manning 1976, fig 23, 149). Shovels from occupation contexts are also known with the distinctive spirally-twisted handle, but are usually somewhat larger than the Winchester and Carrawburgh

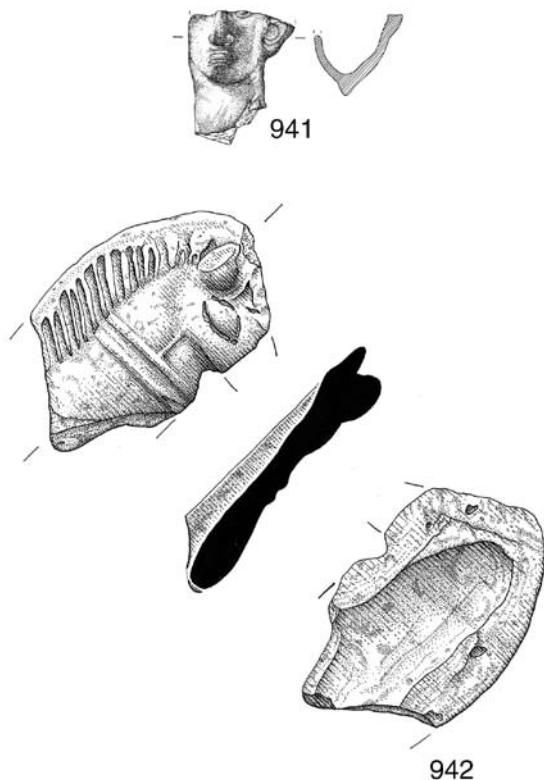


Figure 94 Religious figurines, nos 941–2, scale 1:2

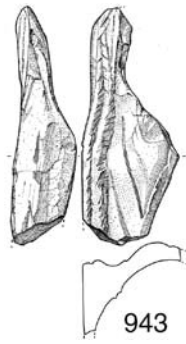


Figure 95 Pipeclay mother goddess, no 943, scale 1:2

objects; a well-known example comes from Verulamium (Manning 1972, 164–5, fig. 60, 6). Late 1st- to early 2nd-century inhumation grave 557 (XI, 1039).

**947** Fig 96 sf VR 5705. A copper alloy wheel with 6 spokes and pronounced hub on both sides. Part of the rim (or tyre) is missing. The wheel is very slightly convex. D 27 mm. The wheel is a symbol of the Celtic Jupiter (Taranis, the sky god), and wheels abound in Roman Britain (Green 1976, 18–19), both as specifically votive objects and as pendants on jewellery. As no jewellery chain or bead necklace was found in the grave, the wheel should perhaps be seen in this context as a votive deposit, probably a good-luck talisman (*ibid* 18). Mid-2nd-century cremation grave 466 (XII, 2616).

**948** Fig 96 sf VR 1003. A miniature lead cleaver cut from a piece of sheet metal, with an extra piece added to give body at the handle. L67mm.

The form of the cleaver, with its straight edge and sharp angle at the junction of tang and blade is that of Manning's

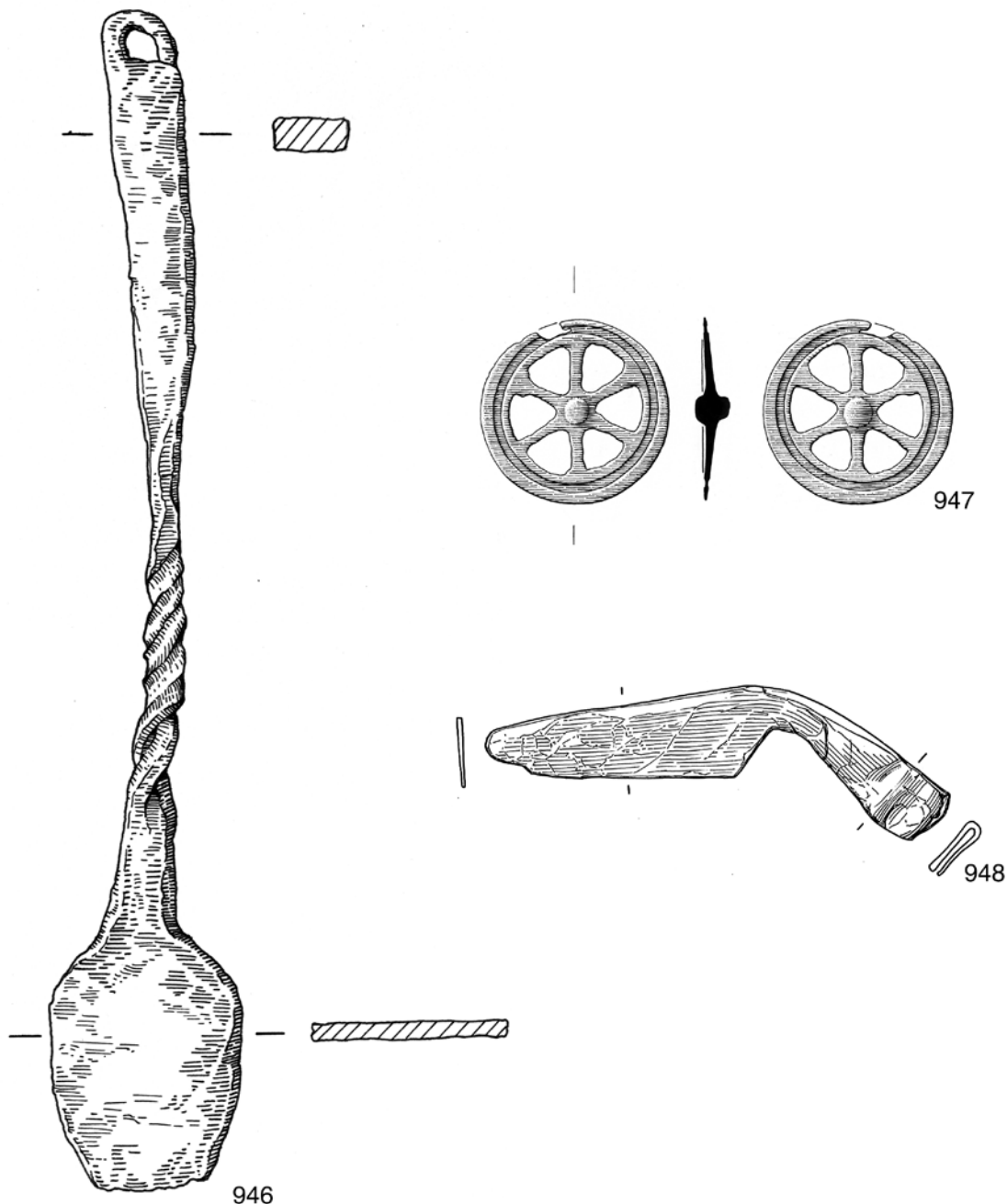


Figure 96 Votive and model objects, nos 946–8, scale 1:1

(1985a, fig 30) socketed Type 6. The type of cleaver usually depicted as used for dispatching a sacrifice has a curved edge (*ibid* Type 2), so this object is perhaps unlikely to be representative of the act of offering a beast for slaughter. Manning (*ibid* 123) suggests that his Type 6 may have links with billhooks, and the form of these cleavers does suggest a

sideways cutting rather than a downward chopping motion. If a billhook-like, crop related use (Rees 1981) is more appropriate for this cleaver, then it can be seen as symbolic of the desire for a good harvest. Mid- to late 3rd-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 361).



## 15 Objects and waste material associated with metalworking and glass working

Only Victoria Road produced material of this type in any quantity, and it is clear this is, at least partly, because it was the largest excavation, and therefore there was the best chance of recovery of such material as 'background noise'. However, it does seem possible that the northern suburb, if not Victoria Road itself, was the site of some industrial activity during the Roman period, although no structures with which this could be linked unequivocally were recorded.

Objects identified as possible lead casting waste are discussed below (Category 18) as the identification is uncertain.

### Iron smithing

#### Scrap iron

Roman contexts at Victoria Road produced nearly 400 iron bars, strips and plates many of which are probably broken or fragmentary finished objects, but others seem certain to be waste from ironworking and they are all considered together here. A small number of comparable items comes from the other sites in this volume.

The classification of these objects is based on that developed for Anglo-Scandinavian smithing waste from 16–22 Coppergate, York (Ottaway 1992, 492–506) which involves a consideration of the dimensions and proportions of an object's cross-section. Bars and strips have a maximum width to thickness ratio of up to 4:1 and bars are distinguished from strips by having a product of width to thickness in excess of 200 square mm. Plates are flat pieces of metal usually under 3mm thick with a width to thickness ratio greater than 4:1.

Although they are all somewhat corroded, six small iron bars from Victoria Road (952, 954, 956–9) are probably ironworking waste. It is clear that 952 has been subjected to some secondary working with one end apparently drawn out into a strip. Another bar, 960, forms part of a body of material from Victoria Road which may have originated as the scrap iron from a blacksmith's workshop. The objects were concentrated in a small number of early to mid-4th-century deposits in the north-eastern corner of the site, notably a make-up deposit for a cobbled (?yard) surface F682 (XII, 2538), an overlying layer with a high refuse content (XII, 2508), another make-up deposit for a cobbled surface F665 (XII, 2486) over F682, and silting layers over F665 (XII, 2467, 2470, 2471), further refuse deposits. In addition to the bar, the assemblage consists of some 50 pieces of plate (including 964, a possible blade fragment), and 10 strips. In addition, there were a number of broken objects which may

have been discarded during recycling. These include three spade shoes (925–7), one half of a pair of shears (647), an incomplete ladle (371), an incomplete hipposandal (634), and three hipposandal wing plates (631–3).

The broken objects are catalogued with others of the same original function (Categories 4, 8, 10 and 12). A full description of each bar appears below, but only illustrated examples of the strips and plates are catalogued here. A full catalogue exists in archive.

At Victoria Road, plates outnumbered strips by a ratio of more than 2:1. The width of strips varied from 5 up to 25mm, presumably reflecting a wide divergence in their original functions. Apart from the concentration in Trench XII, the distribution of both strips and plates on the site was general.

### Bars

952 Fig 97 sf VR 2979. Sides slightly convex, narrows towards one end where it is also thickened slightly. L 100mm, W 30mm, T 13mm. 3rd- or 4th-century pit F168 (X, 654).

953 Fig 97 sf VR 321. A bar at one end of which there is what appears to be a half socket; above this the object widens and curves a little before being flattened and coming to a rounded end. L 107mm, W 30mm, T 10mm. Late 4th- to early 5th-century (and later) soil layer (V, 61)

#### *not illustrated*

954 sf VR 5651. Badly corroded. L 36mm, W 19mm, T 19mm. Silting over mid-1st-century phase of the Iron Age hollow way F856 (XIII, 3356).

955 sf VR 142. Bar. L 62mm, W 45mm, T 18mm. Late 2nd- to early 3rd-century phase of Building 1.14 (V, 32).

956 sf VR 967. L 55mm, W 20mm, T 14mm. Early to mid-3rd-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 307).

957 sf VR 950. Very corroded, curved over slightly at each end. L 58mm, W 25mm, T 10mm. Mid- to late 3rd-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 228).

958 sf VR 977. L 50mm, W 15mm, T 15mm. Mid- to late 3rd-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 226).

959 sf VR 802. L 60mm, W 23mm, T 10mm. Late 3rd- to early 4th-century cremation grave 95 (I, 421).

960 sf VR 5565. Broken at each end, thickens in the centre. L 120mm, W 20mm, T 10mm. Early to mid-4th-century finds rich soil layer (XII, 2558).

### Strips and plates

961 Fig 97 sf VR 1253. Strip. Roughly triangular cross-section. L 42mm, W 18mm, T 8mm. Illustration taken from

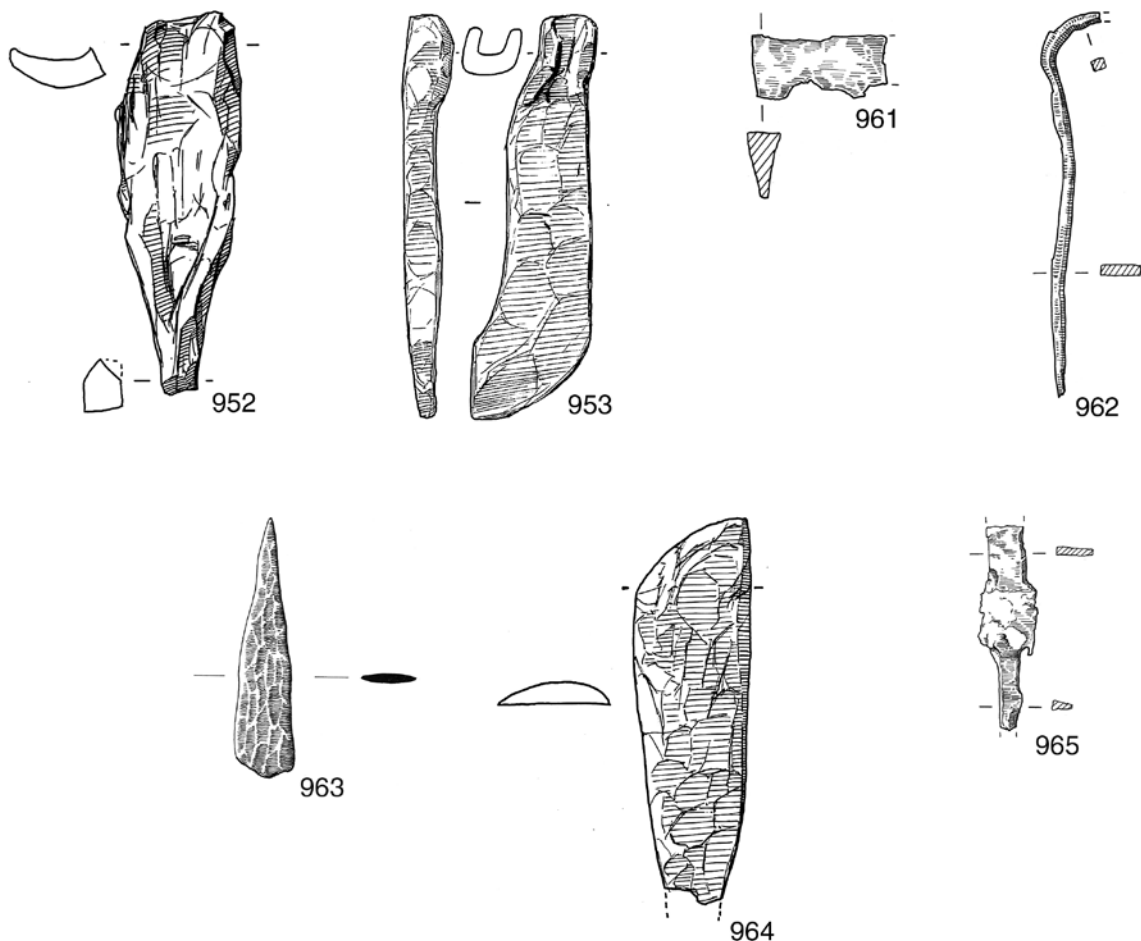


Figure 97 Iron bars, strips, and plates, nos 952-3, 961-5, scale 1:2

the X radiograph. Mid-2nd-century fill of the western Cirencester-roadside ditch F85 (V, 448).

**962** Fig 97 sf VR 3303. Tapers and is curved over at the thinner end. L 102mm, W 11mm, T 5mm. 2nd-century fill of the eastern Cirencester-roadside ditch F258 (X, 751).

**963** Fig 97 sf VR 359. Plate. Narrows to a point at one end. L 65mm, W 15mm. Layer in mid- to late 3rd-century phase of Building 1.15 (V, 94).

**964** Fig 97 sf VR 5367. Plate. Broken at each end, widens from one to the other. The wider end is rounded and one face slightly convex (?blade fragment). L 100mm, W 30mm, T 5mm. Early to mid-4th-century metallised (?yard) surface F670 (XII, 2495).

**965** Fig 97 sf VR 764. Strip. Widens towards one end. L 54mm, W 10mm, T 2mm. 4th-century fill of well or shaft F43 (IV, 417).

### **Iron smithing waste**

The iron smithing waste recovered from Roman sites in this volume comprised smithing slag, hearth bottoms, cinder, hearth lining, and fuel ash slag. No smelting slag was recovered from any of the sites, and only Victoria Road produced any more than negligible quantities of smithing waste. The total weight for the period up to *c* AD 150 at Victoria Road is small (about 8kg), unsurprisingly, since the site was mainly occupied by a cemetery and the road to Cirencester and associated features at that time. The amount

recovered from deposits dating *c* AD 150 onwards, when buildings began to be constructed on the site, is larger, about 35kg.

Trench V, in which several buildings, part of the later Roman cemetery, the later Roman Cirencester-roadside ditch and a few other deep, negative features were excavated, was the most prolific, accounting for over 50% of the material, but none of it occurred in any particular concentration. The waste from Trench IV, also on the western side of the Cirencester road, occurred mostly in the deep shaft F43. Trench XII, from which a quantity of scrap iron was recovered (above) only accounted for about 13% of the total, although this was the highest figure for any of the trenches excavated to the east of the Cirencester road.

It is difficult to know how to interpret these facts. Since there were no structures for which a link with iron smithing could be demonstrated, it is possible that the material was brought in to consolidate wet ground, as seems to have been the case with bone working waste (Category 16). It seems possible though, given the concentration of scrap iron in Trench XII, that smithing took place either on the site or nearby. Either way, the distribution seems to reflect the size of the excavated trenches and the presence of deep features, showing that much of the waste was discarded at some remove from the place in which it was generated.

### Copper alloy and precious metals

The early to mid-4th-century sequence of cobbled surfaces and finds-rich silting layers recorded in Trench XII at Victoria Road also produced two broken glass centre-boss brooches and a possibly blundered pin (Category 1).

There were also around twenty possible crucibles from the site; of five from Roman contexts analysed by XRF, two were used for melting a zinc-rich copper alloy containing some lead, probably brass, and three for melting copper alloys containing only small amounts of zinc. No crucibles were found in the Trench XII sequence and they were generally scattered across the site, although there were more from later Roman deposits than early Roman ones. However, there were four (two definite and two possible) from the shaft F43, which also produced the greatest concentration of iron slag in Trench IV (above).

Litharge cakes (XRF confirmed the identification), the waste from silver refining, were found in small quantities, two, again from F43, two from another pit F814, and one from a shaft similar to F43 in Trench V, F18.

It seems unlikely that these objects were brought to the site to form made-up ground, although they may have been accidentally incorporated with material which was. Again, it is difficult to say whether they indicate that copper alloy and precious metals were worked or refined on the site itself. The association of waste from three different technological processes in the shaft F43 suggests that this feature, at least, merely acted as a dump.

### ?Glass waste by H E M Cool

The discovery of melted glass is no indication that some form of glass working took place on a site, as



Figure 98 Glass waste, no 966, scale 1:2

it can arise both accidentally as a result of domestic mishaps, and deliberately through cremation. However, the waste products found on glass working sites do tend to be distinctive and recognisable (Price and Cool 1991, 25).

Four fragments from Victoria Road are very similar to this type of waste. It is difficult to know how to interpret this material as it was not found together and does not include any of the most distinctive types of waste. It does raise the possibility, however, that glass working may have taken place somewhere in or around Winchester's northern suburb.

**966** Fig 98 sf VR 8504. Trail. Fragment from an irregular curved trail with black impurities. 25 by 10mm. Late Roman or late Saxon soil layer (XIV, 3722).

*not illustrated*

**967** sf VR 7067. ?Roundel. Fire rounded convex upper surfaces, broken concave underside retaining patch of black corrosion products. 16 by 10mm. Late 2nd-century soil layer (XI, 1223).

**968** rf VR 127. One chip from a fragment similar to **967**, above. Late 4th- to early 5th-century metalled surface (V, 26).

**969** rf VR 3025. Fragment possibly from a trail similar to **966**, above. 13th- to 14th-century pit F43 (X, 96).

## 16 Objects and waste material associated with bone, antler, and horn working

In this section, the material is summarised and catalogued separately according to which area of the town it came from. This is followed by a general discussion of the larger groups.

### Western suburb

#### *Crowder Terrace with a contribution by J Coy*

The vast majority of the worked bone from Crowder Terrace came from a ditch (F15/ 21) probably cut in the late Iron Age, filled in the Flavian period, recut towards the end of the 1st century, and beginning to silt up when the bone debris was dumped into it (V, 21 and 30).

The material was treated for the purposes of study in three groups, which roughly correspond to different stages in the bone working process: very rough and fragmentary pieces – the least prepared or worked part of the assemblage, rough splinters and offcuts from long bones, and fragments of unfinished but identifiable objects probably also from long bones. The last two groups have been catalogued individually by the present author (NC), whilst the first was reported on by Jennie Coy, then of the Faunal Remains Unit at the University of Southampton. Overall, around 92% out of a total of approximately 9050 fragments of animal bone from the two contexts was worked; 225 were catalogued individually as ‘small finds’ and a representative sample of the catalogued material appears here, although the full catalogue remains in archive. The remainder were treated as an assemblage, of which details relevant to environmental studies appear in another volume in this series (P4).

A major product seems to have been the round bowled spoon, a form found in the late 1st and 2nd centuries. Of the catalogued pieces, two are unfinished spoon bowls and at least 83 are probably shaft fragments from spoon handles.

The two spoon bowls are of similar diameter, suggesting a reasonably standard-sized end product, and have been abandoned at an early stage of manufacture. The undersides have been crudely shaped with broad knife strokes, while the upper surfaces are more or less flat and bear striations 1mm or so apart, made by firm pressure from a strongly controlled knife. The surface of 971 is very slightly dished, which could be produced by a blade bending in use, or is simply the result of using the inner hollow of a long bone. A match of cancellous tissue on the upper face of the same piece suggests the latter.

Spoon roughs, and one completed example, are also known from Woodcuts Common on Cranborne Chase (Pitt-Rivers 1887, 129–31), Augst, Switzerland (Drack

and Fellmann 1988, Abb. 157) and Saintes-Colombes-Viennes (Riha and Stern 1982, Abb. 3, 2).

The fragment of shaft on 971 is rectangular in section. Spoon handles are usually circular in section (cf Bushe-Fox 1914, pl 10, fig 2; Crummy 1992, fig 6.11, 122; Cunliffe 1971, fig 67, 9–10; Greep 1995, fig 503, 1014; Waugh and Goodburn 1972, fig 55, 206). Sections through the Crowder Terrace shaft fragments (972–4) vary from rectangular to elliptical or circular, depending on how near completion they were. Invariably the pieces with a rectangular section are thicker and more rough than those with a circular section, showing that the latter were discarded at a later stage of manufacture. None appears to have been from a completed object, as even pieces with a nearly circular section still retain the multifacets of an unsmoothed, that is, unfinished, surface.

There remains, however, a slight possibility that these spoons had a handle that was rectangular in section for the lower part of its length, but became narrower and round towards the pointed tip. A spoon with a rectangular lower shaft was found in the western suburb on the site at St Paul’s Church (Keene *et al* 1978, fig 119, 2). However, it is identified as ivory and so may not have any connection with the Crowder Terrace material.

The identification of all the Crowder Terrace shaft fragments as belonging to spoon handles may not be correct. The head of a Type 1 bone hairpin (62, Category 1) was among the other finds from the same context as the worked bone debris, which may indicate that some of the shaft fragments belong to unfinished hairpins. However, the pin is a finished item, broken after completion, and no other finished shafts were found, so its presence here is perhaps a result of casual loss.

The largest group among the catalogued material consists of rough splinters and offcuts, or very slightly worked pieces. Where only small fragments survive, the dividing line between splinters and cut pieces is difficult to define. Among the more or less complete splinters are a few pieces which have no worked faces but are placed apart from the general mass of unworked debris by seeming to have achieved a shape desired by the bone craftsman. One illustrated example (975) is a crude ‘peg’ pointed at each end. A similar piece (976) has three small cut faces at one tip and one at the other. This suggests that the double-ended shape was sought after, and that these crude pieces may even be finished, or close to finished products.

Similar, though shorter pieces have been found on other Winchester sites, notably Victoria Road and Jewry Street, Crown Hotel (this volume), and at St Paul’s Church, where they were tentatively identified as support pegs used in carving small objects (Keene *et al* 1978, 276; cf Aldred 1958, fig 205). Some were also

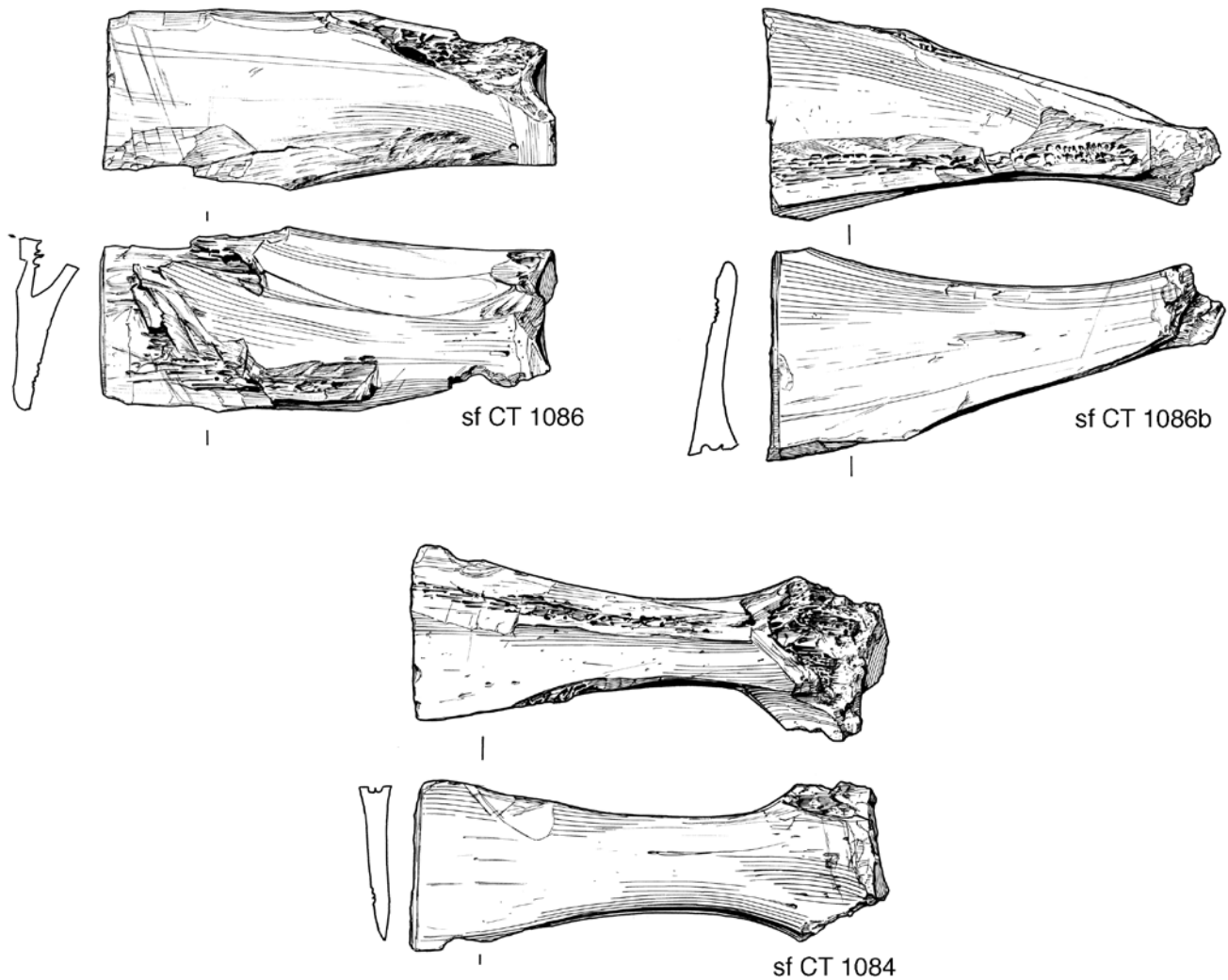


Figure 99 Bone: cattle scapulae, scale 1:1

found at Colchester in a small group of bone working debris (Crummy 1983, fig. 194).

Two objects from Crowder Terrace may be part of the group of spoon working waste, but are rather different from the main body of the material. The first (977) is spatulate, with a rough groove near the top of the narrower end. The second (978) is a thick tapering rectangular section piece, again with a groove near the top of the narrower end. Both may be examples of a stock, a piece of bone surplus to the finished product that allows any part of the object being shaped to be manoeuvred into a comfortable working position and is then cut off when the item is complete (Crummy 1981, fig 3; 998, below). This identification is tentative, however, as it remains possible that these fragments represent another craft product, perhaps a two piece handle.

All of these pieces appear to have been made from long bones, probably mostly cattle, although horse bones have also been identified amongst the material that was least worked (and therefore most easily identifiable to species). Such bones, particularly tibiae and metapodials are ideal for the manufacture of spoons as they provide long lengths of reasonably straight dense bone. Metapodials also have the advantage, not being meat bearing, of being available before a beast was

butchered. They were usually removed from a carcase in one operation with the hide.

Amongst the material treated as an assemblage, metapodials seem to have been highly favoured, as virtually every piece (around 87%) showed signs of working. That there was some working of radius and tibia is clear; although there were no real signs of working on the large, measurable fragments of proximal radius and distal tibia, there were often jagged areas which could be the result of splitting away the rest of the shaft (radius in 21% of cases, tibia in 23%). This unskilled splitting suggests that these bones were also available to the bone worker after the carcase was butchered but to what extent they were used compared to the other elements is not certain.

Pre-treatment of the bones would have consisted of trimming away the hide and any fleshy matter, smashing them into rough splinters, then cleaning and degreasing the fragments by boiling (and possibly thus making glue). Alternatively only suitably sized and shaped splinters selected for the next stage of working may have been boiled, or may have been cleaned separately to a process of producing glue (Crummy 2001, 100). Here, the identifiable tibiae, radii and metapodials showed much evidence of initial longitudinal

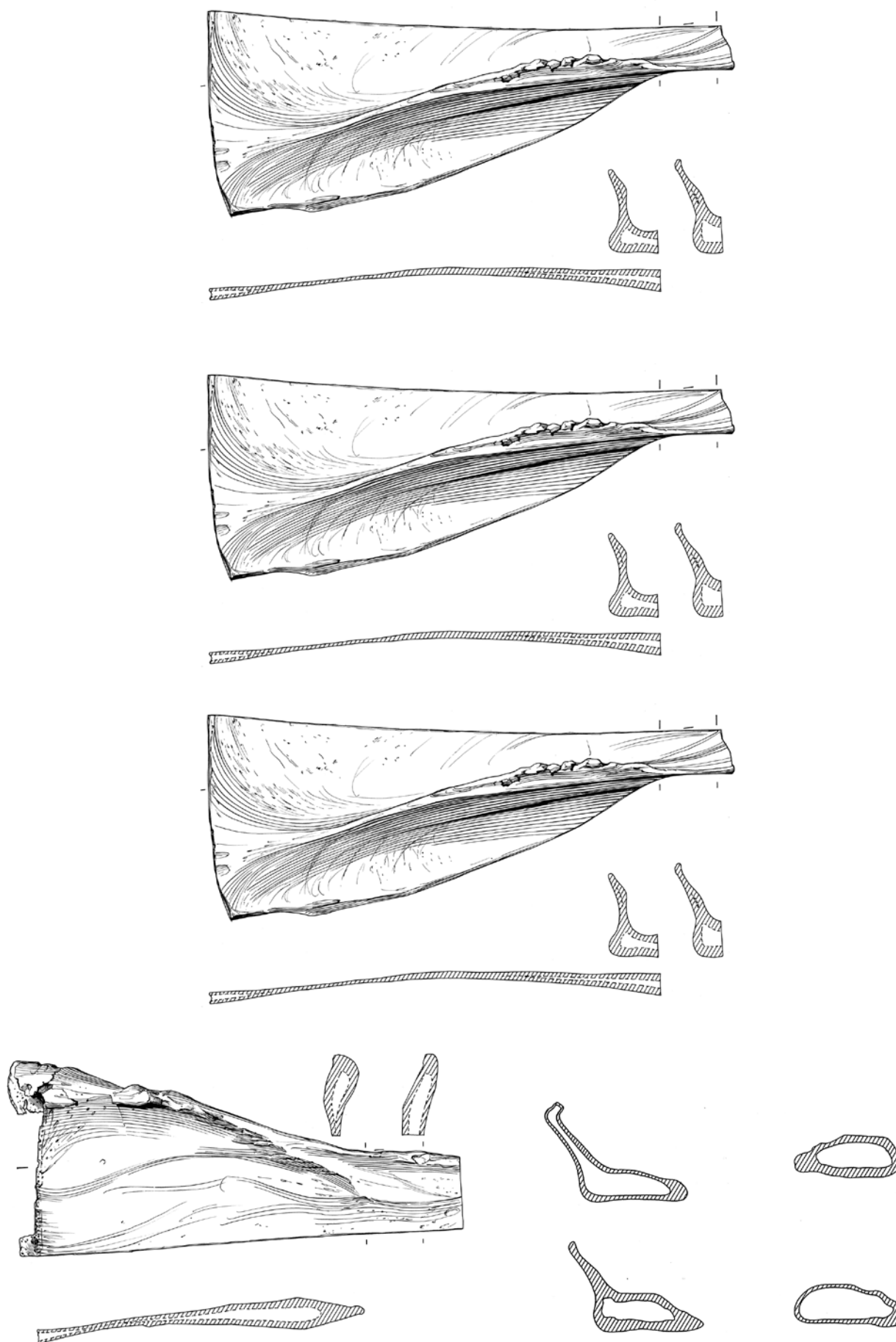


Figure 100 Sections of modern cattle scapulae comparable to Roman sizes (courtesy Ancient Monuments Laboratory), scale 1:3

splitting of the shafts, including the continuation of the split through the articular end of the bone. The working processes also showed some further longitudinal splitting. Random smashing of the bones may seem wasteful, as it produces many splinters which are unsuitable for further working, but there is no reason to suppose a shortage of cattle for butchering. With a frequent and steady supply of raw materials, an unskilled apprentice could be set to trimming, breaking and boiling.

A third group of the bone debris from the ditch F15/21 was only present amongst the material treated as an assemblage: cattle scapulae, which formed around 13% of the total, and about 33% of the material identified to anatomical part. Characteristic working on the cattle scapulae aimed at isolating the thickest part of the outer surface, that at the base of the acromion and the lower part of the spine (Fig.99, sf CT 1084, sf CT 1086a & b).

Three catalogued cattle scapulae, which have had the spine sheared off and then been cut in half across the width (this gives access to the reasonably thick solid bone at the broadest and flattest part of the blade) came from late Roman features in the same trench (V) as the ditch. It is uncertain whether these should be viewed as originally belonging to the main deposit of waste (and therefore residual) or whether they represent later bone working.

In either case, it seems that cattle scapulae are not suitable for the manufacture of spoons; at no point on the bone is there sufficient depth of solid material to provide the thickness of c 6mm required for a spoon rough similar to those known from Britain and on the continent (this has been checked by sectioning cattle scapulae from beasts comparable in size to those of the Roman period in the reference collection held at the Ancient Monuments Laboratory, Fig 100). The presence of these waste scapulae points to the production of weaving tablets, which were not otherwise positively identified among the collection from Crowder Terrace. Of the three scapulae fragments catalogued (979–81), two could not have derived from the manufacture of weaving tablets, as they lack the distinctive cut-outs, but 981 might. A collection of this distinctive waste and discarded partly worked rectangular pieces was found in an early Roman context on the Cross Keys Court site in London (Groves 1990, 82; Museum of London Archaeological Archive, site OPT81), but it must remain uncertain whether the Crowder Terrace material is similar.

One other piece from Crowder Terrace is illustrated here (982), a section of rib cut at each end. This was recovered from the same late Roman feature (V, F10) as one of the catalogued cattle scapulae offcuts and the illustrated cattle scapulae, but is clearly otherwise unrelated to the main groups present in the collection.

All are from the ditch F15/21 (V, 21 and 30) unless stated otherwise.

### Spoon roughs

970 Fig 101 sf CT 0. Spoon bowl rough-out. L 33mm, D 27.5mm. The upper surface is fairly flat, the lower roughly

knife trimmed. The edge of the bowl is damaged and the shaft has been broken off, from the underside upwards close to the bowl.

971 Fig 101 sf CT 36. Spoon bowl rough-out broken across the shaft. D (not including the shaft fragment) approximately 26.5mm. L (with shaft). The upper surface is slightly dished and fairly regular; the lower has been roughly cut to a convex shape and trimmed up towards the top surface with broad knife strokes. T (maximum) 6mm at shaft end.

### Shafts and splinters

972 Fig 101 sf CT 14. Shaft fragment. L 64mm. both ends broken; one comes to a rough point. Roughly circular in section, D 3mm.

*not illustrated*

973 sf CT 108. Tapering shaft fragment. L 40mm. Polygonal in section, W (maximum) 5 to 3mm. One end broken, the other trimmed to a rough point. Probably the top end of a spoon handle.

974 sf CT 108. Tapering shaft fragment. L 23mm. Roughly elliptical in section, W (maximum) 7 to 5mm. Both ends broken, one possibly recently.

### Pegs

975 Fig 101 sf CT 0. Splinter, L 97.5mm. Both ends come to rough points. ?Peg. Upper and lower surfaces natural, side surfaces broken; the only cuts visible are to form the points at the ends. This shape was therefore deliberately aimed for. Roughly rectangular in section. W (maximum) 9mm.

976 Fig 101 sf CT 0. Splinter, L 86mm. No cut surfaces, only natural and broken, but almost certainly a deliberate piece.

### 'Stocks'

977 Fig 101 sf CT 0. Flat, spatulate object, with crude groove around the top of handle-like projection. Too short for spoon bowl and handle, too narrow for two piece knife handle. Some natural surface left on both upper and lower faces, rest knife trimmed, spatulate end broken. More or less rectangular section to both elements; ?handle approximately 4.5 by 9mm; ?spatula approximately 5.5 by 14.5mm. L 61.5mm.

978 Fig 101 sf CT 131. Unfinished bone handle fragment, L 56.5mm. Tapers from 14 to 11.5mm. Thinnish rectangular section, T (maximum) 7.5mm. It has a roughly cut neck and is broken across width obliquely just on or below the neck. Alternatively, this could be from a bone knife or spatula, or from a handle for an iron knife or other tool. If the latter, it is most likely to be a two-piece handle. The underside surface is trebeculated, which may be the reason that the piece was discarded.

### Scapula offcuts

*not illustrated*

979 sf CT 791. A fragment with two chamfered edges. One has exposed cancellous tissue. L (maximum) 70mm. Late Roman pit F17 (V, 23).

980 sf CT 792. A fragment with one chamfered edge. L

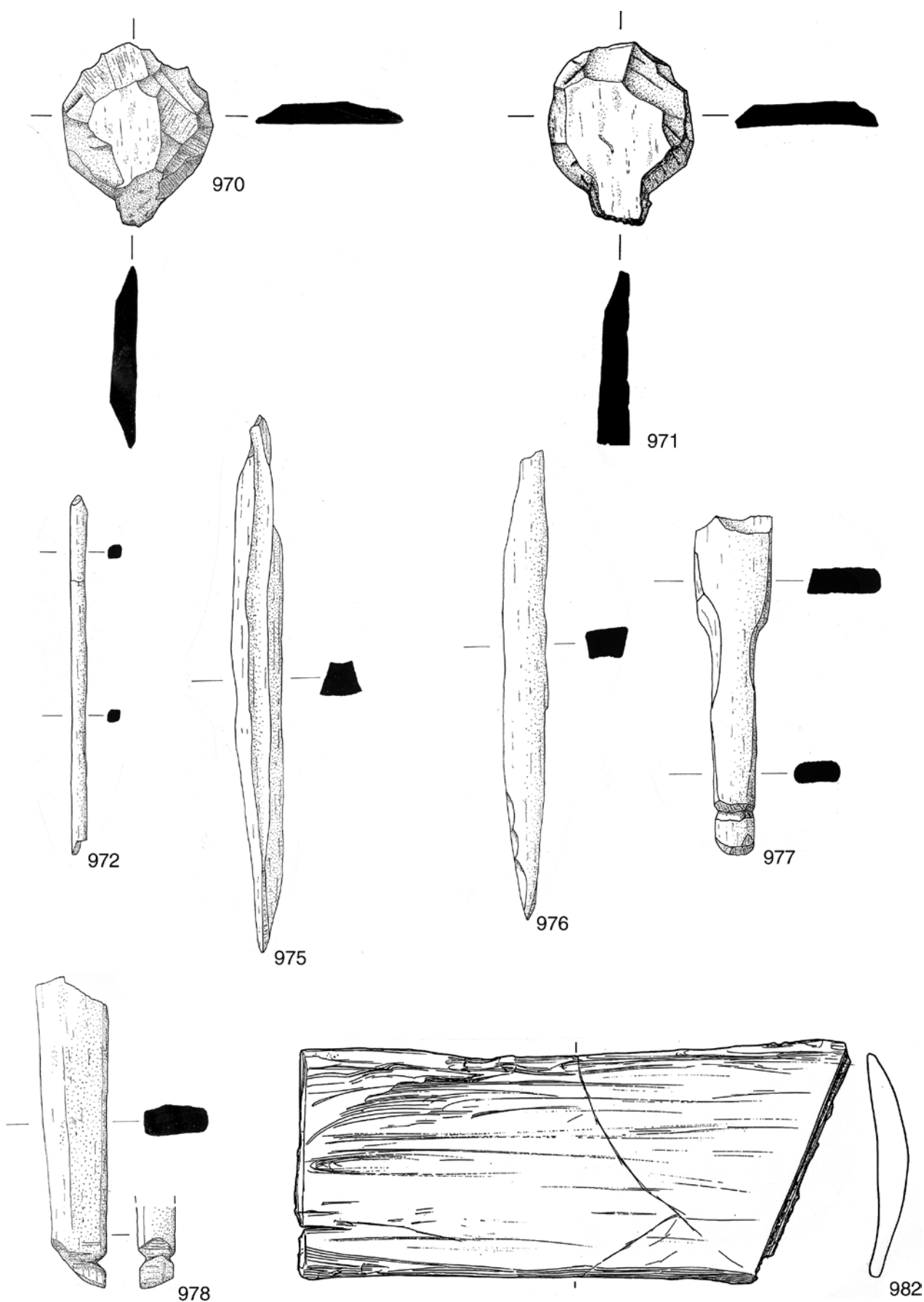


Figure 101 Worked bone: spoon roughs, shaft or splinter, pegs, 'stocks', and cut rib, nos 970-2, 975-8, 982, scale 1:1



(maximum) of cut edge 25mm. Only a part of the thickness of the bone remains. Late Roman pit F17 (V, 23).

**981** sf CT 793. A fragment with two parallel cut edges and one end roughly and partially cut, partially broken across. L (maximum) 46mm, W (maximum) 36mm. On the upper face the spine has been shaved off, exposing cancellous tissue. Mid- to late 4th-century fill of pit F10 (V, 34).

### Cut rib

**982** Fig 101 sf CT 795. A section of rib cut at both ends, at one, straight across, at the other, diagonally. While this piece does not seem suitable for working, it is also unlikely that it was cut in the course of butchery. Mid- to late 4th-century fill of pit F10 (V, 34).

### New Road

*not illustrated*

**983** sf NR 336. Fragment from an antler beam, split longitudinally from the burr end, probably with a small axe or cleaver. The internal face at the upper end has fractured and shows no tool marks. L 61mm, D of burr 34mm. Later Roman fill of the Oram's Arbour Iron Age enclosure ditch F371 (II, 357).

### Northern suburb

#### Victoria Road

Whilst at Crowder Terrace, bone working debris came from one ditch and a few features in the same trench, by contrast, at Victoria Road, the debris was very scattered. Small clusters do occur, but, in general, it is found in contexts ranging in date from early to late Roman, and later.

The primary infilling of the early Roman cemetery boundary ditch F525/ 692/ 704 (XII, 2631) produced 35 fragments of unfinished worked bone fragments. One of the pieces is a finished point from a bone pin or needle, and all of the others could represent stages in the manufacture of pins or needles from bone splinters. Nine other fragments come from contexts on Trench XII, and a Type 1 bone hairpin (Category 1, 58) derives from the same context (2563) as three of these nine. A further six pieces came from Trench XIII. Hairpins of Types 1 and 2 are dated from *c* AD 50 to *c* 200, which is consonant with the date of the ditch fill (Part 1; P1 and P3). All of the pieces from Trenches XII and XIII are very similar and are therefore almost certainly associated. Other comparable fragments come from early Roman contexts in Trench V, which was separated from Trenches XII and XIII by the Winchester to Cirencester road. This material came from the roadside ditch F85 and associated contexts.

Post dating the infilling of the earliest Cirencester-roadside ditch (V, F85), a sequence of metallised surfaces and siltings external to Buildings 1.14 and 1.15 (which were occupied from the mid- or late 2nd century to the late 3rd century) and giving access from them to the side of the road, also produced much bone working debris. One context particularly (V, 27) produced 29

unfinished heads of Type 1 bone hairpins (for example **985**, **987** and **988**), as well as many shaft fragments and splinters. A large proportion (around 70%) of the animal bone from the fourteen contexts above the earliest metallised surface and the initial silting over it could not be identified to species as the assemblage contained a large number of split and splintered long bones, concentrated in the same context. Identifiable bones were cattle radii and tibiae (P4).

Other later Roman (after *c* AD 150) contexts containing unfinished bone items were located in Trenches IV, X, XI, XII, XIII and XV, and products other than hairpins are also found: spoon bowls (**1061–3**), rough pegs (**1005** and **1006**) and counters (**1064** and **1065**). The spoon bowls and counters are also of early Roman type.

**998** is of particular interest on two counts. First, being a cattle ulna, it broadens the range of bones positively identified as used for the manufacture of bone objects. Secondly, it appears to demonstrate the use of a stock as an aid to holding the shaft while trimming it into shape. However, the rarity of such pieces among the Winchester bone working debris (there are just three other possible examples) appears to suggest that this is a chance form seized upon as useful, not one deliberately sought after.

It seems unlikely that bone working was carried out at Victoria Road during the period *c* AD 50–150, as it was not strictly 'occupied' at that time, being merely the site of the early cemetery and the Cirencester road and associated features. The later deposit (V, 27) may have been generated on the site by the occupants of Buildings 1.14 or 1.15 or both, but there is no other evidence for this.

The site is, however, in an area liable to flood in very wet weather, and it seems most likely that dumping took place in an effort to raise the ground above flood level. Initially this would have been to facilitate access to the cemetery (X–XV), and later, especially as the infilled roadside ditch (V, F85) may have been prone to subsidence, from the buildings in Trench V to the side of the road. A similar situation pertained in the Upper Walbrook Valley in London (Maloney 1990, 119–20), and in the late Roman period on the St Margaret's Street baths site in Canterbury (Blockley *et al* 1995, 207). In Winchester, this may have been part of a wider programme of reclamation. At The Brooks site, within the town walls, continuous dumping (of general rubbish rather than specifically bone working waste) took place from the Flavian period until the later part of the 2nd century, at which point the wetter parts of the site had been made suitable for occupation by buildings (Zant 1993, 52).

### Pins

**984** Fig 102 sf VR 12920 (a). An unfinished Type 1 bone pin. The shaft is still polygonal in section, the head partially cut. L 107mm. Soil layer of the first half of the 2nd century (X, 540).

**985** Fig 102 sf VR 1077. An unfinished Type 1 bone pin. The tip is missing, broken off in antiquity, which may have been the reason for this piece being unfinished. The shaft is almost

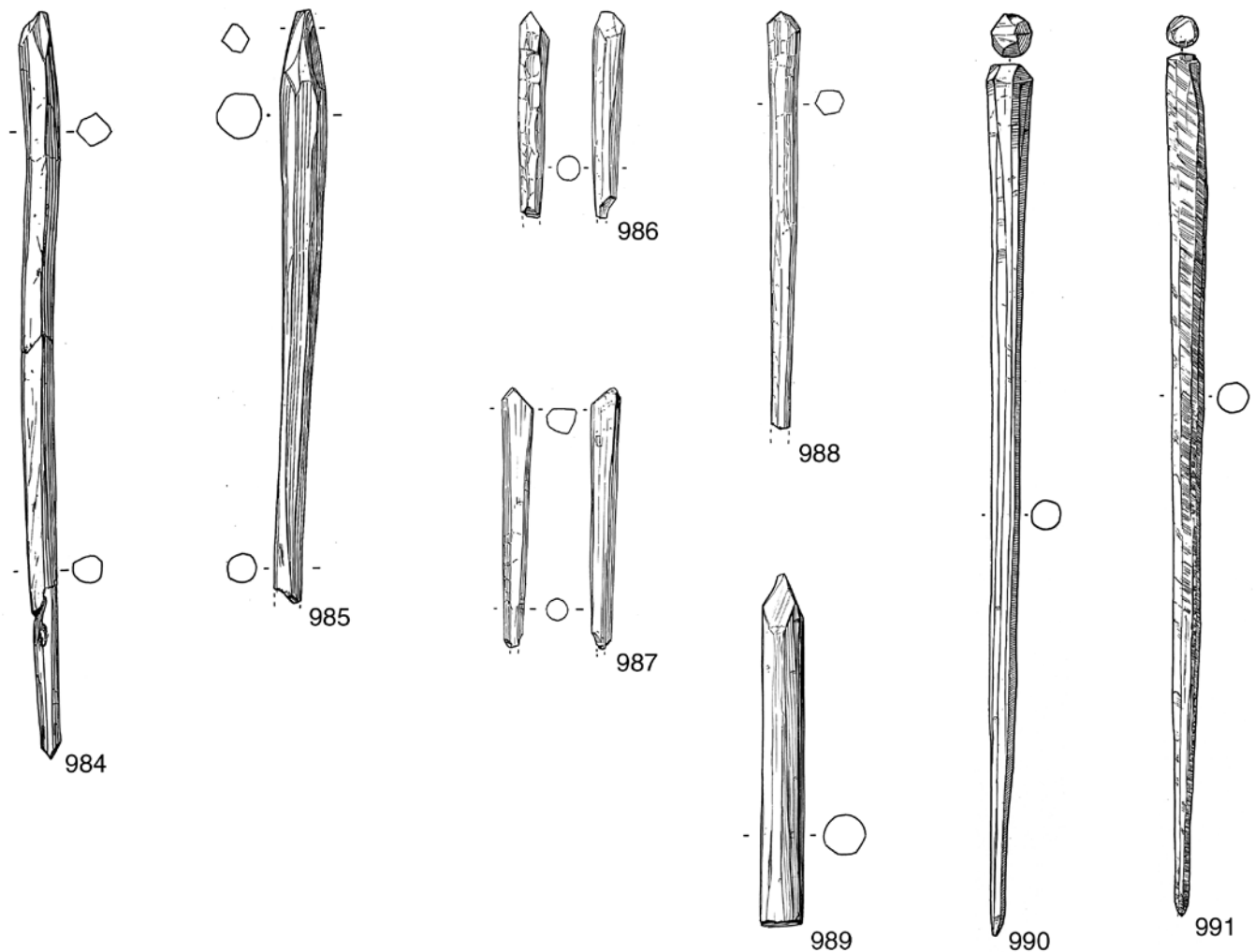


Figure 102 Worked bone: pin roughs, nos 984-91, scale 1:1

fully rounded at the lower end, but is still polygonal towards the head end. The head end is still over-thick, but the gentle taper typical of a Type 1 pin is evident. L 84mm. Mid-2nd-century metallised surface (V, 395), ?building activity.

**986** Fig 102 sf VR 13011. The upper part of an unfinished Type 1 hairpin. L 29mm. The head is roughly conical. Silting over ?yard surface F2 (V, 27), mid- to late 2nd century onwards.

**987** Fig 102 sf VR 13207. A fragment of an unfinished Type 1 bone hairpin. The shaft is very fine and appears to be worked to a smooth finish at the broken end, but the head end is still slightly faceted, and the head itself is only roughly shaped. L 37mm. Silting over ?yard surface F2 (V, 27), mid- to late 2nd century onwards.

**988** Fig 102 sf VR 13210. Most of an unfinished Type 1 bone pin; only the tip is missing. This piece, like **987** above, has been abandoned just prior to being completed. L 58mm. Silting over ?yard surface F2 (V, 27), mid- to late 2nd century onwards.

**989** Fig 102 sf VR 13212. The upper part of an unfinished Type 1 hairpin. L 50mm. The head is quite sharply conical. The shaft shows little downwards taper. Silting over ?yard surface F2 (V, 27), mid- to late 2nd century onwards.

**990** Fig 102 sf VR 5143. An unfinished but complete Type 1 hairpin. L 124mm. It is well-worked with most of the shaft showing slight facets needing only a final smoothing. The upper shaft and head are rougher. The head has been roughly trimmed to a low cone. Silting over mid- to late 3rd-century disuse of Building 1.24 (XIII, 3281).

**991** Fig 102 sf VR 5160. An unfinished but complete Type 1

hairpin. L 122mm. As with **990** above, it is fairly well-worked, lacking only the shaping of the head and final smoothing of the shaft. Silting over mid- to late 3rd century disuse of Building 1.24 (XIII, 3281).

*not illustrated*

**992** sf VR 560. Twenty-four heads from unfinished Type 1 bone pins, abandoned at a stage similar to **987-8** above. Also, twenty well-worked circular section shaft fragments, one roughly worked polygonal section fragment and a roughly worked piece with the narrow internal channel typical of an ulna. That cattle ulnae were used in the manufacture of pins is illustrated in **998** below. Silting over ?yard surface F2 (V, 27), mid- to late 2nd century onwards.

**993** sf VR 13209. An unfinished Type 1 bone pin abandoned at a stage similar to **987** and **988** above. L 35mm. Silting over ?yard surface F2 (V, 27), mid- to late 2nd century onwards.

### Shafts and splinters

**994** Fig 103 sf VR 5544. A length with both cut and broken faces, tapering from 6mm to 3mm in thickness. One end is broken, the other is probably original to the splinter chosen to be worked. L 60mm. Soil layer of the first half of the 2nd century (XIII, 3355).

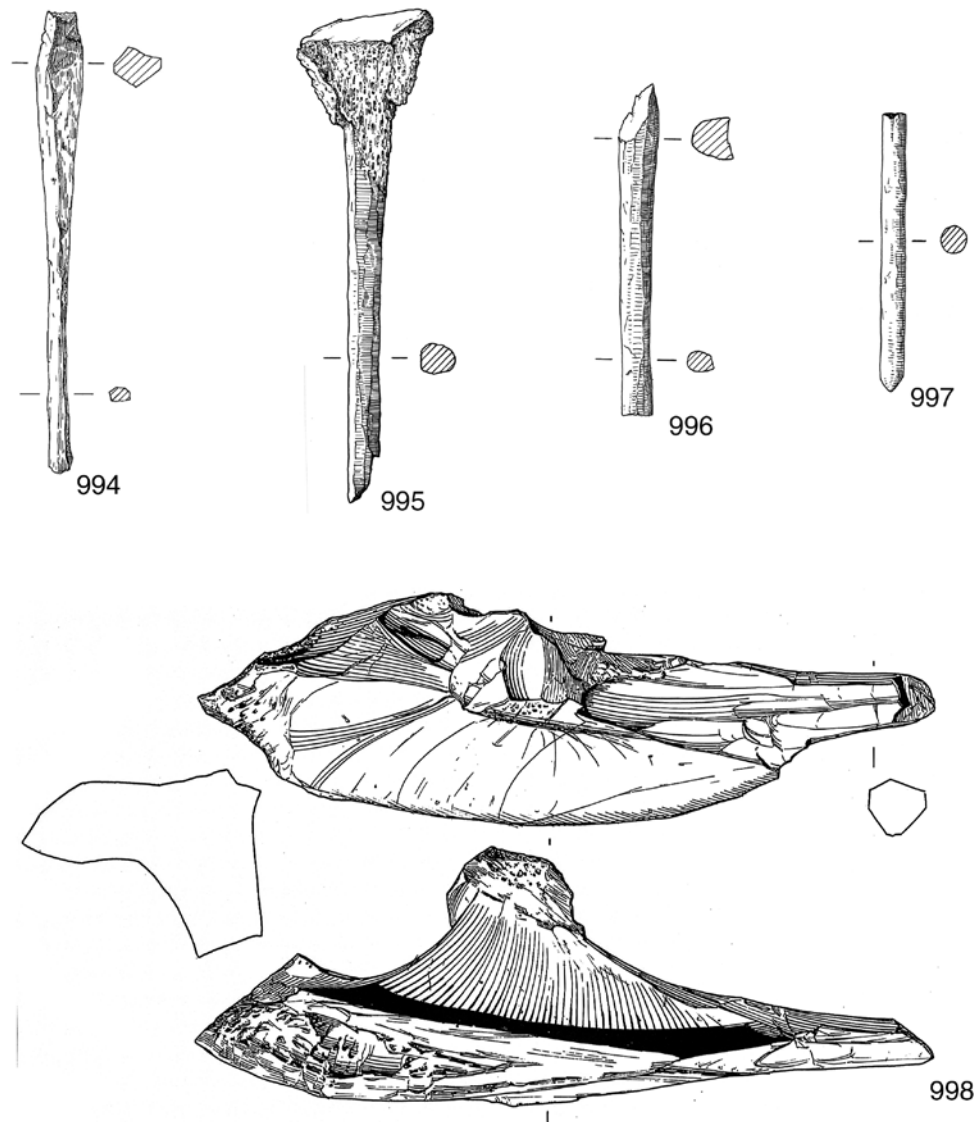


Figure 103 Worked bone: shafts and splinters, nos 994-8, scale 1:1

**995** Fig 103 sf VR 5767. A fragment (in two pieces) from an unidentifiable (?) long bone which has, for part of its length, been knife-trimmed to a more or less circular section 5mm in D. Part of the articulation survives. The knife cuts indicate that the piece was held with the articulation downwards while it was trimmed. The fragment has broken across the trimmed part. L 64mm. Mid-2nd-century fill of cemetery boundary ditch F525/ 692/ 704 (XII, 2631).

**996** Fig 103 sf VR 5768. A short length of a long bone trimmed at one end to a roughly circular section, 4mm in D. One end is broken. The other appears to have been original to the length chosen to be worked, as at least one of the knife cuts breaks off abruptly 7mm in from that end. The original marrow cavity wall survives. L 43mm. Mid-2nd-century fill of cemetery boundary ditch F525/ 692/ 704 (XII, 2631).

**997** Fig 103 sf VR 5801. A finished point from a bone hairpin or needle. L 36mm, D 3mm. Mid-2nd-century fill of cemetery boundary ditch F525/ 692/ 704 (XII, 2631).

**998** Fig 104 sf VR 13211. A fragment of an ulna of *Bos*, worked to a polygonal section at the lower end. L 97mm. Probably evidence for the use of a stock. Mid-2nd-century metallised surface (V, 395), ?building activity.

**999** Fig 104 sf VR 5625. A short length of circular section from what seems to be a nearly finished hairpin or needle.

One end is broken across, the other is partly trimmed to a point. L 26mm, D 3mm. Mid- to late 2nd-century soil layer (XII, 2563).

**1000** Fig 104 sf VR 5631. A very thin length worked to a fairly smooth regular circular section except at one thin point where it seems to have been overcut. L 35mm, maximum D 2mm. Mid- to late 2nd-century soil layer (XII, 2563).

**1001** Fig 104 sf VR 13205. A shaft fragment trimmed to a polygonal section. Both ends are broken, one recently, one in antiquity. L 41mm. Silting over ?yard surface F2 (V, 27), mid- to late 2nd-century onwards.

**1002** Fig 104 sf VR 13012. Tapering shaft fragment trimmed to polygonal section, at the lower end fairly smooth, but very rough at the roughly conical head. L 59mm. Silting over ?yard surface F2 (V, 27), mid- to late 2nd century onwards.

**1003** Fig 104 sf VR 12912. Tapering shaft fragment trimmed to a polygonal section and with a roughly conical head, though one side of the upper end is very rough with cancellous tissue. L 50mm. Silting over early 3rd-century disuse of oven F846 in Building 1.24 (XIII, 3343).

**1004** Fig 104 sf VR 13203. A fragment of a shaft worked to a circular section at the surviving end, which has been cut flat. At the broken end, the section is a rough ovoid. L 47mm, D at head 6mm. Possibly further evidence for the local manufac-

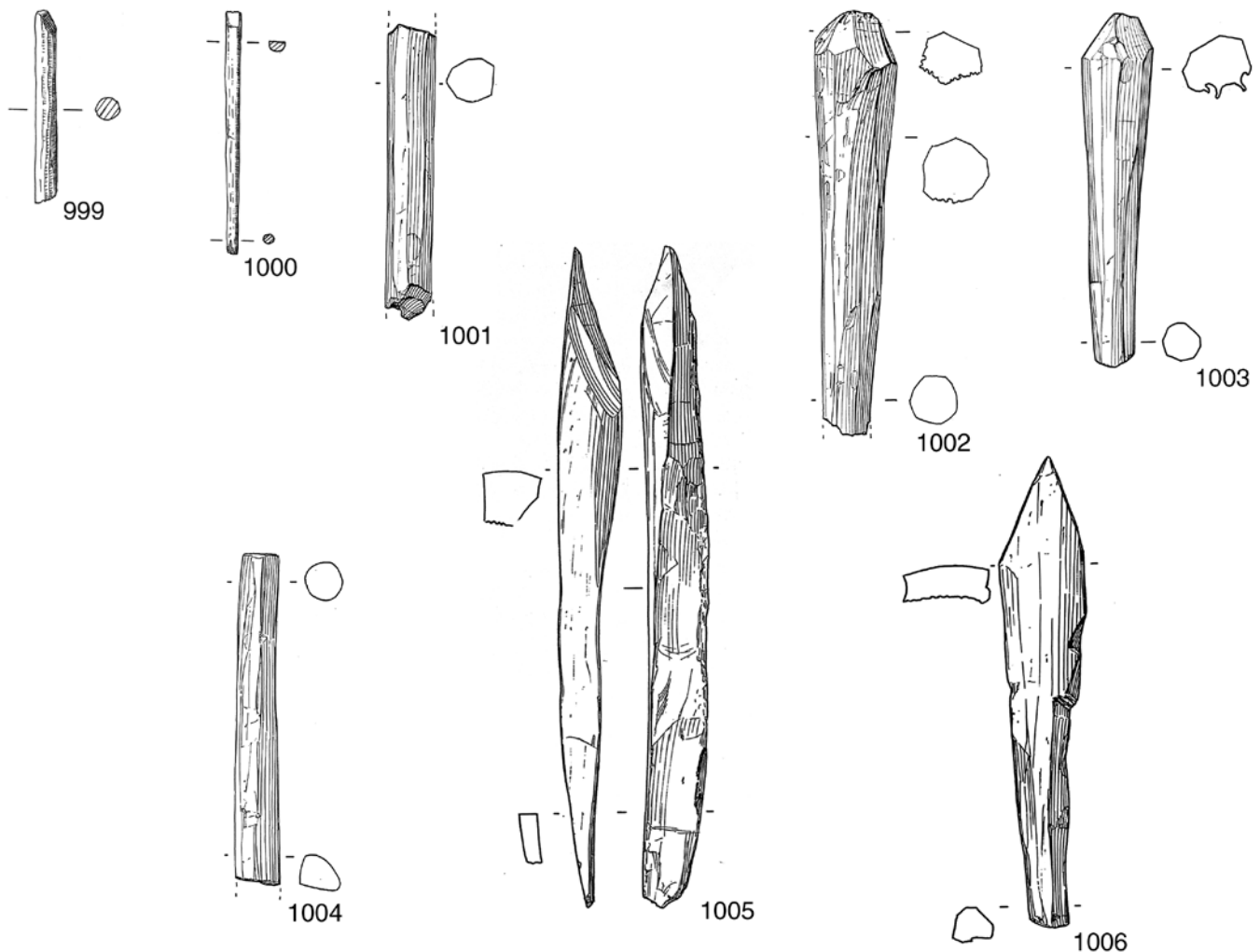


Figure 104 Worked bone: shafts and splinters, nos 999–1006, scale 1:1

ture of bone pegs. Mid- to late 3rd-century phase of Building 1.14 (V, 39).

**1005** Fig 104 sf VR 1537 (a). A splinter with slight traces of trimming at each end. L 93mm. Late 2nd- to 3rd-century (?or later) fill of pit F64/ 70 (V, 503).

**1006** Fig 104 sf VR 9523. Shaft fragment with one end trimmed to a polygonal section; the broken upper end is only slightly trimmed and consists primarily of the natural outer bone surface and marrow cavity wall. L 66mm. 13th- to 14th-century pit F1041 (XV, 3970).

#### *not illustrated*

The objects are from the mid-2nd-century fill of cemetery boundary ditch F525/ 692/ 704 (XII, 2631) unless otherwise stated.

**1007** sf VR 1086. A thick length (in two fragments) knife-trimmed to a polygonal section. L 56mm, maximum thickness 7mm. Both ends are broken, and may be the ends of the splinter before working. Early to mid-2nd-century silting over the western Cirencester-roadside ditch F85 (V, 413).

**1008** sf VR 1198. A fragment trimmed to an irregular polygonal section. Both ends are broken. L 36mm, maximum D 5mm. Early to mid-2nd-century silting over the western Cirencester-roadside ditch F85 (V, 413).

**1009** sf VR 5467. Three pieces. 1) A piece trimmed to a

polygonal section. Both ends are broken. L 42mm, maximum D 6mm. 2) A similar piece trimmed to a polygonal section. Both ends are broken. L 44mm, maximum D 5mm. 3) A short fragment of nearly circular section from a more or less completed ?hairpin. Broken at both ends. L 22mm, D 3mm. Soil layer (XIII, 3283) of the first half of the 2nd century.

**1010** sf VR 5495. A short piece trimmed to an irregular polygonal section. Both ends are broken. L 26mm, maximum D 3mm. Soil layer (XIII, 3399) of the first half of the 2nd century.

**1011** sf VR 5500. A short piece trimmed to an irregular polygonal section. Both ends are broken. L 24mm, maximum D 5mm. Soil layer (XIII, 3399) of the first half of the 2nd century.

**1012** sf VR 5608. A length of bone knife-trimmed to a roughly circular section. One end is broken. At the other a wedge-shaped end has been formed by two opposed knife strokes. L 66mm, maximum D 4mm. Soil layer (XII, 2571) of the first half of the 2nd century.

**1013** sf VR 12920 (b). A shaft fragment, probably an offcut, associated with the unfinished Type 1 bone pin 984 above. L 35mm. Soil layer of the first half of the 2nd century (X, 540).

**1014** sf VR 5769. A very short knife-trimmed fragment. The irregular section is polygonal. Both ends are broken. L 20mm. Maximum W 6mm.

**1015** sf VR 5770. A roughly-trimmed length of irregular polygonal section. Both ends are broken. Length 62mm, maximum W 6mm.

**1016** sf VR 5771. A very short roughly-trimmed length of irregular polygonal section. Both ends are broken, one may be original to the splinter before working. L 23mm, maximum W 6mm.

**1017** sf VR 5772. A length knife-trimmed at one end to a more or less circular section, 4mm in D. That end is broken, the other is probably original to the unworked splinter. L 65mm.

**1018** sf VR 5775. A length knife-trimmed at one end to a more or less semicircular section, 4mm in D. That end is broken, the other is probably original to the unworked splinter. L 68mm.

**1019** sf VR 5776. A short thick fragment roughly knife-trimmed, broken at both ends. L 33mm.

**1020** sf VR 5778/5779. A length knife-trimmed to a more or less circular section, rather thicker and more irregular at one end than the other. Both ends are broken. L 73mm, D varies from 3 to 5mm.

**1021** sf VR 5796. A length knife-trimmed to a more or less circular section, 4mm in D, at one end. That end is broken. The central part of the length is thick and polygonal in section, maximum W 7mm. The other end has been trimmed down to a width less than that at the centre, but has broken irregularly and the intended shape is uncertain. L 80mm.

**1022** sf VR 5797. A short fragment broken from a length trimmed to a roughly circular section. L 24mm, maximum D 4mm.

**1023** sf VR 5808. A thin length trimmed to a polygonal section. One end, maximum W 3mm, is broken. The other, maximum W 5mm, may be original to the unworked splinter. L 72mm.

**1024** sf VR 11199. A fragment cut to a roughly circular section at one end. That end is broken, the other may be original to the unworked splinter and shows cancellous tissue. L 48mm.

**1025** sf VR 11200. A piece with both cut and broken faces. Some cancellous tissue shows between two cut faces. L 59mm.

**1026** sf VR 11201. A fragment of roughly rectangular section with both cut and broken faces. L 35mm.

**1027** sf VR 11202. A length worked to a more or less circular section at one end. The other is slightly thicker and shows some cancellous tissue. Both ends are broken. L 30mm.

**1028** sf VR 11203. A length cut to a roughly circular section. Both ends are broken. L 36mm.

**1029** sf VR 11204. A fragment with both cut and broken faces. Both ends are broken. One may be original to the unworked splinter. L 40mm.

**1030** sf VR 11205. A length trimmed to an irregular polygonal section. Both ends are broken. L 31mm.

**1031** sf VR 11206. A length trimmed to an irregular polygonal section. Some cancellous tissue remains. Both ends are broken. L 43mm.

**1032** sf VR 11207. A small fragment with cut, broken, and natural bone surfaces. Both ends are broken. One may be original to the unworked splinter. L 28mm.

**1033** sf VR 11208. A fragment of bone with no worked surfaces, but almost certainly belonging to this group. Two of the surfaces are natural, one the outside and one the inside of a hollow bone. L 32mm.

**1034** sf VR 11209. A small piece of irregular polygonal section, tapering from 4 to 3mm at the ends. Both ends are broken. L 23mm.

**1035** sf VR 11210. A fragment trimmed to an irregular polygonal section. One end is broken, the other comes to a rough point. L 38mm.

**1036** sf VR 11211. A fragment of a ?hairpin shaft. The piece is smooth for most of its length, but at one end is still slightly faceted, that is, unfinished. Both ends are broken. L 41mm.

**1037** sf VR 11212. A small fragment with no obvious worked

faces. One face is marrow cavity wall. Both ends are broken. L 24mm.

**1038** sf VR 11213. A piece with cut and broken faces. L 41mm.

**1039** sf VR 11214. A length trimmed to a roughly circular section. Both ends are broken. L 48mm.

**1040** sf VR 11215. A fragment trimmed to an irregular polygonal section. One face still shows cancellous tissue. One end is broken, the other may be original to the unworked splinter. L 49mm.

**1041** sf VR 11216. A fragment with cut and broken faces. One may be marrow cavity wall. Both ends are broken. One may be original to the unworked splinter. L 33mm.

**1042** sf VR 11217. A length (in two pieces) with cut and natural inner and outer bone surfaces. One end is broken. The other is probably original to the unworked splinter. L 71mm.

**1043** sf VR 11218. A piece trimmed to a more or less rectangular section. Both ends are broken. One may be original to the unworked splinter. L 36mm.

**1044** sf VR 5582. A fragment roughly trimmed to an irregular polygonal section. Part of the marrow cavity wall remains along most of the length of the piece. Both ends are broken. L 45mm, maximum D 4mm. Mid-2nd-century cemetery boundary bank F912/ 924 (XII, 2602).

**1045** sf VR 5660. A length roughly trimmed to a polygonal section. Both ends are broken, but one, where cancellous tissue is exposed, may be original to the unworked splinter. L 41mm, maximum D 5mm. Mid-2nd-century cemetery boundary bank F912/ 924 (XII, 2602).

**1046** sf VR 5780. A thick fragment with some cut and some broken faces. Length 48mm, thickness varying from 7mm to 3mm. Mid-2nd-century cemetery boundary bank F912/ 924 (XII, 2602).

**1047** sf VR 5795. A piece trimmed to a roughly circular section. Both ends are broken. L 33mm, maximum D 5mm. Mid-2nd-century cemetery boundary bank F912/ 924 (XII, 2602).

**1048** sf VR 5842. A length trimmed to an irregular polygonal section. Both ends are broken. This piece shows signs of burning. L 46mm, maximum D 5mm. Mid- to late 2nd-century fill of cemetery boundary ditch F709/ 710/ 711/ 936 (XII, 2667).

**1049** sf VR 5626. A length roughly trimmed to a more or less circular section. Broken at both ends. L 37mm, maximum D 5mm. Mid- to late 2nd-century soil layer (XII, 2563).

**1050** sf VR 1067. A slightly curved length trimmed at one end to a circular section. The other may be original to the unworked splinter. L 101mm, maximum D 5mm. Mid-2nd-century soil layer (V, 397).

**1051** sf VR 13206. A fragment of a well-worked shaft, probably from near the tip of a ?pin. The fragment is still slightly faceted at the thicker end, and has broken across a patch of cancellous tissue. L 41mm. Silting over ?yard surface F2 (V, 27), mid- to late 2nd century onwards.

**1052** sf VR 13208. A fragment of a shaft worked to a smooth circular section at one end, at the other end still polygonal. The latter end may not have broken in antiquity, but could be the trimmed down splinter end, abandoned just prior to a pin head being shaped. L 40mm. Silting over ?yard surface F2 (V, 27), mid- to late 2nd century onwards.

**1053** sf VR 9865. Fragment of a fairly well-trimmed shaft, probably from a hairpin. L 37mm. Late 2nd-century soil layer (XV, 4235).

**1054** sf VR 5369. A shaft fragment worked down to 4mm in D in the centre. One end is as originally splintered. Late 2nd- to early 3rd-century phase of Building 1.24 (XIII, 3365).

**1055** sf VR 1537 (b). A splinter with no worked surfaces. L 76mm. Late 2nd- to 3rd-century (?or later) fill of pit F64/ 70 (V, 503).

**1056** sf VR 13204. A shaft fragment worked to a smooth ovoid section. L 37mm. Late 2nd- to early 3rd-century phase of Building 1.15 (V, 60).

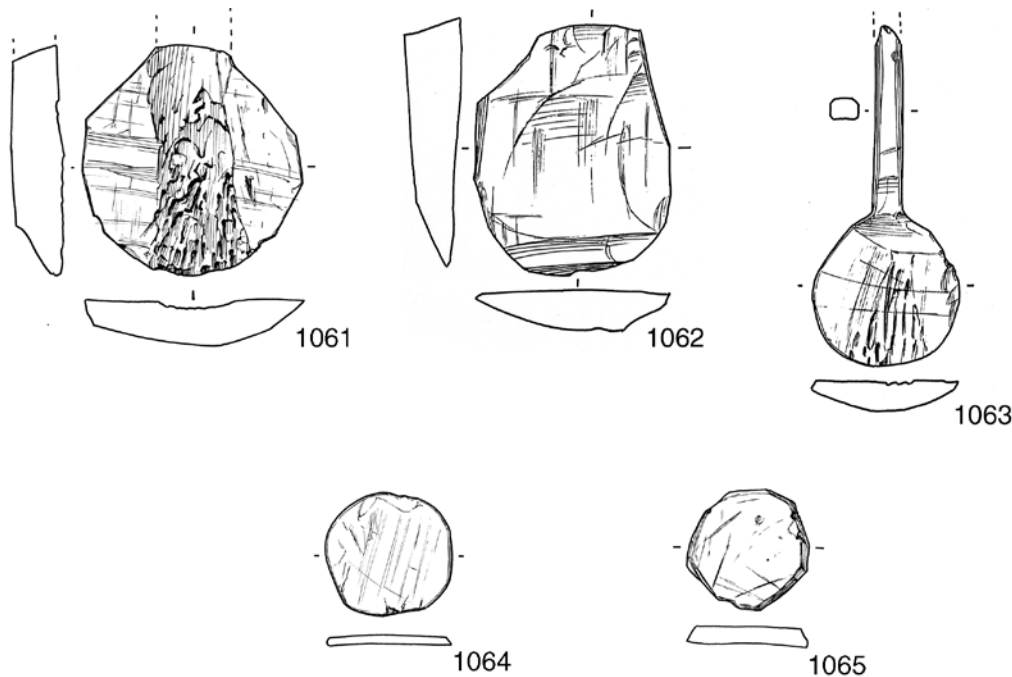


Figure 105 Worked bone: spoon and counter roughs, nos 1061–5, scale 1:1

**1057** sf VR 5376. A short shaft fragment, worked down to 3mm in D. One end may be as originally splintered. L 80mm. Early to mid-3rd-century phase of disuse of oven F846 in Building 1.24 (XIII, 3378).

**1058** sf VR 11600. A splinter with one possible cut face. L 52mm. Mid- to late 3rd-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 365).

**1059** sf VR 13165. A shaft fragment in the early stages of being worked. One end is as originally splintered. L 62mm. Silting in 13th- to 15th-century Building 936.4 (XII, 2626).

**1060** sf VR 0. A thick shaft fragment, only slightly trimmed. One end is as originally splintered. L 77mm, maximum D 9mm. 14th- to 15th-century pit F131 (X, 284).

### Spoon roughs

**1061** Fig 105sf VR 12913. Spoon bowl rough-out, broken where the shaft would have met the edge of the bowl. Both surfaces roughly knife trimmed, on the upper exposing cancellous tissue, and edges trimmed roughly circular. D 29mm. Late 2nd-century soil layer (X, 430).

**1062** Fig 105 sf VR 12915. Spoon bowl rough-out, only very roughly shaped. ?Floor layer (XIII, 3358) in early to mid-3rd-century phase of Building 1.24.

**1063** Fig 105 sf VR 1002. Spoon bowl rough-out, broken across the shaft. The lower surface is fairly regular; the upper has been roughly knife trimmed flat, exposing cancellous tissue. L (with shaft) 45mm, D 19mm, T (maximum) of shaft 3.5mm. Late 3rd- to 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 355).

### Counter roughs

**1064** Fig 105 sf VR 5178. Flat bone, shaped to form a disc, but with edges and surfaces not fully finished. D approximately 17mm. The piece is rather thin (T approximately 1mm), which is perhaps why it was abandoned before completion. Early to mid-4th-century finds-rich soil layer (XII, 2470).

**1065** Fig 105 sf VR 5198. Flat bone, very roughly shaped to form a disc. The edges and surfaces are less well finished than those of **1064**. D approximately 16mm, T 2.5mm. Like sf VR 5178, the piece is rather small and thin. Early to mid-4th-century finds-rich soil layer (XII, 2470).

### Other

**1066** Fig 106 sf VR 12914. A broken fragment of bone, possibly an offcut. L 16mm, W 17mm, T 3mm. Late 2nd-century soil layer (X, 433).

**1067** Fig 106 sf VR 2513. A ?rib fragment, roughly square in section, with a series of slanting nicks cut into one face. L 29mm, W 11mm, T 7mm. Late 4th- to early 5th-century (?and later) soil layer (X, 144).

**1068** Fig 106 sf VR 11601. A long bone fragment with one edge cut into a wavy shape. Probaby an offcut. L 106mm. Late 4th- to early 5th-century (or later) ?reoccupation of the trench area (V, 33).

### not illustrated

**1069** sf VR 12918. A roughly trimmed metapodial, possibly a metatarsus of *Cervus*. L 148mm. There seems to be no particular purpose behind this rough shaving away of the bone's outer surface. Mid- to late 4th-century ditch F122/1202 (X, 31).

### Hyde Abbey

The other main northern suburb site, Hyde Abbey produced four bone fragments that may have derived from the same source as the Victoria Road material: a fragment of an unfinished Type 1 bone hairpin, a possible pin shaft, a roughly worked metatarsal fragment on which the articulation may have been used as a stock and a worked long bone fragment.

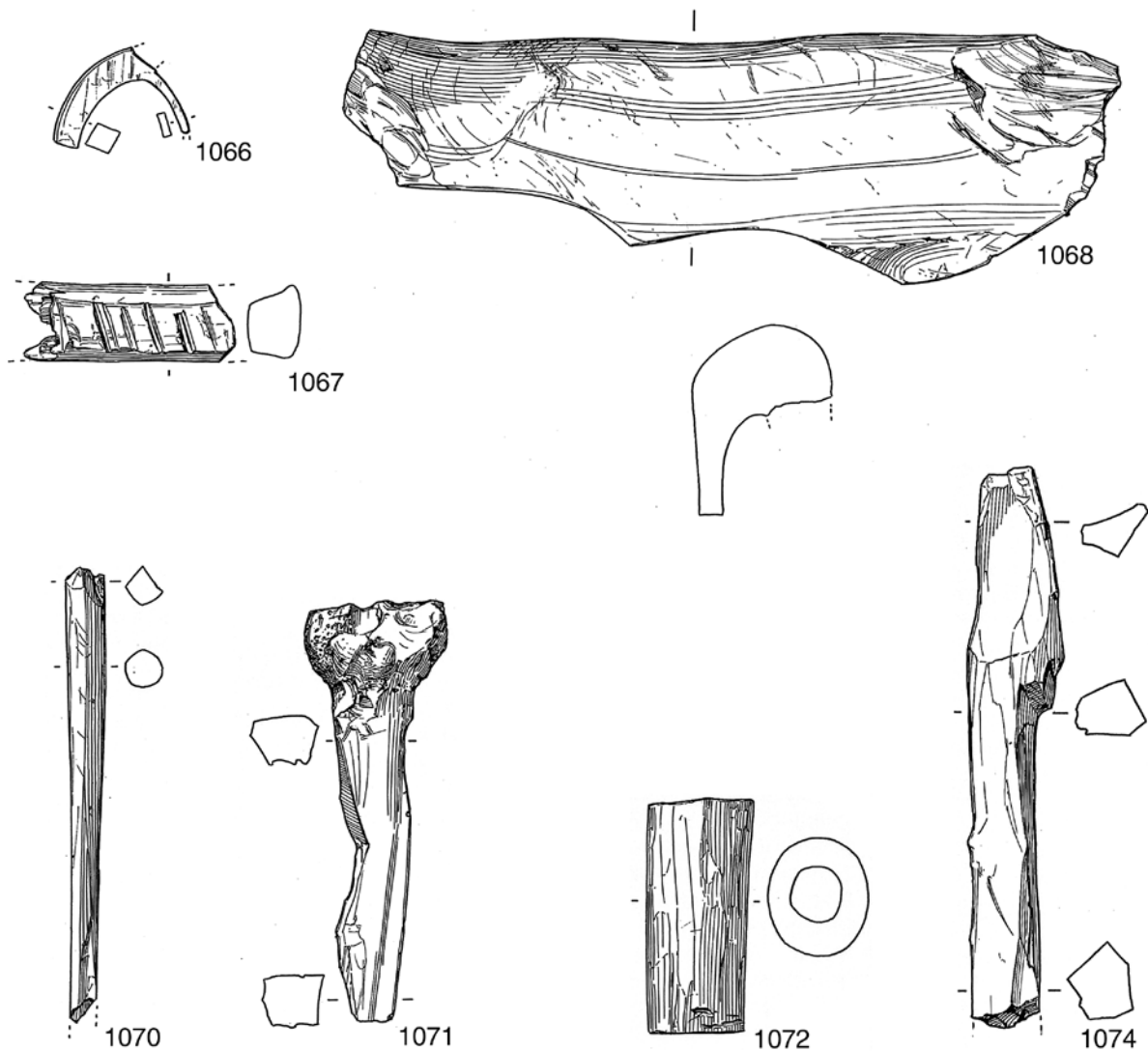


Figure 106 Worked bone: various, nos 1066–8, 1070–2, 1074, scale 1:1

**1070** Fig 106 sf HA 342. A fragment of a Type 1 bone pin, either unfinished or a poor example, probably the former. The shaft is worked to a smooth circular section for most of its length, but at the head much cancellous tissue is exposed and the shaft is polygonal in section. L 61mm. The piece is very similar to the unfinished Type 1 pins from Victoria Road (above). ?Early Roman soil layer (XI, 452).

**1071** Fig 106 sf HA 307. A roughly worked shaft from a metatarsus (?*Bos*) with a small part of the proximal articulation remaining, probably used as a stock. L 58mm. ?Mid- to late 3rd-century Building 1.9 (XI, 297).

**1072** Fig 106 sf HA 370. A slightly tapering section cut from a long bone. Both ends show saw marks, and a small fractured part where the piece has broken before the saw passed through, not necessarily from the manufacture of hinge units (Crummy 2001, 98, 100). L 33mm, D (maximum) 17mm. ?Late 3rd- to mid-4th-century disuse of Building 1.9 (XI, 269).

*not illustrated*

**1073** sf HA 337. Roughly shaped bone ?pin shaft. L 52mm. Context of uncertain type and date (XI, 347).

## City defences

### Jewry Street, Crown Hotel

Two splinters, similar to those from both Crowder Terrace and Victoria Road came from this site. They derive from a post-Roman context, but are sufficiently like the other Roman material to be allocated a Roman date.

**1074** Fig 106 sf JCH 1091. Two splinters, very similar to those from Crowder Terrace and Victoria Road. One shows broken and a few cut surfaces (L 76mm). There are no obvious cut faces on the other, which is not illustrated. (L 77mm). Beam slot F31 (III, 97) in 14th- to 15th-century Building 271.3.

## Discussion

The Crowder Terrace material was dumped into a ditch in a deliberate infilling operation and the debris from Victoria Road also appears to have been brought

to the site. This opens up the possibility that these groups of material are associated, both even deriving from the same workshop or localised activity.

Augst in Switzerland (*Augusta Raurica*) has produced a wealth of bone working evidence of the 1st and 2nd centuries. The manufacture of bone objects appears to have taken place at several sites, especially on *Insula* 25, while horn was worked on *Insula* 31 and there were glue boiling sites on *Insula* 20 and near the *mansio*. All three *insulae* are in the main residential area of the town (Schmid 1968; Drack and Fellmann 1988, 191–2).

In Britain, however, no bone working debris has been found in town centres. The assemblages from Colchester were recovered from sites outside the west and south gates, at Balcerne Lane and Butt Road respectively (Crummy 1983, 149–60). The London material centres on the Upper Walbrook Valley, at the time not a residential quarter but chiefly used for agriculture and small industries (Maloney 1990, 119–22), and in most cases appears to have been dumped (Museum of London Archaeological Archive, sites ABC87, ACW74, CEM88, COV87, MGT87, OPT81). At Canterbury, waste material from a late Roman bone pin workshop was found in a dump over damp levels at the *palaestra* of the St Margaret's Street baths (Blockley *et al* 1990, 207). Eight of the 17 spoon roughs from Woodcuts were found down a well (Pitt-Rivers 1887, 130). In Winchester, too, a similar situation seems to have obtained: there was very little bone working debris from The Brooks site (Mounsey, forthcoming), and none has been observed on sites within the walls

excavated since 1985 (Graham Scobie, pers comm). Neither was much found on sites excavated during the 1960s by Professor Biddle (Katherine Barclay, pers comm).

From this evidence it is clear that no particular building or area, either intra- or extra-mural has been identified in Britain as a bone workshop, but rather, the detritus from bone working was periodically cleared from its primary site, possibly an intramural market, and in some cases (Victoria Road, London, and Canterbury) being used, with other rubbish, to raise the ground level of waterlogged land in what can only be described as civic improvement schemes (Crummy 2001, 101). At Crowder Terrace the material was used to infill a ditch for a change of land use.

The question remains, therefore, whether bone working was carried out regularly in a fixed place. The speed at which a bone pin can be made has been noted (Crummy 1981, 284), as well as the limited range of head types which were apparently available at any one period (Crummy 1983, 19–25). Ambrosiani (1981, 40–56), discussing the Viking Age antler combs of Scandinavia, has laid out the conditions for distinguishing between itinerant and local makers, but the paucity of material from Roman Britain makes it difficult to apply her model here. Given the absence of in situ evidence for manufacture, the standardised forms of bone objects available and the speed with which bone can be worked, the possibility must remain that bone working was carried out by itinerant craftsmen in the market place (Crummy 1996; Crummy 2001).



## **17 Objects and waste material associated with the manufacture of pottery vessels or pipeclay objects**

As has been pointed out in Part 1, this category is empty due to Winchester's lack of natural resources for the production of ceramics, or, at least, Roman ceramics. This is further discussed in Part 3 (Category

17) and Part 4. Information concerning sources of supply for prehistoric pottery can be found in Qualmann *et al* 2004.

## 18 Objects of unknown or uncertain function

*Note: a large number of iron bars, strips, and plates was recovered. These are discussed above (Category 15), as many are believed to have been waste from a smith's workshop.*

### Gold wire thread from grave F57 at St Martin's Close

Late 4th- to 5th-century grave F57 (that of a young woman) contained a fragment of a very decayed composite double-sided antler comb (Category 2, 314), some sheet metal (Category 11, 834–6), and a few fragments of gold wire thread.

The thread is not woven but has been slightly twisted and bent, showing that it was probably used to create, or embellish, an embroidered design.

A male grave from Poundbury, Dorset, contained a tangle of gold thread near the left foot (Crowfoot 1993, 112). Allason-Jones (1989, 118) states that gold thread could be used on garments or soft furnishings, either of which could be employed as grave furnishings. The location of the Poundbury thread near the foot suggests that it might also be used to decorate leather slippers or sandals.

*not illustrated*

**949** sf SMCW 648. Two tiny fragments of crumpled fine gold wire. Found inside the coffin in the area of the upper body.

**950** sf SMCW 651. Small tangled groups of crumpled fine gold wire. Unwoven. Found inside the coffin.

**951** sf SMCW 655. Small tangled groups of crumpled fine gold wire. Unwoven. Found beneath the coffin.

### Bone pegs

These objects are similar to ones found, for example, in Colchester (Crummy 1983, 162–3, fig. 199, nos. 4465–72). The ones from medieval contexts and those found unstratified may not be residual Roman.

**1075** Fig 107 sf VR 265a. Incomplete. L 7mm, D at head 6mm. Metalled ?yard surface (V, 62), mid- or late 2nd century onwards.

**1076** Fig 107 sf VR 3067. L 74mm, D at head 6mm. Early to mid-4th-century soil layer (X, 340).

*not illustrated*

**1077** sf VR 3160. Complete. L 82mm, D of head 7mm. Soil layer of the first half of the 2nd century (X, 494).

**1078** sf VR 3161. Tip missing. L 66.5mm, D of head 6mm. Soil layer of the first half of the 2nd century (X, 540).

**1079** sf VR 312. Only the tip is missing. L 95mm, D at head 8mm. Metalled ?yard surface (V, 63), mid- or late 2nd century onwards.

**1080** sf VR 2906. Tip missing. Head damaged. L 64mm. (?) Post base F172 in late 2nd-century phase of Building 1.23 (X, 508).

**1081** rf VR 3461. Tip missing. L 50mm, D of head 5.5mm. Mid-3rd-century cremation grave 409 (X, 604), dated mid-3rd century.

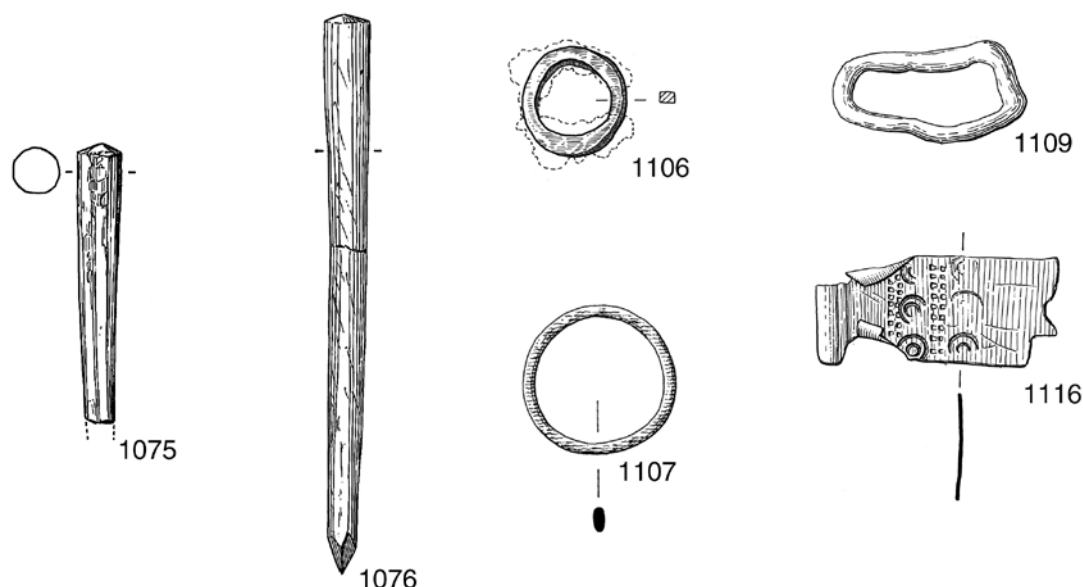


Figure 107 Objects of uncertain identification/function: bone pegs, metal rings, collar and copper alloy sheet, nos 1106–9, scale 1:2; nos 1075–6, 1116, scale 1:1

**1082** sf VR 1041. Tip missing. Blackened below head. L 49mm, D of head 7mm. Late 2nd- to 3rd-century (?or later) fill of pit F64/ 70 (V, 385).

**1083** sf VR 1260. Tip missing. L 82mm, D of head 7.5mm. Late 2nd- to 3rd-century (?or later) fill of pit F64/ 70 (V, 387).

**1084** sf VR 5228. Tip missing. L 72mm, D of head 7mm. Mound of debris (F844) marking early to mid-3rd-century disuse of Building 1.24 (XIII, 3326).

**1085** sf VR 3228. Tip missing. L 82, D of head 8mm. 3rd- or 4th-century pit F168 (X, 642).

**1086** sf VR 1132. Tip missing. In two pieces. L 77mm, D of head 10.5mm. Posthole F9 in mid- to late 3rd-century phase of Building 1.13 (V, 92).

**1087** sf VR 5387. Tip missing. L 50mm, D of head 6mm. Early to mid-4th-century metallised (?yard) surface F665 (XII, 2486).

**1088** sf VR 7816. Tip missing. L 42.5mm, D of head 6.5mm. Early to mid-4th-century finds-rich soil layer (XII, 2508).

**1089** sf VR 2548. Tip missing. L 57mm, D of head 6mm. Late 4th- to early 5th-century soil layer (X, 144).

**1090** sf VR 3014. Tip missing. In two pieces. L 132.5mm, D of head 8mm. Late 4th- to early 5th-century soil layer (X, 144).

**1091** sf VR 3049. Complete. L 91mm, D of head 7.5mm. Late 4th- to early 5th-century soil layer (X, 144).

**1092** sf VR 3050. Tip missing. L 56.5mm, D of head 7.5mm. Late 4th- to early 5th-century soil layer (X, 144).

**1093** sf VR 12919. Incomplete. L 44mm, D at head 6mm. Posthole F29 in late 4th- to early 5th-century phase of Building 1.23 (X, 78).

**1094** sf VR 13194. Incomplete. L 51mm, D at head 6mm. 12th- to 13th-century pit F976 (XIII, 3152).

**1095** sf VR 3101. Complete. L 107.5mm, D of head 7.5mm. Unstratified in medieval pit F149 (X).

**1096** sf VR 7031. Tip missing. L 112mm, D of head 6.5mm. Medieval post base F425 (XI, 1239).

**1097** sf VR 2156. Tip missing. L 52mm, D of head 5mm. 13th- to 15th-century soil layer (X, 35).

**1098** sf VR 819. Tip missing. L 58mm, D of head 5mm. Unstratified (V).

**1099** sf VR 934. Tip missing. L 46mm, D of head 6mm. Unstratified (V).

## Chains

*not illustrated*

**1100** sf VR 1287. A short length of single loop-in-loop copper alloy chain. L 21mm, W 5mm. Path F94/ 95 to the west of the Cirencester road (V, 484), late 1st to early 2nd century.

**1101** sf VR 1047. Figure-of-eight-shaped iron link with one end missing. L 58mm, W 30mm, T 6mm. Silting over metallised (?yard) surface F2 (V, 75), mid- or late 2nd century onwards.

**1102** sf VR 5311. A length of copper alloy double loop-in-loop chain. In two pieces. Early to mid-3rd-century disuse of oven F846 in Building 1.24 (XIII, 3233).

**1103** sf VR 9729. Copper alloy circular link. Internal D 6mm. 4th-century fill of well F1096 (XV, 4209).

**1104** sf HA 125. Copper alloy loop or hook from the end of a chain. Beam slot F149 (XI, 257) in ?mid- to late 4th-century Building 1.10.

**1105** sf VR 266. Two copper alloy circular links and a separate third broken link. Internal D 5mm. Late 4th- to early 5th-century (?and later) soil layer (V, 61).

## Rings

There were six circular rings of copper alloy, all from Victoria Road, and eight circular iron rings, of which six were from Victoria Road. The iron rings exhibited the most variation in size, ranging from 10 to 48mm in diameter, whereas the copper alloy ones were all between 15 and 20mm. There was one small oval ring of iron, which is catalogued here along with illustrated examples. A full catalogue exists in archive.

**1106** Fig 107 sf VR 9817. Iron ring, D 30mm. Illustration taken from X radiograph. Fill of recut of Iron Age ditch F1144 (XV, 4308).

**1107** Fig 107 sf VR 201. Iron ring, D 40mm, T 3mm. Mid- to late 3rd-century phase of Building 1.14 (V, 39).

*not illustrated*

**1108** sf VR 185. Oval ring of iron. L 46mm, W 34mm, T 3mm. Silting over metallised (?yard) surface F2 (V, 18), mid- or late 2nd century onwards.

## Collars

The function of these iron collars is not immediately apparent, but **1112**, now incomplete, and **1110** are robust collars, perhaps used for wooden tool handles.

**1109** Fig 107 sf VR 3517. Collar, elongated and slightly distorted, apparently similar to **1111** below. L 46mm, W 22mm. 2nd-century cremation grave 433 (X, 748).

*not illustrated*

**1110** sf VR 1097. Incomplete collar. D 44mm, W 20mm, T 3mm. Mid- to late 2nd-century silting over the western Cirencester-roadside ditch F85 (V, 410).

**1111** sf VR 1139. Small collar, rectangular with rounded corners. Elongated. L 35mm, W 21mm, T 3mm. Late 2nd- to 3rd-century (?or later) fill of pit F64/ 70 (V, 387).

**1112** sf VR 770. Half a collar. D 30mm, W 17mm. 4th century fill of well or shaft F43 (IV, 417).

## Tubes

*not illustrated*

**1113** sf HA 0. Iron tube, L 40mm, D 12mm. ?Mid- to late 3rd-century Building 1.9 (XI, 215).

**1114** sf VR 5177. Iron tube, broken at both ends. L 34mm, W 15mm. Early to mid-4th-century finds-rich silting layer (XII, 2470).

**1115** sf HA 298. Iron tube, broken one end. L 39mm, D 13mm. Beamslot F149 in ?mid- to late 4th-century Building 1.10 (XI, 257).

## Copper alloy wire

There were 25 fragments of copper alloy wire, all but

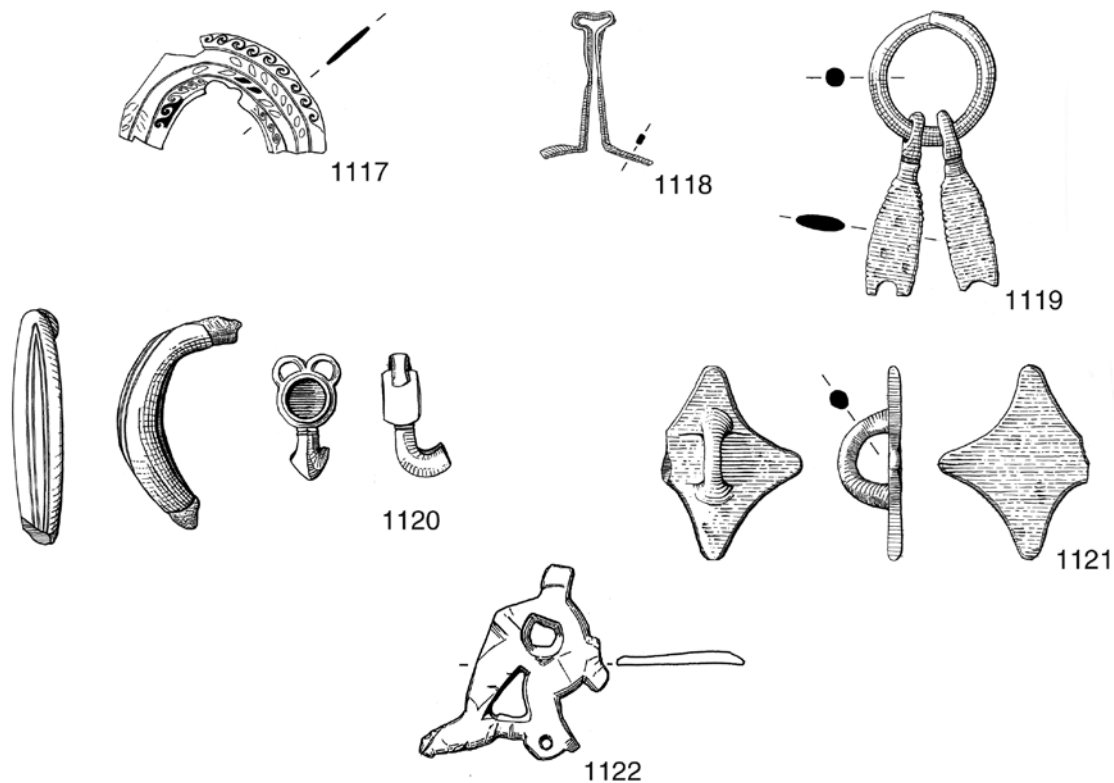


Figure 108 Miscellaneous copper alloy objects, nos 1117-22, scale 1:1

one from Victoria Road. Sections ranged from circular to square and four square-sectioned fragments were twisted. One of these, from a metallised surface F665 on Trench XII (2486) at Victoria Road, which produced much smithing waste (Category 15), had one end tapered to a point and the other folded to form an eye. Another distinctive piece of circular section tapered at one end to form a ?hook whilst the other was folded into a loop. The material is fully catalogued in archive.

### Copper alloy sheet

There were around 120 pieces of copper alloy sheet, ten from Hyde Abbey, one each from Crowder Terrace and St Martin's Close, four from Henly's Garage, and the remainder from Victoria Road. The vast majority were from fragmentary and broken objects whose original function could not be determined, although there were a few possible offcuts from Victoria Road. The illustrated piece is catalogued here, the rest in archive.

**1116** Fig 107 sf 1545. A strip with one folded surviving end. One face has double rows of punched decoration and ring-and-dot motifs. L 31mm, W 14mm. Silting over path F102 to the west of the Cirencester road (V, 510), late 1st century.

### Lead sheet

There were about 30 pieces of sheet lead, all from Victoria Road. They were generally distributed on the site except for a slight concentration, including

two pieces that were pierced, in the late 2nd- to mid-3rd-century Building 1.24 (XIII, 3233, 3343, 3344, 3347, 3353). Two pieces of possible casting waste came from soil layers of the 2nd century (XIII, 3283) and of the late 4th to early 5th century (X, 144). There was also a droplet, which is catalogued below (1143). A full catalogue exists in archive.

### Miscellaneous copper alloy objects

**1117** Fig 108 sf VR 3234. A fragment, possibly from a stud or plaque, with concentric circular bands of incised decoration filled with silver inlay and defined by grooves. Parts of four bands survive. The outer band and the innermost band are of running scroll (or wavecrest) decoration. On the outer band the crests face inwards, on the inner band they face outwards. The two centre bands together form a wreath of leaves. D 26mm. Late 1st-century gully F244 (X, 690).

**1118** Fig 108 sf VR 9910. A piece of wire of rectangular section bent into a shape reminiscent of a split-spike loop. L 18mm. Late 1st-century cremation grave 623 (XV, 4315).

**1119** Fig 108 sf VR 1080. A penannular ring from which hang two pendants. The ring is rather too thick to be used as an earring. The two pendants are rather similar to leaf-shaped nail-cleaners, with mouldings beneath the suspension loop and notches down each side, but rather than tapering to two close-set sharp points, each end has a semicircular cut-out giving widely-spaced blunt points. One of the suspension loops has worn away at the top. This object could have hung from an armlet or necklace. Ring D 16mm, ring T 2mm, pendant L 15mm. Early 2nd-century soil layer (V, 372).

**1120** Fig 108 sf VR 7091. Three fragments, two of which fit, from either two similar objects or one asymmetrical object. One fragment (31mm long) resembles a buckle loop, but is rather thicker in the centre than might be expected. It has four slight parallel grooves on the outer face. The two joining

fragments may be a part of the ?loop, but there is no certain link. One of these two pieces terminates in an outward facing hollow cup and two loops. Soil layer (XI, 1267) of the first half of the 2nd century.

**1121** Fig 108 sf VR 746. A silvered star-shaped object with one damaged corner. There is a looped fitting at the back. Maximum W 25mm. Late 3rd- or 4th-century soil layer (IV, 408).

**1122** Fig 108 sf HG 1130. A fragment of a roughly made openwork plaque, with a small perforated lug at the centre of one side, possibly intended for suspension. L 26mm, W 24mm. 4th-century fill of well F113 (IV, 1093).

#### *not illustrated*

**1123** sf VR 9914. A thin strip, possibly from an object such as a lock-bolt. L 23mm W 5mm. Mid-1st-century fill of the Iron Age hollow way F1134 (XV, 4322).

**1124** sf VR 3506. Ten very corroded nearly spherical pieces of copper alloy, and other fragments. Possibly corroded beads. D varies from 2 to 7mm. Mid- to late 1st-century cremation grave 431 (X, 742).

**1125** sf VR 3219. Strip, grooved at one end on one side. Both ends broken. ?Handle. L 54mm. W 5.5mm. Soil layer (X, 494) of the second half of the 2nd century.

**1126** sf VR 5491. A fragment of a circular section rod. L 32mm, D 3mm. Soil layer (XIII, 3283) of the first half of the 2nd century.

**1127** sf VR 3026. A strip circular in section at one end and narrowing to a flat section at the other. Though both ends are damaged, the flat end also has a return. ?From a rectangular buckle. L 37mm, maximum W 8mm. Mid- to late 2nd-century remetalling of the Cirencester road (X, 47).

**1128** sf VR 885. Symmetrical rod. Rectangular section at each end and centre. Swollen either side of central flat region. Whole object is slightly curved. 63 by 3mm. Late 2nd- to early 3rd-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 307).

**1129** sf VR 191. ?Shield-shaped plate with rear hook. L of plate 28mm. Maximum W 19mm. Early to mid-3rd-century phase of Building 1.13 (V, 31).

**1130** sf VR 1006. Polygonal shaft with spatulate end. Both ends broken. ?Part of toilet spoon. L 30mm. Mid- to late 3rd-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 363).

**1131** sf HG 156. Hollow dome-shaped object. H 24mm, maximum D 24mm. Late 3rd- or 4th-century well F105 (IV, 1076).

**1132** sf VR 391. Fragment of fitting with ?knurled transverse moulding. Object splits into two prongs on one side of moulding. L 16mm. 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 84).

**1133** sf VR 483. Shaft. Both ends broken. Rectangular section, wider at one end. 21.5 by 5mm. Mid- to late 4th-century soil layer (IV, 263).

**1134** sf VR 711. Thick, near-triangular object with iron rivet. 37 by 15mm. Mid- to late 4th-century inhumation grave 74 (IV, 336).

**1135** sf VR 9585. Thick curved rod. Sub-rectangular section. L 41mm. D 5mm. Mid- to late 4th-century fill of well F1093 (XV, 4128).

**1136** sf VR 144. Shaft, tapering at one end, other end flattened. Terminal pierced, some burring. Folded into ?hook. 54 by 8mm. ?Post-Roman. Late 4th- to early 5th-century (or later) reoccupation of the trench area (V, 33).

**1137** sf CT 38. Copper alloy strip with punched 'S' decoration, broken. Perhaps from a Roman armlet. 21 by 4mm. 13th- to 14th-century ditch F46 (VIII, 141).

## Iron object

This object defies identification, but may have been part of a decorative fitting from a horse bridle or suit of body armour.

**1138** Fig 109 sf VR 457. It exists as an iron plate with an incomplete leaf-shaped element divided by a waist from an incomplete straight sided element; there is a short projection from each side of the waist. L 64mm, W 15mm. 4th-century fill of the western Cirencester-roadside ditch and cemetery boundary F12 (V, 148).

## Miscellaneous lead objects

**1139** Fig 109 sf VR 1210. A fitting with two projections on the reverse for attachment. L 39mm, maximum W 11mm. Mid- to late 2nd-century silting over the western Cirencester-roadside ditch F85 (V, 410).

**1140** Fig 109 sf VR 1296. A small bar with chamfered ends. Two sides of the bar bear cast inscriptions. On one side PRO, on the other SEC. The bar is pierced with a very fine hole through the two plain sides of its section. L 23mm, maximum W 6mm. Mid- to late 2nd-century fill of the western Cirencester-roadside ditch F85 (V, 490).

**1141** Fig 109 sf CHR 679. A fragment of a lead ?fitting, into which another object appears to have been slotted. L 37mm, W 33mm, H (maximum) 15mm. Late 4th-century soil layer (III, 578).

**1142** Fig 109 sf HA 276. A curved thick strip of lead with a stout burr headed projection on one side. L 42mm, H 21mm. Late 4th- to early 5th-century (?and later) soil layer (XI, 264).

#### *not illustrated*

**1143** sf VR 1197. A droplet of lead, L 53mm. Early to mid-2nd-century fill of the western Cirencester-roadside ditch F85 (V, 413).

**1144** sf VR 5129. Roughly shaped disc. D 35mm. Disuse of Building 1.24 (XIII, 3281), mid- to late 3rd century.

**1145** sf VR 838. Sheet of lead rolled into rough tube. L 39mm. Late 3rd- to 4th-century fill of well or shaft F46 (V, 264).

**1146** sf VR 9669. Oval shaped ring. Maximum internal D 21mm. 4th-century fill of well F1096 (XV, 4152).

**1147** sf VR 3636. Lump of lead covered with copper corrosion products. L 27mm. Construction (flint metallurgy F567) of Building 1.21 (XII, 2140), mid- to late 4th century.

**1148** sf VR 192. Roughly shaped disc. D 33mm. ?Post-Roman. Late 4th- to early 5th-century (or later) reoccupation of the trench area (V, 36).

## Miscellaneous objects of bone and ivory

**1149** Fig 110 sfs VR 7313 and 7382. One burnt bone convex disc and most of another, possibly counters. Each has on the flat side a central indentation and a grooved concentric circular moulding 6mm out from the indentation. These features were made by a spurred lathe centre. The convex side is plain, and was presumably the upper side. D of the complete disc 27mm. Maximum D of the damaged disc (distorted by burning) 30mm. Cremation grave 566 (XI, 1561), dated to the mid-70s AD.

**1150** Fig 110 sf VR 1236. A roughly L-shaped object. The foot of the L turns upwards. The top of the upright has been crudely cut into to produce a terminal knob. L 45mm. Early

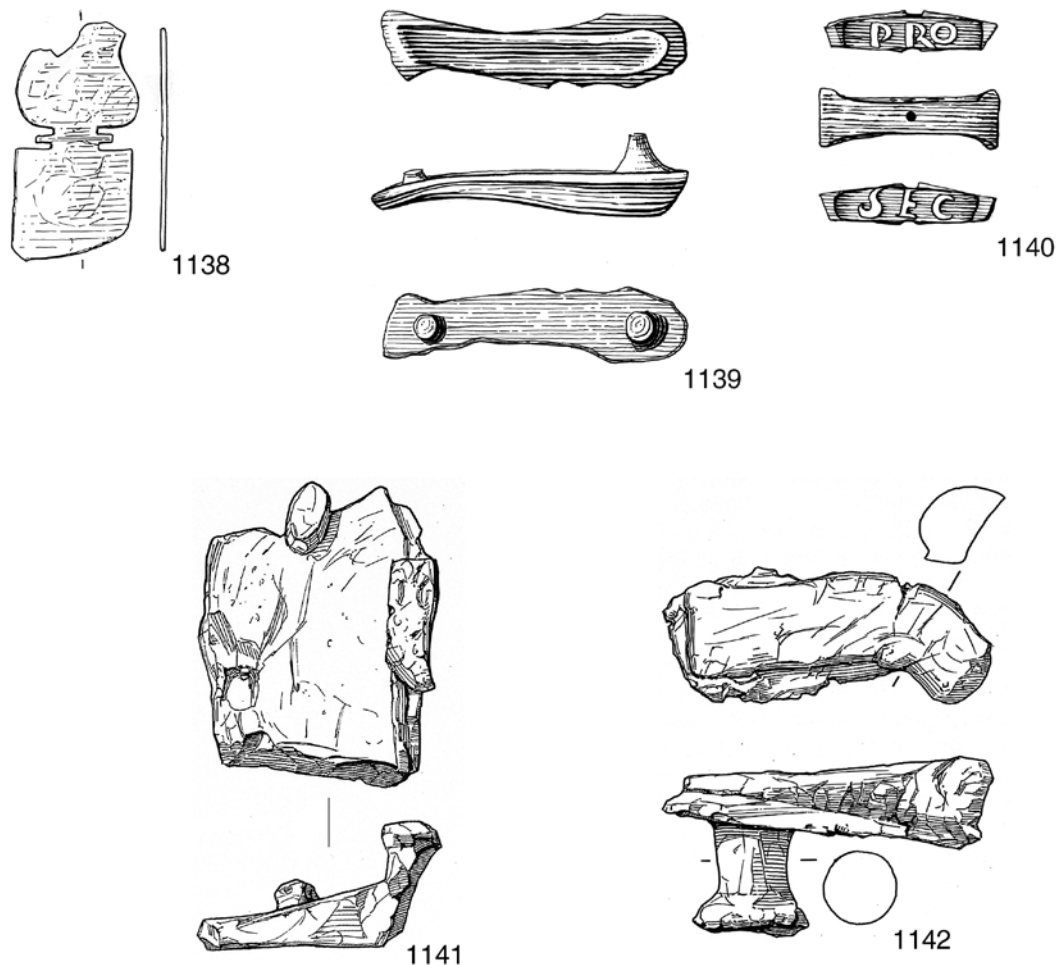


Figure 109 Miscellaneous iron and lead objects, no 1138, scale 1:2; nos 1139–42, scale 1:1

to mid-2nd-century fill of the western Cirencester-roadside ditch F85 (V, 413).

**1151** Fig 110 sf HA 74. A fragment of a tube with a slight flange at one end. A pair of fine grooves pass round the piece just below the flange. Probably cladding from the leg of a piece of furniture. L 44mm. Deposit of chalk rubble (II, 96), possibly associated with the Silchester Road, more likely to be early than late Roman.

**1152** Fig 110 sf VR 1042. A small peg with a broken top, similar to one from the Balcerne Lane site in Colchester (Crummy 1983, fig. 87, no. 2155) used for fixing bone inlay. The peg is discoloured at the chipped, narrower end, possibly from contact with iron. Late 2nd- to 3rd-century (?or later) fill of pit F64/ 70 (V, 385).

**1153** Fig 110 sf VR 265b. A fragment of a ?peg with the head marked by a single groove. L 21mm. Metallated ?yard surface (V, 62), mid- or late 2nd century onwards.

**1154** Fig 110 sf CHR 1362. A thick, slightly tapering, circular shaft with a lathe centre mark in the intact end. The other end has decayed and what appears to be a very sunken centre mark placed off-centre is almost certainly a natural feature. There is a band of very fine grooves about halfway along the object. L 41mm. This object either slotted into something, or may be from a much longer shaft or handle, possibly for an item such as a fan (RCHM, York, Pl. 71). Otherwise, it may be a stout peg. Late 4th-century fill of the cemetery boundary ditch F70 (III, 670).

**1155** Fig 110 sf VR 3055. A fragment of a ?peg with a very slightly tapering shaft. The head is marked by a bead and reel motif. L 36mm. Late 4th- to early 5th-century soil layer (X, 336).

**1156** Fig 110 sf VR 2604. Fragment of bone tubular object with well-formed groove near one end and shallow irregularly-cut groove at the other. L 18mm, W 9mm. Possibly from a hinge or small handle. 13th- to 14th-century pit F43 (X, 243).

*not illustrated*

**1157** sf VR 160. A fragment, split lengthwise, from an ivory ?peg. L 38mm. Metallated ?yard surface (V, 63), mid- or late 2nd century onwards.

**1158** sf HG 1319. Long bone of ?sheep or goat, one end missing, other damaged. Lines of fine regularly-spaced nicks along the L of the bone. Possibly done with a wheel. Hillwash over the base of the Roman defensive rampart (IV, 1216), late 3rd century or later.

**1159** sf CHR 1441. Fragment of bone, hollowed out along its length on one side, originally forming a tube. Ten closely incised lines also at this end. L 26mm. Late 4th-century fill of the cemetery boundary ditch F70 (III, 670).

**1160** sf VR 529. Fragment of ?pin shaft. L 18.5mm. Construction of 13th- to 15th-century Building 938.1 (IV, 62).

### Miscellaneous shale objects

**1161** Fig 110 sf VR 626. A broad strip of shale with chamfered edges, both internally and externally. The strip is slightly curved, its diameter too large to be an armlet. L (surviving)

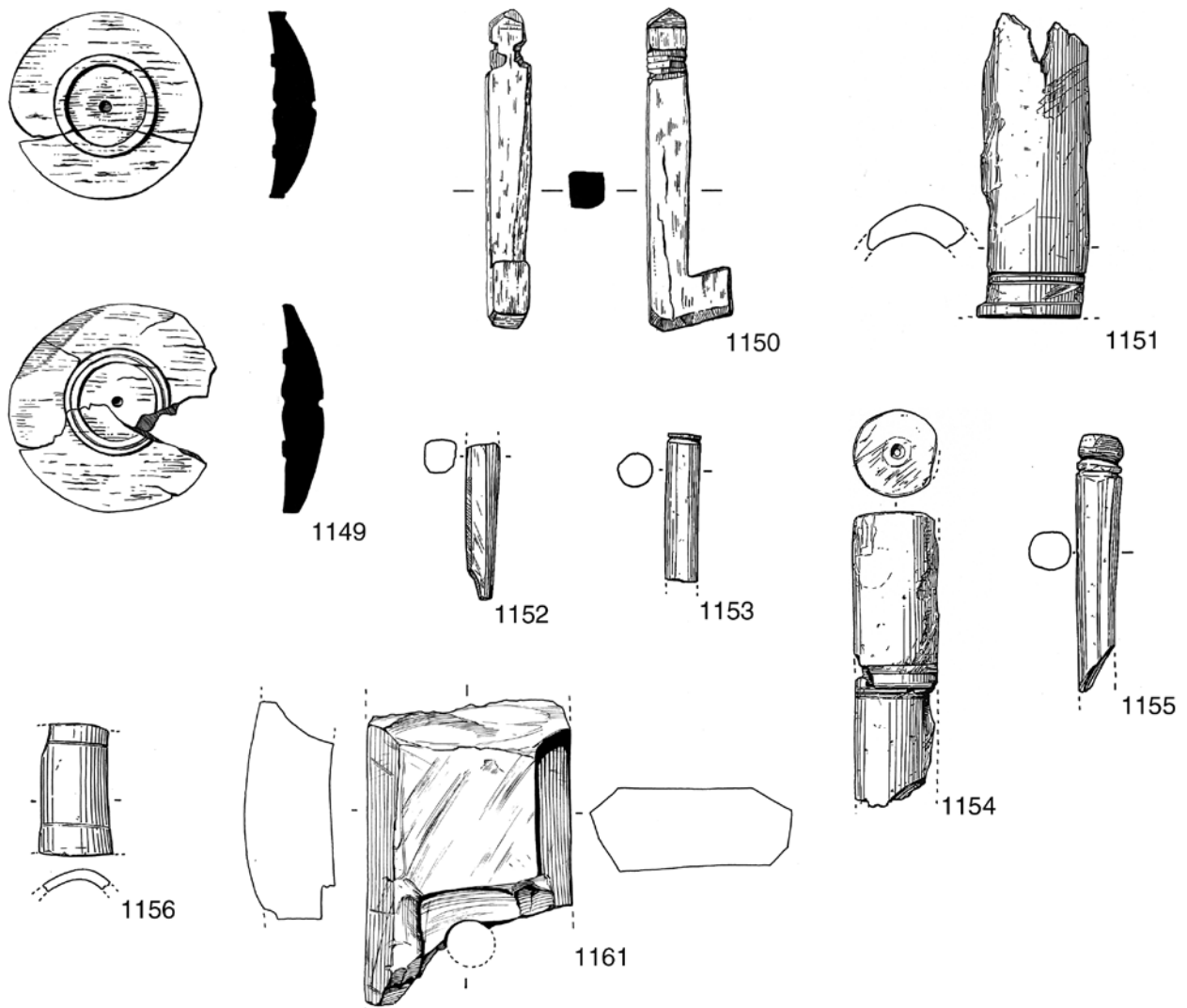


Figure 110 Miscellaneous bone, ivory and shale objects, nos 1149-56, no 1161, scale 1:1

40mm, W 28mm, T 12mm. Late 4th- to early 5th-century (?and later) soil layer (V, 28).

*not illustrated*

**1162** sf CHR 0. Roughly triangular piece of shale. L 19mm, maximum T 11mm. ?Worked. Soil layer of uncertain date, probably before c AD 270 (III, 807).

**1163** sf HA 494. Burnt fragment. Possibly from a vessel. 22 by 20mm. Late 4th- to early 5th-century (?and later) soil layer (XI, 253).

### Ceramic object

*not illustrated*

**1164** sf NR 0. Fragment of a ceramic tile formed after

breakage into a flat circular object, possibly a lid. The underside has a zone of sooting to around 30mm in from the edge. Zig-zag shaped graffiti have been cut into the upper surface after firing. Red oxidised fabric with laminated fracture and silty feel, containing abundant very fine rounded quartz, with a scatter of mica, moderate iron ore up to c 2mm and occasional streaks and pellets of white clay. 100 by 54mm, too fragmentary for diameter to be measurable. Late Roman fill of the Iron Age enclosure ditch F371 (II, 498).

### Pigment

*not illustrated*

**1165** sf VR 0. One piece of Egyptian blue pigment was recovered from the mid- to late 3rd-century disuse of Building 1.24 (XIII, 3281).

## Appendix to Part 2 List of grave goods

The following list does not include coffin nails (Category 11) and grave linings of ceramic and stone tiles (Category 9). Where pottery vessels were associated with other grave goods they are listed here, but for full details of pottery, including those graves with no other goods, the reader is referred to another volume in this series (P5). Objects are referred to by catalogue number, but where an entire range of like objects has not been fully catalogued (that is, some have been treated as bulk finds), page reference to general discussion is given. Page references in *italics* denote tables.

### **Northern suburb**

#### **Hyde Street**

- Grave 5, female inhumation dated mid-4th to 5th century  
antler comb **312**
- Grave 11, adolescent (?male) inhumation dated mid-4th to 5th century  
iron hobnails, 62
- Grave 16, male inhumation dated late 4th to 5th century  
coin, House of Theodosius, 135
- Grave 21, female inhumation dated mid-4th to 5th century  
iron hobnails, 62
- Grave 25, male inhumation dated mid-4th to 5th century  
iron hobnails, 62
- Grave 27, ?female inhumation dated mid-4th to 5th century  
iron knife **671** not certainly associated

#### **Victoria Road**

- Grave 1, female inhumation dated late 4th to early 5th century  
antler comb **313**
- Grave 22, adult inhumation dated mid- to late 4th century  
copper alloy nail **738** not certainly associated
- Grave 23, female inhumation dated mid- to late 4th century  
iron hobnails, 62
- Grave 30, female inhumation dated late 4th to early 5th century  
iron boot-plate **308**
- Grave 34, female inhumation dated mid- to late 4th century  
iron hobnails, 62

- Grave 36, male inhumation dated mid- to late 4th century  
furniture (?box) as iron nails, 156, 157
- Grave 39, child inhumation dated mid- to late 4th century  
coin, Gratian not certainly associated, 135  
furniture (?box) as iron nails, 156, 157
- Grave 49, male inhumation dated late 4th to early 5th century  
iron hobnails, 62
- Grave 52, adolescent inhumation dated late 4th to early 5th century  
antler comb **316**
- Grave 57b, female inhumation dated mid- to late 4th century  
antler comb **311**  
iron hobnails, 62
- Grave 58b, adult inhumation dated mid- to late 4th century  
copper alloy knife handle **661**  
iron hobnails, 62
- Grave 59, male inhumation dated mid- to late 4th century  
coin, Constantine II, 135
- Grave 64, female inhumation dated mid- to late 4th century  
bone hairpin **101**
- Grave 70, adult inhumation dated late 3rd to early 4th century  
copper alloy stud **752** not certainly associated  
iron hobnails, 62
- Grave 74, male inhumation dated mid- to late 4th century  
copper alloy pierced plate with iron rivet **1134**
- Grave 76, infant inhumation dated late 3rd to early 4th century  
furniture (?box) as iron nails, 156, 157  
iron ?ox goad **932** probably residual in backfill of grave
- Grave 84, male inhumation dated late 3rd to early 4th century  
furniture (?box) as iron nails, 156, 157  
pottery: one vessel mislaid after discovery
- Grave 90, male inhumation dated mid- to late 4th century  
iron corner bracket **818**
- Grave 91, child inhumation dated late 4th to early 5th century  
copper alloy stud **756**
- Grave 94, inhumation dated late 4th to early 5th century  
antler comb **317**
- Grave 95, cremation dated late 3rd to early 4th century  
iron hobnails, 62



- furniture (?box) as iron nails, 156, 157  
 iron ladle **370**, iron hipposandal (fragment) **639**  
 and iron bar **959** probably not associated with the burial  
 pottery: grey ware jug, bowl and dish, New Forest colour coated beaker, Oxfordshire colour coated flagon
- Grave 100, adult cremation dated late 3rd to early 4th century  
 furniture (?box) as iron nails, 156, 157  
 pottery: grey ware jar (cremation urn)
- Grave 101, female inhumation dated late 3rd to early 4th century  
 iron boot-plate **306**  
 ?furniture (?box) as iron nails, 156, 157
- Grave 103, adult cremation dated late 3rd to early 4th century  
 furniture (?box) as iron nails, 156, 157  
 pottery: grey ware bowls (cremation urn and lid)
- Grave 105, infant inhumation dated late 4th to early 5th century  
 furniture (?box) as iron nails, 156, 157  
 iron hook **820** probably not associated with the burial  
 pierced iron plate **917**
- Grave 107, male inhumation dated late 3rd to early 4th century  
 iron hobnails, 62  
 copper alloy stud **764**
- Grave 108, female inhumation dated late 3rd to early 4th century  
 iron pierced strip **866**  
 pottery: grey ware bowl
- Grave 109, empty of human remains. Dated late 3rd to early 4th century  
 furniture (?box) as iron nails, 156, 157  
 iron knife **678** probably residual in backfill of grave  
 pierced iron plate **869**  
 pottery: grey ware bowl and dishes (2), New Forest colour coated flagon and beakers (3)
- Grave 110, infant inhumation dated late 2nd or 3rd century  
 iron lock bolt **805** possibly associated with the burial
- Grave 127 empty of human remains. Dated late 3rd to early 4th century  
 furniture (?box) as iron nails, 156, 157  
 pottery: grey ware jar, bowl and dish, Oxfordshire oxidised flask
- Grave 129, female inhumation dated mid- to late 4th century  
 iron pierced strip **906**  
 iron ox goad **933** probably residual in backfill of grave
- Grave 407, adult inhumation dated late 1st century  
 iron hobnails, 62
- Grave 408, juvenile cremation dated first half of the 3rd century  
 bone counters (29) **603**  
 copper alloy stud **761**  
 pottery: grey ware jar (cremation urn), grey ware jar, samian ware vessel mislaid after discovery
- Grave 409, adult cremation dated mid-3rd century  
 glass bead **178**  
 cowrie shell beads (2) **189**  
 bone bead **190**  
 copper alloy bell **255**  
 bone peg **1081**  
 pottery: grey ware jars (2 cremation urns), grey ware dishes (3), Oxfordshire oxidised bottle
- Grave 415, cremation dated mid-2nd century  
 bone hairpin **75**  
 pottery: grey ware jar (cremation urn)
- Grave 424, adult cremation dated early to mid-3rd century  
 furniture (?box) as iron nails, 155  
 pottery: grey ware jar (cremation urn), grey ware bowl, white ware flagon
- Grave 426, cremation dated mid-2nd century  
 bone hairpin **130**
- Grave 429, cremation dated mid-2nd century  
 pierced plate **851**
- Grave 430, infant inhumation dated mid- to late 1st century  
 coin of Claudius, 118–23
- Grave 431, cremation dated mid- to late 1st century  
 glass inguent bottle fragments **375**  
 fragments of melted glass, 82–4  
 ceramic lamp **544**  
 copper alloy binding **828**  
 copper alloy spheres ?corroded beads **1124**  
 furniture (?box) as iron nails, 155  
 pottery (some burnt and broken in antiquity): central Gaulish green glazed beaker and bowl, samian cup, white ware flagons (2), grey ware beaker.
- Grave 433, adult cremation dated 2nd century  
 copper alloy finger ring **237**  
 iron collar **1109**  
 fragments of melted glass, ?accidental inclusion, 82–4  
 pottery: grey ware jar
- Grave 434, infant inhumation dated mid- to late 1st century  
 coin of Claudius, 118–23  
 pottery: grey ware jar
- Grave 438, cremation of a juvenile dated mid- to late 1st century  
 glass unguent bottles **372, 373**  
 fragments of melted glass, 82–4  
 ceramic lamp **545**  
 coin of Claudius, 118–23  
 pottery (much burnt and broken in antiquity): Cologne beaker (cremation urn), base of a grey ware jar as lid, base and body sherds from white ware flagon(s). Rim and body sherds from samian cups and bowls.
- Grave 440, adult cremation dated late 1st century  
 frit beads **148–56**  
 glass bead **174**  
 copper alloy ferrules (category 13) **181, 187, 188**  
 glass unguent bottle **374**

- fragments of melted glass, 82–4
- pottery: grey ware bead rim jar (cremation urn), 445 sherds of fine white ware, burnt and broken in antiquity.
- Grave 442, cremation dated late 2nd to early 3rd century
  - glass unguent bottle **378**
  - many fragments of melted glass, 82–4
  - bone fittings for unidentified item(s) of furniture **591–4**
  - copper alloy studs (39) **743**
  - iron nails (over 600), 155
  - pottery: Dressel 20 amphora (cremation urn), Gauloise 4 amphora
- Grave 447, adult cremation dated first half of 3rd century
  - glass bead **180**
  - pottery: BB1 jar (cremation urn)
- Grave 466, cremation dated mid 2nd century
  - copper alloy bow brooch **25**
  - glass bead **169**
  - amber bead **179**
  - ivory armlet **210**
  - copper alloy armlet and ?hairpin **211**
  - silver ring (on ivory armlet) **243**
  - copper alloy mirrors **322, 323**
  - glass unguent bottles **376, 377**
  - copper alloy and iron fittings for a box of maple wood **590**
  - copper alloy model wheel **947**
  - pottery: BB1 dish, grey ware dish, samian cup
- Grave 470, infant cremation dated late 1st to early 2nd century
  - furniture (?lid) as iron nails, 155
  - pottery: grey ware jar (cremation urn), white ware flagon
- Grave 491, male inhumation dated late 1st to mid-2nd century
  - iron hobnails not certainly associated, 62
  - pottery: sherds from a Terra Nigra platter
- Grave 501, cremation dated late 1st century
  - frit beads **157, 158**
  - glass beads **164, 167, 182**
  - copper alloy finger ring **236**
  - bone counter **601**
  - copper alloy bell **945** (category 1)
- Grave 503, cremation dated late 1st to early 2nd century
  - iron knife **664**, probably not associated with the burial
  - pottery: grey ware jar (cremation urn), samian dish
- Grave 505, cremation and infant inhumation dated mid-2nd century
  - iron pierced plate **839**
- Grave 507, cremation (more than one individual) dated mid-2nd century
  - iron bow brooch **47**
- Grave 515, cremation dated late 1st century
  - copper alloy bow brooches **10, 13, 14**
  - copper alloy and iron fittings for a box of ?beech wood **547–55**
  - pottery: grey ware jar (cremation urn), grey ware beaker and dish, white ware flagon
- Grave 520, adult cremation dated late 1st to early 2nd century
  - iron armlet **215**
  - iron finger ring **247**
  - pottery: grey ware jar (cremation urn)
- Grave 522, adult cremation dated second quarter of 2nd century
  - copper alloy bow brooch **8**
  - iron armlet **218**
  - pottery: white ware flagon, samian dish
- Grave 528, adult cremation dated late 1st to early 2nd century
  - copper alloy bow brooches **3, 6, 7**
  - iron hairpin **140**
  - pottery: grey ware jar (cremation urn)
- Grave 538, adult cremation dated late 1st to early 2nd century
  - iron hobnails, 62
- Grave 540, adult cremation and infant inhumation dated late 1st century
  - copper alloy bow brooch **27**
  - amber beads **168, 170**
  - copper alloy finger rings **234, 235**
  - furniture (?box) as iron nails, 155
  - pottery: white ware flask
- Grave 542, cremation dated late 1st to early 2nd century
  - shale armlet **192**
  - pottery: grey ware jar (cremation urn)
- Grave 546, adult cremation dated late 1st to early 2nd century
  - iron armlet **216**
  - iron finger ring **248**
- Grave 556, cremation dated late 1st to early 2nd century
  - iron armlet **214**
  - bone die **616**
  - pottery: white ware beaker
- Grave 557, adult and infant inhumation dated late 1st to early 2nd century
  - iron model fire shovel **946**
- Grave 565, adult cremation and infant inhumation dated mid-2nd century
  - furniture (?box) as iron nails 155
  - pottery: grey ware jars (2)
- Grave 566, adult cremation dated mid-70s AD
  - copper alloy plate brooches **49, 50**
  - bone ?counters (2) **1149**
  - pottery: grey ware jar (cremation urn), grey ware jars (2), bowls (3) and lids (2), imported colour coated beaker, white ware flagons (4), samian bowls and cups (10)
- Grave 578a, cremation dated late 1st to early 2nd century
  - bone counters (2) **602**
  - pottery: grey ware jar (cremation urn), grey ware cup and bowls (2)
- Grave 578b, adult cremation dated late 1st to early 2nd century
  - iron armlet **217**

pottery: grey ware jar (cremation urn), grey ware bowl, oxidised mica dusted beaker, cups (3) and dishes (2)

- Grave 579, empty of human remains. Dated late 1st century  
copper alloy boss (perhaps a model shield) **768**  
pottery: white ware flagon
- Grave 598, adult cremation dated late 1st to early 2nd century  
copper alloy mirror **321**  
pottery: white ware flagon
- Grave 600, probably female cremation dated mid-2nd century  
bone inlay **587, 588** (probably residual from grave 621)  
copper alloy nails **711**  
pottery: grey ware jar (cremation urn), white ware flagon
- Grave 605, cremation dated late 1st to early 2nd century  
bone inlay **586** (probably residual from grave 621)  
iron plate **837**
- Grave 606, cremation of more than one individual dated late 1st to early 2nd century  
iron hobnails not certainly associated, 62  
pottery: grey ware jar (cremation urn), grey ware beaker and cup
- Grave 619, cremation dated mid-2nd century  
copper alloy nail **716**  
pottery: grey ware jar (cremation urn)
- Grave 621, adult cremation dated late 1st century  
bone fittings for unidentified item(s) of furniture **556–89**
- Grave 622, cremation dated late 1st to early 2nd century  
furniture (?lid) as iron nails, 155  
pottery: grey ware jar (cremation urn), grey ware beaker, oxidised mica dusted cups (7) and dishes (2)
- Grave 623, cremation dated late 1st century  
copper alloy mirror **320**  
copper alloy wire (shaped like a split-spike loop) **1118**
- Grave 627, adult cremation dated late 1st century  
iron bow brooch **18**

#### **Victoria Road 1981 (XVII)**

- Grave 1, cremation dated 2nd century  
coin of Antoninus Pius, 134–5  
pottery: grey ware jar (cremation urn), grey ware beaker and jar, oxidised ware vessel, white ware flagon

#### **Western suburb**

##### **New Road**

- Grave F393, female inhumation dated late 3rd or 4th

century  
decorative rivets (on footwear) **310**  
iron hobnails, 62

- Grave F397, female inhumation dated late 3rd or 4th century  
iron hobnails, 62
- Grave F405, female inhumation dated late 3rd or 4th century  
iron hobnails, 62

#### **22–34 Romsey Road**

- Grave F30, male inhumation dated late 3rd or 4th century  
iron hobnails, 62

#### **45 Romsey Road**

- Grave 16, female inhumation dated late 3rd or 4th century  
iron hobnails, 62
- Grave 21, adolescent inhumation dated late 4th to early 5th century  
coins of Constantine (1), Eugenius (1) and House of Theodosius (1), 136  
pottery: grey ware jug

#### **Eastern suburb**

##### **Chester Road**

- Grave 526, female inhumation dated late 4th century  
iron hobnails, 62
- Grave 527, male inhumation dated late 4th century  
iron hobnails, 62
- Grave 528, male inhumation dated mid- to late 4th century  
iron boot-plates **277**  
iron hobnails, 62
- Grave 530, female inhumation dated mid- to late 4th century  
bone armlets (3 or more) **209**  
copper alloy armlet **213**
- Grave 531, male inhumation dated late 4th century  
iron hobnails, 62  
iron staple **781**
- Grave 532, adolescent inhumation dated late 4th century  
iron hobnails, 62
- Grave 533, adolescent inhumation dated late 4th century  
iron hobnails, 62
- Grave 541, male inhumation dated mid- to late 4th century  
iron key **816** not certainly associated with the burial
- Grave 553, male inhumation dated late 4th century  
coin of House of Theodosius, 137

- Grave 556, child inhumation dated late 4th century  
iron buckle **258** not certainly associated with the burial  
iron plate, possibly a lock plate **843**
- Grave 559, female inhumation dated mid- to late 4th century  
iron hobnails, 62
- Grave 571, male inhumation dated late 4th century  
iron hobnails, 62
- Grave 573, inhumation dated mid- to late 4th century  
stone hone not certainly associated **692**
- Grave 579, child cremation dated late 3rd century  
coins of Victorinus (3) and Probus (2), 136–7
- Grave 599, adult inhumation dated mid- to late 4th century  
iron hobnails, 62
- Grave 600, male inhumation dated early to mid- 4th century  
iron hobnails, 62
- Grave 602, adolescent inhumation dated mid- to late 4th century  
iron hobnails, 62
- Grave 605, child inhumation dated mid- to late 4th century  
iron bootplate **276**
- Grave 616, male inhumation dated early to mid-4th century  
iron hobnails, 62
- Grave 619, adult inhumation dated mid- to late 4th century  
iron hobnails, 62
- Grave 620, child inhumation dated late 3rd century  
iron hobnails, 62

- Grave 622, male inhumation dated late 3rd century  
iron hobnails, 62
- Grave 633, female inhumation dated late 3rd century  
iron hobnails, 62
- Grave 634, adult inhumation dated late 3rd century  
iron hobnails, 62
- Grave 638, male inhumation dated late 3rd century  
iron hobnails, 62

#### **St Martin's Close, Winnall**

- Grave 13, male inhumation dated late-4th to 5th century  
iron stylus (perhaps associated with the burial but incomplete) **623**
- Grave 36, female inhumation dated late-4th to 5th century  
antler comb **315**  
bone veneer for wooden box **595**  
iron staple **784**
- Grave 38, child inhumation dated late-4th to 5th century  
silver hairpin **147**
- Grave 45, child inhumation dated late-4th to 5th century  
iron hobnails, 62
- Grave F57, female inhumation dated late-4th to 5th century  
antler comb **314**  
?furniture (?boxes) as copper alloy sheet **834–6** and iron nails, 158, 159–160  
gold thread (from embroidery) **949–51** (category 18)

## **PART 3: Saxon, medieval and post-medieval**



# 1 Objects of personal adornment and dress

This assemblage ranges in date from Saxon to post-medieval and includes a wide range of object types. It is dominated by a large number of medieval and early post-medieval buckles, belt-plates, mounts and strap-tags, and by substantial groups of small copper alloy dress pins and lace-ends.

## Pins

### Owl-headed pins

The two fragments of bone shafts with incised linear decoration in the form of owls (**1166** and **1167**), can be identified as pins by comparison with a more complete example from a 10th- or 11th-century context at The Brooks, Winchester (Mounsey, forthcoming). The upper surface of each fragment is finished but slightly rough, not the roughness of a fracture, but of cancellous tissue that has not been polished to a smooth surface.

The decoration provides a direct link between these pins and several early 11th-century bone spoons from the city (Collis and Kjølbye-Biddle 1979). The bowls and handles of the spoons are decorated with a variety of designs, primarily acanthus foliage and birds. The execution of the designs is rather more detailed and careful on the pins than the spoons.

The recovery of both spoons and pins decorated in this distinctive style, and the absence of similar material from elsewhere (*ibid* 389), together point to local manufacture. There is evidence for the manufacture of other bone objects in the western suburb (Category 16, **2709–11**), although they are later by context date. These two fragments, though residual in their context, may point to the location of the workshop. A single fragment of bone working waste from Crowder Terrace may also be from the manufacture of these pins (Category 16, **2712**). The majority of the other products of this workshop, all finished objects, come from the south-eastern part of the city, but this distribution need only be a reflection of late 20th-century development, not of the site of the workshop.

**1166** Fig 111 sf SXS 840. A fragment of a bone pin with faceted sub-rectangular top and circular shaft. L 32mm, top 8.5 by 6.5mm. The top and upper shaft are decorated with fine incised lines, which, with the facets, give it the form of an owl. The conceit is carried on to the flat back which has wavy line 'feathering'. The shaft is broken across a vegetal design. 13th- to 14th-century ditch F496 (XVII, 1061).

**1167** Fig 111 sf SXS 841. A fragment of a pin similar to **1166** above. L 21mm, top 10 by 6mm. 13th- to 14th-century ditch F496 (XVII, 1179).

### Small copper alloy pins with a contribution by D A Hinton

Pins of copper alloy wire were used from the medieval period onwards for various purposes, primarily to fasten clothing (Margeson 1993, 11). Several studies of these pins have been undertaken, not only on the form of the head, but also on the shaft diameter and length (Caple 1983, 1985; Oakley and Webster 1979, 260–2; Egan and Pritchard 1991, 297–304; WS 7, 552–71). Short fine pins are generally, but not exclusively later in date than long thick examples. The difference in size could indicate the type of fabric on which a pin was used (Margeson 1993, 11), as well as a difference in function (WS7.2, 560). Very short fine pins from late post-medieval or modern contexts would certainly have been used to hold cloth together for sewing.

Most of the pins have not been illustrated. As at Colchester (Crummy 1988, 7), two main head types were noted. Those described as Type 1 have a head formed by wrapping the a short length of wire once or more about the shaft, whilst on those of Type 2, the wire on the head has been shaped to a globular form. At Chelmsford, Caple (1985, 47, Type B) recognises a third type between the two. Both types occur from the 13th century onwards.

The total recovered was quite low; 102 of Type 1 (31 from recent contexts), and 54 of Type 2 (16 from recent

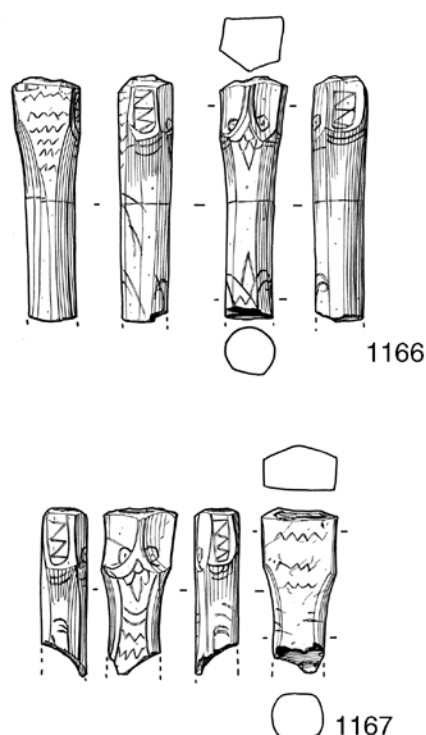


Figure 111 Pins, nos 1166–7, scale 1:1

contexts). A few pins are from well-stratified or well-dated contexts: from St John's Street, for example, two of Type 1 came from the construction of an oven in the western room of Building 1021.1, which is thought to date to the 14th or 15th centuries, and 11 of Type 1 were recovered from the fill of a pit F305, in which they were associated with early 16th-century pottery. The manufacture of pins of Type 1 may have been carried out in the eastern suburb (Category 15, 2699).

A few pins have other head types. There is one example with a globular head made of D-section wire with the ends butted together (1295). Similar pins from Colchester occur in late 17th-century contexts (Crummy 1988, 8, Type 4), a date comparable to the Victoria Road example, which came from the fill of a 17th- or 18th-century posthole. However, the type is dated at Chelmsford to the second half of the 16th century (Caple 1985, 48, Type K).

Also from Victoria Road are four pins with small hollow convex heads filled with solder and fitted on to long shafts. One (1296) came from the fill of a wall construction trench in Building 936.1, which may be as early as the 13th century. The others (1297–9) all derived from 15th- to 16th-century pit fills. Evidence from Colchester suggests a 13th-century date for the type (Crummy 1988, 8–9, Type 5), which appears to be supported by the Victoria Road example, and by two similar pins from the BS site, Winchester (WS7.2, fig 154, nos 1704–05), though one of these is very short for a pin of this type.

Three pins have a head made of two hemispheres, the lower fitted over a long shaft and filled with a lead-based solder which serves to secure the upper. Similar pins from Sandal Castle date to the late 15th and 16th centuries (Caple 1983, 273, Type D), and from Southampton to the 16th century (Harvey, Y 1975, fig 243, 1788, 1790). One of the three catalogued here (but not illustrated) is from a similarly dated context (1303). Another is from the fill of a 17th- to 18th-century pit and probably residual (1304), while the illustrated example (1300) came from a modern layer. Possibly of this type, but, if so, intrusive in their contexts (both of medieval date), are 1301 and 1302. If intrusion is discounted, both may be residual Roman, as a pin of similar manufacture to the soldered post-medieval form was deposited in a 4th-century grave at Butt Road, Colchester (Crummy 1983, fig 28, 484; Crummy *et al* 1993, 135, fig 2.75, e). There were 4th-century graves at New Road and in the western suburb generally. Alternatively, 1302 may not be of this type, as its deep cup would be suitable for holding a bead of glass or some other material.

A most unusual copper alloy pin came from St Bartholomew's School on the north side of Hyde Churchyard (1305). It is clearly both ornamental as well as functional, and must have been of some value. The gilt head is cast in the form of a draped and knotted scarf, further ornamented with a vegetal scroll design. An early 17th-century date has been suggested for this pin (Rosemary Weinstein, pers comm). No close parallels have been found, though there is a slight resemblance to a pin with a wound wire head from

Amsterdam, Holland which is dated to the late 16th or early 17th centuries (Baart 1977, no 116).

### **Type 1. Pins with a head formed by wrapping a short length of wire once or more about the shaft**

*not illustrated*

#### *early contexts*

**1168** sf CHR 80. Complete pin. L (bent) 22mm. Layer representing erosion of the hill-slope above the site, during the late Saxon period (I, 86). Could be contaminated with later finds.

**1169** sf VR 2219. Head and part of shaft of pin. L 19.5mm. 13th- to 15th-century soil layer (X, 61).

**1170** sf VR 3608. Complete pin. L 24mm. Layer in 13th- to 15th-century Building 935.2 (XII, 2085).

**1171** sf VR 5511. Complete bent pin. L 30mm. Floor layer in 13th- to 15th-century Building 936.4 (XII, 2523).

**1172** sf VR 5515. Pin with tip missing. L 37mm. Floor layer in 13th- to 15th-century Building 936.4 (XII, 2523).

**1173** sf VR 5811. Complete pin. L 43mm. Layer in 13th- to 15th-century Building 936.2 (XII, 2647).

**1174** sf VR 8593. Complete pin. L 35mm. 14th- to 15th-century pit F961 (XIV, 3771).

**1175** sf SJS 155. Complete pin. L 60mm. Construction of oven in western room of 14th- to 15th-century Building 1021.1 (I, 412).

**1176** sf SJS 157. Complete pin. L (bent) 62mm. Construction of oven in western room of 14th- to 15th-century Building 1021.1 (I, 412).

**1177** sf VR 3419 (a). Complete pin. L 29mm. Demolition of 13th- to 15th-century Building 935.2 (XII, 2031).

**1178** sf VR 5357. Complete pin. L 37mm. Demolition of 13th- to 15th-century Building 935.2 (XII, 2031).

**1179** sf VR 5423. Complete pin. L 31mm. Demolition of 13th- to 15th-century Building 935.2 (XII, 2031).

**1180** sf VR 6109. Complete pin. L 45mm. Late medieval soil layer (X, 947).

#### *15th–16th centuries, northern suburb*

**1181** sf SBS 31. Complete pin. L 32mm. Garden soil (II, 36).

**1182** sf SBS 54. Complete pin. L 29mm. Pit F67 (I, 60).

**1183** sf SBS 42(a). Four complete pins. L 43, 41, 35 and 28mm. Garden soil (II, 55)

**1184** sf SBS 55. Almost complete pin. L 26mm. Garden soil (I, 13).

**1185** sf VR 2189. Almost complete pin attached to iron ?nail. L 26.5mm. Pit F44 (X, 99).

**1186** sf VR 2240. Complete pin. L 35mm. Pit F44 (X, 99).

**1187** sf VR 2300. Two complete pins. L 25 and 38mm. Pit F44 (X, 99).

**1188** sf VR 2386. Complete pin. L 36mm. Pit F65 (X, 154).

**1189** sf VR 2389. Complete pin. L 42mm. Pit F65 (X, 154).

**1190** sf VR 2391. Complete pin. L 39mm. Pit F65 (X, 154).

**1191** sf VR 3079. Complete pin. L 510mm. Pit F153 (X, 408).

**1192** sf VR 3090. Two complete pins. L 48 and 47.5mm. Pit F153 (X, 408).

**1193** sf VR 3092. Complete. Circular section shaft. L 47mm. Pit F153 (X, 408).

**1194** sf VR 3094. Complete pin. L 54mm. Pit F153 (X, 408).

**1195** sf VR 4378. Complete pin. L 41.5mm. Pit F153 (X, 408).

**1196** sf VR 3387. Complete pin. L 25mm. Pit F751/797/759 (XIII, 3027).



- 1197** sf VR 3394. Complete pin. L (bent) 45mm. Pit F751/757/759 (XIII, 3025).  
**1198** sf VR 3403. Complete pin. L (bent) 18mm. Pit F763 (XIII, 3034).  
**1199** sf VR 3433. Complete pin. L (bent) 42mm. Pit F764 (XIII, 3041).  
**1200** sf VR 3459. Complete pin. L approximately 41mm. Pit F778 (XIII, 3081).  
**1201** sf VR 3682. Complete pin. L (bent) 36mm. Pit F771 (XIII, 3110).  
**1202** sf VR 4392. Two complete pins. L 24 and 19mm (bent). Pit F764 (XIII, 3052).  
**1203** sf VR 5012. Complete pin. L 37mm. Pit F778 (XIII, 3179).  
**1204** sf VR 6143. Complete pin. L 39mm. Pit F313 (X, 952).

*15th–16th centuries, eastern suburb*

- 1205** sf SJS 26(a). Complete pin. L 33mm. Pit F305 (I, 319).  
**1206** sf SJS 36. Complete pin. L 30mm. Pit F305 (I, 319).  
**1207** sf SJS 48. Complete pin. L 37mm. Pit F305 (I, 319).  
**1208** sf SJS 50. Three complete pins. L 27, 26 and 24mm (bent). Pit F305 (I, 319).  
**1209** sf SJS 54. Three complete pins. L 34 (bent), 33 and 26mm (bent). Pit F305 (I, 330).  
**1210** sf SJS 56. Two complete pins. L 30 and 29mm Pit F305 (I, 330).  
**1211** sf SJS 88. Complete pin. L 33mm. Pit F313 (I, 337).  
**1212** sf SJS 100. Complete pin. L 46mm. Pit F313 (I, 337).  
**1213** sf SJS 712. Complete pin. L 26mm. Layer (I, 190).

*17th–18th centuries, northern suburb*

- 1214** sf SBS 14. Complete pin. L 39mm. Layer, possibly as late as 19th or 20th centuries (III, 23).  
**1215** sf SBS 30,. Complete pin. L 48mm. Pit F59 (III, 45), this fill possibly as early as the 18th century.  
**1216** sf SBS 32. Complete pin, slightly bent. L 56mm. Pit F59 (III, 50), this fill possibly as early as the 18th century.  
**1217** sf VR 5952. Complete pin. L 24mm. Pit F781 (XIII, 3104).

*17th–18th centuries, western suburb*

- 1218** sf NR 31. Complete pin. L 22mm. Posthole F93 (II, 131).  
**1219** sf NR 359. Complete pin. L 18mm. Posthole F16 (II, 34).  
**1220** sf NR 361. Complete pin. Broken, L 11mm. Posthole F16 (II, 34).

*17th–18th centuries, eastern suburb*

- 1221** sf CHR 29. Complete pin. L 26mm. Layer (I, 19).  
**1222** sf SJS 35. Complete pin. L 31mm. Ditch F203 (I, 230).  
**1223** sf SJS 208. Complete pin in two pieces. L 33mm. Pit F224 (I, 501).  
**1224** sf SJS 239. Head of pin. Pit F224 (I, 501).

*19th–20th centuries, northern suburb*

- 1225** sf HA 369. Pin in two pieces. L (approximately) 25mm. Fill of cellar F310 in Building 744.5 (XII, 36).  
**1226** sf HAB 3. Complete pin. L 26mm. Feature F17 (V, 120).

- 1227** sf HAB 21. Head and part of shaft of pin. L 14mm. Wall foundation F19 (V, 163).  
**1228** sf HAB 29. Two complete pins. L 22 and 12mm (bent). Layer (V, 122).  
**1229** sf SBS 17. Eight complete and one incomplete pins, some bent. L 37, 29, 27, 25 (2), 24 (2), 23 and 22mm (incomplete). Pit F59 (III, 35)  
**1230** sf SBS 25(a). Five complete and two incomplete pins. L 39, 38, 33, 28, 26, and 21 (2 incomplete).  
**1231** sf SBS 3. Complete pin, slightly bent. L 25mm. Layer (III, 17).  
**1232** sf SBS 9. Complete, bent pin. L 38mm. Layer (III, 17).  
**1233** sf SBS 10. Four small complete pins. L 26, 25, 24 and 20mm. Layer (III, 17).  
**1234** sf VR 2057. Complete pin. L 27mm. Layer (X, 6).  
**1235** sf VR 3021. Complete pin. L 40mm. Layer (X, 254).

*19th–20th centuries, eastern suburb*

- 1236** sf CHR 26. Complete pin. L (bent) 30mm. Drain F10 (I, 48).  
**1237** sf CHR 683. Complete pin. L (bent) 29mm. Layer (IV, 586).  
**1238** sf SJS 867. Complete pin. L (bent) 22mm. Fill of 19th century clay pipe kiln F62 (II, 527).

*19th–20th centuries, city defences*

- 1239** sf NHW 3. Complete pin. L 26mm. Garden soil F6 (I, 28).

*unstratified*

- 1240** sf SBS 29. Complete pin, bent. L 27mm (I).

**Type 2. Pins with a head in which the wire has been wrapped round the shaft and shaped to globular form**

*not illustrated*

*early contexts*

- 1241** sf VR 3635. Complete pin. L 27mm. Late Roman and Saxon soil, possibly contaminated with later finds (XII, 2286).  
**1242** sf HG 318. Complete pin. L (bent) 42mm. 13th-to 14th-century pit F72 (III, 765).  
**1243** sf VR 5865. Complete pin. L 22.5mm. Layer possibly associated with the use of 13th- to 15th-century Building 936.4 (XII, 2528).  
**1244** sf VR 3416. Pin in two pieces. L 42.5mm. Demolition of 13th- to 15th-century Building 935.2 (XII, 2031).  
**1245** sf VR 3419(b). Complete bent pin, L 43mm. Head and part of shaft of a second. L 27mm. Demolition of 13th- to 15th-century Building 935.2 (XII, 2031).  
**1246** sf JCH 21. Complete pin. L (bent) 44mm. Slot F31 in 14th- to 15th-century Building 271.3 (III, 97).

*15th–16th centuries, northern suburb*

- 1247** sf HAB 13. Complete pin. L 49mm. Garden soil (V, 174).

- 1248 sf SBS 20. Complete pin. L 44mm. Garden soil (II, 36).  
 1249 sf SBS 42. Complete, slightly bent pin. L 47mm. Garden soil (II, 55).  
 1250 sf VR 2230. Complete pin. L 23mm. Pit F44 (X, 99).  
 1251 sf VR 2418. Complete pin. L 45.5mm. Pit F44 (X, 99).  
 1252 sf VR 3091. Complete pin. L 48mm. Pit F153 (X, 408).  
 1253 sf VR 3095. Complete, slightly bent pin. L 43mm. Pit F153 (X, 408).  
 1254 sf VR 3391. Complete pin. L 83mm. Pit F754 (XIII, 3019).  
 1255 sf VR 3455. Complete pin. L 52mm. Pit F771 (XIII, 3059).  
 1256 sf VR 3467. Complete pin. L (bent) 60mm. Pit F778 (XIII, 3079).  
 1257 sf VR 3460. Complete pin. L (bent) 39mm. Demolition of medieval buildings on tenements 935 and 936 (XIII, 3055).  
 1258 sf VR 3485. Complete pin. L 43mm. Pit F776 (XIII, 3072).

#### *15th–16th centuries, eastern suburb*

- 1259 sf SJS 26. Complete pin. L 41mm. Pit F305 (I, 319). 17th–18th centuries, northern suburb  
 1260 sf HA 170. Small complete pin. L (bent) 16mm. Demolition layer, possibly later (XIII, 58).  
 1261 sf SBS 62. Complete, slightly bent pin. L 57mm. Pit F59 (III, 46), this fill possibly as early as the 18th century.  
 1262 sf VR 3471. Complete pin. L 24mm. Pit F808 (XIII, 3094).  
 1263 sf VR 4393. Complete pin. L 25mm. Pit F781 (XIII, 3088).

#### *17th–18th centuries, western suburb*

- 1264 sf NR 1. Complete pin. L 23mm. Posthole F7 (II, 25).  
 1265 sf NR 3. Complete pin. L 33mm. Posthole F14 (II, 32).  
 1266 sf NR 5. Complete pin. L 21mm. Posthole F17 (II, 17).  
 1267 sf NR 45. Complete pin. L 23mm. Posthole F95 (II, 133).  
 1268 sf NR 354. Complete pin. L 23mm. Posthole F81 (II, 118).  
 1269 sf NR 355. Complete pin. L 24mm. Feature F32 (II, 49).

#### *17th–18th centuries, eastern suburb*

- 1270 sf CHR 10. Complete pin. L approximately 41mm. Layer (I, 19).  
 1271 sf CHR 307. Complete pin. L (bent) 36mm. Layer (I, 19).  
 1272 sf SJS 35. Complete pin. L 27mm. Ditch F203 (I, 230).  
 1273 sf SJS 241. Two fragments of a pin. L (incomplete) 16mm. Pit F224 (I, 501).  
 1274 sf SJS 727. Complete pin. L 60mm. Pit F311 (I, 335).

#### *17th–18th centuries, city defences*

- 1275 sf JCH 13. Complete pin. L (bent) 61mm. Soil over medieval buildings on tenement 271 (III, 88).  
 1276 sf JCH 308. Complete pin. L 34mm. Garden soil (IV, 433).

#### *19th–20th centuries, northern suburb*

- 1277 sf HA 281. Complete pin broken into two pieces. L 36mm. Fill of cellar F310 in Building 744.5 (XII, 39).

- 1278 sf HA 369. Pin in four pieces. L approximately 44mm. Fill of cellar F310 in Building 744.5 (XII, 36).  
 1279 sf HAB 3. Tip of shaft missing. L 22.5mm. Feature F17 (V, 120).  
 1280 sf SBS 17. Complete pin. L (bent) 29mm. Pit F59 (III, 35).  
 1281 sf SBS 25. Complete pin. L 30mm. Pit F59 (III, 33).  
 1282 sf SBS 129. Complete pin, bent. L 50mm. Layer (I, 24).  
 1283 sf VR 3407. Complete pin. L 25mm. Layer (XIII, 3006).  
 1284 sf VR 3417. Complete bent pin. L 22mm. Layer (XIII, 3006).  
 1285 sf VR 5938. Pin with tip missing. L 22mm. Pit F773 (XIII, 3067).  
 1286 sf VR 7001. Two fragments of pin, tip missing. L 18mm. Pit F773 (XI, 1212).  
 1287 sf VR 7014. One complete pin. L 25mm. One in four pieces, L 25mm. Pit F773 (XI, 1212).

#### *19th–20th centuries, eastern suburb*

- 1288 sf CHR 4. Tip missing, head corroded. L 24mm. Drain F4/10 (I, 21).  
 1289 sf CHR 25. Complete pin, bent. L approximately 47mm. Drain F4/10 (I, 48).  
 1290 sf CHR 681. Complete pin. L 42mm. Layer (IV, 584).

#### *unstratified and dating uncertain*

- 1291 sf SBS 122. Complete pin, bent. L 51mm. Unstratified (I).  
 1292 sf NR 362. Two pins, L 24 and 22mm. Context of uncertain type and date (II, 157).  
 1293 sf SJS 285. Complete pin. L 26mm. Unstratified (I).  
 1294 sf SJS 1011. Head and part of shaft of pin. L 7mm. Context of uncertain type and date (IV, 746).

#### **Pin with a globular head made of D-sectioned wire with the ends buffed together**

##### *not illustrated*

- 1295 sf VR 9519. Complete bent pin. L 24.5mm. 17th- to 18th-century posthole F1035 (XV, 3953).

#### **Pins with a small hollow convex head filled with solder and fitted onto a long shaft**

##### *not illustrated*

- 1296 sf VR 5016. Complete bent pin. L 45mm. Fill of wall trench F806 in 13th- to 15th-century Building 936.1 (XIII, 3178).  
 1297 sf VR 3429. Complete pin. L (bent) 40mm. 15th- to 16th-century pit F764 (XIII, 3052).  
 1298 sf VR 4083. Complete pin. L 76mm. 15th- to 16th-century pit F751/757/759 (XIII, 3001).  
 1299 sf VR 3483. Complete pin. L 44mm. 15th- to 16th-century pit F776 (XIII, 3085).

#### **Composite pins with a head made of two hemispheres**

- 1300 Fig 112 sf VR 2058. Copper alloy pin, L 58mm. The shaft and head pieces are fitted together by passing the shaft

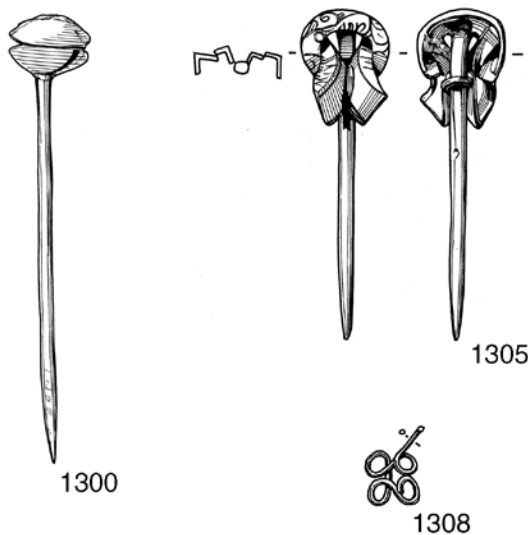


Figure 112 Pins and hair accessory, 1300, 1305, 1308, scale 1:1

into the lower half and filling the hollow with solder. 19th- to 20th-century soil layer (X, 6).

*not illustrated*

**1301** sf SXS 603. In two pieces with damaged head. L of shaft when complete 54mm. 12th- to 13th-century pit F391 (XVII, 853). Either intrusive or residual Roman.

**1302** sf NR 339. Complete shaft and damaged head. L of shaft approximately 50mm. Build-up of medieval soil (II, 591). Either intrusive or residual Roman. (DAH)

**1303** sf VR 3434 F764. Complete shaft and damaged head of pin. L (bent) 48mm. 15th- to 6th-century pit F764 (XIII, 3041).

**1304** sf SJS 174. Complete shaft and damaged head of pin. L 55mm. 17th- to 18th-century pit F303 (I, 315).

#### Pin with highly decorated head

**1305** Fig 112 sf SBS 8. Copper alloy pin with gilt copper alloy head in the form of a draped and knotted scarf. L 43mm. The head, cast separately, is fixed to the shaft with lead-tin solder, a rather weak attachment that is strengthened by a small copper alloy loop passing from the back of the lower part of the head around the shaft. This prevents the head from being pushed upwards. The top of the head is ornamented with a fine engraved floral design. Probably of early 17th-century date (Rosemary Weinstein, pers comm) and residual in a 19th- to 20th-century soil layer (III, 17).

#### Iron pins

*not illustrated*

**1306** sf VR 0. Small dress pin. It is encircled by two thin relief strips below the head, forming a collar. The shank expands slightly in the centre and the tip is missing. L 65mm, T 4mm. 15th- to 16th-century pit F44 (X, 99).

**1307** sf VR 0. Small dress or sewing pin with ball head. L 31mm, T 2mm. 15th- to 16th-century pit F754 (XIII, 3019).

#### Hair accessory

This wire quatrefoil probably comes from a hair decoration similar to an elaborate arrangement of wire cinquefoils from Trig Lane, London, which came from a late 14th-century context (Egan and Pritchard 1991, 296).

**1308** Fig 112 sf VR 98. Small quatrefoil made from fine twisted wire. The stem suggests this is a small fragment from a more complex object. L 10mm, W 7mm. 13th- to 15th-century soil layer (IV, 66).

#### Brooches

While two of these brooches are of types well represented in the medieval periods (**1310** and **1311**), one is more unusual (**1312**) and the dates of two, both penannulars, uncertain (**1309** and **1313**). The rectangular iron brooch is very unusual, but, coming from the fill of a 15th- or 16th-century pit, can be accepted as late medieval or early post-medieval in date.

One of the penannulars is also from the fill of a 15th- or 16th-century pit. It is silver and has unusual terminals (**1313**). It may be residual Roman, though a medieval parallel may be seen in a brooch of copper alloy from St Peter's Street, Northampton (Oakley and Webster 1979, fig. 107, 5). This had a similar 'cabled' ring and terminals fitted with hemispheres, and a fragment of metal adhering to one terminal of the Winchester brooch may be all that remains of similar fittings.

The other penannular brooch may also be residual Roman, belonging to Fowler's Type B (1960, 152), with coiled terminals in the same plane as the ring. However, neither the appearance of the metal nor its finishing are typical of the Roman period. The object was recovered from a late Saxon pit at Chester Road. It is probably Roman piece reused, perhaps after some alterations, in the Saxon period.

**1309** Fig 113 sf CHR 152. Copper alloy penannular brooch with terminals coiled in the same plane as the ring. ID (maximum) 22mm. The ends of the circular-section hoop were hammered to a flattened rectangular section and trimmed to provide sufficient length for a single turn in the coil. One side is rougher than the other, with an irregular curve and fractured end. The pin is straight. Possibly residual Roman. Late Saxon pit F24 (I, 127).

**1310** Fig 113 sf VR 250. Annular brooch of copper alloy, with one side of the frame plain, the other cable-twisted. The pin has a pronounced collar. Internal D 22mm. A similar brooch comes from a mid-13th-century context in London (Egan and Pritchard 1991, fig 160, 1310; *note* some discrepancy between description and illustration). 13th- to 15th-century cellar or quarry F28 on tenement 937 (IV, 172).

**1311** Fig 113 sf VR 7454. Mercury-gilded circular brooch of impure copper with six collets containing glass or enamel. D 28mm, H 8mm. The area between each collet is either stippled or cross-hatched, and the outside of the rim bears engraved zig-zags. The pin has a moulding at the junction with the loop and terminates at the back of the brooch. The pin was fitted to the brooch ring by passing its penannular loop around the ring and clinching the ends tightly together. A small gap still remains. A ring with eight collets filled with paste came from a late 13th- or early 14th-century context

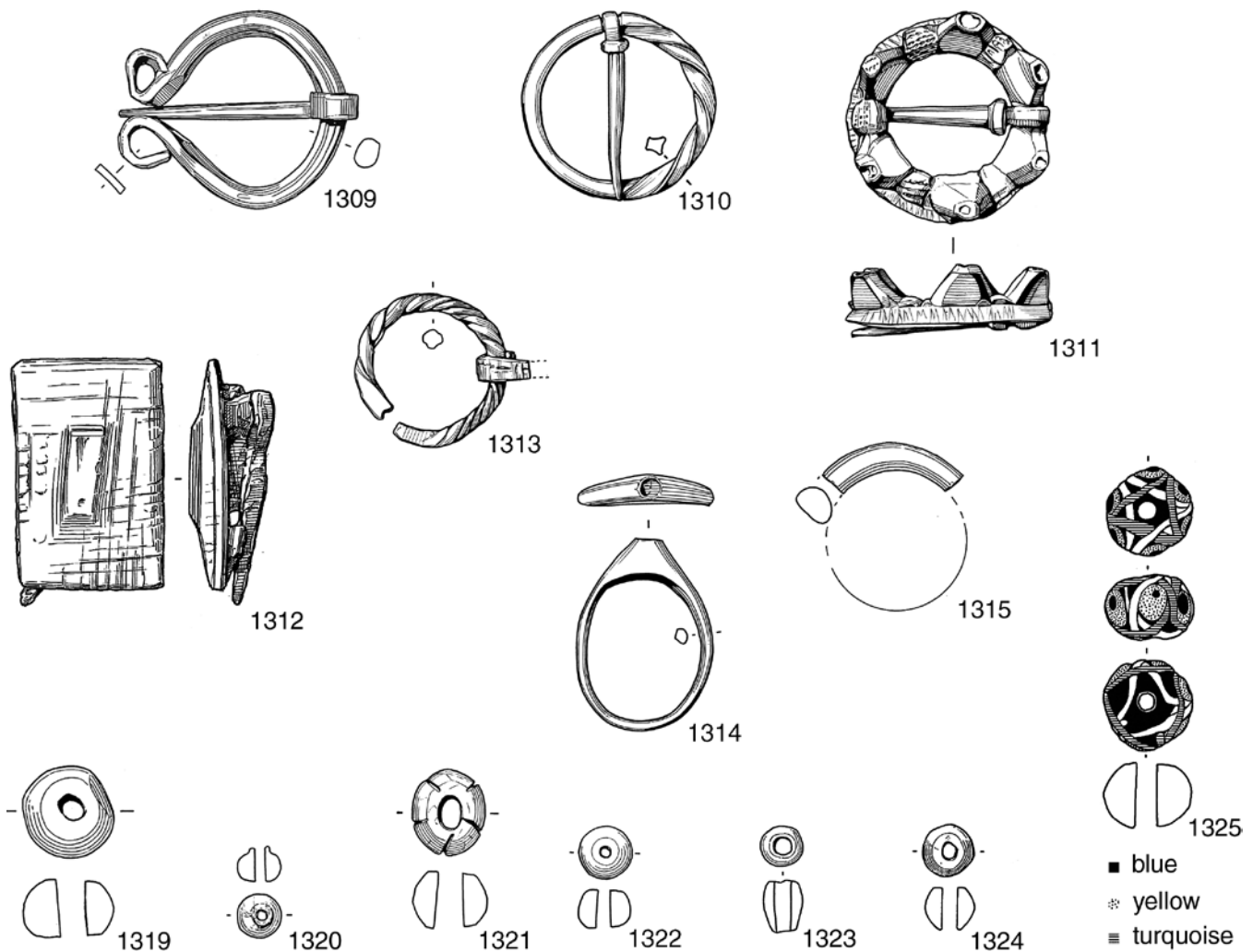


Figure 113 Brooches, nos 1309–13, finger rings, nos 1314–15, beads, nos 1319–25, scale 1:1

at Leicester (Clay 1981, fig 49, 39), and a similar ring from Hereford had six collets, three probably filled with green glass and three with blue glass (Cherry in Shoesmith 1985, 21–4, fig 17, 3). 14th- to 15th-century pit F505 (XI, 1690).

**1312** Fig 113 sf VR 4189. Rectangular iron brooch with traces of copper alloy corrosion, all that remains of some sort of coating. L 33.5mm, W 22mm. There is a raised narrow rectangular boss on the front. The iron pin on the back is fitted onto a simple loop. The edge was bound with sheet metal, 2.5mm wide and crimped on the front, but 2mm wide and plain on the back. On the back the two better preserved corners show that this binding was mitred. 15th- to 16th-century pit F751 (XIII, 3025).

**1313** Fig 113 sf VR 6226. Silver penannular brooch with a ring twisted to imitate cabling. D 22mm. One terminal appears to be plain but is rebated on the upper face; the other has a semicircular indentation at the end, and a fragment of silver sheet metal adhering to the rebated upper face. The broken pin (now bent over to face the reverse) has the mark of a clinching tool along its midline where it loops over the top of the ring, and two transverse clinch marks where it narrows just beyond the loop. The terminals are quite poorly finished, and may have originally continued upwards to form a coil at right angles to the plane of the ring (Fowler 1960, Type C), hence the fragment of sheet metal adhering on one side. However, the fragment of metal may be from a fitting such as the hemispheres fixed to a medieval brooch from Northampton (Oakley and Webster 1979, fig 107, 5), in

which case the terminals would be hidden and need not be well-finished. 15th- to 16th-century pit F309 (X, 965).

#### Finger rings with a contribution by H E M Cool

The stirrup-shaped form of **1314** was popular from the mid-12th century at least into the first half of the 13th century or later (Egan and Pritchard 1991, 326–7). The composition of the glass ring (**1315**) has not been analysed, but given its weight in relation to its size, it is almost certainly made of lead glass, which was used to make a variety of trinkets in the 10th to 12th centuries (WS7.2, 268–9). This is the fourth example of a yellow lead glass ring to be found in Winchester. The others were found in contexts of the mid-12th to 13th centuries at the BS site and Assize Courts South (WS7.2, 653, nos 2095–7).

**1314** Fig 113 sf VR 82. A copper alloy stirrup-shaped ring with pointed bezel containing traces of enamel. ID (maximum) 20mm. 13th- to 15th-century soil layer (IV, 75).

**1315** Fig 113 sf CT 75. Ring of glass approximately one quarter remaining. Translucent yellow with D-sectioned hoop. ID around 20mm, hoop section 6 by 4mm. 13th- to 14th-century well F70 (VII, 188). (HEMC)

*not illustrated*

**1316** sf VR 3631. Complete penannular ring of copper alloy. ID 19mm, subrectangular section, H 5mm, T 5.5mm. Late Saxon soil layer (XII, 2291).

**1317** sf VR 5887. Penannular, copper alloy, ID 17mm, ?square section, H 4mm, T 4mm. Floor layer in late Saxon Building 935.1 (XII, 2690).

**1318** sf VR 118. Fragment, copper alloy, ID approximately 20mm, rectangular section, H varies from 2 to 3mm, T 1.5mm. 13th- to 15th-century soil layer (V, 14).

### **Beads** with a contribution by H E M Cool

In the medieval period, small glass and coral beads were sometimes used on the heads of copper alloy wire pins (Egan and Pritchard 1991, 297–302; WS7.2, 557, Type C). Six small beads, mostly fragments only, were recovered from samples taken from late 14th to early 15th century floor and occupation layers in Building 521.1 at 10 Colebrook Street. Five were of glass, green, yellow and blue, and one of jet, and none was longer than 3.5mm or had a diameter greater than 4mm.

Perhaps of similar date is the small amber bead **1322**. Amber beads of similar size and shape dating to the medieval period are known from London, which may have been a centre of manufacture (Egan and Pritchard 1991, 305–09), as may have been York (Tweddle 1986, 186).

Earlier in date is the glass bead from Sussex Street (**1320**), while one of the globular bone beads (**1321**), from the fill of a 13th to 14th century pit and an annular glass bead from a late Saxon context at Chester Road (**1319**), may be residual Roman. The other bone bead, **1324**, from a pit of the 15th to 16th centuries is of a size and shape appropriate to a finished item made from a roundel. Such roundels were produced from longbones in the late medieval period at Victoria Road (Category 16).

Beads were not only used for items of jewellery such as necklaces or pins, but larger examples of many materials were used to make up rosaries (Egan and Pritchard 1991, 305).

**1319** Fig 113 sf CHR 101. Glass bead. Translucent blue-green. annular. L 8mm, D 13.5mm. Possibly residual Roman. Hillwash deposited during the 5th to 9th century disuse of the site (I, 120).

**1320** Fig 113 sf SXS 473. Glass bead. Opaque yellow, squashed spherical. L 4.5mm, D 6mm. Medieval glass beads have rarely been reported on, and some authors have concluded from this that beads were rarely worn between the 9th and the 15th centuries (WS7.2, 660). This scarcity may be more apparent than real, as several deposits of 10th- to 12th-century bead manufacturing debris have been recovered at York (Henderson 1986, 226). This simple yellow bead provides a contemporary example. 11th- to 12th-century pit F54 (VIII, 238). (HEMC)

**1321** Fig 113 sf VR 9529. Globular bone bead with five grooves cut in imitation of gadroons. L 8.5mm, D 12mm. Possibly residual Roman. 13th- to 14th-century pit F1049 (XV, 3990).

**1322** Fig 113 sf VR 5401. Small amber short oblate bead. L 5mm, D 7mm. Demolition of 13th- to 15th-century Building 936.4 (XII, 2488).

**1323** Fig 113 rf VR 3919. Glass bead. Pale yellowish-colour-

less, cloudy. Asymmetrical ovoid. L 7mm, D 5.5mm. Possibly residual Roman. 15th- to 16th-century pit F776 (XIII, 3078).

**1324** Fig 113 sf SJS 7. Globular bone bead. L 6mm, D 7mm. 15th- to 16th-century pit F307 (I, 312).

**1325** Fig 113 sf CHR 509. Globular glass bead, L 8mm, D 12mm. The dark blue glass that forms the body of the bead is almost wholly covered on the surface by trails of white and turquoise, and eyes of yellow and black. The colours and the quality of the glass suggest that this bead is post-medieval, but the general style is Anglo-Saxon, making the date of this bead uncertain. Unstratified (III).

*not illustrated*

**1326** sf SJS 939. Bone ?bead, with three grooves around circumference. L 6.5mm, D 9mm. Layer possibly associated with the occupation of medieval Building 961.2 (IV, 742).

**1327** sf LIDO 127. Small cream ?glass short bead. Average L 2mm, average D 4mm. 14th- to 15th-century property boundary or drainage ditch F5 (I, 12).

**1328** sf 10CS 565. Blue glass bead, L 1.5mm, D 2mm. Also fragment of a yellow glass bead. Floor in room F24 in 14th- to 15th-century Building 521.1 (I, 70).

**1329** sf 10CS 566. Fragment of glass bead. D 2mm. Occupation in room F24 in 14th- to 15th-century Building 521.1 (I, 58).

**1330** sf 10CS 567. Fragment of green glass bead. D 4mm. Floor in room F24 in 14th- to 15th-century Building 521.1 (I, 43).

**1331** sf 10CS 568. Two fragments of green glass bead. L 2mm, ID 2mm. Floor in room F24 in 14th- to 15th- century Building 521.1 (I, 53).

**1332** sf 10CS 570. Complete ?jet bead with diagonal grooves. L 3.5mm, W 4mm. Short bead. Occupation in room F25 in 14th- to 15th-century Building 521.1 (I, 51).

**1333** sf VR 5004 (C). Complete amber bead. Spherical. L 4mm, D 7mm. 15th- to 16th-century pit F778 (XIII, 3179).

**1334** sf SJS 1035. White ?stone bead. L 2mm, D 2.5mm. Fill of 19th- to 20th-century pit F26 (I, 100).

### **Dress hook**

The copper alloy dress hook from St John's Street was recovered from a layer of the 15th to 16th centuries, earlier than the construction of Building 1021.3. Examples of a similar date come from a post-Dissolution dump at Battle Abbey, East Sussex (Geddes 1985, fig 51, 62–3), while others from Norwich (Margeson 1993, fig 9, 88) and Amsterdam (Baart 1977, no 164) are dated to the first half of the 17th century.

**1335** Fig 114 sf SJS 40. Copper alloy dress hook. L 31mm. The central shaft is ornamented by a flattened coil of fine wire, which also fixes to the shaft a thicker length of wire with looped ends. 15th- to 16th-century soil layer (I, 236).

### **Hook and eye fastening**

**1336** is probably a dress fitting belonging to a hook-and-eye fastening of iron. Comparable objects, known from as early as the 10th century (Ottaway 1992, 698) were, however, on occasions also used as decorative fittings on horse bridles.

**1336** Fig 114 sf SJS 96. Dress hook of iron, consisting of a central U-shaped loop with two looped terminals. L 14mm, W 13mm. 15th- to 16th-century pit F313 (I, 337).

**Hooked tags** with a contribution by D A Hinton

Four of the five hooked tags come from 9th- to 10th-century contexts, one at Chester Road, two at Victoria Road and one at Sussex Street. The fifth, from New Road, is unstratified. The Sussex Street tag is the sole one of iron, the rest being copper alloy.

A substantial number of these objects from within the city are discussed by Hinton (WS7.2, 548–52), including a silver pair found by the knees of a mid- to late 9th-century skeleton at the Old Minster (*ibid*, fig 149, 1407). This position suggests that such tags were used to secure items of clothing. On the basis of a pair found with a coin hoard dated *c* AD 970 at Tetney, Lincolnshire (Wilson 1964, nos 86–7), Margeson (1993, 16) suggests that they may also have been used as purse-fasteners.

Hooked tags are found from the 7th century onwards (Dickinson 1973, 116–17), and, while most numerous in late Saxon or early medieval contexts, continued in use in the late 12th or 13th centuries (Crummy 1988, fig 12, 1421; MacGregor 1982, 88). This range has been extended by the recovery of a tag from an early to mid-14th century burial on the Cathedral Green site (WS7.2, fig 148, no 1420).

The boss decoration on the tag from Chester Road (1339) is paralleled on a tag from Colchester (Crummy 1988, fig 12, 1421), while the ring-and-dot motifs on one of the Victoria Road tags (1337) are also found on examples from Thetford, Norfolk (Goodall, A 1984a, fig 111, 32–3) and York (MacGregor 1982, fig 46, 450). A tag from the Cathedral Green site is decorated with less prominent ring-and-dots (WS7.2, fig 148, no 1419).

The incised zig-zag decoration on the other Victoria Road tag, (1338) is also matched at the Cathedral Green site on a tag residual in an early 16th-century context (*ibid*, 1423). The two projections above the hook on 1338 are paralleled on a tag from Exeter in a context dated *c* AD 1250–1300 but containing much residual material (Goodall, A 1984b, 347, fig 191, 117).

That these tags, whatever their precise function, were intended to be seen, is clear from the fact that so many were decorated or plated, whilst their wide range of quality, from the niello-ed sliver pair from the Old Minster, to the small, thin copper alloy examples such as 1339, suggests that they were used by more than one socio-economic group.

**1337** Fig 114 sf VR 5034. Copper alloy tag with two perforations at the top for attachment. L 36mm, W (maximum) 14mm. The face away from the hook is decorated with single ring-and-dot motifs, and there is also a single ring around each perforation. There is a slight moulding at the junction of the hook and the decorated face. Late Saxon pit F762 (XIII, 3217).

**1338** Fig 114 sf VR 9515. Tiny copper alloy hooked tag with side projections just above the hook, the tip of which is missing. L 15mm, W (maximum) 11mm. The two perforations for attachment are not set symmetrically. The outer edge of the face away from the hook is decorated with an engraved zig-zag line. Late Saxon pit F1032 (XV, 3950).

**1339** Fig 114 sf CHR 95. Copper alloy hooked tag of simple triangular form, with two holes for attachment at the top. L 22mm, W (maximum) 12mm. On the side away from the

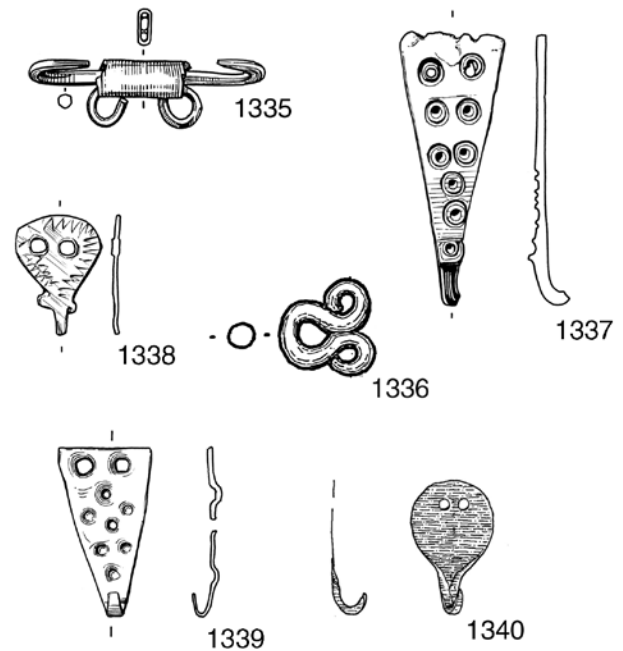


Figure 114 Dress hook, dress fastening and hooked tags, nos 1335–40, scale 1:1

hook the tag is ornamented by small bosses, punched from the other side. A small hole in the centre of the tag is burred on the bossed side, and its similarity in size to the bosses amongst which it lies suggests that it resulted from over-punching by accident. The burring would seem to preclude the possibility that a boss has simply worn through. Late Saxon pit F24 (I, 118).

**1340** Fig 114 sf NR 106. Hooked tag of copper alloy with circular plate pierced twice, otherwise plain. L 17mm, W (maximum) 11mm. Unstratified. (DAH)

*not illustrated*

**1341** sf SXS 70. Triangular hooked tag of iron, pierced twice at head. Plated, probably with tin. L 43mm, W 16mm. Late Saxon fill of pit F36 (VIII, 280).

**Lace ends** with a contribution by D A Hinton

Tapering tubes of copper alloy, used from the medieval period onwards to protect the ends of leather or textile laces, are known variously as lace chapes (Egan and Pritchard 1991, 281–90), lace ends (Goodall, A 1983, 232), lace tags (Margeson 1993, 22–4), or by their contemporary name, points (WS7.2, 581–7).

Two main lace-end types were identified by Oakley and Webster (1979, 262–3) at Northampton. Type 1 was made from a slightly tapering piece of sheet metal rolled around the end of the lace tightly enough to meet but not to overlap (though overlapping seams on this type were noted in London (Egan and Pritchard 1991, fig 182). At the upper end, one or more rivets, either copper alloy or iron, are fitted transversely through both the metal and the lace, to fix both firmly together. For Type 2, one or both of the long edges of a piece of sheet metal were folded so as to cut the lace.

At Northampton, Type 1 was dated from *c* 1375 to *c* 1550/75, with Type 2 following in succession from *c* 1550/75 to *c* 1700 or later (Oakley and Webster 1979, 262–3). This chronological distinction was supported at Colchester (Crummy 1988, 12–14) and appears to apply to the bulk of the lace ends catalogued here.

The earliest appearance of Type 1 lace ends, one in a layer in Building 935.2 and two in the construction of Building 936.4 at Victoria Road is quite in keeping with their suggested date, as, although the main phase of construction and use of the medieval buildings lasted from the 13th to the 15th centuries on this site, these particular contexts seem to post-date 1375 on the coin evidence (Category 6).

One Type 2 example, **1379**, was recovered from an early medieval context, and may be intrusive or have been deposited as a result of sinkage. The latter came from a late 12th- or 13th-century grave in the area believed to have been occupied by Winchester's Jewish cemetery (Keene 1985, 1034, property 921). However, there are early examples of lace ends (of both Types 1 and 2) from several other sites in Winchester, including two from Cathedral Green and one from St Pancras' Church (WS7.2, 583–5). Two lace ends from deposits earlier than *c* 1375 are also recorded from Trig Lane, London, where they were found in association with mid-13th-century pottery (Egan and Pritchard 1991, 282, 1405–06).

### Type 1. Lace ends fixed by means of rivets

All have only one rivet of copper alloy unless otherwise stated.

*not illustrated*

*early contexts*

**1342** sf VR 3473. ?Lace end in two pieces. L 25mm. Layer in 13th- to 15th-century Building 935.2 (XII, 2089). Possibly intrusive.

**1343** sf VR 3611. ?Type 1. L (incomplete) 20mm. Layer in 13th- to 15th-century Building 935.2 (XII, 2094).

**1344** sf VR 5627. Complete. L 27mm. Construction of wall F695 in 13th- to 15th-century Building 936.4 (XII, 2588)

**1345** sf VR 5639. L 27mm. Rivet uncertain, but not folded inwards. Layer in 13th- to 15th-century Building 936.4 (XII, 2597).

**1346** sf VR 5673. Complete. L 31mm. Construction of wall F701 in 13th- to 15th-century Building 936.4 (XII, 2607).

**1347** sf VR 5805. L (incomplete) 24mm. Layer in 13th- to 15th-century Building 936.4 (XII, 2647).

**1348** sf VR 2229. L 28mm. 14th- to 15th-century pit F35 (X, 84).

**1349** sf VR 2381. Complete lace end. L 25mm. 14th to 15th century pit F64 (X, 150).

**1350** sf VR 5354. Near complete but damaged lace end. ?Type 1. L 33mm. Demolition of Building 936.4 (XII, 2488). 14th to 15th century.

**1351** sf VR 5397. Complete lace end with part of copper alloy rivet still in position. L 28mm. Demolition of 13th to 15th century Building 936.4 (XII, 2488).

**1352** sf VR 5446. Fragment of lace end. ?Type 1. L 17mm.

Demolition of 13th- to 15th-century Building 936.4 (XII, 2516).

**1353** sf VR 5447. Fragment of lace end. L 13mm. Demolition of 13th- to 15th-century Building 936.4 (XII, 2516).

**1354** sf VR 5490. Tip missing. L 25.5mm. Demolition of 13th- to 15th-century Building 936.4 (XII, 2516).

*15th–16th centuries, northern suburb*

**1355** sf SBS 20. Broken at upper end. Some iron corrosion so probably iron rivet. L 30mm. Garden soil (II, 36).

**1356** sf SBS 51. Broken at upper end. Some iron corrosion so probably an iron rivet. L 24mm. Pit F67 (II, 66).

**1357** sf VR 2142. Two complete type 1 lace-ends. L 25 and 23mm. Pit F27 (X, 76).

**1358** sf VR 2299. L (incomplete) 23mm. Pit F44 (X, 99).

**1359** sf VR 3386. Complete lace end. L 26mm. Pit F751/757/759 (XIII, 3027).

**1360** sf VR 3387. Complete lace end with part of copper alloy rivet still in position. L 26mm. Pit F751/757/759 (XIII, 3027).

**1361** sf VR 3388. L 21mm. Pit F751/757/759 (XIII, 3027).

**1362** sf VR 3396. Near complete lace end. L 28mm. Pit F751/757/759 (XIII, 3040).

**1363** sf VR 3410. L 23mm. Pit F764 (XIII, 3041).

**1364** sf VR 3427. Fragment of lace end. L 12.5mm. Pit F764 (XIII, 3052).

**1365** sf VR 3472. Complete lace end. L 27mm. Pit F784 (XIII, 3087).

**1366** sf VR 3475. ?Type 1. Complete lace end. L 24mm. Pit F784 (XIII, 3087).

**1367** sf VR 4178. Complete lace end. Part of copper alloy rivet in place. L 23mm. Demolition of medieval buildings on tenements 935 and 936 (XIII, 3055).

**1368** sf VR 4394. Fragment of lace end. ?Type 1. L 15mm. Pit F771 (XIII, 3105).

**1369** sf VR 6150. Complete lace end. Iron rivet. L 31mm. Pit F313 (X, 952).

**1370** sf VR 6156. Complete lace end. Iron rivet. L 31mm. Pit F313 (X, 952).

*17th–18th centuries, western suburb*

**1371** sf NR 44. L 19mm. Posthole F150 (II, 193).

*19th–20th centuries, northern suburb*

**1372** sf HA 104. L 32mm. Brick and concrete rubble (VII, 20).

**1373** sf SBS 2. Lace end in two pieces. L 31mm. Layer (III, 17).

**1374** sf SBS 17. Broken at lower end. One rivet hole. L 28mm. Pit F59 (III, 35).

**1375** sf SBS 26. Fragments of four lace ends. One has rivet hole. L 26, 22, 19 and 13mm. Pit F59 (III, 33).

**1376** sf VR 2555. Lace end with ?iron rivet. L 26mm. Layer (X, 257).

### Type 2. Lace ends fixed by folding the long edges of the sheet metal so as to cut the lace

The lace ends are plain unless otherwise indicated.

*not illustrated*

*early contexts*

**1377** sf CHR 506. ?Type 2. L 26mm. Erosion from the hill slope above the site during a period of disuse between the latest Roman and the earliest late Saxon occupation, perhaps reworked in medieval or later times (III, 503).

- 1378** sf VR 8519. ?Type 2 in two pieces. L 40mm. Late Saxon posthole F964 (XIV, 3822). Probably intrusive.  
**1379** sf CT 8. With corrugated surface. L 25mm. Fill of late 12th- to 13th-century grave 1 in the Jewish cemetery (V, 13). Possibly from later sinkage into the grave. (DAH)

*15th–16th centuries, northern suburb*

- 1380** sf HAB 20. L 30mm. Garden soil (V, 174).  
**1381** sf VR 2177. Lace end. L 26mm. Pit F44 (X, 99).  
**1382** sf VR 2292. Lace end. L 32mm. Pit F44 (X, 99).  
**1383** sf VR 2309. ?Type 2, crushed. L 23mm. Pit F60 (X, 134).  
**1384** sf VR 2397. Complete lace end. L (bent) 29mm. Pit F65 (X, 154).  
**1385** sf VR 3370. L 25mm. Pit F751/757/759 (XIII, 3001).  
**1386** sf VR 3420. Fragment of lace end. ?Type 2. L 15mm. Pit F764 (XIII, 3041).  
**1387** sf VR 3426. ?Type 2 but broken at both ends. L 23mm. Pit F764 (XIII, 3052).  
**1388** sf VR 3445. ?Type 2. Complete lace end. L 22mm. Pit F771 (XIII, 3059).  
**1389** sf VR 3680. ?Type 2. L 25mm. Pit F771 (XIII, 3110).  
**1390** sf VR 6078. L 30mm. Pit F308 (X, 920).

*17th–18th centuries, northern suburb*

- 1391** sf VR 5953. ?Type 2 lace end in two pieces. L 25mm. Pit F781 (XIII, 3104).  
**1392** sf VR 9119. L (incomplete) 20mm. Pit F1010 (XV, 3916).

*17th – 18th centuries, western suburb*

- 1393** sf CT 35. L 24mm. Late 17th-century pit F9 (V, 88). (DAH)

*19th–20th centuries, northern suburb*

- 1394** sf SBS 11. Type 2, with decorative transverse tooling. L 27mm. Layer (III, 17).  
**1395** sf SBS 26. Incomplete lace end. L 23mm. Pit F59 (III, 33).  
**1396** sf SBS 17. L 21mm. Pit F59 (III, 35).  
**1397** sf VR 2056. Complete. L 37mm. Layer (X, 6).  
**1398** sf VR 2597. ?Type 2. Complete. L 30mm. Layer (X, 254).  
**1399** sf VR 4003. ?Type 2. L 20mm. Layer (XIII, 3006).  
**1400** sf VR 4118. ?Type 2. L (bent) 23mm. Layer (XIII, 3006).  
**1401** sf VR 4196. Complete. L 42mm. Layer (XIII, 3006).

*19th–20th centuries, eastern suburb*

- 1402** sf CHR 8. Fragment of lace end. ?Type 2. L 18mm. Drain F4/10 (I, 23).  
**1403** sf CHR 270. L 30mm. Drain F1 (I, 9).

*unstratified*

- 1404** sf HA 122. Two zones of raised lattice decoration. L 29mm. (XI).  
**1405** sf SJS 293. L (bent) 32mm. (I).

- 1406** sf 40SJS 838. Complete lace end. L 40mm.

**Wire loops (?eyelets)**

Loops of copper alloy wire occur in contexts from the early 16th century onwards. Their exact function is unknown, but as they are often found in association with copper alloy lace-ends and small wire pins, they are almost certainly costume fittings or fasteners, such as eyes for hooked fasteners, or eyelets through which to thread laces (Crummy 1988, 14). The twelve catalogued here have an internal diameter ranging from 6 to 10mm. All are from post-medieval contexts apart from **1407**, which is either intrusive in the fill of a 13th- to 15th-century pit on tenement 936, or suggests that the pit was not fully filled until later.

*not illustrated*

- 1407** sf VR 8619. D (internal) 6mm. 13th- to 15th-century pit F966 (XIV, 3785).  
**1408** sf VR 4390. D (internal) 8mm. 15th- to 16th-century pit F751/757/759 (XIII, 3001).  
**1409** sf VR 5245. D (internal) 6mm. Layer over medieval buildings on tenements 935 and 936 (XII, 2485). 15th to 16th century.  
**1410** sf SJS 51. D (internal) 6mm. 15th- to 16th-century pit F305 (I, 330).  
**1411** sf SJS 57. D (internal) 7mm. 15th- to 16th-century pit F305 (I, 330).  
**1412** sf SJS 76. D (internal) 10mm. 15th- to 16th-century pit F313 (I, 336).  
**1413** sf SJS 1034. D (internal) 7mm. 15th- to 16th-century pit F214B (I, 267).  
**1414** sf CHR 12. D (internal) 9.5mm. 17th- to 18th-century layer (I, 19).  
**1415** sf CHR 311. D (internal) 6.5mm. 17th- to 18th-century layer (I, 19).  
**1416** sf SJS 209. D (internal) 7mm. 17th- to 18th-century pit F224 (I, 501).  
**1417** sf JCH 7. D (internal) 8mm. 17th- to 18th-century soil (III, 87).  
**1418** sf SBS 21. D (internal) 6mm. 19th- to 20th-century pit F59 (III, 33).

**Buttons**

All but three of the buttons are of 17th century or later date. Most are copper alloy with either a flat or convex head and a rear loop (for example **1419**), though some are discs with a single central perforation. The fragment of a composite button (**1420**) is from a late medieval context and may be 14th century in date, while the perforated bone disc from a 15th- to 16th-century context at St John's Street (**1421**) is likely to be early medieval (Oakley 1979, fig 141, 100–01).

**1419** Fig 115 sf CT 54. Copper alloy button. Plain with flat head and broken rear loop. D 20mm, D of loop 4mm. 13th- to 14th-century well F70 (VII, 188).

**1420** Fig 115 sf VR 3650. Fragment of a composite button. D 9mm. The loop is crushed up against the bottom plate.



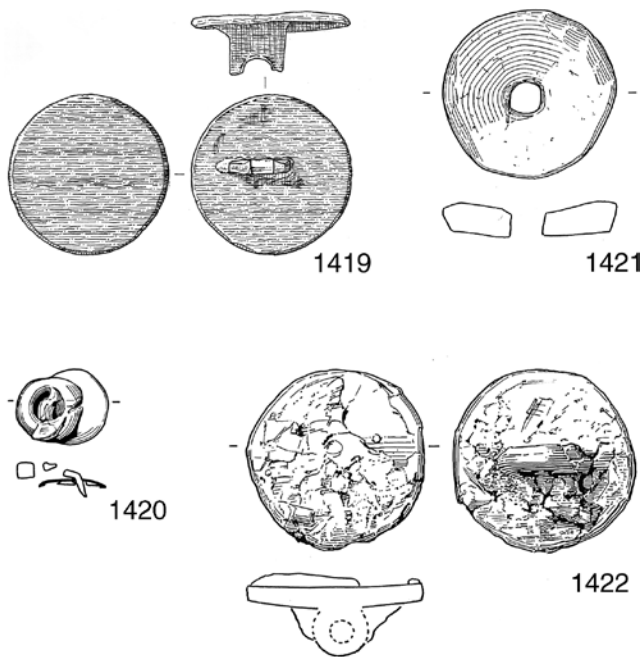


Figure 115 Buttons, nos 1419-22, scale 1:1

The upper plate is missing. 14th- to 15th-century pit F117 (X, 861).

**1421** Fig 115 sf SJS 517. A bone disc with a slightly concave upper surface and central perforation. D 21mm, T 4mm. The bevelled outer edge of the disc is slightly irregular but has been polished smooth. 15th- to 16th-century pit F214B (I, 273).

**1422** Fig 115 sf SJS 652. A copper alloy button with ?integral loop on the reverse. D 23mm, H 11mm. Very corroded. A small fragment of mineral replaced textile attached to the button is of a fine tabby weave with approximately 30-35 threads per cm. No spin could be seen in either system. 19th- to 20th-century pit F301 (I, 308).

*not illustrated*

#### With flat head

**1423** sf SBS 68. Copper alloy button with rear loop. Punched dot and incised ?leaf decoration on upper surface. Illegible inscription on underside. D 18mm. 15th- to 16th-century garden soil (I, 49).

**1424** sf VR 2576. Bone disc with central perforation. ?Button or backing for a button. D 16mm. 17th- to 18th- century pit F113 (X, 259).

**1425** sf VR 2953. Heavily corroded copper alloy ?button. D 34mm. 17th- to 18th-century pit F227 (X, 630).

**1426** sf HA74 312. Copper alloy button. Rear loop broken. Chevron decoration and 'GILT' stamped on underside. D 21mm. 19th- to 20th-century fill of cellar F310 in Building 744.5 (XII, 36).

**1427** sf VR 2055. Copper alloy button with rear loop. D 9.5mm. 19th- to 20th-century layer (X, 6).

**1428** sf VR 2140. Copper alloy ?button. Flat disc with small central perforation. D 22mm. 19th- to 20th-century layer (X, 6).

**1429** sf SJS 955. Copper alloy button with broken rear loop. D 18mm. 19th- to 20th-century layer (IV, 634).

**1430** sf HA 107. Flat copper alloy disc. Probably a crushed button with rear loop. ?Coat-of-arms on upper surface. D 29mm. Unstratified (XI).

**1431** sf 40SJS 840. Complete copper alloy button with rear loop. D 30mm. Unstratified.

#### With convex head

**1432** sf SJS 339. Copper alloy button. Underside damaged. Upper surface has concentric groove around edge. D 16mm. 17th- to 18th-century layer (I, 104).

**1433** sf VR 2967. Head of copper alloy button. Suspension loop missing. D 12mm. 19th- to 20th-century pit F226 (XI, 629).

**1434** sf SJS 657. Domed head of copper alloy button. Rear loop broken off but present. D 14mm. 19th- to 20th- century pit F301 (I, 308).

#### Belt and other strap fittings

Where appropriate, the terminology and dating used by Egan and Pritchard (1991) for the large collection of medieval belt and strap fittings from London has been followed. However, as this assemblage is much smaller, Egan and Pritchard's groups have not been always used for subheadings and the typological distinctions made are more loosely-based.

A large proportion of these fittings are of 14th- or 15th-century date, reflecting the mass production of these objects, and future work maybe able to indicate regional variations, and thence possible centres of production.

#### Buckles

There are 82 buckles or fragments of buckles, of which thirteen have a surviving buckle-plate. The majority of these objects are probably from personal dress, although some may be from riding accoutrements and some are likely to have come from horse harness. Those that have been certainly identified as horse equipment have been catalogued as such (Category 8).

More than half (45) of the buckles are of iron, the remainder being of copper alloy, with the exception of two of lead-tin alloy. A further three copper alloy fragments are only tentatively identified as buckles. Typologically the buckles are quite diverse, and could be amenable to other classification systems than the one used here, which follows Egan and Pritchard (1991).

The purpose of the angled frame on many buckles is uncertain (Egan and Pritchard 1991, 53), but the close similarity of **1505** to a buckle from Baynard's Castle, London (Egan and Pritchard 1991, fig 50, 333) and of **1504** to a buckle from Colchester (Crummy 1988, fig 19, 1753) suggests that angling was a deliberate feature of the manufacturing process rather than a haphazard distortion occurring during use.

**1470** is an iron buckle from Hyde Abbey which is of trapezoidal form with the pin hinged on a central bar. No comparable iron buckle of Roman date is known to the present writer (PJO), which suggests that this may be an intrusive medieval object.

**With circular frame**

The smallest iron buckles are a group of ten with circular frames of c 13–16mm in diameter. Four were plated. These buckles were probably used to hold up breeches or secure footwear; two similar specimens were found on a medieval boot from London (Egan and Pritchard 1991, 60, 78–9. A larger lead-tin buckle seems to have been reworked in the 18th century or later.

Excavations elsewhere in Winchester have produced seven small, circular iron buckles, one plated, which come from contexts dated between the late 11th and the 17th to 18th centuries (WS7.2, 534–5, nos 1324–30). These buckles are, however, likely to be primarily late medieval and large numbers have been found in riverside contexts in London reliably dated 1270 to 1450 (Egan and Pritchard 1991, 59–62).

The lead-tin buckle was intrusive in a Roman context whilst one of the plated iron buckles, recovered from a late Saxon pit at 27, Jewry Street, is also likely to be intrusive (1437). 1438 is from a 13th- to 14th-century pit, six others are from late medieval or early post-medieval contexts, while the remainder are from later post-medieval contexts.

**1435** Fig 116 sf HA 111. Circular lead-tin buckle with copper alloy tongue. D 21mm. Medieval lead-tin buckles are usually fitted with tongues of iron wire (Egan and Pritchard 1991, 62). The copper alloy tongue on this object is stamped with the initials [E]SB in letters of a post-medieval form, suggesting that it may be a replacement. Intrusive in Roman context (XI, 214).

**1436** Fig 117 sf VR 0. A circular iron frame with the pin in situ. Plated (tin). D 14mm, T 2mm. 15th- to 16th-century pit F315 (X, 922).

*not illustrated*

**1437** sf 27JS 129. Incomplete circular iron frame. Plated. D 44mm, W 6mm. Late Saxon pit F54 (I, 374).

**1438** sf VR 3810. Circular iron frame. Tin-plated. D 24mm, W 4mm. 13th- to 14th-century pit F575 (XII, 2097).

**1439** sf SBS 0. Circular iron frame, pin in situ. Plated. D 15mm, T 2mm. 14th- to 15th-century fill of quarry pit F70 (II/III, 71).

**1440** sf SBS 0. Circular iron frame, pin in situ. D 16mm, T 2mm. 15th- to 16th-century layer (II, 36).

**1441** sf VR 0. A circular iron frame, the tongue is in situ. D 16mm, T 2mm. 15th- to 16th-century pit F44 (X, 99).

**1442** sf VR 0 An incomplete iron circular frame with the remnants of the pin. D 16mm, T 2mm. 15th- to 16th-century pit F44 (X, 99).

**1443** sf VR 0. A circular iron frame. D 15mm. 15th- to 16th-century pit F751/757/759 (XIII, 3001).

**1444** sf SJS 485. A circular iron frame. D 16mm, W 3mm. 17th- to 18th-century layer (I, 242).

**1445** sf SJS 0. A circular iron frame, pin in situ. D 13mm, T 2mm. 19th- to 20th-century pit F322 (I, 363).

**With oval frame**

Five of the simpler buckles, in which part of the plate survives in three, are of copper alloy, whilst two are

of iron. One iron object (1458) is an oval buckle frame which is thickened on one side, similar to the two with straight sides and rounded ends (1491 and 1492). The distinctively made buckles with a forked spacer for a composite plate, like those from London, are all of copper alloy (Egan and Pritchard 1991, 78–82, figs 47–9).

**1446** Fig 116 sf VR 3753. Small copper alloy buckle and fragment of a belt-plate. L (including plate) 21mm, W (maximum) 14mm. The simple oval frame has a notched projection for the tongue, which is missing. The plate is a single sheet wrapped around the bar of the frame, with a cut-out for the tongue. Probably 14th century in date. 13th- to 14th-century pit F558 (XII, 2014).

**1447** Fig 116 sf VR 93. Copper alloy oval buckle frame and tongue and a small fragment of the folded plate. L (including plate fragment) 23mm, W (maximum) 20mm. The lip on the outside edge of the frame is flanked by pairs of mouldings. A similar buckle from the Billingsgate Lorry Park watching brief in London dates to the second half of the 14th century (Egan and Pritchard 1991, fig 44, 297). 13th- to 15th-century cellar or quarry F28 on tenement 937 (IV, 139).

**1448** Fig 116 sf VR 199. Copper alloy buckle frame with ornate outside edge. The bar is slightly offset. The outside edge bears four knobs. L 17.5mm, W 25.5mm. Buckles of this type from London occur in contexts dated from the mid-12th century to c 1400, with those bearing four similar knobs coming from mid-13th- to late 14th-century contexts (Egan and Pritchard 1991, 72, fig 44, 292, 302, fig 46, 318). 13th- to 15th-century cellar or quarry F28, tenement 937 (IV, 137).

**1449** Fig 116 sf VR 243. Tinned copper buckle with a simple oval frame and offset, narrow bar to hold a folded plate. The buckle is now bent back against the underside of the plate. L (including plate) approximately 54mm, W (maximum) 20mm. Most of the iron tongue is missing. There are two rivet holes at the attachment end of the plate. Though these are placed neatly on the upper side of the plate, one has pierced the underside too close to the edge, has distorted the metal, and is now worn through. Probably 14th-century date. 13th- to 15th-century cellar or quarry F28 on tenement 937 (IV, 162).

**1450** Fig 116 sf LIDO 19. Copper alloy buckle with an oval frame and composite plate with forked spacer, from the same strap as strap end 1524 (below). L 53mm, W (maximum) 26mm. The frame has a projection paralleling the tongue, which is missing. The round aperture on the concave attachment edge is grooved on the front plate, and is flanked by two rivets. Fragments of lead-tin solder remain between the plates. Late 14th-century date. Robber trench F18, associated with the demolition of a cellar on tenement 795 (V, 64). 14th to 15th century.

**1451** Fig 116 sf VR 2442. Small copper alloy buckle with an oval frame and forked spacer for a composite plate. L (including forks) 30mm, W (maximum) 14mm. The frame has a slight projection paralleling the tongue. Date range is mid-14th to early 15th centuries. 15th- to 16th-century pit F65 (X, 154).

**1452** Fig 116 sf SXS 606. Small copper alloy buckle with an oval frame and forked spacer for a composite plate. L (including forks) 37mm, W (maximum) 12mm. The outer edge of the plate is grooved over the perforation to take the pin (now missing). The buckle frame is broken. Two holes at the other end contain a copper alloy strip threaded through at least four times, presumably a repair for a missing rivet. A similar buckle came from a 14th-century context in London (Egan and Pritchard 1991, fig 89, no 634. 15th- to 16th-century soil build-up (XVII, 892).

**1453** Fig 116 sf VR 7409. Well-preserved copper alloy oval-framed buckle and composite plate with forked spacer.

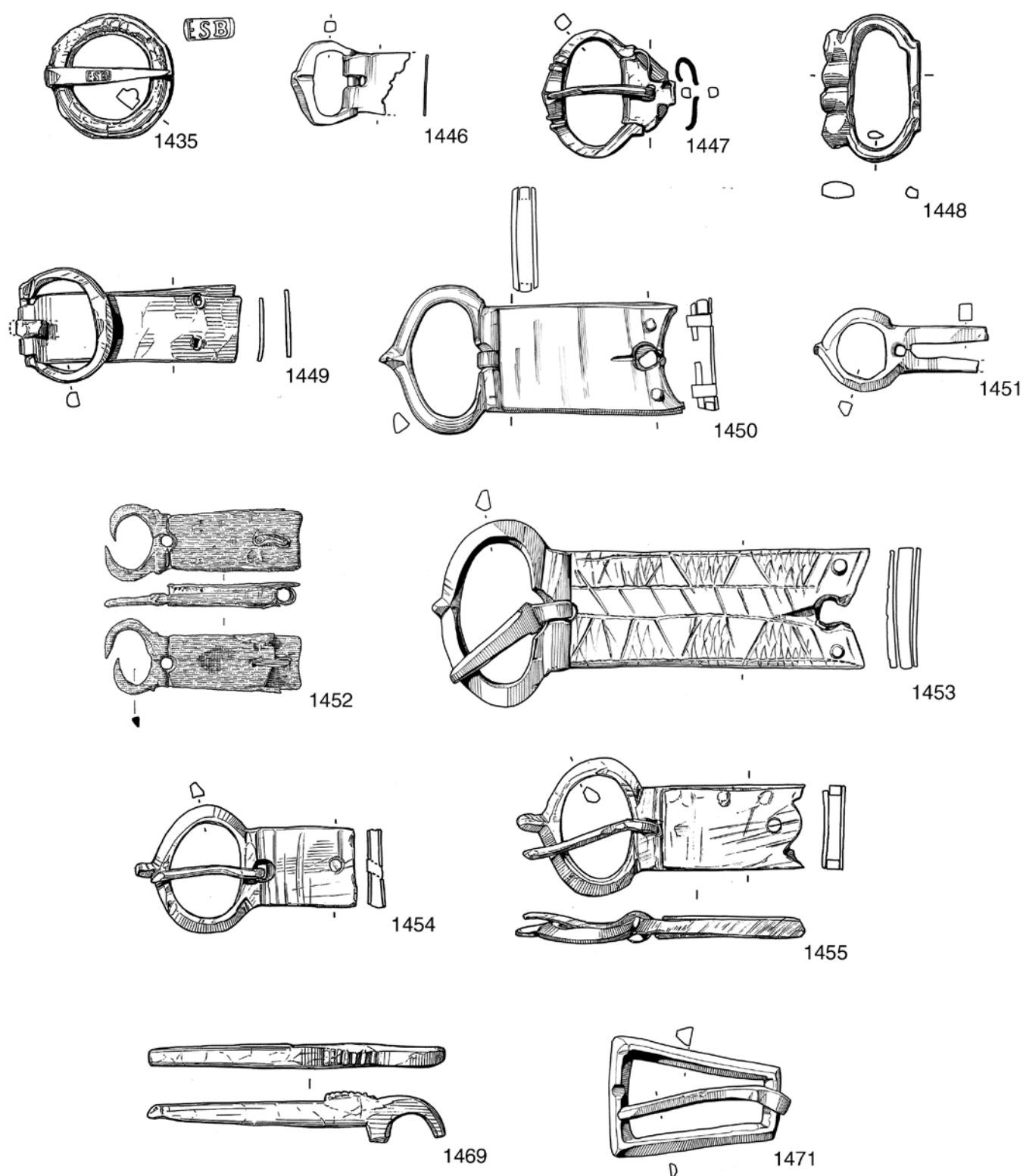


Figure 116 Copper alloy and lead-tin buckles, nos 1435, 1446-55, 1469, 1471, scale 1:1

L 78mm, W (maximum) 33mm. The oval loop has a slight projection paralleling the tongue, which is slightly bent. Both upper and lower plates have sprung away from the spacer at the end nearest the buckle. The upper plate has an aperture with an angled groove and is ornamented with an incised design. Date range is mid-14th to early 15th century. Residual in 16th- to 17th-century pit F503 (XI, 1607).

**1454** Fig 116 sf VR 615. Copper alloy buckle with integral

plate. L 38mm, W 22mm, T 3mm. The oval frame has a prominent central knob. The plate was attached by a single rivet at the inner end. Probably of 14th-century date. Unstratified (IV).

**1455** Fig 116 sf 10CS 81. Copper alloy buckle with oval loop and composite plate with forked spacer. L 51mm, W 24mm. The loop has a long projection paralleling the tongue. The attachment edge of the plate is ogival, with strong side

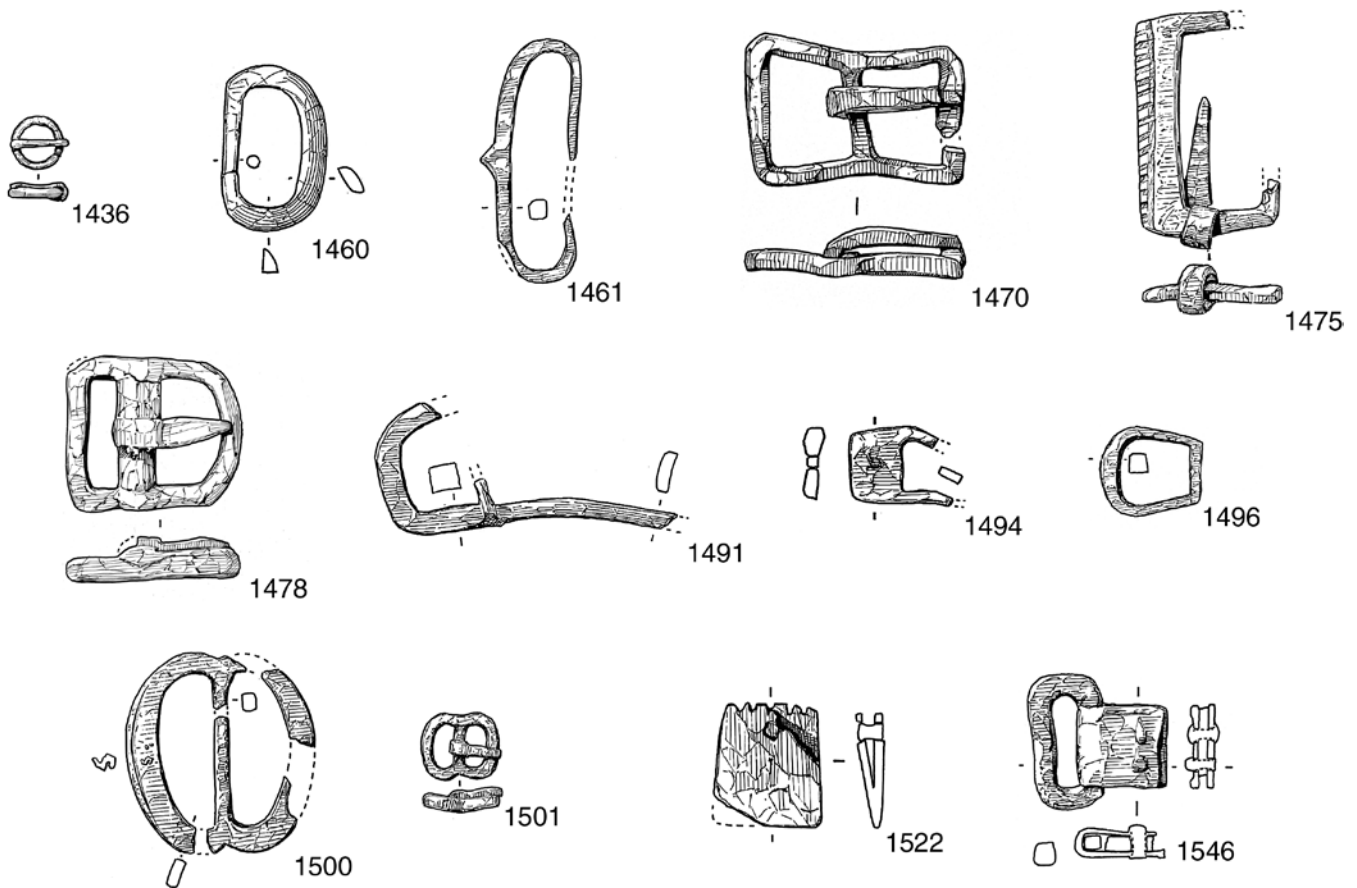


Figure 117 Iron buckles, nos 1436, 1460–1, 1470, 1475, 1478, 1491, 1494, 1496, 1500–1, iron strap end, no 1522, iron belt hasp, no 1546, scale 1:2

projections. a rivet is set at the centre of this edge. Probably dating from the late 14th or early 15th century. Unstratified (I).

*not illustrated*

**1456** sf VR 5382. Fragments of oval iron frame. Plated with non-ferrous metal. W 30mm. Intrusive in Roman context (XII, 2458).

**1457** sf VR 3080. Fragment of an oval copper alloy buckle with a forked spacer. Most of the frame is missing, but what remains shows that it was bevelled. The tongue is wire and is very loose. It may be a replacement. The plates are missing. L (surviving), including pin 40mm. W of frame approximately 22mm. 15th- to 16th-century pit F153 (X, 408).

**1458** sf VR 6127. Half of an oval iron frame which is thickened along the side. L 51mm, T 9mm. 15th- to 16th-century pit F313 (X, 952).

**1459** sf JCH 6. Copper alloy oval buckle and belt-plate. Pin missing. L 33mm, W 27mm. Construction of wall F21 in Building 271.4 (III, 86). 17th to 18th centuries.

#### With D-shaped frame

Eight of the nine buckles with D-shaped frames are of iron, of which five are plated. **1461** has a short triangular pin rest projecting from the curved side.

**1460** Fig 117 sf VR 5089. D-shaped iron frame, widest on curved side. Plated (tin-lead alloy). L 42mm, W 26mm. Late Saxon soil layer (XII, 2427).

**1461** Fig 117 sf VR 207. D-shaped iron frame. On the curved side there is a triangular projection. Plated. L 64mm, W 27mm. 13th- to 15th-century cellar or quarry F28 on tenement 937 (IV, 137).

*not illustrated*

**1462** sf SXS 75. Iron buckle. D-shaped frame. L 32mm, W 26mm. Late Saxon fill of pit F53 (VIII, 269).

**1463** sf CT 253. Iron buckle. Corroded. D-shaped frame. L 38mm, W 30mm, T 3mm. 13th- to 14th-century pit F71 (V, 238).

**1464** sf VR 0. A D-shaped iron frame with the pin in situ. Plated. L 34mm, W 27mm, T 5mm. 14th- to 15th-century pit F505 (XI, 1508).

**1465** sf VR 6055. A D-shaped iron frame, the pin in situ. Plated?. Frame: L 45mm, W 28mm, T 7mm. 15th- to 16th-century pit F308 (X, 920).

**1466** sf SJS 70. D-shaped copper alloy buckle. Tongue is missing. L 20mm, W 37mm. 15th- to 16th-century pit F207/209 (I, 252).

**1467** sf SJS 975. A somewhat distorted D-shaped iron frame. Plated. L 30mm, W 20mm. 17th- to 18th-century fill of well F718 (IV, 698).

**1468** sf VR 2135. An incomplete iron D-shaped frame. Plated. L 40mm, W 37mm, T.5mm. 19th- to 20th-century soil layer (X, 6).

**With annular frame**

**1469** Fig 116 sf 10CS 5(a). Large copper alloy buckle tongue from an annular buckle. L 52mm. There is a short grooved grip just before the loop, and the tip is curved to fit the frame. Similar tongues derive from late 13th- or 14th-century contexts in London (Egan and Pritchard 1991, fig 75, 541, 547) and Northampton (Oakley and Webster 1979, fig 107, 3). A late 14th- to mid-15th century context at the Cathedral Green site in Winchester also produced a parallel (WS7.2, fig 134, no 1245). 13th- to 14th-century silting over a cobbled surface, possibly the early medieval forerunner of Colebrook Street (I, 37).

**With trapezoidal frame**

**1470** Fig 117 sf HA 120. Iron. The frame is double-trapezoidal, narrowing slightly from each end towards the centre where there is a bar across it holding the pin. L 58mm, W 40mm. Recovered from a Roman context (XI, 277).

**1471** Fig 116 sf VR 2308. Copper alloy trapezoidal buckle with notch for the tongue. L 29mm, W (maximum) 20mm. The tongue is copper alloy, attached to the buckle by a simple loop. A similar buckle, but with a constriction for the tongue, came from the Billingsgate Lorry Park watching brief, London (Egan and Pritchard 1991, fig 64, 465). Probably of early 15th-century date. 15th- to 16th-century pit F60 (X, 134).

*not illustrated*

**1472** sf NR 115. Iron buckle. Trapezoidal frame with central bar, fragments of a pin and buckle-plate. Plated. L 41mm, W 26mm, T 5mm. Probably late medieval and residual in 19th- to 20th-century layer (II, 455).

**With rectangular frame**

There were eighteen buckles with rectangular frames, seven of copper alloy, ten of iron and one of lead-tin alloy. Some of the copper alloy buckles are quite ornate. Of the iron buckles, **1486** is plated, but most are otherwise unremarkable. However, **1475** is an unusual elongated buckle frame with rounded corners, one side of which is widened and bears diagonal incised grooves. It is also plated. This object comes from a late medieval context and is probably 13th- to 14th-century in date. **1478** has a central bar and at one end the corners are rounded, at the other at 90 degrees. It is plated. This buckle comes from a 15th- to 16th-century context, and may be late medieval. A similar buckle was found in a grave of this period at Austin Friars, Leicester (Clay 1981, 138–9, fig 50, 66).

**1473** Fig 118 sf CHR 11. Copper alloy buckle with rectangular frame and integral openwork plate. L 64mm, W 35mm. The tongue is missing but would have been held in the large perforation on the central bar. The frame has a bevelled edge, a grooved projection to house the tongue, and roughly lozenge-shaped mouldings at each corner. The openwork frame terminates in a trilobate motif, and is ornamented with lines of punched triangles. The plate would have been fitted to the strap by three small rivets,

one at each end of the central bar, and one in the middle of the trilobate terminal. Medieval. 13th- to 14th-century occupation layer (I, 32).

**1474** Fig 118 sf VR 3614. A rectangular copper alloy buckle with central bar. L 45mm, W 59mm. Three of the sides are concave, the fourth only slightly so. There is a raised trefoil motif at each corner, and the frame has an engraved design and a notch for the tongue. Traces of iron sheet surround the central bar, probably from a folded plate. Medieval. Layer in 13th- to 15th-century Building 935.2 (XII, 2251).

**1475** Fig 117 sf SBS 126. A rectangular iron frame, now incomplete. The complete side is thicker than the others and it has angled grooves cut along the edge, pin in situ. Plated (tin). L 59mm, W 35mm, T 9 by 4mm. 14th to 15th-century fill of quarry pit F70 (II/III, 71).

**1476** Fig 118 sf VR 2172. Copper alloy angled rectangular buckle with traces of corrosion on the central bar from a missing iron tongue. One side of the frame is notched for the tongue. L 38mm, W, 39mm. Probably of late medieval to early post-medieval date. 15th- to 16th-century pit F27 (X, 92).

**1477** Fig 118 sf VR 4015. Copper alloy rectangular buckle. The tongue is missing. The front edges, including those of the central bar are chamfered, and most surfaces show file marks. L 33mm, W 32mm. Probably late 13th- or early 14th-century date. Likely to be residual in 15th- to 16th-century pit F751/757/759 (XIII, 3001).

**1478** Fig 117 sf SJS 468. A rectangular iron frame with rounded corners at one end and a central bar, tongue in situ. Plated. L 41mm, W 41mm, T 7mm. 15th- to 16th-century soil layer (I, 190).

**1479** Fig 118 sf CHR 3. Lead-tin rectangular buckle with a fragment of the iron tongue remaining on the central bar. L 20mm, W 17mm. A small part of one loop is missing. Similar buckles from the Swan Lane site, London, derive from contexts dated c 1400–1450 (Egan and Pritchard 1991, fig 63, 452–3). Residual in 17th- to 18th-century layer (I, 19).

**1480** Fig 118 sf VR 2108. Copper alloy buckle with rectangular frame and central bar. L 28mm, W 26mm. The tongue is missing. Medieval and residual in 19th- to 20th-century pit F11 (X, 23).

**1481** Fig 118 sf SJS 134. Copper alloy rectangular buckle, possibly angled, though the frame is bent and broken at the central bar, which makes the original shape uncertain. L 42mm, W 29mm. Probably late medieval to early post-medieval and residual in 19th- to 20th-century feature F200 (I, 179).

*not illustrated*

**1482** sf VR 7420. An incomplete rectangular iron frame, tongue in situ. Plated?. L 65mm, W 40mm. 13th- to 14th-century pit F916 (XI, 1610).

**1483** sf VR 7428. A rectangular iron frame with a rough weld visible. L 33mm, W 28mm, T 4mm. 13th- to 14th-century pit F916 (XI, 1611).

**1484** sf VR 2786. Half of a rectangular iron frame. L 22mm, W 20mm. Layer in 13th- to 15th-century Building 936.4 (X, 514).

**1485** sf VR 3071. Fragment of a copper alloy rectangular buckle frame with groove for tongue. L 50mm. 13th- to 15th-century soil layer (X, 398).

**1486** sf VR 2247. A rectangular iron frame with rounded corners, the pin is in situ. Lead-tin plated. L 34mm, W 31mm, T 4mm. 15th- to 16th-century layer (X, 97).

**1487** sf VR 4143. An incomplete rectangular iron frame. Plated (tin). L 37mm, W 28mm, T 4mm. 15th- to 16th-century pit F751/757/759 (XIII, 3025).

**1488** sf VR 4159. A rectangular iron frame, the pin in

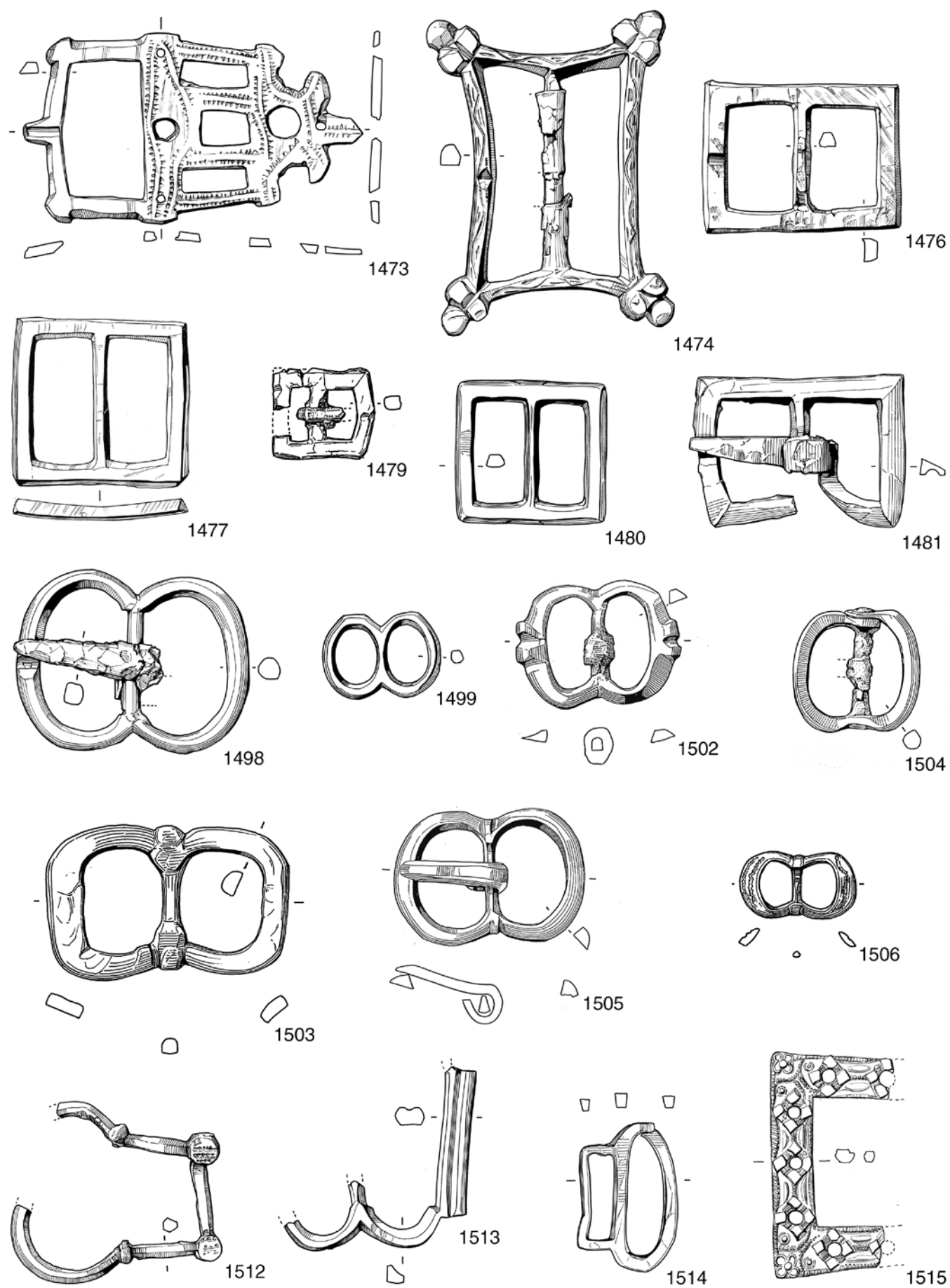


Figure 118 Copper alloy and lead-tin buckles, nos 1473-4, 1476-7, 1479-81, 1498-9, 1502-6, 1512-15, scale 1:1

situ. L 25mm, W 22mm, T 3mm. 15th- to 16th-century pit F751/757/759 (XIII, 3027).

**1489** sf HA 0. Incomplete rectangular iron frame, rounded corners, pin in situ. Plated. L 33mm, W 20mm. 17th- to 18th-century layer (XIII, 88).

**1490** sf SXS 796. Iron buckle. Rectangular frame, rounded cross-section. L 35mm, W 35mm, T 2mm. 17th- to 18th-century pit F440 (XVII, 1004).

### With straight sides and rounded ends

Two iron frames with straight sides and rounded ends are thickened on one side, similarly to the oval iron frame **1458** (above).

**1491** Fig 117 sf CHR 76. Incomplete iron frame which originally had straight sides and rounded ends. Fragment of pin in situ. Plated. L 77mm, W 34mm, T 11mm. ?Late medieval fill of large feature (cellar, quarry or wellhead) F15 (I, 112).

*not illustrated*

**1492** sf VR 5519. An incomplete iron buckle frame with two straight sides and a rounded end, one side is thickened. L 30mm, W 25mm. Layer in 13th- to 15th-century Building 936.4 (XII, 2523).

**1493** sf VR 0. Incomplete iron frame, one straight side and one rounded end. L 95mm, W 41mm, T 5mm. 15th- to 16th-century pit F315 (X, 925).

### One-piece with integral plate

Two iron buckle frames were made in one piece with the buckle-plate by which they were attached to a strap. The sides of these buckles continue as raised strips along the edges of the rectangular plate, to act as a guide to the strap, which was attached by a rivet to a central piercing. Comparable objects are not common, but a small group of non-ferrous buckles with integral plates comes from early 15th-century contexts in London (Egan and Pritchard 1991, 102–06).

**1494** Fig 117 sf VR 4141. An incomplete iron buckle with an integral buckle-plate which is pierced in the centre. The sides of the buckle continue as raised strips along the edges of one face of the buckle-plate. Plated (tin?). L 25mm, W 15mm. 15th- to 16th-century pit F751/757/759 (XIII, 3024).

*not illustrated*

**1495** sf VR 0. An incomplete buckle with an integral buckle-plate. The sides of the buckle continue as raised strips along the edges of one face of the buckle-plate. Plated. L 41mm, W 25mm. 14th- to 15th-century pit F505 (XI, 1508).

### With frame that widens outwards

Two buckle frames widen outwards from the side on which the pin was hinged, and have a wider side which is convex. **1497** is a very small example, and is similar to two from London dated 1350–1400. (Egan

and Pritchard 1991, fig 57, 402–03). **1496** is larger, plated and comes from a late medieval or early post-medieval context.

**1496** Fig 117 sf VR 2274. The iron frame widens outwards, the wider side being convex and thickened slightly in the centre. Plated (tin). L 26mm, W 24mm, T 3mm. 15th- to 16th-century pit 44 (X, 99).

*not illustrated*

**1497** sf VR 65. An iron frame which widens from one side to the other, the wider side is convex. L 18mm, W 18mm. Demolition of Building 938.1 (IV, 36). 14th to 15th-century date.

### With double oval frame

There are thirteen buckles with double oval frames, three of iron and ten of copper alloy, and one with double rectangular frame in copper alloy. Of the iron buckles **1501** and **1509** are of a very similar small size but **1500** is twice as large. All three are from 15th- to 16th-century contexts. Comparable buckles appear to be largely late medieval or early post-medieval. An example in iron comes from a 14th-century context at the Cathedral Green site (WS7.2, fig 131, no 1152) and four from London were found in contexts dated 1230–1400 (Egan and Pritchard 1991, 85–6).

Copper alloy examples of double oval frames are found in London in contexts dating from 1350 to 1450 (Egan and Pritchard 1991, 82–3) and elsewhere in Winchester in 15th- to 16th-century contexts (WS7.2, 520–1, fig 132, no 1206–09). Here, they range in date from the late medieval period to the 17th century.

**1498** Fig 118 sf VR 5630. Copper alloy double oval buckle with iron tongue. L 44mm, W 34mm. The frame is notched for the tongue. Date range c 1350–1450. Layer in 13th- to 15th-century Building 936.4 (XII, 2566).

**1499** Fig 118 sf VR 3418. Small copper alloy double oval buckle, probably from a shoe-strap (Grew and de Neergaard 1988, fig. 110). L 22mm, W 16mm. The tongue is missing. Probably 15th century in date. Demolition of Building 935.2 (XII, 2031). 14th- to 15th-century date.

**1500** Fig 117 sf VR 2222. An iron double-lobed frame with central bar. Plated. L 55mm, W 52mm. 15th- to 16th-century pit F27 (X, 94).

**1501** Fig 117 sf VR 2285. A double-lobed iron frame with central bar, the pin in situ. L 20mm, W 16mm, T 2mm. 15th- to 16th-century pit 44 (X, 99).

**1502** Fig 118 sf SJS 59. Copper alloy buckle with double flattened-oval frame and the loop of an iron tongue. L 31mm, W 23mm. Each short side is marked by a pair of mouldings set slightly off-centre. The frame is angled but not as acutely as that of **1505** (below). The buckle probably dates to the first half of the 17th century. Similar buckles come from Chelmsford, Essex (Goodall, A 1985, fig 26, 11–12, 15, fig 27, 16) and Basing House, Hants. (Moorhouse 1970, fig 25, 169–70). ?Intrusive in 15th- to 16th-century pit F305 (I, 330).

**1503** Fig 118 sf SJS 108. Copper alloy angled double rectangular buckle. The tongue is missing. There is a small semicircular moulding opposite each end of the central bar. L 46mm, W 30mm. Probably 16th- or 17th-century in date. 17th- to 18th-century pit F311 (I, 328).

**1504** Fig 118 sf SJS 692. Copper alloy buckle with angled

double oval frame and iron central bar. L 24mm, W 22mm. Only the loop of the iron tongue remains. On manufacture, the buckle was open at the centre of one long side to allow insertion of the iron bar. The ends of the bar were then hammered down to fix the pieces firmly together. Similar buckles come from Colchester, Essex (Crummy 1988, fig 19, 1753, 1764) and Hull (Armstrong 1977, fig 28, 111). Early post-medieval. 17th- to 18th-century pit F311 (I, 328).

**1505** Fig 118 sf SJS 152. Copper alloy buckle with angled double oval frame and copper alloy tongue. L 35mm, W 25mm. Identical in form, although 1mm longer, to a buckle dated to the second half of the 14th century from the Baynard's Castle site, London (Egan and Pritchard 1991, fig 50, 333). Date range c 1350–1450. Residual in 19th- to 20th-century wall construction trench F54 (I, 196).

**1506** Fig 118 sf CHR 512. Small copper alloy double oval buckle with angled frame, probably from a shoe-strap. The tongue is missing. L 22mm, W 13mm. The broad loops are decorated with engraved curving lines. Probably dating to 16th or 17th century. Unstratified (III).

#### *not illustrated*

**1507** sf 10CS 85. Half of copper alloy double buckle with copper alloy tongue. W 18mm. 14th- to 15th-century occupation layer in room F22 of Building 521.1 (I, 61).

**1508** sf SJS 32. Half of a copper alloy double buckle. Part of iron tongue corroded on to the central bar. W 29.5mm. 15th- to 16th-century pit F305 (I, 319).

**1509** sf SJS 1027. A double-lobed iron frame with a central bar (traces of leather belt). L 23mm, W 26mm. 15th- to 16th-century pit F305 (I, 319).

**1510** sf HA74 365. A copper alloy double buckle. The tongue is missing. L 21mm, W 13mm. 19th- to 20th-century fill of cellar F10 in Building 744.5 (XII, 39).

**1511** sf VR 3572. A copper alloy double buckle. The tongue is missing. L 31mm, W (maximum) 26mm. Unstratified (XII).

#### **Miscellaneous types and fragments**

**1512** Fig 118 sf VR 2297. Incomplete copper alloy object, possibly a buckle frame. L 39mm, W (maximum, distorted) 35mm. The object consists of an oval loop, part of which is missing, and a rectangular loop. There is no central bar. There is a moulding at each side where the loops meet and hatched roundels at the outside of the rectangle. Post-medieval. 15th- to 16th-century pit F44 (X, 99).

**1513** Fig 118 sf VR 5253. Gilt copper alloy ?buckle fragment. L (incomplete) 35mm, W (incomplete) 34mm. The remaining long side is a straight thick bar with a groove down the centre of the upper face. The other side suggests a double oval form with a central bar (WS7.2, fig 135, no 1261). Post-medieval. 15th- to 16th-century soil layer over medieval buildings on tenements 935 and 936 (XII, 2485).

**1514** Fig 118 sf SJS 127. Copper alloy buckle with oval outside loop (broken), central bar and smaller rectangular inside loop. L 19mm, W (maximum) 28mm. The central bar has no constriction for the tongue (Egan and Pritchard 1991, fig 65, 472), which is missing. Late medieval. 17th- to 18th-century yard surface F50 (I, 181).

**1515** Fig 118 sf VR 2005. Copper alloy buckle frame fragment. L (incomplete) 23mm, W (maximum) 42mm. The frame is decorated in relief with pierced lozenges, a linear rope and ridge design, dots, and flowers. On the reverse, the edges are chamfered and the holes counter-sunk. Post-medieval. Residual in 19th- to 20th-century layer (X, 6).

#### *not illustrated*

**1516** sf VR 0. Iron frame fragment. Plated. 13th- to 14th-century pit F1067 (XV, 4035).

**1517** sf 10CS 561. Fragment of copper alloy fitting with rivet, probably from a buckle. 8 by 6mm. 14th- to 15th-century floor layer in room F24 of Building 521.1 (I, 58).

**1518** sf SBS 167. Copper alloy tongue from a buckle. Rectangular in section. L 23mm. 15th- to 16th-century pit F67 (II, 102).

**1519** sf VR 0. Iron buckle pin. Plated. L 60mm, W 6mm. 15th- to 16th-century pit F27 (X, 117).

**1520** sf VR 4214. Short length of iron strip with a looped terminal. Lead-tin plated. L 21mm, W (loop) 11mm. 15th- to 16th-century pit F771 (XIII, 3068).

**1521** sf CHR 0. Iron pin and frame fragment. Context not known.

#### **Buckle-plates and strap-ends**

**1522** Fig 117 sf SXS 781. Strap-end of iron made from two plates welded together at the outer end. Both plates widen towards the outer end and along their inner ends they have zig-zag serrations. The plates are pierced once for attachment, rivet in situ. Plated (probably tin). L 33mm, W 29mm. No exactly comparable strap-end is known, but the method of manufacture can be seen on three Anglo-Scandinavian strap-ends from York (Ottaway 1992, 690–1). In addition, the serrations, which may symbolise teeth gripping the strap, can be compared with those on a strap-guide from Chester Road (2009) and triangular punch marks at the ends of Anglo-Scandinavian strap-ends and belt-fittings from York (Ottaway 1992, 3753, 3790–91 and 3795). Late Saxon pit F500 (XVII, 1175).

**1523** Fig 119 sf VR 3612. Fragment of a copper alloy plate with a central hole and engraved line around the edge. L (incomplete) 22mm, W 15mm. The plate appears to have broken across a wider hole. Probably a narrow belt-plate or strap-end of 13th- to 14th-century date. Floor layer in 13th- to 15th-century Building 935.2 (XII, 2160).

**1524** Fig 119 sf LIDO 7. Composite copper alloy strap-end with forked spacer, from the same strap as buckle **1450** (above). L 48mm, W 15mm. The round aperture on the concave attachment edge is grooved on the front plate, and is flanked by two rivets. The terminal knob is a flat lozenge. Fragments of lead-tin solder remain between the plates. This strap-end belongs to a group which in London appears to date from c 1350–1400 (Egan and Pritchard 1991, 146). Robber trench F18, associated with the demolition of a cellar on tenement 795 (V, 64). 14th- to 15th-century.

**1525** Fig 119 sf VR 3025. Fragments of a one-piece folded copper alloy buckle-plate or strap-end. L (incomplete) 36mm, W 37mm. Most of the front remains but only part of the back. Most of the fold is missing, making interpretation uncertain. The leather was held inside the plate by two rivets, now missing. The upper face bears two panels of engraved vegetal decoration, framed by raised ridges and repoussé dots. Late medieval. 14th- to 15th-century pit F131 (X, 284).

**1526** Fig 119 sf SBS 214. Composite copper alloy strap-end with a forked spacer. L 45mm, W 21mm. The attachment edge is concave, and has a lipped round aperture, flanked by two rivets. The terminal knob is a tiny lozenge. The front plate is decorated with diagonal lines of engraved zig-zags. Part of the plain back plate and the top of one spacer are missing. Some leather remains between the two plates. Late 14th-century date. 15th- to 16th-century pit F67 (II, 66).

**1527** Fig 119 sf VR 6158. Copper alloy strap-end with openwork decoration. L (incomplete) 47mm, W 10mm. The top is broken. There is a broken loop on the end of the acorn-motif terminal knob, probably for a small pendant. Above the knob, the front of the strap-end is decorated with an incised



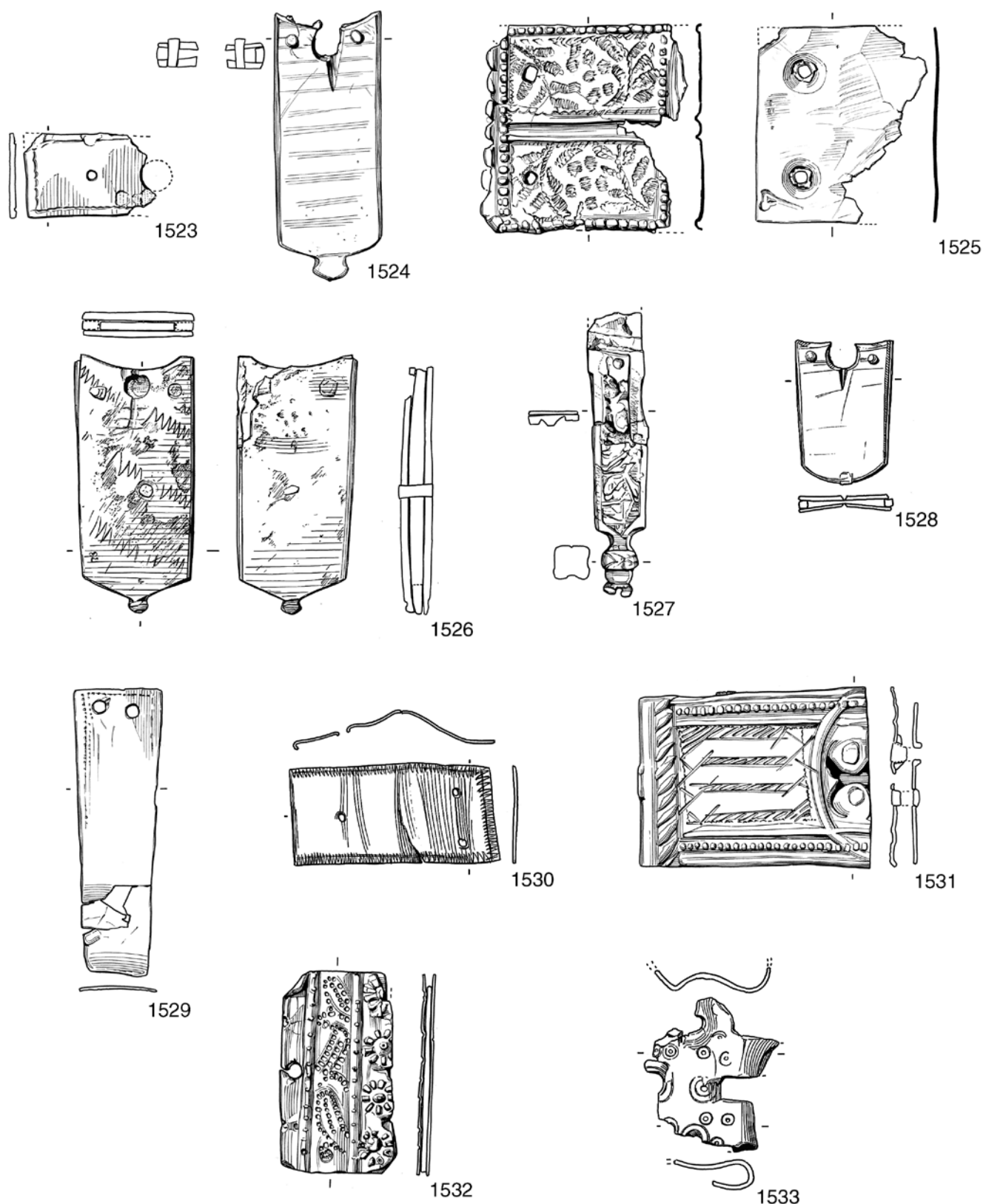


Figure 119 Copper alloy buckle-plates and strap-ends, nos 1523–33, scale 1:1

and hatched vegetal design, surmounted by a cut-out with an unidentifiable motif reserved against the exposed sheet metal spacer. There are two similar strap-ends from the Trig Lane site, London, but they lack the terminal loop (Egan and Pritchard 1991, fig 97, 704–05). The date range is late 14th to early 15th century. 15th- to 16th-century pit F320 (X, 978).

**1528** Fig 119 sf HA 121. Composite copper alloy strap-end

with a forked spacer. L 26mm, W 17mm. The attachment edge is concave and has a circular aperture which is lipped on both front and back plates. The rivets flanking the aperture are dome-headed. The end of the tiny knop is roughly lozenge-shaped. Late 14th-century and residual in a layer dating to the 17th century or later (XI, 121).

**1529** Fig 119 sf VR 8291. Slightly tapering plate with two

rivet holes at one end and a double row of opposed punched triangles around the edge. The narrower end is broken. L 51mm, W (maximum) 16mm. Possibly a strap-end plate (cf Egan and Pritchard 1991, fig 89, 630, fig 93, 662). Medieval and residual in 17th- to 18th-century pit F446 (XI, 1506).

**1530** Fig 119 sf CHR 294. Slightly bent copper alloy plate, folded over at one end and broken just beyond the fold. L (bent) 35mm, W 17mm. There is a hole for a rivet 9mm before the fold, and two more close to the other end. The margins are marked by a single groove and engraved zig-zags. Probably a buckle-plate, perhaps of 14th-century date. 17th- to 18th-century layer (I, 19).

**1531** Fig 119 sf VR 3011. Gilt copper alloy one-piece folded sheet, decorated on the upper face. L 41mm, W 31mm. There is a small hole at the centre of the fold, which suggests that this is a buckle-plate rather than a strap-end (cf Egan and Pritchard 1991, 158, fig 104). A little leather survives inside the plate. The decoration on the upper face consists of repoussé dots at top and bottom, joined at the fold end by a row of raised cable ornament. The other end has a cut-out in which the iron rivets fixing the leather inside the plate form an important element, and the end is further marked by a raised arch. The field bears decorative scored hatching within ridges. Probably of late 14th- or early 15th-century date and residual in 19th- to 20th-century layer (X, 254).

**1532** Fig 119 sf SBS 24. A one-piece folded copper alloy buckle-plate or strap-end. L 21mm, W 36mm. A fragment of leather remains inside the plate, held by two iron rivets. The fold has been crushed, but has broken across a circular hole, probably for a buckle tongue. There are two tiny copper alloy rivets set on the edge of the break or fold, each about halfway between the hole and the edge. Two panels of decoration are defined on the upper face by beaded ridges possibly representing the letter 'M'. Rows of tiny punched dots on the panel closest to the fold may form leaf shapes, but this interpretation is uncertain. The outer panel has four raised florets, with the rivets attaching the strap set in the centre of the two outermost. Probably late medieval to early post-medieval and residual in 19th- to 20th-century pit F59 (III, 33).

**1533** Fig 119 sf 27JS 579. Distorted fragment of copper alloy sheet, possibly a buckle-plate or a mount from a book or small box. The surface is decorated with punched ring-and-dot motifs set between perforations. At one end is a rectangular cut-out and part of a fold or hinge. Probably late medieval or post-medieval. Context of uncertain type and date (III, 719).

#### *not illustrated*

**1534** sf 10CS 87. Copper alloy tapered ?tag with small rivet at wider end. L 47mm, W (maximum) 10mm. Intrusive in Roman context (I, 133).

**1535** sf SXS 50. Copper alloy gilt strip, with a hole pierced for attachment at one end, broken at the other. Traces of incised decoration form a lattice on the outer surface. L 26mm, W (maximum) 15mm. Possibly from a belt-plate. Late Saxon fill of pit F36 (VIII, 191).

**1536** sf VR 9524. Fragment of a copper alloy ?belt-plate. Square sheet of metal with a rectangular cut-out at one end, possibly to form two strips to be folded over the central bar of a buckle. L (folded and incomplete) 21mm, W 21mm. 13th- to 14th-century pit F1041 (XV, 3970).

**1537** sf VR 3088. One side of a folded rectangular tinned copper alloy belt-plate, broken across the fold. There is a central slot for the pin and the corners of the fold are recessed for the frame. The outer end has been broken off. Despite the length of what remains, there are no rivets or rivet holes. L 36mm, W 14mm. 13th- to 14th-century pit F166 (X, 417).

**1538** sf VR 2053. One half of an iron folded-plate type belt-plate; it is rectangular and pierced twice. Plated (tin). L 40mm, W 30mm. 13th- to 15th-century layer (X, 35).

**1539** sf VR 5800. A fragment of frame and a rectangular copper alloy buckle-plate which is pierced twice. Buckle-plate: L 11mm, W 8mm. 13th- to 15th-century demolition of Building 936.3 (XII, 2639).

**1540** sf 10CS 28. Part of a copper alloy fitting or strap-end. Curved strip with knop and collar beneath on curve. L (incomplete) 21mm. Occupation in room F25 of Building 521.1 (I, 51). 14th to 15th century.

**1541** sf 10CS 54. Fragment of copper alloy ?belt-plate. Possible rivet hole. Present L 16mm, W 13mm. Floor layer in room F23 of Building 521.1 (I, 71). 14th to 15th century.

**1542** sf SBS 57. Part of a copper alloy ?strap-tag, riveted at one end. L (incomplete) 26mm, W (maximum) 12mm. 15th- to 16th-century pit F67 (II, 118).

**1543** sf SBS 202. One half of a rectangular iron buckle-plate made by folding a plate over one side of the buckle. Pierced three times. L 30mm, W 29mm. 19th- to 20th-century layer (II, 23).

**1544** sf VR 2161. Copper alloy buckle-plate that has been unfolded and flattened. Part of one long side is missing. L 55mm, W 23mm. Part of one of the iron attachment rivet survives on the upper side. The upper side was decorated with panels of grooved linear and zig-zag designs flanking a length of cable. Probably late medieval to early post-medieval and residual in 19th- to 20th-century layer (X, 6).

**1545** sf 10CS 82. Fragment of copper alloy belt-plate. Two rivet holes, three others visible on X-ray. Present L 22mm, W 16mm. Unstratified (I).

#### **Belt-hasp**

**1546** is an iron belt hasp, defined by Hinton (WS7.2, 539) as a buckle-like object used to join two straps, but without the buckle's pin.

**1546** Fig 117 sf VR 5101. Belt-hasp and attachment plate of iron. The frame has straight sides and rounded ends, and a rounded cross-section. There is a scarf joint on the straight side. The attachment plate is rectangular and pierced twice. Plated. Buckle: L 36mm, W 20mm, T 5mm; buckle-plate: L 23mm, W 20mm. Another specimen similar in basic form comes from a late 11th- to 12th-century context at Lower Brook Street, Winchester (WS7.2, fig 143, no 1350). Late Roman and Saxon soil layer (XII, 2436). May be contaminated with later finds.

#### **Mounts with a contribution by D A Hinton**

##### **Tongue-shaped**

**1547** Fig 120 sf VR 3659. Fragment of a tongue-shaped copper alloy mount with side-projections. L (incomplete) 29mm. There are two perforations for attachment near the broken end, a larger one towards the tip, and a fourth close to the tip which contains part of an ?iron rivet. The upper face is decorated with irregularly applied lines of engraved zig-zags. 11th- to 12th-century fill of ditch F588 (XII, 2299).

##### **Pendant**

**1548** Fig 120 sf CHR 540. Copper alloy arched pendant mount or purse hanger. L 48mm. A deep central arch is flanked by two shallower arches. The terminals are knobbed. This mount belongs to a group dated by Egan and Pritchard (1991, 219–224) to the mid-13th century. 14th- to 15th-century soil layer (III, 514).

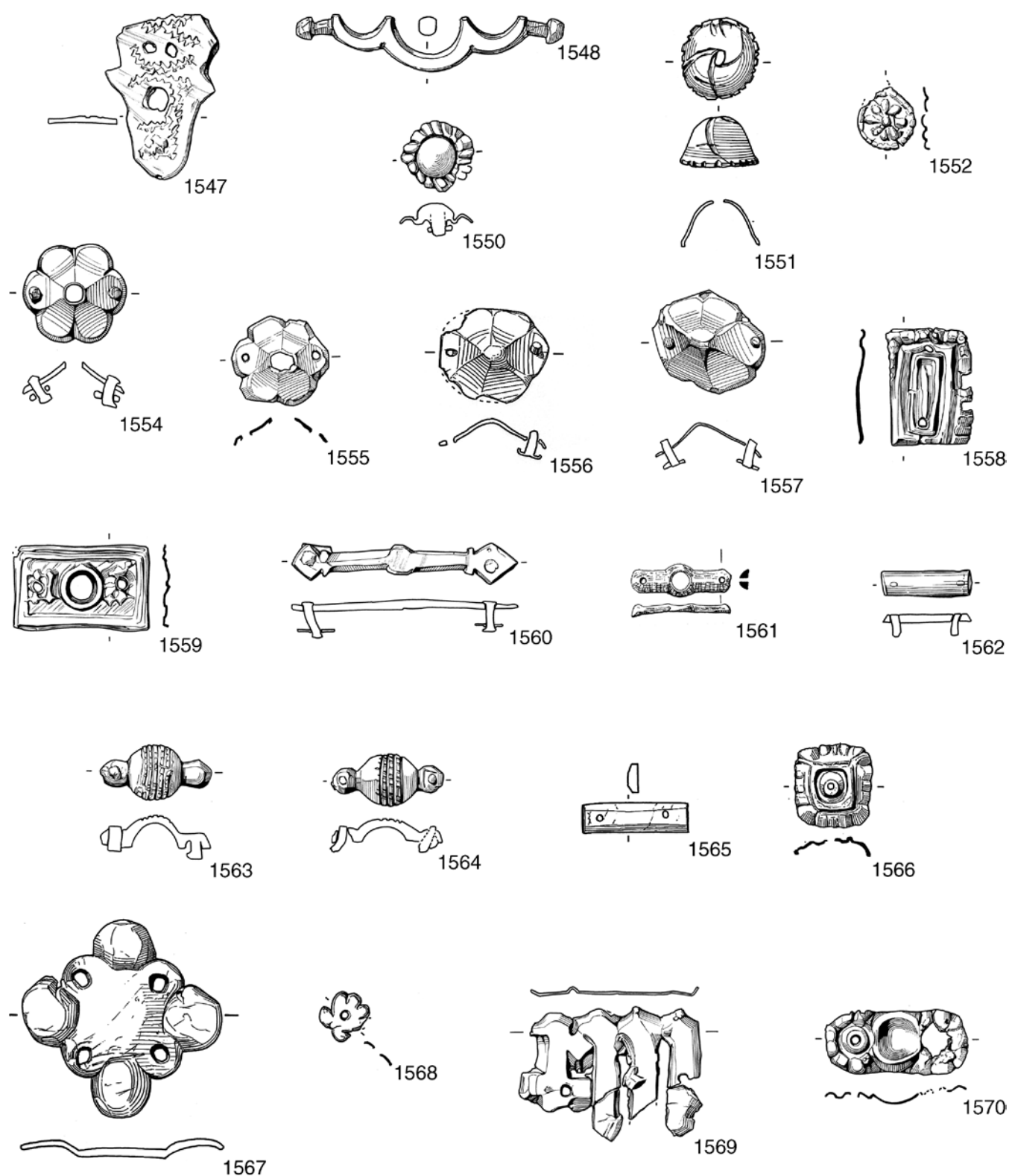


Figure 120 Mounts, nos 1547–8, 1550–2, 1554–70, scale 1:1

not illustrated

**1549** sf VR 7021. Copper alloy arched pendant mount or purse hanger. L 47mm. A central tongue is flanked by two slightly shallower arches. The terminals are knobbed and on one a riveted loop for attachment to a belt remains. Probably of mid-13th-century date. Unstratified (XI).

#### Circular

**1550** Fig 120 sf VR 5658. Circular mount of brass, mercury-silvered. D 13mm, H 6mm. A domed stud with a separate cable border. The shaft is fitted with a rove. Both domed centre and cable border are silvered. Very similar to an early 15th-century mount from Swan Lane, London (Egan and

Pritchard 1991, fig 114, 932, pl 4, E.). Layer in 13th- to 15th-century Building 936.4 (XII, 2597).

**1551** Fig 120 sf SBS 33. Domed circular mount of copper alloy. D 14mm, H 8mm. The edge is nicked, possibly to imitate beading, and fine grooves spiral down from the top to the edge. The separate rivet is missing. Probably late 13th or early 14th century in date. 15th- to 16th-century pit F67 (I, 60).

**1552** Fig 120 sf VR 3076. Thin flat circular mount of copper alloy with repoussé decoration. D 10mm. No trace of the rivet remains. The border is beaded and the central design probably floral. Probably medieval. 15th- to 16th-century pit F153 (X, 408).

#### *not illustrated*

**1553** sf 10CS 5(b). Domed circular mount of copper alloy with four small lugs, two of which are damaged and the fourth is missing. The separate central rivet is also missing. D 8mm, H 3mm. Associated with a buckle tongue of late 13th- to 14th-century date. 13th- to 14th-century silting over a cobbled surface, possibly the early medieval forerunner of Colebrook Street (I, 37).

#### **Sexfoil**

**1554** Fig 120 sf VR 5122. Copper alloy domed and faceted sexfoil mount with a central hole and two rivets, each with a rove. The edge of the mount has been trimmed to the shape of the lobes. D 18mm, H 5mm. Egan and Pritchard (1991, 188, fig 143) suggest that centrally perforated mounts of this type were used as surrounds for holes in straps. 14th or 15th century. 15th- to 16th-century pit F643 (XII, 2415).

**1555** Fig 120 sf 10CS 7. Copper alloy mount similar to **1554** (above), but both rivets are missing. The edge of the mount has been trimmed to the shape of the lobes. D 16mm, H 5mm. 14th or 15th century. 15th- to 16th-century garden soil (I, 1).

**1556** Fig 120 sf 10CS 6. Copper alloy domed and faceted sexfoil mount similar to **1554** and **1555** (above), but slightly elongated. One rivet survives with its rove. D (maximum) 19mm, H 5mm. 14th or 15th century. Unstratified (I).

**1557** Fig 120 sf 10CS 75. Distorted copper alloy domed and faceted sexfoil mount with two rivets, each with a rove. The edge has been irregularly trimmed. D 19mm, H 7mm. Unstratified (I).

#### **Rectangular**

**1558** Fig 120 sf VR 4391. Rectangular copper alloy mount with repoussé pattern of raised rectangles and a beaded rim. The pattern is set at an angle to the long axis of the mount. L 20mm, W 14mm. There is a small rivet hole near each narrow end. 15th- to 16th-century pit F764 (XIII, 3041).

**1559** Fig 120 sf VR 4103. Rectangular mount of gunmetal with large central hole and two smaller flanking rivet holes. L 24mm, W 15mm. The plate and the central hole have a raised border, and the hole is flanked by raised features, possibly letters. The field is mercury-silvered. Similar to a mount from Thetford (Goodall, A. 1984(a), fig 111, 41). Medieval and residual in 19th- to 20th-century layer (XIII, 3006).

#### **Bar-shaped**

**1560** Fig 120 sf VR 9520. A copper alloy bar mount with a central subrectangular lobe and lozenge-shaped terminal

lobes. L 40mm, W (maximum at lobe) 7mm. The rivets for attaching the mount survive in the terminal lobes. One is fitted with a lozenge-shaped rove, and part of the rove from the other rivet also survives. 11th- to 12th-century pit F1021 (XV, 3939).

**1561** Fig 120 sf SXS 26. Belt mount of copper alloy with central open circle and attachment holes at each end. Convex in section. L 17mm. A fairly similar mount was found in a 13th-century context at the BS site, Winchester (WS7.2, 543–4, no 1371). Goodall (1981, 68) cites comparable 13th-century examples but the type appears to continue into the 14th century (Egan and Pritchard 1991, fig 134, 1157–8). 13th- to 14th-century property boundary ditch F126 (VIII, 119). (DAH)

**1562** Fig 120 sf VR 3603. Small plain copper alloy bar mount of D-shaped section. L 16mm, W 4.5mm. Both rivets survive. Similar mounts from London are dated from the late 13th to the 15th centuries (Egan and Pritchard 1991, 211–13) and to the 14th century at Northampton (Oakley and Webster 1979, fig 108, 37). One of a pair with **1565**. Layer in 13th- to 15th-century Building 935.2 (XII, 2085).

**1565** Fig 120 sf VR 3609. Small plain copper alloy bar mount of D-shaped section. One of a pair with **1562**. L 18mm, W 4.5mm. Both rivets are missing. Occupation in 13th- to 15th-century Building 935.2 (XII, 2085).

**1563** Fig 120 sf VR 2306. A bar mount with a central boss and terminal lobes. A rivet is fitted through each lobe. L 19mm, W (maximum) 10mm. the central boss is grooved, and each resultant ridge is hatched at irregular intervals. Similar bosses came from the Billingsgate Lorry Park watching brief, London (Egan and Pritchard 1991, fig 134, 1160–1), where they are dated to the second half of the 14th century. 15th- to 16th-century pit F27 (X, 114).

**1564** Fig 120 sf VR 2581. A bar mount similar to **1563**. L 20mm, W (maximum) 9mm. The hatching on the central boss is more regular. Residual in 19th- to 20th-century layer (X, 254).

#### **Miscellaneous types**

**1566** Fig 120 sf VR 5758. Domed, more or less square repoussé mount of thin sheet copper alloy. The edges form a panelled frame around a central moulding, within which is a round perforation with raised edges for the rivet, now missing. 14mm by 13mm square, H 3mm. Floor in 13th- to 15th-century Building 936.4 (XII, 2601).

**1567** Fig 120 sf VR 85. Copper alloy mount with flat central subsquare panel, pierced at each corner, and domed lobes at the centre of each side. 34mm from lobe to lobe. Probably late medieval. Soil layer over 13th- to 15th-century cellar or quarry F28 on tenement 937 (IV, 44).

**1568** Fig 120 sf VR 86. Copper alloy mount with central perforation for a rivet, now missing. L 9mm, W 8mm. The form is probably intended to be floral or foliate, but may be shell-shaped (Egan and Pritchard 1991, fig 126, 1083, 1088). Probably late 14th- or early 15th-century in date. Soil layer over 13th- to 15th-century cellar or quarry F28 on tenement 937 (IV, 44).

**1569** Fig 120 sf VR 6140. Copper alloy mount consisting of sheet metal cut and pressed into the letters '(?)EM'. L 31mm, W (maximum) 19mm. There is a small rivet hole in the 'E', and the end stroke of the 'M' has broken across another. The base of the mount is damaged. 15th- to 16th-century pit F318 (X, 967).

**1570** Fig 120 sf VR 6149. Damaged repoussé copper alloy mount with central dish area flanked by two beaded-rim florets. L 25mm, W 11mm. The more complete floret has a rivet hole in the centre for attachment. The form is paralleled at Norwich (Margeson 1993, fig 23, 276). Late medieval. 15th- to 16th-century pit F313 (X, 952).

not illustrated

**1571** sf CT 68. Plain subrectangular copper alloy mount of with central perforation. 22 by 20mm, D of perforation 6mm. 13th- to 14th-century pit F60 (VII, 222).

**1572** sf CT 70. Fragment of a thin copper alloy mount with two surviving edges. Perhaps originally subrectangular in shape and broken across one larger (D 4mm) and one smaller (D 1mm) perforation. 13 by 10.5mm (incomplete). 13th- to 14th-century pit F71 (VII, 225).

### Strap-loops

**1573** Fig 121 sf VR 3065. Large copper alloy trapezoidal strap-loop with two internal lugs. The longest side has a central bead-and-reel moulding, and small lugs at the corners. L 22mm, W (maximum) 37mm. The form is long-lived, dating from the late 12th to the late 14th centuries (Egan and Pritchard 1991, 233). 13th- to 14th-century pit F141 (X, 366).

**1577** Fig 121 sf VR 3628. Copper alloy object, possibly a strap-loop. An elongated U-shaped frame with straight top bar and knobbed terminal on the base of the U. L 23mm, W 11mm. Construction of 13th- to 15th-century Building 935.2 (XII, 2156).

**1574** Fig 121 sf VR 242. A bronze strap-guide, broken and partly missing at the narrowest side. L (distorted) 20mm, W (maximum) 19mm. The narrowest side is fractured across a small perforation for a rivet which attached the loop to the strap. The longest side has corner mouldings and carries a central rectangular cross-hatched boss. Probably dates to the second half of the 14th century. 13th- to 15th-century cellar or quarry F28 on tenement 937 (IV, 162).

**1575** Fig 121 sf SBS 43. Copper alloy trapezoidal strap-loop with integral external rivet. L 14mm, W 13mm. Dated from the late 13th to the 14th centuries (Egan and Pritchard 1991, 230–31). 15th- to 16th-century garden soil (II, 55).

**1576** Fig 121 sf VR 105. Copper alloy, more or less square, strap-loop with integral external rivet. L 18mm, W 14mm. A group of five similar strap-loops, joined together from the mould, were found on the Copthall Avenue site, London, in a context dated from the late 13th to mid-14th century (Egan and Pritchard 1991, fig 147, 1235). Unstratified.

### Chapes with a contribution by D A Hinton

The chape **1579** is probably from a dagger sheath attached by means of one of the large perforations on both back and front. The holes are not directly opposite each other, but the chape may have been slightly flattened and distorted. A similar chape came from a context dated 1370–1455 at Threave Castle, Galloway (Caldwell 1981, fig 10, 29). The off-centre point of **1578** may suggest use with a single-sided knife or dagger or may merely be the result of distortion after burial.

**1578** Fig 121 sf NR 167. Plain one-piece chape of copper alloy sheet, folded and hammered. Asymmetrical with attachment hole on one side. L 39mm, W (maximum) 23.5mm. Latest (medieval) fill of the Iron Age enclosure ditch F371 (II, 427). (DAH)

**1579** Fig 121 sf VR 2996. Copper alloy chape made from a folded sheet of metal. L 44mm, W (maximum) 20mm. The upper edge is damaged. 19th- to 20th-century pit F286 (X, 722).

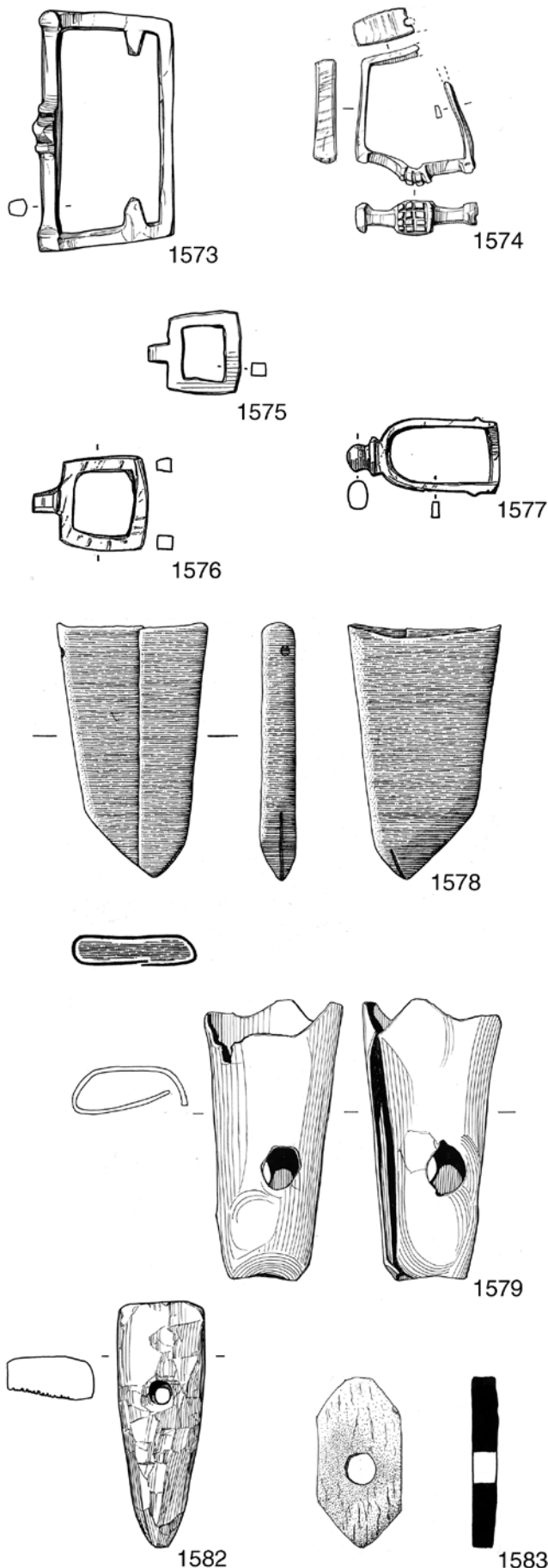


Figure 121 Strap-loops, chapes, and toggles, nos 1573–9, 1582–3, scale 1:1

## Purse frames

Copper alloy objects from Chester Road and Victoria Road (1548 and 1549) could not be identified with certainty as purse hangers, and have been catalogued as mounts.

*not illustrated*

**1580** sf SJS 49. Iron purse frame in fragments (no illustration possible). It consists of a straight top bar with a suspension loop attached in the centre. At each end the bar is stepped in to a form a short prong on which rest of the frame was hinged. This has a 'bellied' appearance. The prongs have a small sheath set over the tip. L of top bar approximately 155mm. Ward-Perkins (1940, 160) notes that metal purse frames of this and similar forms were current c 1475–1550. 15th- to 16th-century pit F305 (I, 330).

**1581** sf VR 0. A fragment of an iron purse frame with suspension loop. It survives as an incomplete curved strip which is pierced with an eye set in the hole. Plated. L 70mm, W 6mm; D of eye 14mm. Part of an oval frame of medieval date similar to that found complete at St George's Street, Winchester (Cunliffe 1964, fig 53, 154–5). Unstratified (XV).

## Toggles (?)

**1582**, from a late Saxon context, is distinct from the simple pierced bones usually described as toggles but probably used as buzz-bones (WS7.2, 589–91) in that, though rough, it has clearly been shaped for a specific purpose. It is probably too short to be used as a swivelling catch or sneck (cf. Mann 1982, 19) and its rough surface obscures any wear that might show around the perforation. It is, on the other hand, a suitable size for a clothing toggle.

The object **1583** from the medieval well at Crowder Terrace may also be a toggle, as its tapering section suggests that it was intended to be passed through a hole or loop narrow end first. An alternative use might be as a simple needle.

**1582** Fig 121 sf VR 8518. Roughly-made bone object, possibly a toggle. L 38mm, W (maximum) 13mm, T 6–8mm. Most of the piece apart from the upper face consists of cancellous tissue. The straight-sided hole is slightly closer to the broad end. Late Saxon pit F976 (XIV, 3817).

**1583** Fig 121 sf CT 531. A bone ?toggle with one end cut to a point, the other to a rounded-off point. Though crude, the shape appears to be intentional. The thickness tapers slightly from the rounded-off to the pointed end. L 26mm, T (maximum) 5mm. 13th- to 14th-century well F70 (VII, 88).

*not illustrated*

**1584** sf VR 3366. Bone ?toggle. Globular at either end separated by two reels. Worked from one piece of bone. Perforation at one end. L 17mm, D 7mm. 15th- to 16th-century pit F27 (X, 847).

## Miscellaneous fittings

**1585** Fig 122 sf VR 3399. Long conical copper alloy tag. L 110mm, D (maximum) 7mm. Possibly a long lace-end, or

more likely, a ferrule (Margeson 1993, fig 12, 123). Rahtz (1969, 87, fig 49, 85) suggests that a similar object from Writtle, Essex may have been used in coiffure. 14th- to 15th-century pit F117 (X, 857).

**1586** Fig 122 sf CHR 34. Small acorn-shaped copper alloy bell with iron pea. Probably made in two halves and soldered together at the central moulding. The loop is a thin strip of sheet metal inserted into a hole at the top of the bell. D 15mm, H (including loop) 19mm. This bell is small enough to be a dress accessory, or may come from animal harness. Medieval (cf Egan and Pritchard 1991, fig 221, 1645). ?Late medieval fill of large feature (cellar, quarry or wellhead) F15 (I, 59).

**1587** Fig 122 sf SBS 127. A cast copper alloy object of complex moulded form and exceptional quality. H 46mm, total L 90mm. It consists of a loop handle with debased zoomorphic terminals soldered to a stem that is riveted between two lugs on a moulded base, to which two arms are hinged. The handle can move around the rivet, and probably also turned upon the lower ring of the stem. One of the hinged arms is still flexible; the other is stuck in an upright position. Hinged to the other end of the flexible arm is a rectangular buckle. The hinged attachment to the other arm, probably also a buckle, is missing.

A slightly similar object, dated to the first half of the 12th century, is described as a double swivel for straps, possibly a distributor for a twin dog-leash (Zarnecki *et al* 1984, cat no 248). It has been suggested (John Cherry, pers comm) that the SBS object may date to the second half of the 13th century, and that it may be part of a dog harness, having a strap passing under the body behind the front legs and attached to each buckle, with the loop centred behind the shoulders. The flexibility of the object enables a smooth curve to be produced that could easily fit a dog's back, while having a buckle on either side would allow the harness to be used for different sized dogs. 15th- to 16th-century garden soil (II, 55).

*not illustrated*

**1588** sf SJS 1. Fragment of V-shaped copper alloy plaque. Decoration includes repoussé cable and heart at apex. Surviving L of one 'arm' 32mm, W 13mm. 15th- to 16th-century soil layer (I, 4).

## Footwear

The buckles **1499** and **1506** are probably from shoe straps, but have been catalogued with the other buckles (above).

## Patten rings

There are three oval patten rings of iron. They would have been fitted to the base of wooden pattens by means of the characteristically fan-shaped terminals. Two further patten rings are broken terminals. Oval rings are thought to have replaced crinkled rings c 1720 (Goodall, I 1976, 63 quoting June Swann of Northampton Museum).

**1589** Fig 123 sf SJS 574. Terminal. L 60mm; W of strap 30mm. 17th- to 18th-century layer (I, 253).

**1590** Fig 123 sf SJS 0. Oval ring type, incomplete, one terminal survives. L 150mm, W 95mm. 19th- to 20th-century fill of cellar in Building 961.6 (IV, 604).

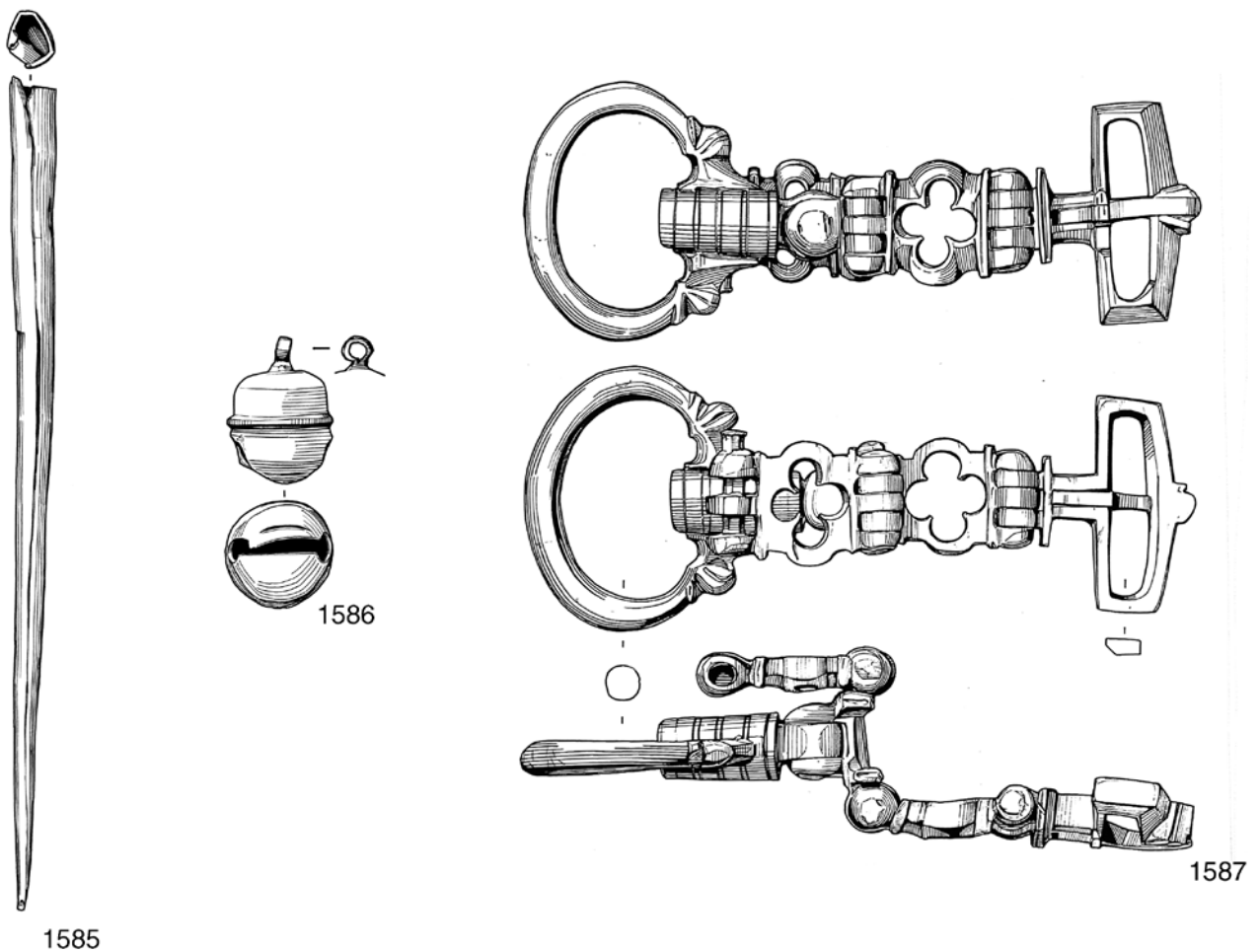


Figure 122 Miscellaneous fittings, nos 1585-7, scale 1:1

*not illustrated*

**1591** sf HA 0. Fan shaped terminal, pierced twice. L 40mm, W 30mm. Post-medieval layer (XIII, 51).

**1592** sf VR 2184. Oval ring type, half missing. L 136mm. 19th- to 20th-century pit F11 (X, 25).

**1593** sf SJS 0. Oval ring type, incomplete, one incomplete terminal survives. L 148mm. Unstratified (IV).

### Boot-plates

There are seventeen iron boot-plates of post-medieval type. Most are from contexts of the 18th century or later. Originally they would have been U-shaped and fitted either to the toe or heel of a boot. Heel-plates usually have a cross-piece joining the ends of the U, as in the case of **1594**, which is complete, and **1606**, now incomplete. Three specimens are pierced for attachment through a fullered channel.

**1594** Fig 123 sf CHR 1490. A straight arm joins the ends of the U-shaped part, the latter is pierced several times through a fullered groove. L 50mm, W 70mm. Post-medieval drain F4 (I, 38).

*not illustrated*

**1595** sf VR 538. One arm is missing. L 32mm, W 11mm. 13th- to 15th-century layer (V, 14). ?Intrusive.

**1596** sf CHR 0. Incomplete arm, one rectangular hole. 15th-century layer (III, 514). ?Intrusive.

**1597** sf NHW 0. One arm. L 54mm. Post-medieval or modern garden soil (I, 11).

**1598** sf VR 0. Incomplete, pierced twice, rectangular holes. L 54mm, W 10mm. 17th- to 18th-century pit F113 (X, 259).

**1599** sf VR 2579. Complete, pierced four times, rectangular holes. L 52mm, W across 56mm, W 10mm. 17th- to 18th-century pit F113 (X, 259).

**1600** sf VR 2653. One arm survives, pierced twice, rectangular holes. L (originally) 62mm, W 9mm. 17th- to 18th-century pit F113 (X, 259).

**1601** sf CHR 0. Incomplete arm, two rectangular holes. L 70mm. 17th- to 18th-century layer (I, 19).

**1602** sf HA 0. Incomplete, pierced twice. L 57mm, W 11mm. 18th- to 19th-century occupation layer associated with Building 744.3 (XIII, 84).

**1603** sf HA 0. Incomplete. L 65mm. 18th- to 19th-century soil layer (XI, 246).

**1604** sf SBS 0. Incomplete arm, pierced twice. L 65mm, W 15mm. 18th- to 19th-century layer (I/II, 24).

**1605** sf VR 2120. Complete, pierced four times, rectangular

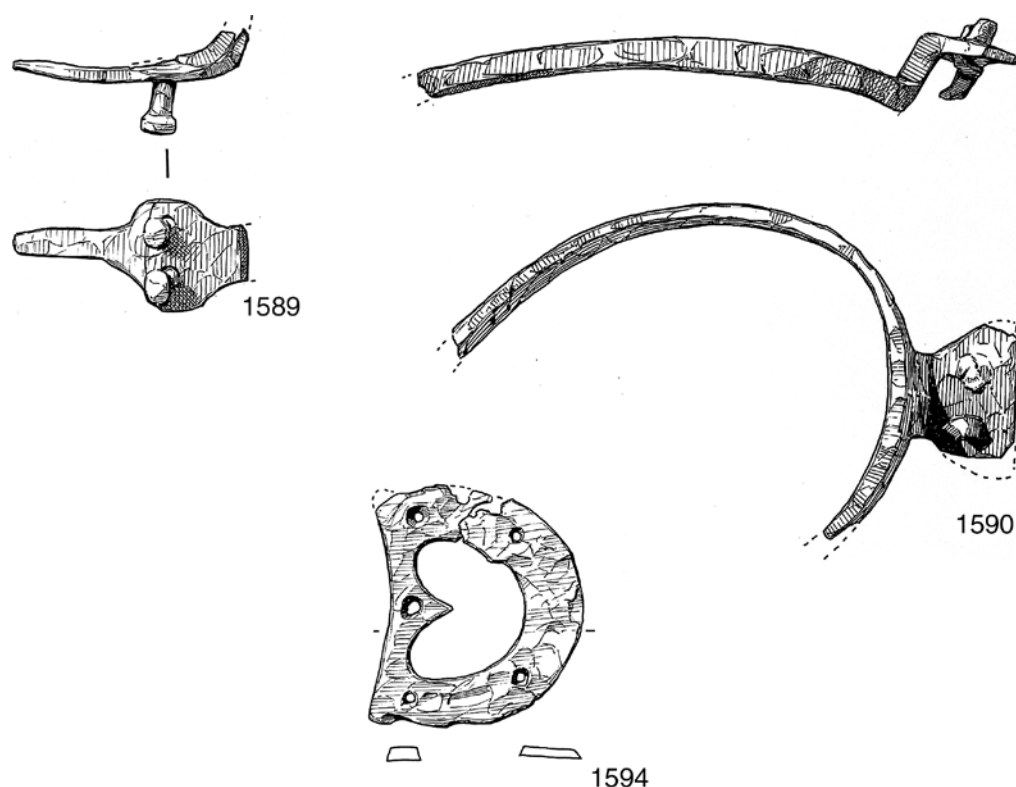


Figure 123 Footwear, nos 1589–90, 1594, scale 1:2

holes. L 58mm, W across 55mm, W 9mm. 19th- to 20th-century pit 1 (X, 5).

**1606** sf SJS 631. Incomplete heel-plate; one round hole. L 60mm, W 11mm. 19th- to 20th-century pit 301 (I, 308).

**1607** sf SJS 653. Incomplete; it has a central fuller and three rectangular holes. L (originally) 70mm, W 12mm. 19th- to 20th-century pit 301 (I, 308).

**1608** sf JCH 321. One arm incomplete, the other largely missing, three holes punched through a fullered channel. L 68mm, W 10mm. 19th- to 20th-century layer (IV, 401).

**1609** sf SSS 30. Incomplete, two rectangular holes. L 65mm, W 10mm. 19th- to 20th-century layer (I, 17).

**1610** sf SJS 283. Four round holes. L 41mm, W 39mm, T 10mm. Unstratified (I).



## 2 Toilet, surgical, or pharmaceutical instruments

A wide variety of combs dating to the Saxon and medieval periods forms the major part of this group of objects, which also includes a small mirror case, tweezers, a wig curler and a large brush. Two bone toothbrushes were also found, one presumably of local manufacture as the worn manufacturer's stamp includes WINCHESTER.

### Combs

The use of red deer antler for the manufacture of combs, a practice so well-represented in late Roman Winchester (Part 2, category 2), continued throughout the Saxon period. It ceased to be the preferred material in the medieval period, when it was replaced, though not wholly, by bone and ivory. The change coincided with a switch from manufacture by itinerant craftsmen moving from market to market to settled workshop production (MacGregor 1985, 50). However, composite combs of antler continued in production until as late as the 13th century, as attested by combs from Trondheim (Long 1975, fig 9) and London (Egan and Pritchard 1991, 367–8).

As only small flat plates could be cut from the beam and tines (Ambrosiani 1981, fig 60), antler combs were composite, but the use of bone and ivory made larger sheets available, permitting the production of one-piece combs. Over the late Saxon period, combs were made from single sheets of horn fitted with a bone connecting-plate (MacGregor 1985, 95–6). The plate may have provided a grip when the comb was in use, or may have been a stylistic feature in imitation of contemporary antler combs (Margeson 1993, 66). The strip **1616** could be a connecting-plate from a horn comb.

This assemblage reflects the range of materials and forms used in comb manufacture, from antler via horn, to bone and ivory, from composite to one-piece. The examples range in date from a possible 7th-century fragment up to post-medieval. The majority of the pieces that can be attributed to the late Saxon period come from sites in the northern and western suburbs, while the eastern suburb in the same period produced none. This may indicate a difference in economic status between the extra-mural areas, although it is perhaps more likely to reflect the relatively fewer late Saxon deposits excavated in the eastern suburb. However, the low number of late Saxon and early medieval combs from the suburbs as a whole compared to the city (WS7.2, 665–90) may be significant.

### Composite combs

The fragment of a double-sided comb from Chester Road is similar to examples from West Stow, Suffolk,

dating to the 7th century (West 1985, Table 50, Type 1A). The same deposit also produced some organic-tempered pottery, including two stamped sherds (P5).

The three connecting-plate fragments from the western suburb (**1613** and **1615** (2 pieces)) and the tooth segment and end-plate fragment from single-sided combs (**1612** and **1614**) can be attributed a late Saxon date, as may the probable connecting-plate from a horn comb (**1616**), though the latter derived from a 13th- to 15th-century layer in Building 938.1. Waste fragments from the manufacture of connecting-plates for horn combs were found during excavations within the city at Lower Brook Street and Assize Courts North (WS7.2, 252).

**1611** Fig 124 sf CHR 116. Fragment from a composite double-sided antler comb. L (maximum) 43mm, W 38mm. The fragment consists of parts of both connecting-plates, a tooth segment and an end segment, held together by two iron rivets. The tooth segment has broken across a third rivet hole. The connecting-plates are plain and narrow, and taper slightly towards the end. The small part of the end segment that survives is also plain, apart from a tiny perforation immediately adjacent to the end of the connecting-plates. This is probably too small to be identified as a peg hole for fixing the comb into a case (MacGregor 1978b, fig 29, 11; West 1985, fig 85, 6, fig 253, 3). The teeth are cut almost up to the edge of the end segment and are similarly spaced on both sides of the comb. Hillwash from the slope above the site that seems to have accumulated largely during the 5th to 9th centuries (I, 122).

**1612** Fig 124 sf VR 7774. Fragment from the end-plate of a composite single-sided bone comb. H 43mm. On both sides, a line of single ring-and-dot motifs runs down the outside edge, and the fragment has broken across another single ring-and-dot set on the top edge. The cut for the first tooth is very shallow. Late Saxon pit F762 (XIII, 3217).

**1613** Fig 124 sf NR 425. A thin length of antler of D-shaped section, possibly intended to be the connecting-plate for a composite comb. Both ends have been broken away, and the fragment has also split along its length. This latter fracture probably occurred when the rivet hole (indicated on the figure by an arrow) was drilled. It is possible that this piece is a fragment from a completed comb, but the absence of any staining from either a copper alloy or an iron rivet at the hole suggests that it is more likely to be a blundered fragment. L 60mm. Late Saxon pit F51 (I, 80).

**1614** Fig 124 sf SXS 64. A fragment of a tooth-plate from an antler single comb. The top edge is angled to fit a curved connecting-plate, but no rivet holes survive. There is some wear on the five surviving teeth. H (maximum) 2mm, L 15mm. Late Saxon pit F36 (VIII, 265).

**1615** Fig 124 sf SXS 833. Two antler comb connecting-plate fragments. The larger is scarred along one side from the cutting of wide teeth and broken at each end across a rivet hole. The smaller is scarred from the cutting of narrow teeth and has also broken at each end across a rivet hole. It has also broken along its length. On each piece the area around each rivet hole is stained by iron corrosion products. There is no decoration on either fragment. The larger piece is not quite parallel-sided and has a slightly convex profile like conti-

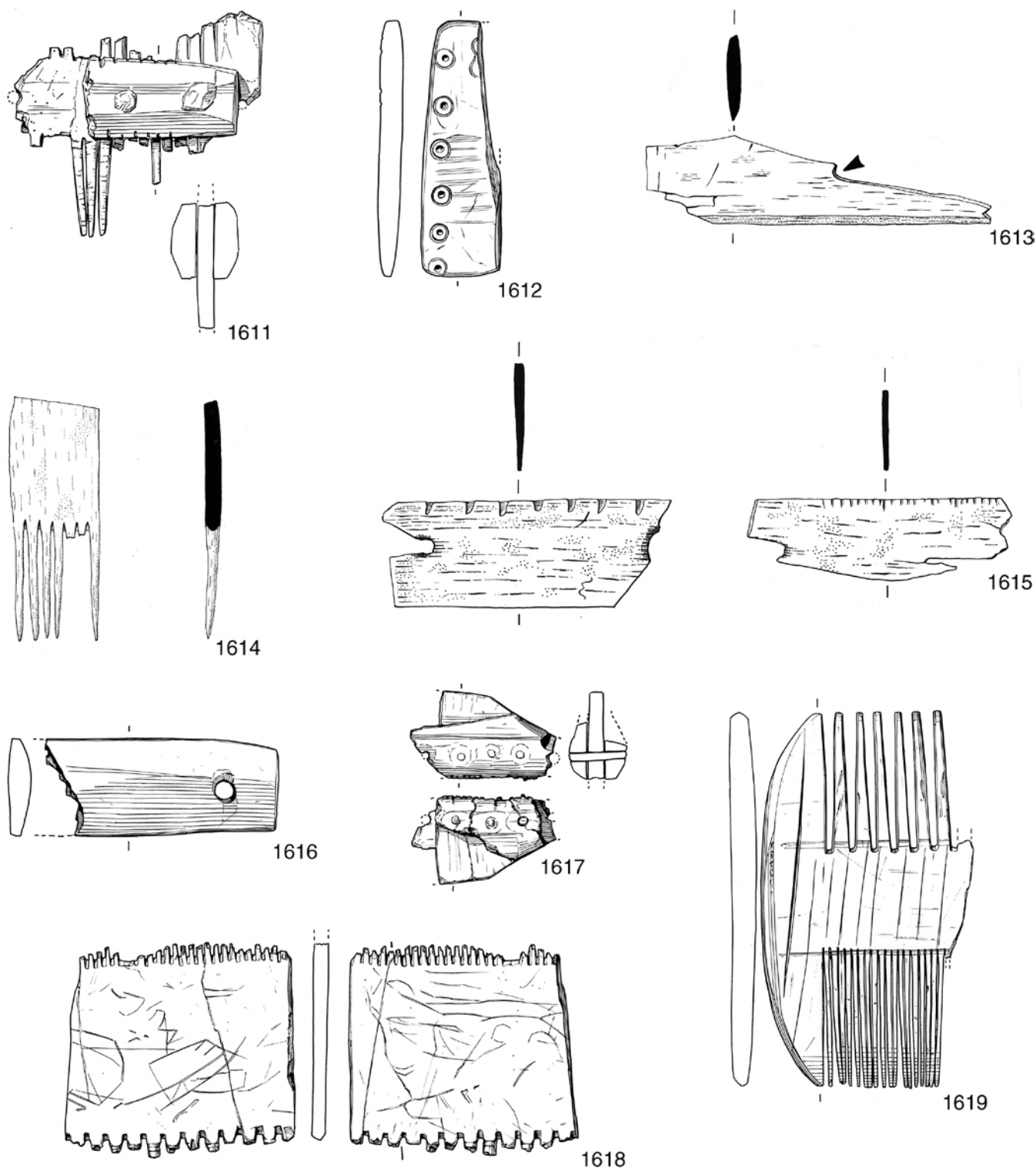


Figure 124 Combs, nos 1611-19, scale 1:1

nental combs dated *c* AD 800-950 and later (Ambrosiani 1981, fig 9). This is in keeping with the date of the context, but in the absence of decoration must remain uncertain. L of larger piece 48mm, W at the centre 19mm. L of smaller piece 45mm. Late Saxon pit F8 (VIII, 19).

**1616** Fig 124 sf VR 433. Fragment of a slightly tapering strip of bone, plano-convex in section, probably a connecting-plate from a comb. L 40mm, W (maximum) 27mm. There is a single rivet hole near the surviving end. The upper surface is polished and the underside has been roughened by hatched diagonal scoring. Both edges show tool marks, but no tooth-

cutting grooves. The single rivet hole present on this plate may suggest that it is from a horn comb (MacGregor 1985, fig. 52). Layer in 13th- to 15th-century Building 938.1 (IV, 157).

**1617** Fig 124 sf VR 3498. Small fragment from a composite single-sided antler comb. Maximum dimensions 26mm (L) by 15mm (H). Only fragments of both connecting-plates and a tooth segment remain, fixed together by three copper alloy rivets set at 5.5mm intervals. Fixing comb components together with closely set rivets is a characteristic of the 13th century, as shown by combs from Trondheim (Long 1975, 27, fig 9, e) and

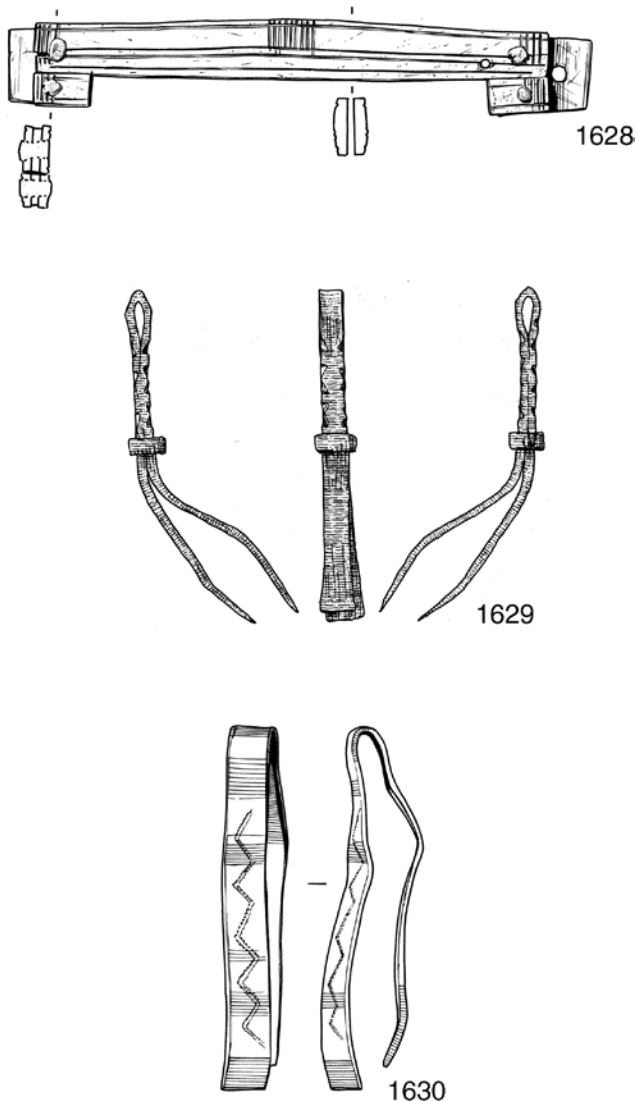


Figure 125 Comb case and tweezers, no 1628, scale 1:2; nos 1629–30, scale 1:1

two from London (Egan and Pritchard 1991, 367–8). Each end has broken across another rivet hole. The connecting-plates are rounded in profile on the edge nearest the teeth, but are trimmed to a flat slope towards the upper edge. The exact form of the comb is uncertain. Late Saxon soil layer (XII, 2126), which has either become contaminated, or has continued to accumulate into the medieval period.

### One-piece combs

Of the ten one-piece double-sided bone and ivory combs, most are of typical elongated H-shaped form and derive from post-medieval contexts. Two exceptions (both of bone) are a fragment from a 13th- to 14th-century pit on tenement 936 at Victoria Road (1618) and from a late medieval context on the same site (1620). A further exception of ivory is a fragment with a rounded end from St John's Street (1619), which may be of late 14th-century date and originally associated with the substantial building (1021.1) constructed on the site during that century.

**1618** Fig 124 sf VR 8512. Fragment of the central plate of a double-sided one-piece bone comb. L 39mm, W 36mm. The plate bears many deliberate random scratches. 13th- to 14th-century pit F966 (XV, 3785).

**1619** Fig 124 sf SJS 75. Fragment (in two pieces) of a one-piece ivory comb with curved end. L (incomplete) 36mm, W 64mm. The coarse teeth are very widely spaced. The form is very similar to a fragment of an ivory comb from London (Egan and Pritchard 1991, 376, fig 249, 1754) from a late 14th-century context. 15th- to 16th-century pit F313 (I, 336).

*not illustrated*

**1620** sf VR 2666. Fragment of a double-sided bone comb. Neither end survives. Five loose teeth. Surviving L 16mm, W 35mm. Late medieval pit F117 (X, 271).

**1621** sf VR 2935. Five joining fragments of a double-sided bone comb. One straight plain end survives. Surviving L 55mm, W 50mm. 17th- to 18th-century pit F227 (X, 630).

**1622** sf VR 2936. Five joining fragments of a double-sided bone comb and one fragment of a second. One curved plain end survives. Surviving L 78mm, W 45mm. Thirty two loose teeth or fragments of loose teeth. 17th- to 18th-century pit F227 (X, 630).

**1623** sf VR 2942. Twenty-nine teeth from a bone comb. 17th- to 18th-century pit F227 (X, 630).

**1624** sf VR 3206. Fragment of a double-sided bone comb. Surviving L 22mm, surviving W 39mm. One loose tooth. 19th- to 20th-century pit F11 (X, 646).

**1625** sf SJS 90. Two joining fragments of double-sided ?ivory comb. Surviving L 18mm, surviving W 34mm. 19th- to 20th-century drain F49 (I, 173)

**1626** sf SJS 646. Fragment of a double-sided ?ivory comb, slightly curved. One straight plain end survives. Surviving L 42mm, surviving W 32mm. ?Modern. 19th- to 20th-century pit F301 (I, 302).

**1627** sf VR 2453. Fragment of a double-sided bone comb. One straight plain end survives. Surviving L 18mm, surviving W 39mm. Unstratified (X).

### Comb case

The restrained decoration and the very slight bow to the outer connecting-plate suggest a date in the 11th or 12th century for this case. A bone strip identified as a possible comb case from the Flaxengate site, Lincoln, also decorated with groups of grooves but lacking the horizontal elements, derived from a context dating 1140–60 (Mann 1982, fig 4, 28).

**1628** Fig 125 sf VR 3681. Bone comb case for a single-sided comb. L 153mm, W 21mm. One spacer plate is longer than the other and pierced for a peg or tie which held in the comb (MacGregor 1985, 98). The slightly bowed connecting-plate is also pierced, and is decorated with incised horizontal grooves and groups of transverse grooves. The decoration is continued on to the spacer plates flanking the slot for the comb. The components are fixed together for iron rivets. 11th- to 12th-century pit F803 (XIII, 3174).

### Tweezers

It is unlikely that either of these two pairs of tweezers are residual Roman, as zig-zag decoration, faceting and binding rings are features which also occur on

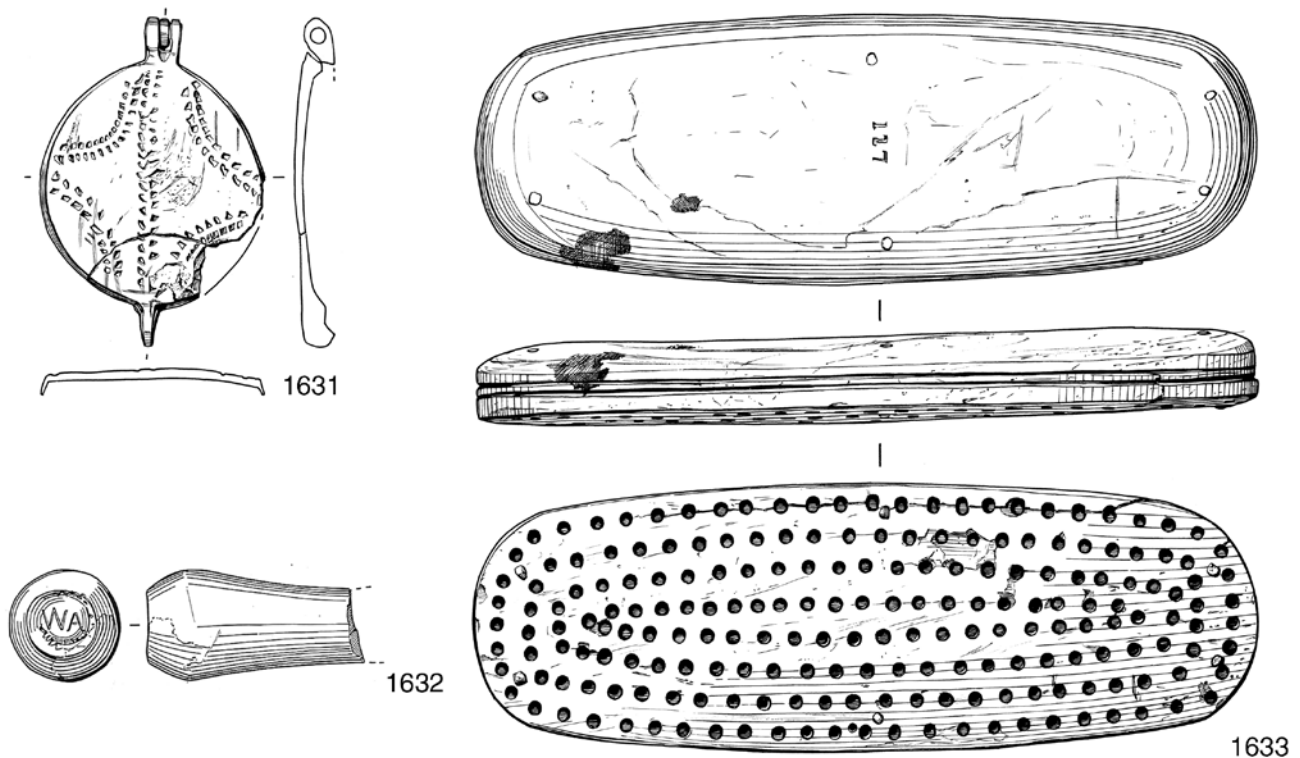


Figure 126 Mirror case, wig curler, and brush, nos 1631–3, scale 1:1

medieval examples (see, for example, Oakley and Webster 1979, 256; WS7.2, 690–92; Ottaway and Rogers 2002, 2972, 13404).

**1629** Fig 125 sf CT 56. Copper alloy tweezers with faceted top and binding ring. L (approximately) 55mm. 13th- to 14th-century pit F65 (VII, 201).

**1630** Fig 125 sf VR 3430. Copper alloy tweezers with incised zig-zag line decoration on one side. L (bent) 47mm. The blades flare slightly near the base. 19th- to 20th-century layer (XIII, 3006).

## Mirror

Mirrors fixed in hinged copper alloy cases were produced from the mid-13th century. Bayley *et al* (1984, 399) detail the method of their manufacture and list those known from Britain, including four from Winchester (counting this example from Victoria Road). This number is exceeded only by six, possibly seven from London. Their distribution is concentrated in southern England, with three in the north, including one from Perth, on the east coast of Scotland. Though manufacture in the south, perhaps in London, is possible, it is most likely that the mirrors were imported from the Low Countries, a suggestion strengthened by their concentration close to the east and south coasts (*ibid* 401, fig 12).

The cases are decorated with punched designs in one of two patterns; either an open cross with an axis line running from hinge to clasp, as here, and on an example from the Castle Yard site, Winchester (WS7.2, fig 178, no 2103), or a more elaborated design of an

open cross enclosed in a circle, with lines on both axes and short lines in the angles (Bayley *et al* 1984, pl 53b).

The fragmentary example from Victoria Road comes from a 13th- to 14th-century pit on tenement 936.

**1631** Fig 126 sf VR 3671. Two fragments from one half of a cast copper alloy mirror case. D 30mm. the outer face is decorated with double lines of punched triangles and rectangles (the latter are probably carelessly struck triangles) in the form of an open cross with an axis line running from hinge to clasp. 13th- to 14th-century pit F802 (XIII, 3165).

## Wig curler

Though occurring spasmodically with changing fashions from the 16th to the early 19th century, the wearing of wigs was at its most popular during the 18th century. The single wig curler recovered from Victoria Road probably dates to the first half of the 18th century (Le Cheminant 1982, fig 1, 9), though it derives from the fill of a 19th- or 20th-century pit.

Wig curlers, being made of pipeclay, were an obvious sideline for clay tobacco pipe manufacturers, and makers' initials are often paralleled on pipe bowls. This example is marked with the incuse letters 'WA' in a circular stamp. 'WA' incuse in a rectangular stamp occurs in Colchester (Crummy 1988, fig 28, 1871), London and elsewhere (Le Cheminant 1982, 354).

**1632** Fig 126 sf VR 8870. Fragment of a pipeclay wig curler. L (incomplete) 29mm, W (maximum) 14mm. The surviving end is flat and bears a circular stamp with the incuse letters

WA. The outer edge of the stamp is notched. 19th- to 20th-century pit F407 (XI, 1212).

## Brushes

Two bone toothbrushes, complete apart from the bristles, derived from modern contexts at Victoria Road and are not illustrated. One is stamped *SUPERFINE*, the other 76/..WINCHESTER. Fragments of the copper alloy wire that held the bristles in place survive on the latter (*cf* Crummy 1988, 24) and have stained the head green. The bristles of the former must have been glued in position, as the holes for the tufts do not pierce the head (*ibid* fig 27, 1864).

Large brushes were probably used for clothes, and MacGregor (1985, 183) suggests that they were first used as early as the 17th century. Both the unillustrated fragment from Victoria Road (1636) and 1633 from 42, St John's Street, are unstratified but are probably of late 18th- or 19th- century date. The brushes are composite, fixed together by small copper alloy rivets. The organic bristles were held in position in the lower

plate by copper alloy wire, and the back plate provided both protection for the wire and a well-shaped grip.

**1633** Fig 126 sf 42SJS 869. Complete composite bone brush body. L 104mm, W (maximum). No bristles survive in the perforated lower plate, which has a groove around the side. The convex back plate has 127 stamped into the bone at the centre. The plates are held together by six copper alloy rivets, two at each end and one at the centre of each long side. The numbers on this piece indicate that it is probably of 19th-century date. Unstratified.

*not illustrated*

**1634** sf VR 8809. Complete bone toothbrush. The holes for the tufts do not fully pierce the head. 'SUPERFINE' stamped on handle. L 166mm, W of head 13mm. 19th- to 20th-century pit F951 (XIV, 3703).

**1635** sf VR 9505. Complete bone toothbrush in two pieces. No bristles survive but some copper alloy wire remains and head is stained green. Lettering on handle 76...WINCHESTER. L 164mm. 19th- to 20th-century terracing F1000 (XV, 3900)

**1636** sf VR 2452. Part of bone brush body. Copper staining on back. L (incomplete) 86mm, W 28mm. Unstratified (X).

### 3 Objects used in the manufacture or working of textiles

This section contains evidence for the various stages in the manufacture of fabric – fibre preparation, spinning, and weaving – and most of the implements date to the late Saxon or early medieval periods. The earliest items are probably two middle or late Saxon loom-weights and a pin-beater from a pit on the Henley's Garage site, which may mark the presence of a warp-weighted loom. A group of iron points derive either from wool combs or flax heckles, and Victoria Road also produced a plate from a wool comb. There are a substantial number of bone, stone, metal and pottery spindlewhorls, and several bone weaving implements. The later medieval and post-medieval items consist chiefly of needles and thimbles used in the conversion of cloth into garments and other items.

#### Needles and bodkins

Small well-made needles of bone are common site finds in the Roman period, and it may be that the example from a late Saxon pit at Chester Road (**1637**) is residual Roman. However, the form of the head, a truncated point, would be unusual on a Roman needle, and suggests that it may be Saxon. An unstratified copper alloy needle from Hyde Abbey (**1642**) has a long rectangular eye and triangular point. The latter feature is paralleled on a copper alloy needle from Colchester associated with pottery dating from the mid-15th to mid-16th century (Crummy 1988, fig 31, no. 1892). An iron needle with an eye formed by a punched hole in the head came from a 13th- to 15th-century context at Victoria Road (**1638**).

Large bodkins or thick needles must have been used for coarse work such as netting, although Geddes and Clarke (1977, 312) in discussion of examples from King's Lynn, Norfolk suggest that either they were pin-beaters, or, (*ibid* quoting Hoffman 1964, 145–6) that they were used on a loom to hold cords which fastened the edges of the woven cloth to the uprights, thus maintaining an even width.

No particular species or type of bone seems to have been preferred for the manufacture of bodkins. An example made from a cattle ulna occurred in an early medieval context at Lincoln (Mann 1982, fig 25, 217), while a particularly crude undated example, made from a horse metapodial was found in Norwich (Margeson 1993, fig 137, 1449). Of the two Winchester examples, that from Chester Road (**1639**) came from late medieval silt over a yard surface associated with the building on tenement 963 (963.1), and that from Victoria Road (**1640**) from a 15th- to 16th-century pit. A long bone from a late Saxon context (**2718**) may be an unfinished bodkin, as may the trimmed antler tool **2219**.

Pig fibulae, worked to a point at the distal end and with a trimmed and pierced proximal end can be identified as needles or pin-beaters. Of those catalogued as weaving implements (below), one of the two from New Road (**1653**) is the most likely to have served an alternative function as a needle, as the proximal end has been shaped to a flat and smooth disc around the perforation (see, for example Mann 1982, fig 24, 216). Ambrosiani (1981, 136) identifies pierced pig fibulae from Ribe, Denmark, as needles, possibly used for mesh knitting.

**1637** Fig 127 sf CHR 147. Bone needle in two fragments, with figure-of-eight shaped eye. L 72mm, W at head 5mm. The head is a truncated point. Possibly residual Roman. Late Saxon pit F24 (I, 127).

**1638** Fig 127 sf VR 2284. Iron needle, head flattened and pierced with round hole. L 35mm, W 5mm. 13th- to 15th-century soil layer (X, 61).

**1639** Fig 127 sf CHR 1420. Fragment of a bone bodkin similar to **1640** (below), broken at both head and point. L (incomplete) 143mm. The head has broken across a small circular eye, D 4mm. Late medieval silting layer (I, 53).

**1640** Fig 127 sf VR 4285. Large bodkin cut from a long bone. L 210mm, W (maximum) 27mm. The head is semicircular in section, the flat side consisting of cancellous tissue, which is also exposed down the shaft. Elsewhere, the piece is highly polished. The eye is circular, 3mm D. The tip is very worn. 15th- to 16th-century pit F776 (XIII, 3108).

*not illustrated*

**1641** sf SXS 711. A polished bone point, probably from either a needle or a pin. L 67mm. Early medieval pit F391 (XVII, 867).

**1642** sf HA 277. Copper alloy needle with a long rectangular eye. The point is triangular in section, the rest of the shaft circular. L 80.5mm. Unstratified (VII).

#### Weaving tools

##### *Pin-beaters*

Smooth lengths of bone, pointed at either one end or both and varying greatly in size are generally derived from Saxon contexts and are identified as pin-beaters (also called thread pickers and pickers-cum-beaters). At West Stow, Suffolk, they occur in sunken featured buildings dating from perhaps as early as the 5th century, to the 7th century. They are also found at middle and late Saxon settlements such as Hamwic (Addyman and Hill 1969, 72–4), Thetford, Norfolk (Rogerson and Dallas 1984, figs 191–3), Exeter (Allan 1984, fig 195, 21–2), Lincoln (Mann 1982, fig 24) and Northampton (Oakley 1979, 308–18).

In discussion of the weaving implements

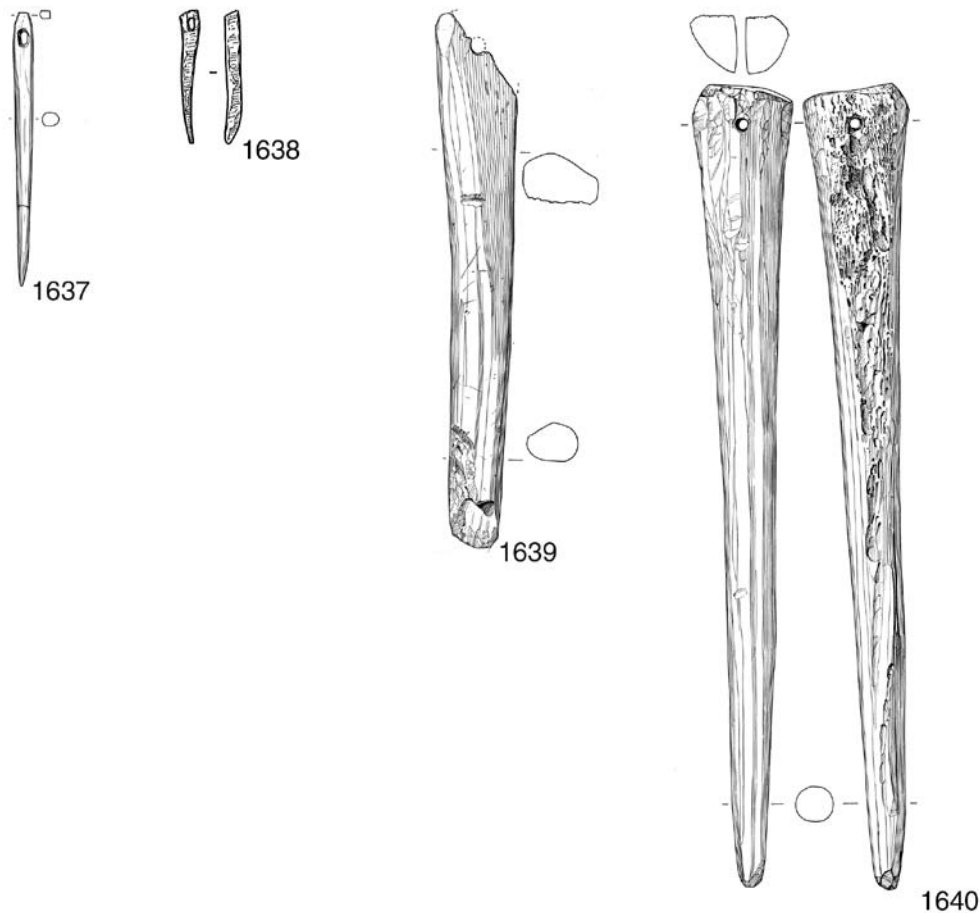


Figure 127 Needles and bodkins, nos 1637–40, scale 1:2

excavated in Winchester between 1961 and 1971, Brown (WS7.2, 226) summarises the evidence for the use of warp-weighted looms. To this must be added the pin-beater and two loomweights (**1684** and **1685**) from Henly's Garage, found in the fill of a pit dated from its pottery assemblage to the 9th century or earlier (P5).

Brown uses the term 'pickers-cum-beaters' for these tools and suggests that those of rounded section were used with a warp-weighted loom while those with a flatter, curved section were used with a two-beam loom (WS7.2, 226–8). Oakley (1979, 313) suggests that the difference in section coincides with a difference in date, double-ended examples with round section being middle Saxon while those with a recto-oval or flattened section are later.

Examples with one pointed and one flattened end may have served a more general-purpose use than pin-beaters, but were clearly associated with textile manufacture. Several came from a late Saxon weaving shed at Goltho, Lincolnshire (MacGregor 1985, 188–9).

Also included with this group are three miscellaneous pieces likely to be associated with weaving (**1645**, **1646** and **1650**). Both examples from Chester Road can be dated to the 9th or 10th century. One (**1646**) was found in a pit with a ceramic spindlewhorl (**1683**), while that from Victoria Road came from 13th- to 14th-century pit fill.

**1643** Fig 128 sf HG 178. Bone double ended pin-beater, worn to a smooth finish. L 84mm. Likely to be of 5th- to 8th-century date. Saxon pit F112 (IV, 1091), associated with pottery of 5th- to 9th-century date and two loomweight fragments.

**1644** Fig 128 sf VR 3980. Bone single ended pin-beater. A small part of the flattened and blunt upper end has broken off. L 97mm. The upper end is marked with a cross between transverse grooves, now partly worn away. Oakley (1979, 313) suggests that incised patterns on these tools may have improved grip as well as provided decoration. Late Saxon soil layer (XII, 2291).

**1645** Fig 128 sf CHR 0. A fragment of a long bone cut to a point. L 70mm. A tapering groove, which is deep just below the upper end, tapers out before the point. Late Saxon hillwash from the slopes above the site (I, 86).

**1646** Fig 128 sf CHR 125. Bone spatulate object, pointed at one end and possibly a pin-beater. L 96mm. Though highly polished, the edges and parts of both faces show the facets and notches of knife trimming. In view of the high polish, these irregularities may not be sufficient to detract from the use of this object in weaving. Late Saxon pit F28 (I, 125).

**1647** Fig 128 sf SXS 746. A roughly made bone tool, possibly a double ended pin-beater, but small. L 80mm. 11th- to 12th-century pit F489 (XVII, 1120).

**1648** Fig 128 sf SXS 802. A polished single ended bone pin-beater, with exposed but smoothed cancellous tissue at one end. L 82mm. 11th- to 12th-century pit F506 (XVII, 1326).

**1649** Fig 128 sf 27JS 34. Bone single ended pin-beater, worn smooth, but with a notch broken from the point. The opposite end is blunt and slightly concave. L 132mm. 11th- to 12th-century fill of late Saxon well head F4 (I, 226).

**1650** Fig 128 sf VR 9917. A similar object to **1646**, above,



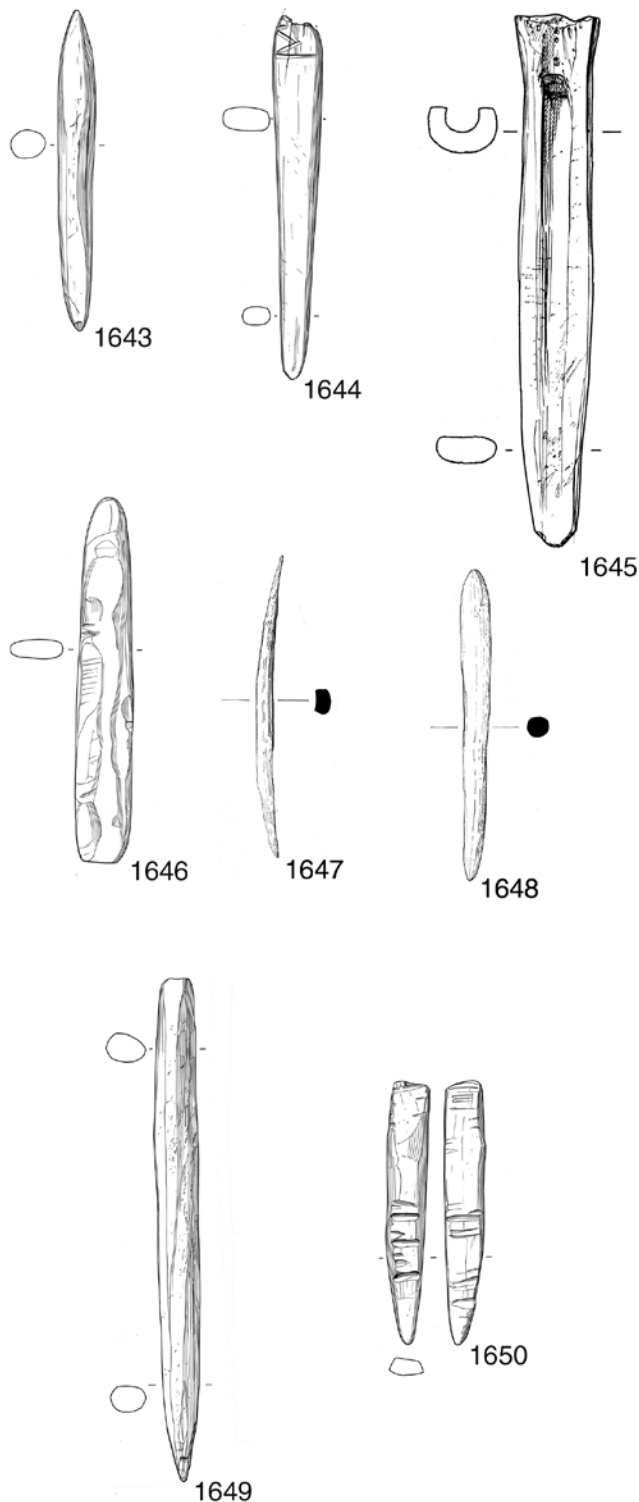


Figure 128 Pin beaters, nos 1643–50, scale 1:2

but smaller, and with many notches on both faces at the tip end. L 69mm. The upper end seems to have broken across a deep notch. This may have been a weaving tool recycled for a different use. 13th- to 14th-century pit F1114 (XV, 4344).

### **Implements made from fibulae**

Pig fibulae with the proximal end removed and the shaft trimmed to a point, and with the head formed

by cutting the distal end, are found throughout the Anglo-Saxon period. Similar items made from other bones, such as horse fibulae are occasionally found (Rogerson and Dallas 1984, 167; and see 1651 below). Some examples are pierced, others not.

The distal end of a pig fibula was usually preferred as its natural shape was suitable for the head, even if left unaltered (MacGregor 1982, fig 48, nos 499–501). Trimming on the head was often restricted to removing slight natural features on the broad surfaces (1654) or to reducing the width (Mann 1982, fig 48, no 502), though the latter often developed into the production of a rounded head form (Margeson 1993, fig 6, no 50). A few examples are quite elaborate (Mann 1982, fig 6, no 51; Rogerson and Dallas 1984, fig 189, no 33, fig 190, no 38).

These objects have been identified as dress fastening pins (MacGregor 1985, 120–1; Oakley 1979, 310), which would seem to be corroborated by evidence from continental graves. They have also been described as needles (West 1985, fig 48, nos 4–5; Hinton 1980, fig 15.1, no 4), possibly for mesh knitting (Ambrosiani 1981, 135–6), as netting or weaving implements (Crowfoot, cited in Geddes and Clark 1977, 311–12 and in Rogerson and Dallas 1984, 167; Keene, in WS7.2, 232–3), or, if unpierced, as awls (Allan 1984, fig 195, no 16; West 1985, fig 30, no 14).

The range of functions proposed for these objects sometimes appears to reflect a lack of consistency in identification (for example, West 1985, fig 94, 13 – needle, fig 100, 6 – pin), but may indicate a range of uses (Crummy 1988, 6–8). Mann (1982, 26) makes the observation that a sharper and more streamlined shaft may indicate use as a needle rather than a dress pin. Her suggestion should be compared with MacGregor's observation that lack of wear around the hole militates against use as needles (1982, 92), as does the lack of trimming and perforation on many heads.

Riddler (1993, 114) notes that in Britain only two modified pig fibulae were found in early Anglo-Saxon burials, neither in a location indicative of use on clothing, while they are often found in association with objects that suggest the presence of a warp-weighted loom. While accepting that pieces with elaborately decorated heads are clearly meant for display as pins, he states that the plainer examples should be viewed as tools in textile production. This appears to be borne out by closed assemblages such as those from sunken-featured buildings at West Stow (West 1985) and has been accepted here.

The most uncertainly identified example here came from the potentially earliest context – a repair patch on the floor of a late Roman building at Henly's Garage. The other examples are mainly late Saxon and early medieval.

**1651** Fig 129 sf HG 434. Triangular headed implement made from a dense bone, such as cattle or horse long bone or metapodial. The tip is broken off. L 75mm. While the object is only quite roughly shaped, leaving knife marks from both chopping and more precise carving visible all over the surface, it is also highly polished. This may well indicate use in cloth production, as such a high degree of polish is



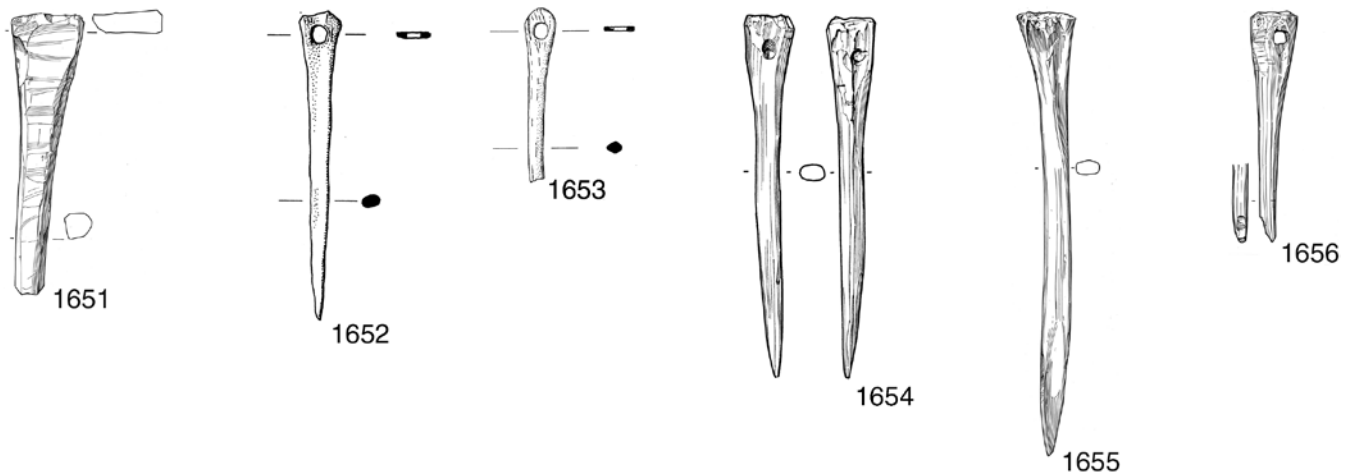


Figure 129 Worked fibulae, nos 1651–6, scale 1:2

unusual on modified pig fibulae, and may reflect the use here of a different type of bone, or be an indicator that this item served a different function. It is likely to be post-Roman in date, despite its context, a repair patch in the floor of late Roman Building 17.3 ((III, 941).

**1652** Fig 129 sf NR 15. A repointed bone point made from a pig fibula with a roughly shaped head. L 80mm. Late Saxon pit F1 (II, 61).

**1653** Fig 129 sf NR 38. The head of a bone point made from a pig fibula, with some of the shaft surviving. The large eye has been pierced through the bone's flat upper end which has been trimmed to an oval. L 45mm. Late Saxon pit F50 (II, 79).

**1654** Fig 129 sf LIDO 16. Pig fibula point with slight trimming on the surfaces of the head. L 94mm. A depression on each side of the head marks attempts made to pierce the bone. As both pierced and unpierced examples of these objects are known, it is possible that although piercing was never completed, the object was still used. The working at the point is quite smooth, and the tip is slightly damaged. 12th- to early 13th-century pit F20 (V, 86).

**1655** Fig 129 sf VR 13164. Pig fibula trimmed to a point. L 117mm. both edges are irregular from this trimming for about 34mm above the point, though clearly they are smoother than when first cut. The irregularity of the sides makes use of this object as a dress pin unlikely. It may have been used as an awl. Floor layer in 13th- to 15th-century Building 936.4 (XII, 2529).

**1656** Fig 129 sf CHR 475. Point made from a pig fibula, with the distal end untrimmed but perforated. The shaft has broken and the broken edge is now irregular but smooth. It was either crudely repointed, or has worn smooth with use. L 60mm. 14th- to 15th-century fill of a large feature (quarry pit, wellhead or cellar) F15 (I, 105).

*not illustrated*

**1657** sf NR 124. A bone point made from a pig fibula as **1652** and **1653**. The top is missing. L 90mm. Late Saxon fill of the Iron Age enclosure ditch F371 (II, 453).

## Scissors

Two further scissor arms from St John's Street are catalogued with tools of more general function (Category 10).



Figure 130 Scissors, no 1658, scale 1:2

**1658** Fig 130 sf SBS 95a. One iron arm of a small pair of what may have been sewing scissors. It has an oval finger loop and the stem has moulding below it; the blade is largely missing. L 85mm. 19th- to 20th-century soil layer (III, 27).

## Spindlewhorls and spindle with a contribution by C Matthews

The assemblage of spindlewhorls falls into four material groups, bone (13), stone (10), lead (1), and ceramic (1). Most came from late Saxon or early medieval contexts, or are Saxo-Norman, but residual in later contexts. An exception is the late post-medieval bone whorl fitted on to a fragment of a bone spindle from St John's Street. Four of the Sussex Street whorls came from contexts dated to the late Saxon period. Of the remaining two, one can be dated to the 11th to 12th centuries, and the other to the 13th to 14th centuries. Three of the other bone whorls (**1664–1666**) come from 11th- to 12th-century contexts, and two are likely to be residual. The bone whorl from St John's Street (**1671**) comes from a very poorly dated context, just possibly Roman, and unlikely to be later than the 11th to 12th centuries.

There are Iron Age examples of cattle femur head whorls and one example was recovered from an early 5th-century sunken featured building at West Stow (West 1985, 43, 147, fig 176, 9), but they appear to be most common as site finds in the late Saxon and early medieval periods, for example at York (Tweddle 1986, 231) and Gloucester (Heighway *et al* 1979, 201). There were 20 from the Flaxengate site at Lincoln (Mann 1982, 22) and 44 from Knocker's excavations between 1948 and 1957 at Thetford, Norfolk (Rogerson and Dallas 1984, 179). At Thetford, horse femur heads, as well as cattle, may have been used. The large number from Thetford is exceeded by the 52 cattle femur head and one ?pig femur head plano-convex whorls from Martin Biddle's excavations in Winchester discussed by Woodland (WS7.2, 222–4).

Like one and possibly as many as three of the whorls from Sussex Street catalogued here (1660–2), one of the Thetford whorls is unfinished, the central hole having been partly cut from both top and bottom (Rogerson and Dallas 1984, fig 194, 73). On a whorl from Lincoln, a hole had been bored from the base to within a few millimetres of the top (Mann 1982, fig 21, 161). While these objects are generally accepted as spindlewhorls, Ambrosiani considers that the ball joints with a hole in the base from 9th-century levels at Ribe were used as gaming pieces (1981, 132).

Woodland (WS7.2, 216) suggests that the perforations of cattle femur head whorls were cut starting from the natural depression at the top of the head, but the holes are usually figure-of-eight shaped, that is, cut from both sides, as is shown by the unfinished whorls from Sussex Street, Thetford and Lincoln. That the majority of the unfinished whorls have the hole cut in the base rather than in the top suggests that the ball joints may have been held firmly in a cupped hand while the hole was cut with the point of a knife, and that cutting into the cancellous tissue of the underside was easier, even with the help of the natural depression, than cutting into solid bone. The upper lip of the perforations on some whorls is square (Mann 1982, fig 21, 160; Rogerson and Dallas 1984, fig 194, 77). This may indicate that the natural depression was initially enlarged to prevent the cutting tool (knife or drill bit) from slipping on the smooth solid bone. On a whorl from the BS site (Winchester), the hole is square throughout its length (WS7.2, fig 46, no 132).

The bone whorl and spindle from St John's Street (1670) are of late post-medieval or modern date. The whorl screws on to the spindle, which probably also screwed into something larger.

The stone whorls have been lathe turned and can be compared with contemporary examples, which, like the cattle femur head whorls, come from late Saxon and early medieval contexts, for example at Lincoln (Mann 1982, 22), Thetford (Rogerson and Dallas, 184, 111), King's Lynn, Norfolk (Geddes and Dunning 1977, 315–7), Whitby, North Yorkshire (Peers and Radford 1943, fig 23), York (Waterman 1959, fig 20), and Northampton (Oakley and Hall 1979, 286–9).

The stone used for these whorls is usually given a general identification as a hard silt grade limestone. At King's Lynn, Ellis (note in Geddes and Dunning 1977, 315) identified the limestone used as a calcite mudstone. This identification is also given for whorls from Saxo-Norman London (Vince 1991, 165), and it has been confirmed at Winchester by David Williams (archive) amongst a small selection from Sussex Street, The Brooks (Mounsey, forthcoming) and other excavations in the city (WS7.2, 216–22). The latter had previously been identified as 'hard chalk' (albeit in quotation marks). Ellis (*ibid*) gives the most likely sources as the Bristol-Mendips area, or the Pennines, and Alan Vince (pers comm) suggests the Jurassic system as a possible source, also citing the Bristol-Mendips area as likely. The long period of production goes some way to explaining the wide distribution and widely-varying forms and decoration of these whorls. It seems possible, though, that they shared the same source of manufacture, but further petrological work would be necessary to confirm or deny this.

Three of the whorls in this collection come from 9th- or 10th-century contexts and are decorated, two with lathe-produced concentric grooves (1672 and 1675), and one with random scratches (1673). The decoration on stone whorls of this period is often idiosyncratic, like that of 1673 (Geddes and Dunning 1977, fig 174; Mann 1982, fig 22). The other whorls are from medieval contexts and plain. This distinction by date was not apparent on the numerous examples from earlier excavations in Winchester, which ranged in date from the late Saxon period onwards (WS7.2, 218–22).

The ceramic spindlewhorl from Chester Road (1683) is of a low fired organic fabric and is likely to be of late Saxon date, though it may be earlier. The lead whorl from Sussex Street is from a 13th- to 14th-century context, but it may be residual. One lead whorl from the BS site (Winchester) was dated as early as the second half of the 10th century (WS7.2, 225, no. 194).

As is customary, the spindlewhorls have been illustrated inverted compared to their position on the spindle in use (*pace* WS7.2, fig 46). They have not been weighed, as so small an assemblage would have no statistical value. Most would have been used for spinning single yarn, the lead whorl probably for doubled yarn.

## Bone

**1659** Fig 131 sf SXS 76. A hemispherical spindlewhorl. The perforation is figure-of-eight shaped, indicating that it was made by drilling from both sides of the whorl. The object is very highly polished and even the cancellous tissue exposed on the underside is smooth and shiny. H 18mm, D 39mm, D of hole, maximum 10mm, minimum 6mm. Late Saxon pit F53 (VIII, 269).

**1660** Fig 131 sf SXS 104. An unfinished or roughly made spindlewhorl from a partially fused epiphysis. The perforation is figure-of-eight shaped. The upper face has been

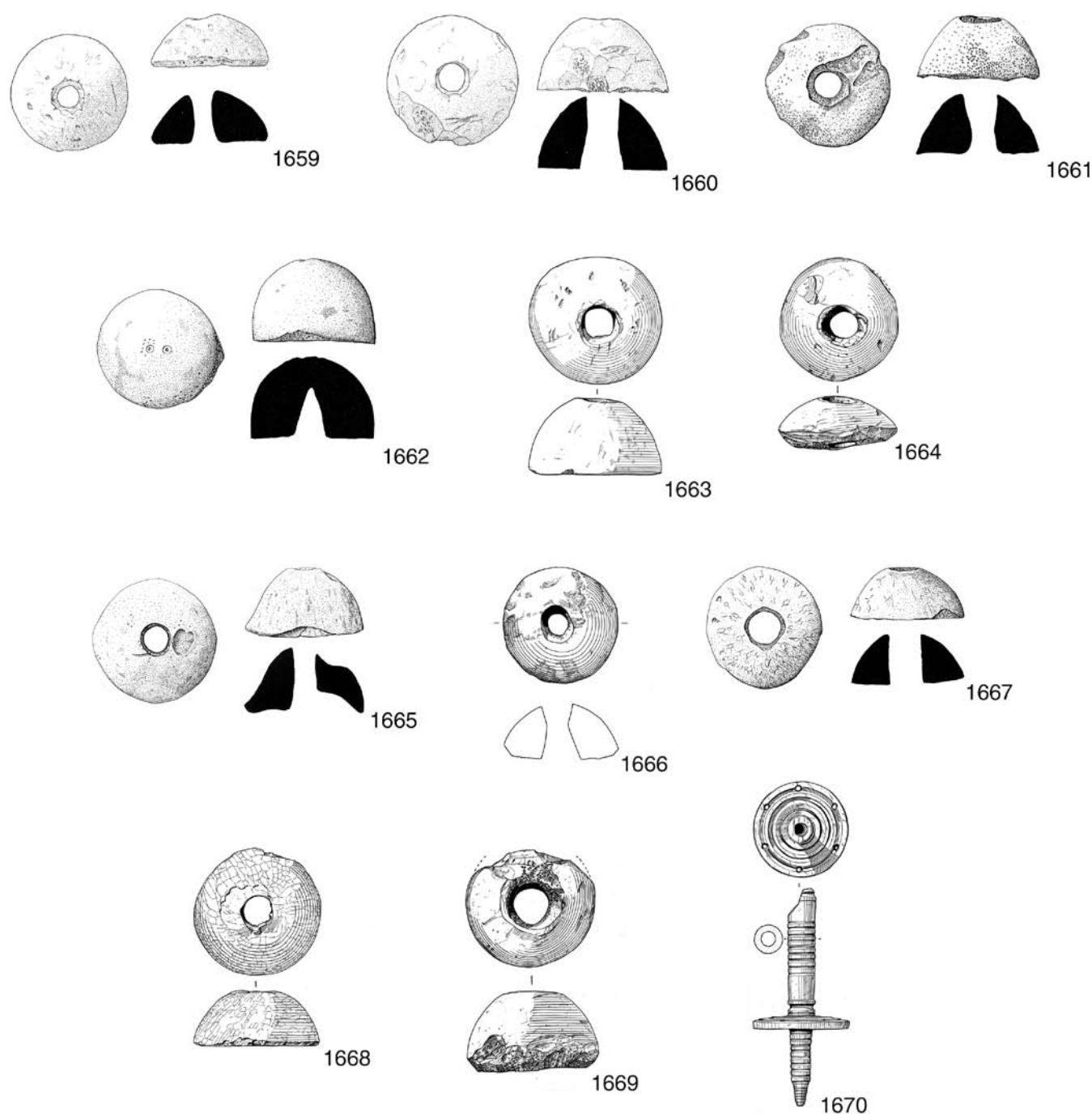


Figure 131 Bone whorls and spindle, nos 1659-70, scale 1:2

roughly trimmed in places near the base. Parts of the object including the rough faces are shiny from wear or possibly just from being handled. The whorl may therefore have been used. H 23mm, D 39mm, D of hole, maximum 15mm, minimum 11mm. Late Saxon pit F53 (VIII, 323).

**1661** Fig 131 sf SXS 293. A damaged whorl with figure-of-eight shaped perforation. Both faces have been chipped, though whether this is as a result of wear is uncertain. Cancellous tissue is exposed or very close to the surface all over the upper face, and there is no sign of polishing. This whorl may, therefore, be unfinished. H 20mm, D 39mm, D of hole, maximum 12mm, minimum 7mm. Late Saxon pit F36 (VIII, 280).

**1662** Fig 131 sf SXS 313. An unfinished whorl. There is a conical perforation in the base and two small ones on the top of the upper face. These latter are either made by a tool used to hold the femur head steady while the hole in the base was drilled, or perhaps more likely from initial attempts to drill a second hole through from the top to meet the lower one and form a figure-of-eight shaped perforation. One patch of bone on the upper face has been well polished. H 27mm, D 40mm, maximum D of central hole 11mm. This piece, with its basal hole is paralleled by an object described as a gaming piece by Ambrosiani (1981, fig 82, no 7), and this alternative identification should not be lightly dismissed. Late Saxon pit F36 (VIII, 265).

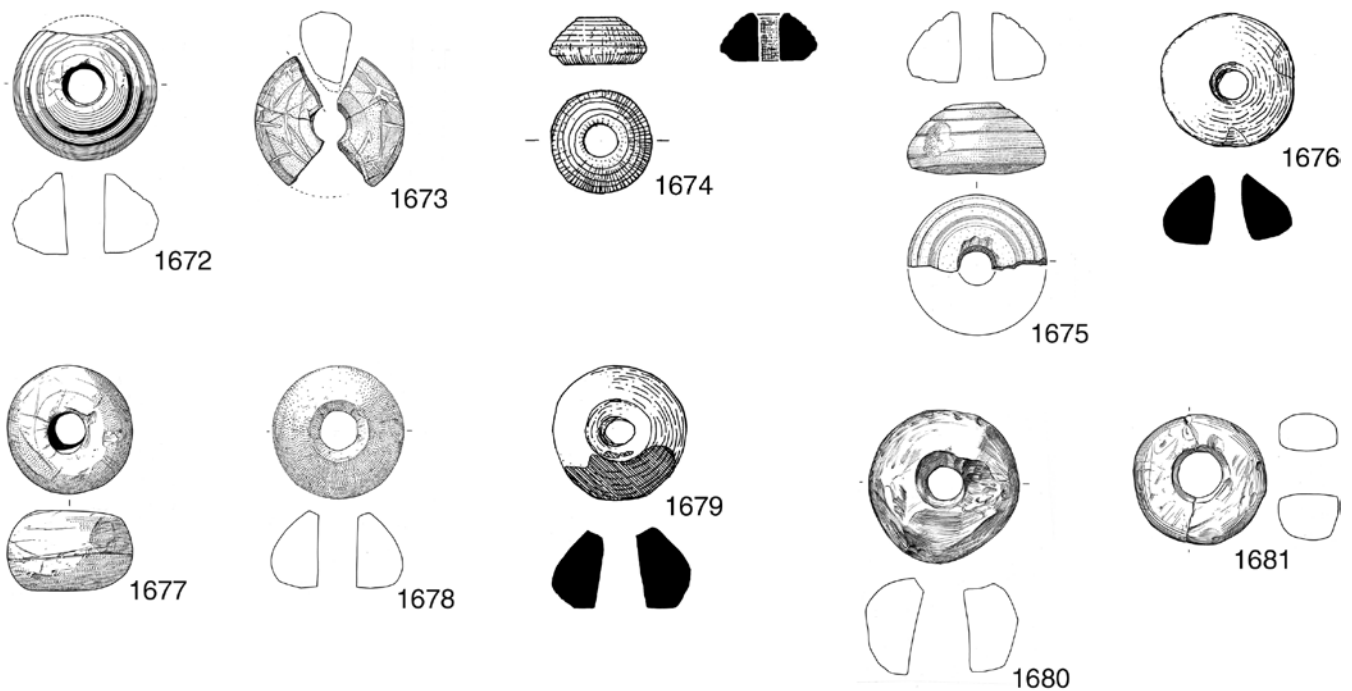


Figure 132 Stone whorls, nos 1672–81, scale 1:2

**1663** Fig 131 sf CHR 109. Well made cattle femur head whorl. D 44mm, H 24mm, D of worn perforation 10–13mm. Late Saxon pit F24.

**1664** Fig 131 sf VR 8856. Cattle femur head whorl, worn so that the perforation is no longer centrally placed. D 39mm, H 17mm, D of perforation 9–11mm. 11th- to 12th-century pit F957 (XIV, 3874).

**1665** Fig 131 sf SXS 105. A hemispherical whorl made from a partially fused epiphysis. The upper surface is polished as are the more prominent patches of the irregular under-surface. The irregularity in the upper face is natural. H 19mm, D 38mm, D of hole approximately 8mm. 11th- to 12th-century pit F54 (VIII, 250).

**1666** Fig 131 sf HG 1126. Cattle femur head whorl. D 37mm, H 16mm, D of perforation 7–10mm. The underside is rough. 11th- to 12th-century pit F174 (III, 930).

**1667** Fig 131 sf SXS 617. A hemispherical whorl. The upper face has been polished but not the lower. The perforation is straight-sided. H 17mm, D 38mm, D of hole 11mm. Demolition of 13th- to 14th-century Building 714.2 (XVII, 991).

**1668** Fig 131 sf JCH 1020. Cattle femur head whorl. D 41mm, H 19mm, D of perforation 9–11mm. 13th- to 14th-century pit F37 (III, 174).

**1669** Fig 131 sf VR 6115. Whorl made from a cattle femur head. The underside is rough. D (maximum) 42mm, H 25mm, D of perforation 9–11mm. 15th- to 16th-century pit F313 (X, 952).

**1670** Fig 131 sf SJS 811. A thin plano-convex bone whorl fitted to a fragment of a spindle. D of whorl 32mm, T 4mm. L of spindle 71mm, D (maximum) 9mm. Both are lathe turned. The whorl is decorated with concentric mouldings and has six small perforations, 1.5mm D, set almost equidistantly around the edge. The perforations of the whorl and the spindle below the deep central grooved moulding are cut with a screw thread, enabling them to be fitted tightly together. The spindle tapers from the hollow top to a blunt ended terminal that is also cut with a screw thread, suggesting that it may have fitted into an extension piece. Above and below the whorl, the spindle is decorated with mouldings. Unstratified.

*not illustrated*

**1671** sf SJS 58. Hemispherical bone spindlewhorl. Bos femur head. D 38mm, H 18mm, D of central hole 13mm. Soil layer of uncertain date, possibly Roman, not later than 11th- or 12th-century (I, 150).

### Stone

**1672** Fig 132 sf VR 3604. Truncated conical calcite mudstone spindlewhorl, damaged on one side. D 38mm, H 20mm, D of central hole 10mm. There are concentric grooves and ridges on the sides that give the profile a stepped appearance. Late Saxon soil layer (XII, 2145).

**1673** Fig 132 sf VR 4688. Fragment of a truncated conical calcite mudstone spindlewhorl. D approximately 38mm, H 19mm, D of central hole approximately 10mm. Lines have been scratched at random into the side and base. Late Saxon pit F762 (XIII, 3103).

**1674** Fig 132 sf NR 19. Missing and described from the drawing. Truncated conical spindlewhorl. The sides are decorated with grooves, giving the profile a stepped appearance similar to **1672** (above). D 28mm, H 19mm, D of central hole 12mm at the top, narrowing to 8mm. Late Saxon pit F51 (I, 80). (CM)

**1675** Fig 132 sf CHR 356. Fragment of a truncated conical spindlewhorl of calcite mudstone. D 36mm, H 28mm, D of central hole 8mm. The sides are decorated with four concentric grooves, the lowest one of which is very worn. The base also bears a concentric groove and a broader shallow concentric depression, while its whole surface is marked with concentric striations. Late Saxon hillwash from the slopes above the site (I, 86).

**1676** Fig 132 sf CT 7. Subconical spindlewhorl of calcite mudstone. D 36mm, H 22mm, D of central hole 18mm at the top, narrowing to 10mm, then widening to 14mm at the bottom. Numerous encircling striations from lathe turning.

Late 12th- to 13th-century grave 1 in the Jewish cemetery (V, 13). (CM)

**1677** Fig 132 sf VR 7253. Plain globular spindlewhorl probably of calcite mudstone. D 34mm, H 21mm, D of figure-of-eight shaped hole varies from 8 to 11mm. Striations around the girth of the whorl are probably from lathe-turning. 13th- to 14th-century pit F522 (XI, 1549).

**1678** Fig 132 sf VR 9521. Plain truncated conical calcite mudstone spindlewhorl. D 34mm, H 10mm, D of central hole 9mm at the top and 12mm at the bottom. 13th- to 14th-century pit F1049 (XV, 3965).

**1679** Fig 132 sf SXS 56. Truncated conical spindlewhorl of calcite mudstone, with encircling striations as **1676** (above). D 34mm, H 19mm, D of central hole 9mm at the top, narrowing to 7mm, then widening to 13mm at the bottom. 13th- to 14th-century property boundary ditch F126 (VIII, 214). (CM)

**1680** Fig 132 sf LIDO 21. Doughnut shaped spindlewhorl. Soft fine grained limestone. D 40mm, H 24mm, D of hole tapering from 17 to approximately 7mm. 13th- to 15th-century Building 795.1 (V, 78).

**1681** Fig 132 sf VR 3607. Doughnut shaped spindlewhorl in two fragments. Soft fine grained limestone. D 35mm, H 16mm, D of central hole varies from 11 to 13mm. 19th- or 20th-century soil layer (XIII, 3060).

### Lead

**1682** Fig 133 sf SXS 27. Truncated conical spindlewhorl of lead. D 24mm, H 13.5mm, D of central hole 9mm at the top widening to 10mm at the bottom. Similar to one from the St Peter's Street excavations, Northampton (Oakley and Hall 1979, 287, no 1). 13th- to 14th-century property boundary ditch F126 (VIII, 119). (CM)

### Ceramic

**1683** Fig 133 sf CHR 117. A fired clay spindlewhorl with slightly dished sides and slightly convex base. Complete apart from a fragment broken at the edge. The fabric is a low fired silty clay with abundant organic or carbonaceous inclusions and moderate clay pellets around 1mm in size, reduced dark brown. D 41mm, H 28mm, D of central hole 9mm. Probably of 9th- to 10th-century date, and contemporary with its context. Late Saxon pit F28 (I, 133).

### Loomweights

Two annular fired clay loomweights derived from a pit (F112) on the Henly's Garage site, where they were associated with a pin-beater (**1643**) and pottery dated as late Saxon or possibly earlier (P5). Both loomweights have an elongated D-shaped section. They were made from an iron-poor (firing pink / pale yellow), silty, poorly mixed clay, with moderate flint and chalk of all sizes up to around 6mm, and sparse iron ore.

The presence of two loomweights and a pin-beater in F112 suggests that the pit was filled with the debris from a middle or late Saxon structure that had, at some time, contained a warp-weighted loom. The feature is less than 70m from the Roman South Gate, where a long sequence of activity dating perhaps to the 6th and

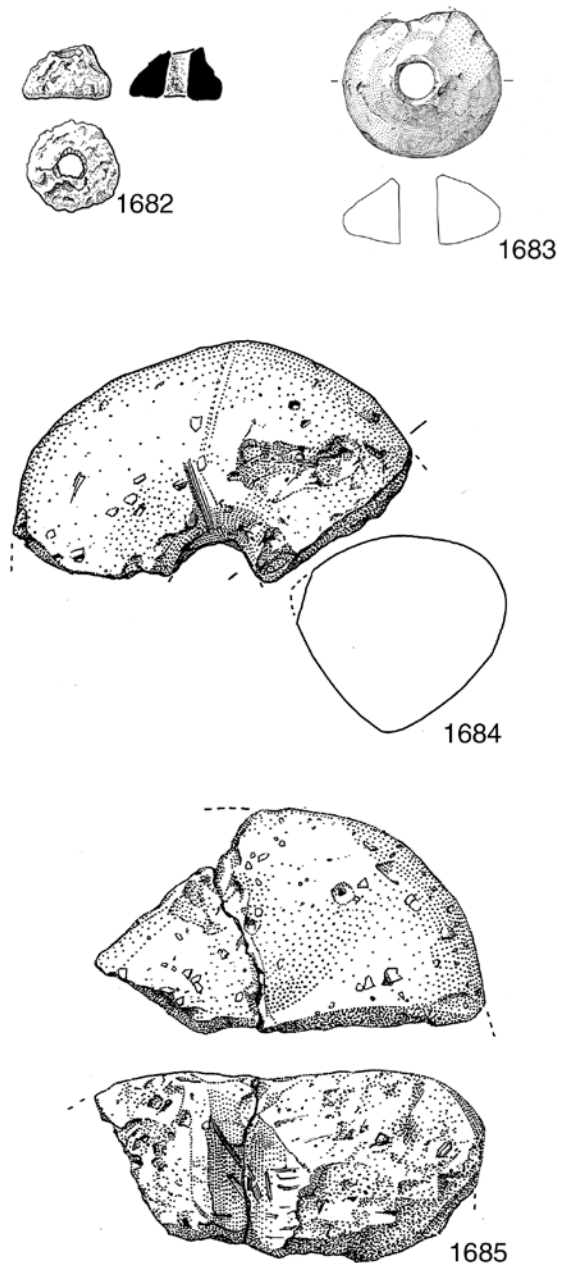


Figure 133 Lead and ceramic whorls, and loomweights, 1682-5, scale 1:2

7th centuries was excavated in 1971 by Martin Biddle (1975, 116-18).

This may therefore be the earliest example from Winchester of a warp-weighted loom (WS7.2, 226), pre-dating the 11th-century one from Back Street (Hedges 1978), though it is possibly contemporary with the loomweight from the Cathedral Car Park site (WS7.2, 229, fig 47, no 197).

**1684** Fig 133 sf HG 177. Fired clay loomweight fragment. D approximately 116mm, H 49mm, D of central hole approximately 23mm. Saxon pit F112 (IV, 1091).

**1685** Fig 133 sf HG 1161. Fired clay loomweight fragment. D approximately 120mm, H (incomplete) 48mm. The diameter of the central hole is uncertain. The external surface, where it survives, is very abraded. Saxon pit F112 (IV, 1091).

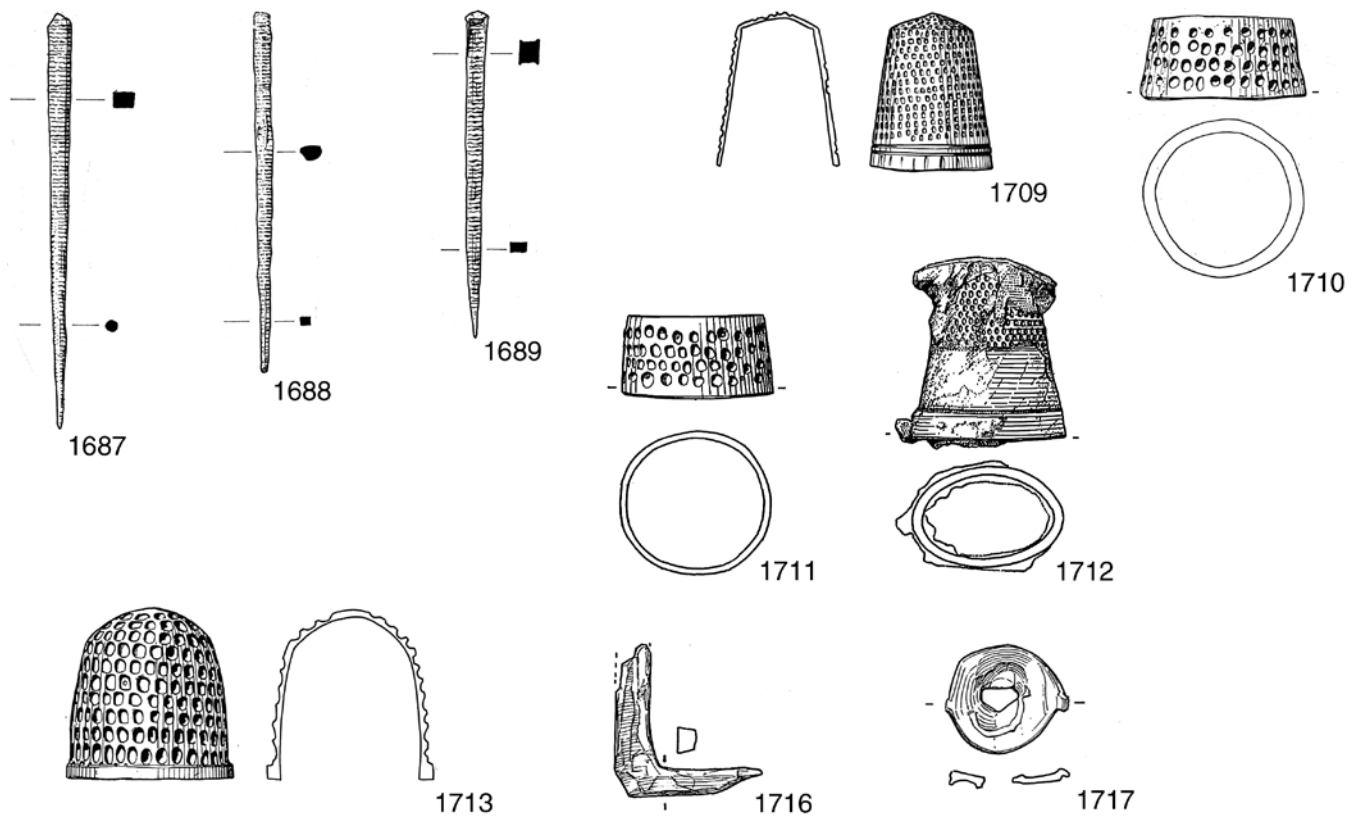


Figure 134 Wool comb teeth, sewing thimbles and rings, tenter hook, and cloth seal, nos 1687–9, 1716, scale 1:2; nos 1709–13, 1717, scale 1:1

### Wool comb binding

One iron object is a plate fragment with five closely set holes which may be part of the binding of a wool comb of the hand held type current from Anglo-Saxon to early post-medieval times.

*not illustrated*

**1686** sf VR 2261. A plate broken on all sides, along one of them are five closely set holes. L 45, W 20mm. 15th- to 16th-century soil layer (X, 98).

### Comb teeth

Twenty-two teeth from either wool combs or flax heckles were found. A number had the characteristic stepped head created by a chisel cut during manufacture (Ottaway 1992, 540). The lengths of all but three teeth ranged from 77 to 165mm, which is usual for these objects. Six came from late Saxon contexts, five from medieval / late medieval contexts and five were recovered from 15th- to 16th-century contexts. The rest were from later contexts.

The remaining three teeth (**1693**, **1701**, **1705**), although similar in form to the others are 196 to 260mm in length. It is possible that they come not from the hand combs that were used throughout the medieval and early post-medieval periods, but from

the rather sturdier wool combs which were fixed to a wooden post. They were used from the late medieval period onwards – the dating of their contexts here is compatible with this – and appear to have had much longer teeth than the hand combs (Lemon 1972). Alternatively, these three objects may have had some other function, perhaps as headless nails.

**1687** Fig 134 sf CT 60. L 102mm, T 5mm. Late Saxon pit F68 (VII, 198).

**1688** Fig 134 sf NR 36. L 95mm, T 5mm. Late Saxon pit F50 (I, 97).

**1689** Fig 134 sf SXS 79. L 86mm, T 4mm. Late Saxon pit F53 (VIII, 269).

*not illustrated*

**1690** sf CHR 0. L 83mm, W 3mm. Late Saxon pit F24 (I, 129).

**1691** sf HG 182. L 81mm. Late Saxon pit F116 (IV, 1126).

**1692** sf HG 183. L 77mm. Late Saxon pit F117 (IV, 1101).

**1693** sf LIDO 20. Bent. L 250mm. 13th- to 14th-century robber trench F18 in Building 795.1 (V, 72).

**1694** sf VR 0. Tip missing, stepped head. L 80mm, W 5mm. 13th- to 14th-century pit F1073 (XV, 4054).

**1695** sf 10CS 38. L 81mm. 13th- to 14th-century silting over cobbling of intra-mural street (I, 65).

**1696** sf SBS 0. L 93mm, T 4mm. Late medieval fill of quarry pit F70 (I/II, 71).

**1697** sf VR 6095. L 145mm, W 6mm. Late medieval pit F310 (X, 941).

**1698** sf VR 6096. L 165mm, W 4mm. Late medieval pit F310 (X, 941).

- 1699** sf SBS 71. L 95mm, T 4mm. 15th- to 16th-century soil layer (II, 36).
- 1700** sf SBS 106a. Rounded cross-section. L 87mm, T 3mm. 15th- to 16th-century soil layer (II, 55).
- 1701** sf VR 0. L 196mm, T 6mm. 15th- to 16th-century soil over medieval buildings on tenements 935 and 936 (XII, 2489).
- 1702** sf VR 2438. L 83mm, W 4mm. 15th- to 16th-century pit F27 (X, 106).
- 1703** sf VR4255. L 100mm, W 5mm. 15th- to 16th-century pit F778 (XIII, 3069).
- 1704** sf VR 5003. In two pieces. L 162mm, W 6mm. 15th- to 16th-century pit F778 (XIII, 3179).
- 1705** sf VR 5400. In two pieces. L 260mm, T 7mm. 15th- to 16th-century soil over Building 936.4 (XII, 2488).
- 1706** sf CHR 384. Bent into a crank-shape. L 143mm, W 6mm. 17th- to 18th-century soil layer (I, 19).
- 1707** sf VR 4022. L 104mm, W 7mm. 19th- to 20th-century soil layer (XIII, 3001).
- 1708** sf VR 4064. L 105mm, W 5mm. 19th- to 20th-century soil layer (XIII, 3001).

### Sewing thimbles and rings

In the late medieval and early post-medieval periods, thimbles of brass were usually imported, at first from Nuremberg, Germany, then in the 17th century from Holland (Holmes 1988, 1–3). One thimble (**1709**) and one sewing ring (**1710**) come from 15th- or 16th-century pit backfills and may be identified as being of Nuremberg manufacture. The thimble from St Bartholomew's School (**1713**), though unstratified, is also either late medieval or early post-medieval, as may be the other sewing ring (**1711**), and a thimble from the fill of a cellar at Hyde Abbey (**1714**). The thimble from Chester Road is from the fill of a modern drain, and has the characteristic regular machine made indentations of later thimbles.

All of the thimbles and sewing rings are of copper alloy.

- 1709** Fig 134 sf VR 4045. Cast thimble with internal base diameter 14.5mm, H 21mm. A double groove runs around the base, which is marked at irregular intervals from small nicks. The punched indentations have been applied in an irregular spiral around the wall, on to the top and into the centre. 15th- to 16th-century pit F751/757/759 (XIII, 3001).
- 1710** Fig 134 sf SJS 111. Cast sewing ring with irregularly

punched large circular indentations. Base D (internal) 17mm, H 11mm. 15th- to 16th-century pit F214B (I, 263).

**1711** Fig 134 sf VR 2002. Cast sewing ring similar to **1710** (above). Base D (internal) 17mm, H 11mm. 17th- to 18th-century pit F5 (X, 11).

**1712** Fig 134 sf CHR 276. Corroded and crushed cast thimble with projecting rim. Original base D (internal) approximately 14mm, H 22mm. The tiny circular indentations were machine made. 19th- to 20th-century drain F1 (I, 9).

**1713** Fig 134 sf SBS 41. Cast heavy duty thimble with internal base diameter D 18.5mm, H 23mm. The base has a projecting rim in which there is a single notch. Holmes (1988, 1) suggests that notches in the rim may have been used to hold a thimble steady while finishing it on a lathe. The circular punched indentations run in a spiral from base to centre top. A similar thimble from Writtle, Essex is dated to the 15th or early 16th century (Rahtz 1969, fig 51, 131). Unstratified (II).

*not illustrated*

**1714** sf HA 269. Complete thimble with an incised groove around the base. The indentations around the wall are small lozenges and circular, those on top are larger and square. H 13mm, internal base D 11mm. 19th- to 20th-century fill of cellar F310 in Building 744.5 (XII, 37).

**1715** sf VR 6138. Three fragments of thimble with plain band at base. Indentations are roughly circular. Context of uncertain type and date (X, 970).

### Tenter hook

This iron object is probably a tenter hook. It comes from a 15th- to 16th-century context at Victoria Road and is comparable to numerous medieval examples from elsewhere in Winchester, principally the Lower Brook Street site (WS7.2, 234–9, nos 225–306).

**1716** Fig 134 sf VR 4149. Flattened at the corner. Arms: L 40 and 38mm. 15th- to 16th-century pit F751/757/759 (XIII, 3025).

### Cloth seal

**1717** Fig 134 sf VR 2176. Damaged section from a lead cloth seal, probably a four-part alnage seal (as for example Egan 1994, figs 26–8). Only part of the design, perhaps the initial C, remains. D 14.5mm. 15th- to 16th-century pit F44 (X, 99).

## 4 Household utensils and furniture

As with the Roman period assemblage, this section contains the glass vessels, as well as those of metal and stone and a range of kitchen and dining implements. A small group of late Saxon and early medieval stone lamps was also found, as well as two post-medieval candlesticks and a candle snuffer. A brief summary of the medieval ceramic lamps is also given here. The assemblage also includes a range of bone and metal box-fittings.

### Spoons and ladles

A copper alloy spoon fragment which has not been illustrated comes from a 13th- to 15th-century soil layer at Victoria Road (1722), and two illustrated fragments (1718 and 1719) are from pits of late medieval or early post-medieval date. The others are post-medieval, some residual in recent contexts.

**1718** Fig 135 sf VR 6129. Most of a large copper alloy ladle bowl with pointed pouring lip. D 85mm, depth approximately 15mm. 15th- to 16th-century pit F313 (X, 952).

**1719** Fig 136 sf SJS 55. Lead-tin spoon with most of the handle missing. The bowl is pear shaped, L 60mm. 15th- to 16th-century pit F305 (I, 330).

**1720** Fig 136 sf 40SJS 837. Fragment of a lead-tin spoon bowl and part of the handle. L 69mm. Unstratified.

**1721** Fig 136 sf VR 2431. Iron. An incomplete circular and shallow ladle bowl with a stout tang which steps in after a short stretch and then tapers towards the end, now missing. L 215mm; bowl D 125mm, depth 30mm; tang W 24mm. The object comes from a 20th-century soil layer (X, 6), but the tang is very similar in form to that on a smaller ladle from a medieval context at Lower Brook Street, Winchester (WS7.2, 821, 823, no 2554).

*not illustrated*

**1722** sf VR 9540. Bowl of copper alloy spoon. There is a small round stamp, which is obscured by corrosion on

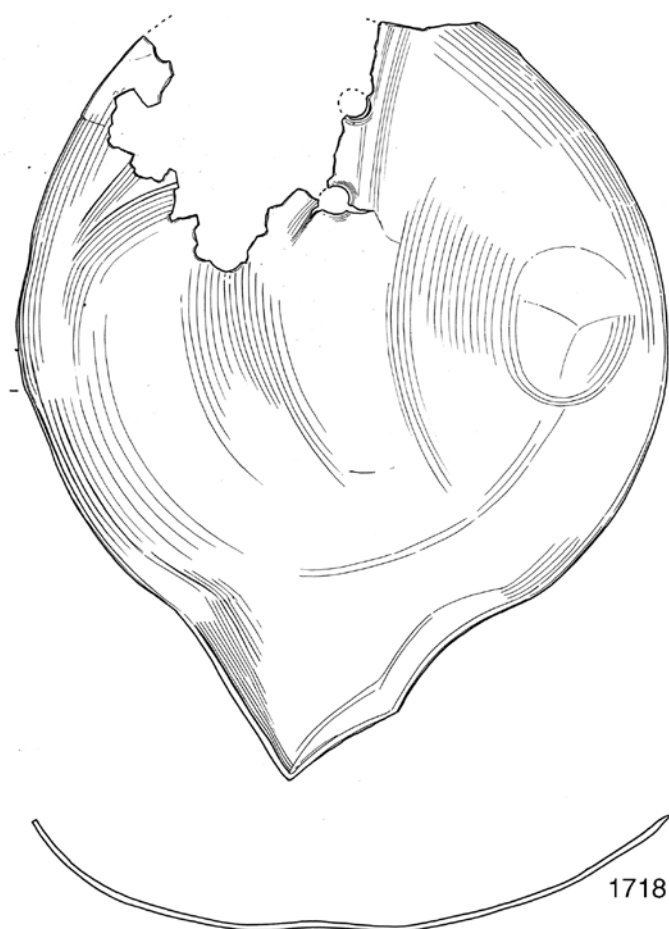


Figure 135 Copper alloy ladle, no 1718, scale 1:1



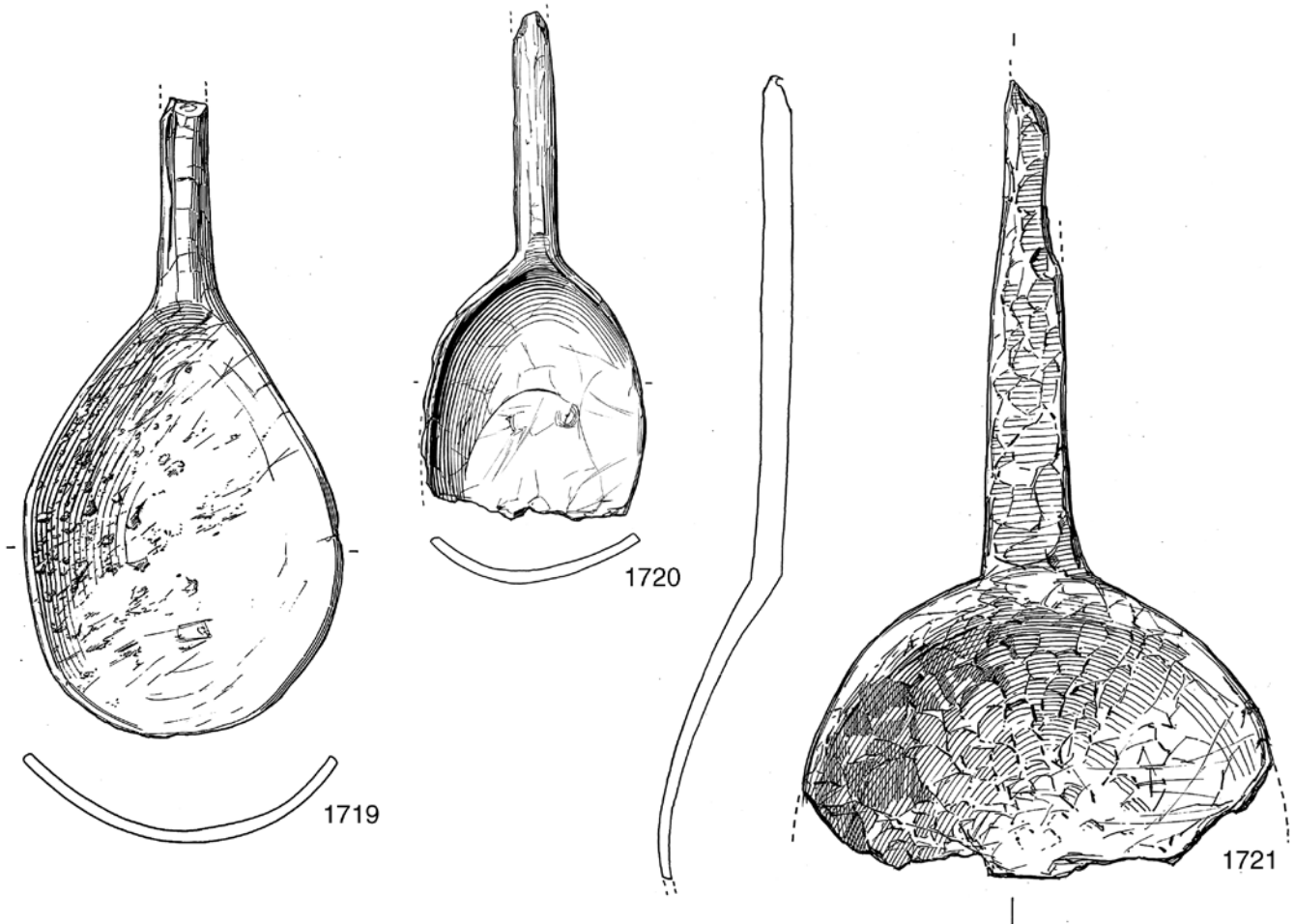


Figure 136 Metal spoons and ladle, nos 1719-21, scale 1:1; no 1721, scale 1:2

the bowl close to the junction with the shaft. L (surviving) 65mm. 13th- to 15th-century soil layer (XV, 4045).

**1723** sf VR 6022. Fragment of pewter spoon bowl. L (surviving) 41, W 46mm. 17th- to 18th-century pit F302 (X, 902).

**1724** sf JCH 325. Two ?joining fragments of copper alloy spoon handle. Spatulate end and rectangular section shaft. L 99mm. Recent soil layer (IV, 401).

## Forks

There are six table forks of iron. **1727** had two tines, **1729** probably had two, **1728** had two or three, **1725** and **1730** had three, and it is not clear how many there were on **1726**. **1727** is part of a carving fork and a folding guard can be seen on the stem. The other five forks were for dining. **1726** and **1729** are whittle-tanged and the former has a distinct bolster between the stem and tang. **1725** has a scale tang and the tang form of **1728** cannot be determined. All the forks have stems of balustroid form which are simply moulded at the base before tapering towards the tines.

The forks are from 19th-century contexts (except one from a context of uncertain type and date). Some could be somewhat earlier in origin, although table forks were not in general use until the late 17th century (Hayward 1957, 7-8; Hume 1982, 180). Two tines were

standard until the early 19th century after which three became more common. Table forks are rarely recovered from stratified archaeological contexts, but it may be noted that **1725**, with its three tines and scale tang is very similar to an example from an early to mid-19th-century context at Oyster Street, Portsmouth (Fox and Barton 1986, fig 153, 10).

*not illustrated*

**1725** sf VR 2109. There were probably three tines, but all are now missing. The stem has a rounded cross-section and is slightly balustroid in form. Below the stem there is a scale tang, pierced three times with non-ferrous rivets in situ. L 122mm. 19th- to 20th-century pit F10 (X, 26).

**1726** sf VR 7335. The stem has a rounded cross-section and is balustroid in form, below the stem there is a bolster and a whittle tang. L 132mm. 19th- to 20th-century feature F407 (XI, 1212).

**1727** sf VR 0. A carving fork. The stem is broken; above the break it is waisted and then adopts a balustroid form as it tapers towards the tines, one of which is missing. There is a slot in the stem for a guard. L 145mm; prongs: L 45mm, W across 17mm; stem T 11mm. 19th- to 20th-century pit F1 (X, 5).

**1728** sf VR 0. It had two or possibly three tines. The stem has a rounded cross-section and is balustroid in form; at the base it has a short moulded bolster and a stub of whittle

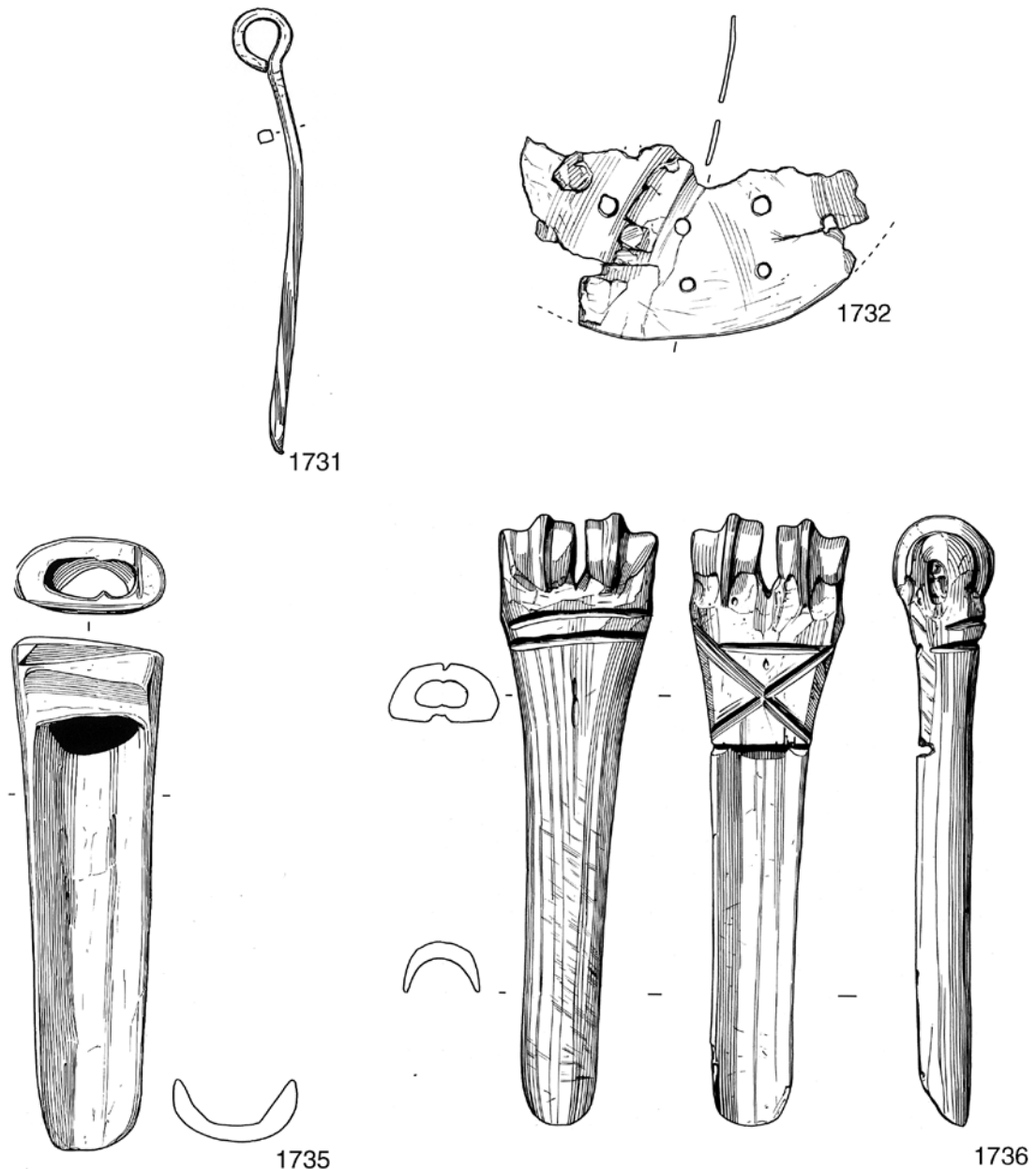


Figure 137 Kitchen equipment: ?skewer, skimmer, and corers, nos 1731–2, scale 1:2; 1735–6, scale 1:1

tang. L 68, W 20mm. 19th- to 20th-century feature F791 (XIV, 3703).

**1729** sf SJS 369. The tines (probably two) are missing, the stem has a rounded cross-section and is balustroid in form with a moulded base. The tang is incomplete. L 70mm, T 10mm. 19th- to 20th-century soil layer (I, 179).

**1730** sf HA 0. Tang missing. Stem has rounded cross-section and is balustroid in form, three tines. L 85mm, W 20mm. Context of uncertain date and type (XII, 29).

### ?Skewer

**1731** Fig 137 sf VR 936. The shank of square cross section is curved slightly near the head, where there is a circular loop. Iron plated with tin. L 125mm, T 4mm; loop D 18mm. No immediate identification suggests itself, but it could be a skewer of the type used today in cooking and baking. Post-medieval pit F17 (V, 172).

### Skimmers

All three skimmer fragments come from 15th to 16th century contexts. One has been repaired (1732).

**1732** Fig 137 sf SJS 379. Fragment from the rim of a copper alloy skimmer or strainer. L (maximum) 95mm. Three rivets and two fragments of copper alloy sheet indicate the position of a repair. 15th- to 16th-century soil layer (I, 190).

*not illustrated*

**1733** sf VR 6086. Distorted fragment of a perforated copper alloy sheet. L (maximum) 66mm. The surviving curved edge has been finished by turning over to the upper surface and, near the junction with the broken edge, it turns inwards to form a pouring lip. The perforations appear to be set in two

rows roughly parallel to this edge, but there are none near the broken edge and lip. Probably part of a skimmer. 15th- to 16th-century pit F308 (X, 920).

**1734** sf SJS 531. Six fragments of copper alloy skimmer (or strainer). D 72mm, D of holes 2–3mm. 15th- to 16th-century pit F214B (I, 267).

### Corers or scoops

Apple corers (or cheese scoops) were usually made from sheep metapodials (MacGregor 1985, 180). The earliest excavated example may be that from Norwich, stratified in a context dated c 1620–50 (Margeson 1993, 120). Though neither of the Victoria Road corers is well stratified, they may be of 17th- or 18th-century date.

**1735** Fig 137 sf VR 2412. A plain corer, probably made from a long bone. L 73mm, W (maximum) 21mm. 19th- to 20th-century pit F16 (X, 40).

**1736** Fig 137 sf VR 4583. Corer with decorated upper section. L 86mm. A cross beneath a transverse line has been cut into the upper end, and two parallel incised lines have been cut in a slightly higher position on the reverse. Unstratified (X).

### Hooks

*not illustrated*

**1737** sf VR 0. C-shaped hook of iron attached to a shank with a domed head, from a swivel hook fitting. Plated (tin). L 41mm; head W 12mm. Iron swivel hooks are common finds in medieval contexts and this example may be compared with a 12th- to 13th-century object from the BS site, Winchester (WS7.2, 826–7, no 2585), and with one found at Wolvesey Palace as part of no 2590 (*ibid*). This is a tin-plated iron suspension fitting, probably used as kitchen equipment and was from a late 15th- to 16th-century context. 13th- to 14th-century pit F960 (XIV, 3776).

**1738** sf VR 3585. Small iron hook with an incomplete rounded eye at the head – ?pot hook. L 85mm, W 10mm, T 10mm. 19th- to 20th-century drain F551 (XII, 2002).

## Glass vessels by H E M Cool

### Introduction

All of the vessel glass that can be dated between the 11th and early 17th centuries is considered in this report. No early medieval vessels could be identified with certainty, though a number of body fragments that could either be of late Roman or early Anglo-Saxon date were recovered at Chester Road. These have been discussed in connection with the Roman material from that site (Part 2, Category 4). Late post-medieval and modern vessel fragments were found at most of the sites, but as is also the case for the pottery vessels (P5), will not be considered here. Examples of the majority of the medieval forms have been recovered during earlier excavations in Winchester (WS7.2, 934–47), and the discussion of such forms in this report will be summary, as reference can be made to Mr Charleston's report for a full consideration.

Table 24 summarises the amount of medieval and early post-medieval vessel glass, using an artificial unit of quantification related to the minimum number of vessels present. This unit has had to be devised as the material under consideration consists, in the main, of non-durable potash glass excavated between fifteen and twenty years prior to being submitted for specialist attention. During this time the material from different sites has obviously been submitted to a variety of conservation and packaging regimes leading in some cases to considerable post-excavation fragmentation. In such circumstances quantifying the assemblage from each site by the number of fragments now present would be relatively meaningless. Instead, each catalogued item has been counted as one unit. Where two catalogued items come from the same context and could be from the same vessel, such as the urinal rim and base fragments **1745** and **1749** from a pit at St John's Street, these have been counted as one unit. It should be noted that the majority of the units

**Table 24** Varieties of medieval and late medieval/early post-medieval glass

area	site	medieval				Renaissance		
		soda glass	urinals	bottles	other	colourless	green	opaque
northern suburb	Hyde Abbey			1				
	Lido				1			
	St Bartholomew's School		1		1			
	Victoria Road	1	7	4	10	3	3	
western suburb	Crowder Terrace				2			
	Sussex Street	1			1			
eastern suburb	Chester Road				3			
	St John's Street		2	4	1		4	1
	<b>totals</b>	<b>2</b>	<b>10</b>	<b>9</b>	<b>19</b>	<b>3</b>	<b>7</b>	<b>1</b>

itemised under the heading 'other medieval' are undiagnostic body fragments.

As can be seen from the table, the Victoria Road and St John's Street sites were the most prolific, but no site produced very much vessel glass and some produced none at all. In part, this is dictated by the nature of the material. Potash glass is non-durable and thin body fragments are likely to decompose completely leaving behind the thicker and thus more resilient rims and bases. In part, however, the paucity of the vessel glass may also be due to the origin and type of rubbish that was being disposed of at these sites. It is unfortunate that the publication of the medieval vessel glass from other Winchester sites has been selective and so it is not possible to compare the assemblages from the suburb sites to those from the predominantly city centre sites, and thus to set them in context.

### The medieval vessels

Only one fragment of durable soda glass of medieval date can be identified with certainty. This is **1739** which was found in the debris resulting from the demolition of the 13th- to 15th-century Building 936.3 at Victoria Road. The vessel it came from belonged to the series of colourless vessels decorated with coloured trails and prunts which were in use between the 12th and 14th centuries (Charleston 1972, 45; WS7.2, 934). Normally these are decorated with blue trails and the green-blue trail of the fragment from Victoria Road is unusual. A very similar combination of green trails on a yellowish colourless body has, however, been found before in Winchester at the BS site (WS7.2, 939, no 3272). A fragment of colourless durable glass was recovered at Sussex Street in a pit (F54) dated to the 11th or 12th centuries, but this may be a post-medieval intrusion.

Numerically the best represented medieval glass form is the urinal. These were used for medical purposes and are common finds from at least the 13th century to the early 17th century (WS7.2, 936). Examples were found on three sites, Victoria Road, St John's Street and St Bartholomew's School. The earliest examples are **1740** and **1746** which were found in 13th- to 14th-century contexts.

Another very common and long-lived glass vessel type is the bottle with sheared rim and concave base which was in use throughout the medieval period and into 17th century with little change of form (*ibid*). Here, bottles were almost as common as urinals. Examples were found at Victoria Road, St John's Street, and Hyde Abbey. The majority of these were recognised from the concave base fragments, but one example from St. John's Street **1752** consists of rim and neck fragments. These have optic blown ribbing which was a frequently employed decorative technique on such bottles (Charleston 1984a, 33). One of the other examples from St John's Street (**1754**) appears to have been decorated with a spiral trail. This is an unusual type of decoration on a bottle and it may here be a late variant, technically beyond the scope of this report (but intrusive in the 15th- to 16th-century pit from which it was recovered).

The third major category of late medieval glass vessels were those connected with distilling (Charleston 1984a, 36). No examples of such vessels can be identified with certainty from any of these sites, though a large vessel such as an alembic could have produced the large body fragment **1764** from Victoria Road.

**1763** from St Bartholomew's School is much decomposed and has suffered considerable fragmentation since discovery. Part of its outline is preserved by an internal earth cast of the rim and clearly the vessel had a tall neck at least 40mm long. A small handle and part of a concave base are also preserved. This combination of features is not typical of any of the commoner late medieval or early Renaissance forms, though the tall neck and small handle do recall the opaque white two handled flask enamelled with a portrait, possibly of Henry VII, now in the British Museum. This vessel is thought to date to c 1500 (Charleston 1984a, 46, pl 9b). The St Bartholomew's School vessel comes from a 15th- to 16th-century context.

Three other medieval vessels whose forms cannot be identified with certainty are also present. The rim fragments **1761** from an occupation layer in 13th- to 15th-century Building 936.3 at Victoria Road and **1762** from The Lido may have come from jugs. A vessel with a small handle is represented by the handle fragment **1765** found in a 15th- to 16th-century pit at St John's Street.

In addition to those fragments catalogued in detail below, two decomposed green body fragments were recovered from a 13th to 14th century context, and seven from 17th- to 18th-century contexts at St John's Street. Victoria Road produced a number of similar fragments, including some that were completely decomposed. Six body fragments from the 15th- to 16th-century pit F27/38 were possibly from the same vessels as those catalogued below.

### *Clear, more or less colourless glass*

**1739** Fig 138 sf VR 5818. Body fragment. Yellow-tinged colourless with green-blue trail. Straight side. 9 by 8mm, WT 0.5mm. Demolition of 13th- to 15th-century Building 936.3 (XII, 2639).

### *Green glass urinals*

**1740** Fig 138 rf VR 4507. 6 rim and 11 body fragments, as **1743**. RD c 100mm (50%). 13th- to 14th-century pit F159 (X, 454).

**1741** Fig 138 rf VR 3622. Base fragment. Decomposed glass. Side curving into complete convex base. Circular pontil scar. Internal BD 39mm (100%), WT 2.5mm, D of pontil scar 21mm. 14th- to 15th-century pit F117 (X, 117).

**1742** Fig 138 sfs VR 3897-8. 15 rim, c 60 body and 1 base fragments. Decomposed glass. Wide out-turned rim, edge fire-rounded and turned up. Centre of convex base with pontil scar. RD c 85mm (85%), WT 0.5mm, PH 18mm, D of pontil scar 17mm. 15th- to 16th-century pit F27/F38 (X, 855).

**1743** Fig 138 sf VR 3900. 7 rim and 8 body fragments.

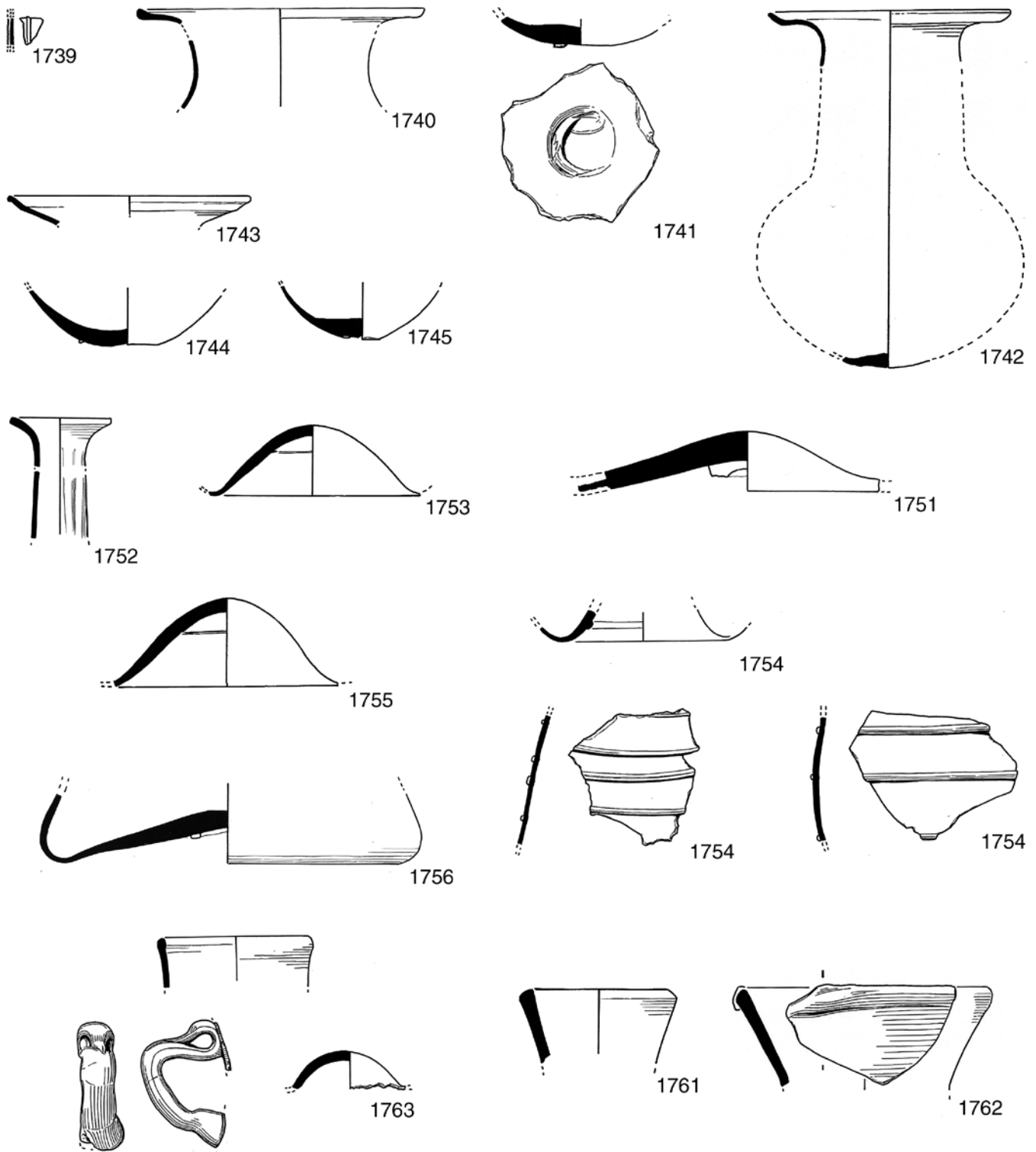


Figure 138 Vessel glass, nos 1739-45, 1751-6, 1761-3, scale 1:2

Decomposed glass. Wide out-turned rim, edge fire-rounded. RD c 85mm (45%), WT 1mm. 15th- to 16th-century pit F27/F38 (X, 855).

**1744** Fig 138 sf SJS 47. Base fragment. Mottled brown corrosion. Side curving into complete convex base. Circular pontil scar. Internal BD c 33mm (100%), WT 1.5mm, D of pontil scar 26mm. 15th- to 16th-century pit F305 (I, 319).

**1745** Fig 138 sf SJS 714. Base fragment from a urinal as **1749**. Internal BD c 32mm (100%), WT 1mm, D of pontil scar 20mm. 17th- to 18th-century ditch F224 (I, 501).

*not illustrated*

**1746** sf VR 5179. Base fragment. Decomposed glass. Fragment from centre of base with circular pontil scar. 30 by 27mm, D of pontil scar 20mm. 13th- to 14th-century pit F842 (XIII, 3321).

**1747** sf SBS 49. 1 rim and approximately 20 very small fragments. Decomposed glass. Wide out-turned rim, edge fire-rounded. 15th- to 16th-century pit F7 (I, 14).

**1748** rf VR 3009. 5 rim and 7 body fragments and many

chips, as **1743**. RD c 100mm, (17%). 15th- to 16th-century pit F27/F38 (X, 855).

**1749** sfs SJS 214–5 and 222. 4 rim and 2 body fragments. Decomposed glass. Wide out-turned rim, edge fire-rounded and turned up. RD 80mm (27%), WT 1mm. 17th- to 18th-century ditch F224 (I, 501).

**1750** rf VR 3092. 1 rim and 4 body fragments possibly from urinal. Decomposed glass. Rim edge fire-rounded. 19th- to 20th-century soil layer (X, 254).

### *Green glass bottles*

**1751** Fig 138 sf VR 6120. Base fragment. Decomposed glass. Fragment from centre of base with circular pontil scar retaining additional glass. BD c 90–100mm (c 20%), D of pontil scar 28mm. 13th- to 15th-century soil layer (X, 948).

**1752** Fig 138 sf SJS 593. 2 rim and 2 neck fragments. Mottled brown corrosion. Out-turned rim, edge sheared; cylindrical neck. Optic blown ribbing. RD c 35mm (40%), T of neck 1.5mm, PH (rim) 18mm. 14th- to 15th-century soil layer (I, 342).

**1753** Fig 138 sf SJS 591. Base fragment. Mottled brown corrosion. Concave base. Shallow optic blown ribs. Circular pontil scar. BD c 65 (35%), D of pontil scar 26mm. 14th- to 15th-century soil layer (I, 342).

**1754** Fig 138 sf SJS 599. 40 body and 3 base fragments of ?bottle. Mottled brown corrosion. Straight-sided upper body; convex-curved lower body; high concave base. Trail spiralling down side and onto base. BD c 55–60mm. 15th- to 16th-century pit F300 (I, 300).

**1755** Fig 138 sf SJS 782. Base fragment. Decomposed glass. Central part of concave base. Circular pontil scar. BD approximately 80–90mm, D of pontil scar 28mm. 15th- to 16th-century pit F305 (I, 338).

**1756** Fig 138 sfs VR 6002–3, 6023–5, 6028–9, 6041 and 6743. 3 body and 6 base fragments. Flaking iridescent surfaces. Slightly convex-curved side; concave base with circular pontil scar retaining small amount of additional glass. BD c 130mm (20%), WT 2mm, PH 23mm. 17th- to 18th-century pit F302 (X, 902, 903).

### *not illustrated*

**1757** sf HA 16. Base fragment. Decomposed glass. Centre of concave base with circular pontil scar. 40 by 33mm, D of pontil scar 25mm. 13th- to 14th-century soil layer (IV, 36).

**1758** rf VR 3687. 3 base fragments, as **1751**. BD c 90–100mm (c 10%), D of pontil scar 27mm. 13th- to 15th-century soil layer (X, 314).

**1759** sf VR 6124. Base fragment, as **1751**. BD c 80–90mm, D of pontil scar 29mm. 15th- to 16th-century pit F320 (X, 959).

**1760** sf SJS 750. Base fragment. Mottled brown corrosion, fragment as **1755**. 64 by 50mm, D of pontil scar 32mm. 15th- to 16th-century pit F305 (I, 338).

### *Other green glass fragments*

**1761** Fig 138 sf VR 5829. 2 rim and 2 body fragments. Decomposed glass. Funnel rim, edge sheared. RD 55mm (35%), WT 3mm. Occupation of 13th- to 15th-century Building 936.3 (XII, 2663).

**1762** Fig 138 sfs LIDO 128 and 129. Rim fragment of ?jug. Decomposed glass. Funnel mouth, fire-rounded edge. Rim distorted, possibly from spout. RD c 90mm, WT 2.5mm, PH 34mm. Disuse of cellar or undercroft F17 in building 795.1 (V, 68). Also one other body fragment possibly from the

same vessel was recovered from a robber trench F18 in the same building (V, 72). Dated to the 14th to 15th century.

**1763** Fig 138 sf SBS 5 Tankard or jug? Decomposed glass in many shattered fragments. Large fragments recognisable include 3 rim fragments, one complete handle and centre of base. Rim edge fire-rounded; straight side sloping in. 'Ear-shaped' oval rod handle with return trail. Central part of concave base. RD c 55mm, handle L 45mm, handle section 12.5 by 6.5mm. 15th- to 16th-century gully F12 (I, 13).

### *not illustrated*

**1764** sf VR 3415. Body fragment. Brown mottled weathering. Convex-curved side. 109 by 1.5mm. 14th- to 15th-century pit F131 (X, 483).

**1765** sf SJS 0. Handle fragment. Decomposed glass. D-sectioned rod handle with return trail from attachment. Section 9 by 5mm. 15th- to 16th-century feature F307 (I, 316).

### **The late medieval and early post-medieval vessels**

Vessels belonging to this period were only recovered from Victoria Road and St John's Street. Apart from one opaque white vessel of unknown form represented by a body fragment (**1766**), all were drinking vessels. A fragment from a colourless stemmed wine glass (**1767**) was recovered from a 17th- to 18th-century context at Victoria Road. It consists of the flattened disc at the junction of the bowl and the stem. This feature is typical of wine glasses of the late 16th and 17th centuries. It is, for example, present on many of the wineglasses which accumulated in a cellar at Gracechurch Street, London during the first two-thirds of the 17th century (Oswald and Phillips 1949, 31–3, pls III–VI). In Winchester a very similar stem was found in a cellar deposit dated to c 1550 to 1625 at St George's Street (Charleston 1964, 147, no 3, fig 50).

The optic blown rim and body fragments from St John's Street (**1772**) and the three tall pushed-in base ring base fragments (**1769**, **1773** and **1774**) from Victoria Road all belong to tall late 16th-century ale glasses such as those from a refuse pit at Honey Lane Market, Cheapside, London (Hume 1962, 270, figs 1–4). The body fragment with the chequered spiral trail from St John's Street (**1770**) might also have come from such an ale glass. This decorative style was used in conjunction with that form as may be seen on examples found with pottery dated to c 1600 at Queen Street Exeter (Charleston 1984b, 260, 271, nos G75–6, fig 149). The base fragment from a 15th- to 16th-century pit at St John's Street **1771** is also likely to have come from a beaker, possibly like those from the Gracechurch Street cellar, though lacking the milled base ring that the form normally has.

In addition to those fragments catalogued below, one undiagnostic colourless body fragment was recovered from a late medieval pit at Victoria Road, whilst 27 body fragments perhaps from a green glass beaker came from a 15th- or 16th-century pit at St John's Street.

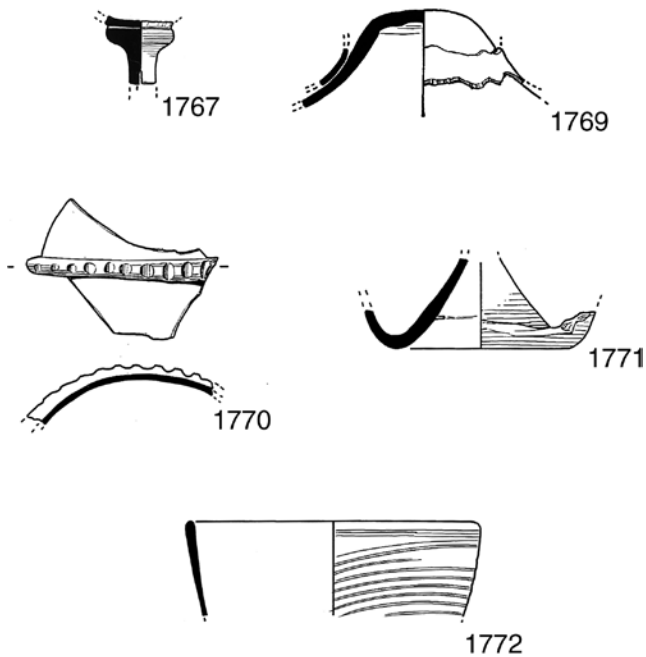


Figure 139 Vessel glass, nos 1767, 1769–72, scale 1:2

### Opaque white

not illustrated

**1766** sf SJS 804. Body fragment. Convex-curved. 26 by 12mm, WT 1mm. 15th- to 16th-century pit F313 (I, 336).

### Clear, more or less colourless glass

**1767** Fig 139 sf VR 6038. Lower body and stem fragment of wine glass. Thick iridescent surface. Swollen upper end of circular-sectioned stem with upper end of internal void. D of upper end of stem 19mm. 17th- to 18th-century pit F302 (X, 902).

not illustrated

**1768** rf VR 3018. Lower body fragment of wine glass. Slightly concave-sided lower body curving in at base. 25 by 21mm, WT 1mm. 13th- to 15th-century soil layer (X, 159).

### Green glass beakers

**1769** Fig 139 sf VR 6033. Base fragment. Decomposed glass. Central part of concave base with high pushed-in base ring, lower part of base ring missing. Circular pontil scar. D at junction of lower body and base ring 37mm, D of pontil scar 23mm. 15th to 16th century pit F309 (X, 912).

**1770** Fig 139 sf SJS 724. 1 body fragment. Pale green; iridescent surface. Straight side with chequered spiral trailing. 50 by 24mm, WT 1mm. 15th to 16th century pit F312 (I, 334).

**1771** Fig 139 sf SJS 748. Base. Decayed glass. Complete high kicked base. Circular pontil scar. BD 42mm (100%), WT 2mm. 15th to 16th century pit F313 (I, 337).

**1772** Fig 139 sf SJS 237. 2 rim and 30 small body fragments. Decomposed glass. Vertical rim, edge fire rounded; straight side sloping in slightly. Diagonal optic blown ribbing. RD

80mm (16%), WT 1mm, PH 30mm. 17th- to 18th-century ditch F224 (I, 501).

not illustrated

**1773** rf VR 3890. Base fragment. Decomposed glass, fragment as 1769 but no part of base ring remains. 31 by 27mm. 15th- to 16th-century pit F27/38 (X, 849).

**1774** sf VR 7261. Base fragment. Flaking iridescent surfaces, fragment as 1769. D at junction of lower body and base ring 30mm, D of pontil scar 17.5mm. 17th- to 18th-century pit F404 (XI, 1209).

### Metal vessels

The earliest pieces by context date are a fragment of the rim of an iron vessel (1784) and three probable repair patches of iron from late Saxon contexts at Sussex Street. 1783 is an iron plate over a copper alloy sheet. 1775 and 1776 have split shank rivets in them resembling those found in the late Saxon iron cooking pan from Cathedral Car Park, Winchester (WS7.2, 820–1, no 2544).

The straps of 1785, which was from an 11th or 12th century context, are incomplete, but it was clearly a small U-eyed iron fitting which, rather than being from a hinge, may have been used to attach a handle to a bucket or other vessel.

All but one of the copper alloy pieces appear to be of medieval or early post-medieval date, though the leg from a 14th-century ewer (1782) was residual in a modern context. Ewers of the type from which this leg has come date to the 14th century and may have been made in England (Lewis *et al* 1987, 87–8). Examples are found throughout Britain, including Southampton, and north western Europe (*ibid* 90–2).

Later contexts produced a cauldron (1780) a 'pot' (1786) and a can (1781), all of iron. Post-medieval cauldrons are rarely recovered from archaeological sites and have not been subject to much research. It may be noted, however, that 1780 is similar in profile and handle form to two cauldrons from the deserted village of Riplingham, East Yorkshire, which came from contexts dated to the first half of the 18th century (Wacher 1966, 660–1, fig 26, 44–5). 1786 is an iron vessel similar in appearance to a small ceramic cooking pot. The vessel contained a piece of woollen textile, but whether this was associated with its function is not known. Neither is the function of the can 1781 apparent.

Few domestic metal vessels were recovered, though this is not an unusual feature, even for urban excavation assemblages (Crummy 1988, 36). It can be explained in part by the high cost of metal vessels compared to ceramic and wooden examples (Margeson 1993, 90), demonstrated by the repair on the copper alloy vessels 1777 and 1779, by the repair patches from Victoria Road (copper alloy) and Sussex Street (iron) and by the lead plug from Chester Road. In addition, there was the potential offered by large pieces of sheet metal for resale to a smith for recycling. This is also demon-

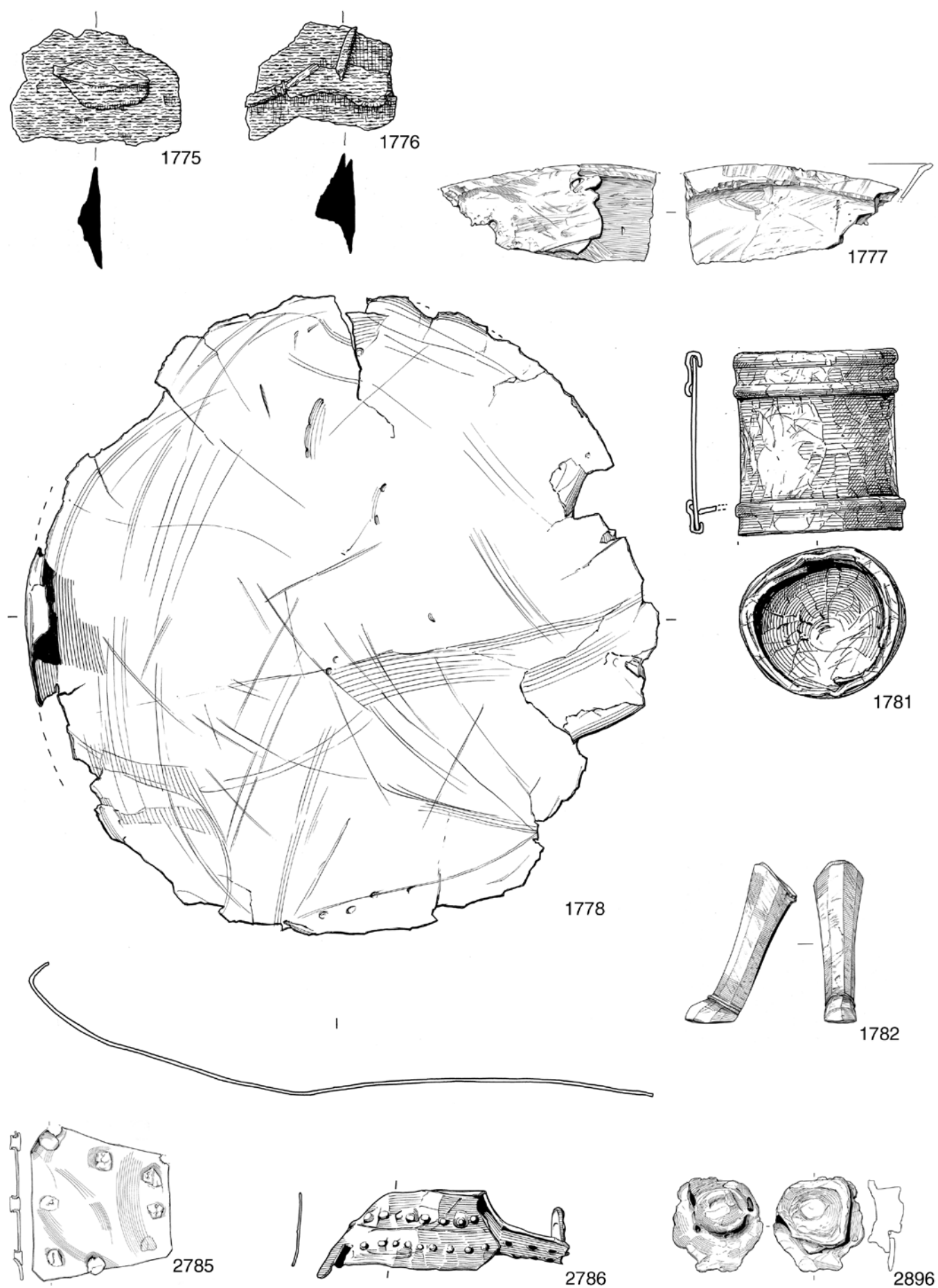


Figure 140 Metal vessels, nos 1775-8, 1781-2, 2785, 2787, 2896, scale 1:2



strated on 1777 and 1779, both of which show signs of having been cut up.

**1775** Fig 140 sf SXS 94. Two iron vessel repair patches pierced by rivets with split shanks in them. Late Saxon pit F36 (VIII, 265).

**1776** Fig 140 sf SXS 95. Iron vessel repair patch pierced by rivet with split shank. Late Saxon pit F53 (VIII, 269).

**2896** Fig 140 sf CHR 14. Lead ?plug with thin central flange. D (maximum) 37mm, T 13mm. 13th- to 14th-century posthole F9 (I, 33).

**1777** Fig 140 sf VR 3233. A fragment from the rim of a large copper alloy ?circular vessel. L (maximum) 83mm. A patch of a different copper alloy, probably a repair, has been brazed or soldered on to the outside of the fragment. The straight edge running down from the rim and at least part of the bottom edge, appear to have been cut rather than broken. Both thicknesses of metal, original and patch, are broken close to the rim. 13th- to 15th-century soil layer (X, 257).

**1778** Fig 140 sf SJS 110. Sagging base of a large copper alloy hammered vessel, probably a cauldron or bowl. D approximately 240mm. Floor layer in 13th- to 15th-century Building 1021.1 (I, 264).

**2785** Fig 140 sf VR 2387. Large trapezoidal plate with eight rivets set around the edge. L 52mm, W (maximum) 57mm. 14th- to 15th-century feature F68 (X, 158).

**2787** Fig 140 sf VR 7443. Fragment of a curved strip or plate with a large rivet hole near one broken edge. L 99mm, W (maximum) 21mm. Disuse of 13th- to 15th-century Building 935.2 (XI, 1656).

**1779** Fig 141 sf VR 6133. Fragment of copper alloy sheet with a patch crudely riveted on. There are two other rivets on the original edge, which is turned down. The other edges are roughly cut and/or ripped. Maximum dimensions 274mm by 102mm. Probably originally from a large metal vessel, such as a cauldron, made of sheeting. The vessel appears to have undergone at least one repair, but then worn beyond recovery, as this piece has been cut up ready for recycling. Patched sheet vessels are known from Southampton and London (Harvey, Y 1975, fig 243, 1810; Egan 1998, 169–71, 176, 178–9). Recycling accounts for the scarcity of medieval and early post-medieval metal vessels in the archaeological record, though documentary references are numerous. 15th- to 16th-century pit F314 (X, 960).

**1780** Fig 141 sf VR 7371. Iron cauldron in a number of pieces. It has an outturned rim and the body is then convex in profile before coming to an angle, below which there is a convex base much of which is missing. There are two inverted L-shaped handles of circular section attached below the rim. D (maximum) 240mm; D at rim 205mm; H (maximum surviving) 150mm. Construction of 19th-century buildings on the Hyde Street frontage (XI, 1601).

**1781** Fig 140 sf SJS 850. A can made of iron sheet, the base is recessed into one end and strengthening strips run around the top and base. The object is probably held together by the brazing metal which also covers its surfaces. L 60mm, D 80mm. Fill of 19th-century clay pipe kiln F62 (II, 527).

**1782** Fig 140 sf VR 2650. A cast copper alloy leg from a tripod ewer (Lewis *et al* 1987, fig 2, 6). H 65mm. A moulded ridge marks the junction of leg and foot. 19th- to 20th-century soil layer (X, 257).

#### not illustrated

**1783** sf SXS 12. Iron vessel repair patch nailed over a copper alloy sheet. L 52, W 44mm. Late Saxon pit F10 (VIII, 51).

**1784** sf SXS 489. Iron vessel fragment with rolled-over rim along one side. L 75mm, W 47mm, T 5mm. Late Saxon pit F36 (VIII, 265).

**1785** sf SXS 107. Consists of an incomplete iron strap which is pierced and formed into a U-shaped loop at one end. L 39mm; strap W 32mm. 11th- to 12th-century pit F54 (VIII, 331).

**1786** sf CT 136. A complete iron vessel with a flat bottom and a slight everted rim. A patch of corroded material on the bass may be the remnants of a handle. D at mouth 100mm; H 80mm. Textile was found in the base. The pot was found with a socketed object which tapers to one end where it was flattened out but is now broken. L 45mm. This may have been part of the handle. 19th- to 20th-century post pit F34 (VI, 118).

#### Stone vessels

This is a very small collection of mortars compared with the numbers recovered from intra-mural sites in Winchester (WS7.2, 890), and may, like other elements of these combined site assemblages, be a reflection of the economic status of the extramural areas (Part 4). Two of the Purbeck marble bases and one of Quarr come from medieval contexts, but both the Purbeck marble rim and wall fragment and the almost complete ?Caen stone mortar come from modern pits.

**1787** Fig 142 sf VR 7738. Fragment of the base of a Purbeck marble mortar. ID approximately 130mm. Part of the chiselled wall surface survives, with the base of a rib. 13th- to 14th-century pit F654 (XII, 2468).

**1788** Fig 142 hfs VR 29 and 30. A limestone (?Caen stone) mortar in two fragments, with some damage on the edges of the break. Both base and rim are externally approximately 195mm square. H 155mm, D of interior 147mm, T at centre of base 26mm, depth of interior 113mm. The rim has been worked smooth, but the walls show the marks of chisel dressing. There are ribs, also worked smooth, on opposite corners. The other two corners are right angled, with the walls shaped to form a point below the rim.

The rim is very slightly chamfered near the corners to suggest lugs, and were it not for the smoothness of the rim and ribs and the deliberate shaping of the corners, the vessel could be seen as unfinished. The absence of a pouring lug might suggest that this object was not intended for use, though the worn base of the well indicates otherwise. 19th- to 20th-century pit F16 (X, 40).

**1789** Fig 142 sf JCH 15. Fragment of a Purbeck marble mortar. ID approximately 120mm, H (incomplete) 102mm, T 28mm. There is a shallow rounded groove in the upper edge. The base has split off at the junction with the wall just below the handle. The outside of the wall and the handle are chisel dressed. The handle splays outwards and is pierced. The form is similar to a mortar from Little Ringstead, Old Huntstanton, Norfolk (Dunning 1977, fig 148). 19th- to 20th-century pit F3 (II, 14).

#### not illustrated

**1790** sf SXS 581. Fragment from a mortar of Purbeck marble. T 90mm, otherwise featureless. Demolition of 13th- to 14th-century Building 714.2 (XVII, 973).

**1791** sf VR 3087. Fragment of the base of a mortar of Quarr limestone. ID approximately 165mm. Part of the chiselled wall surface survives as does the underside surface and the base of a rib. T (base) 44mm, T (wall) 23mm. 14th- to 15th-century pit F131 (X, 370).

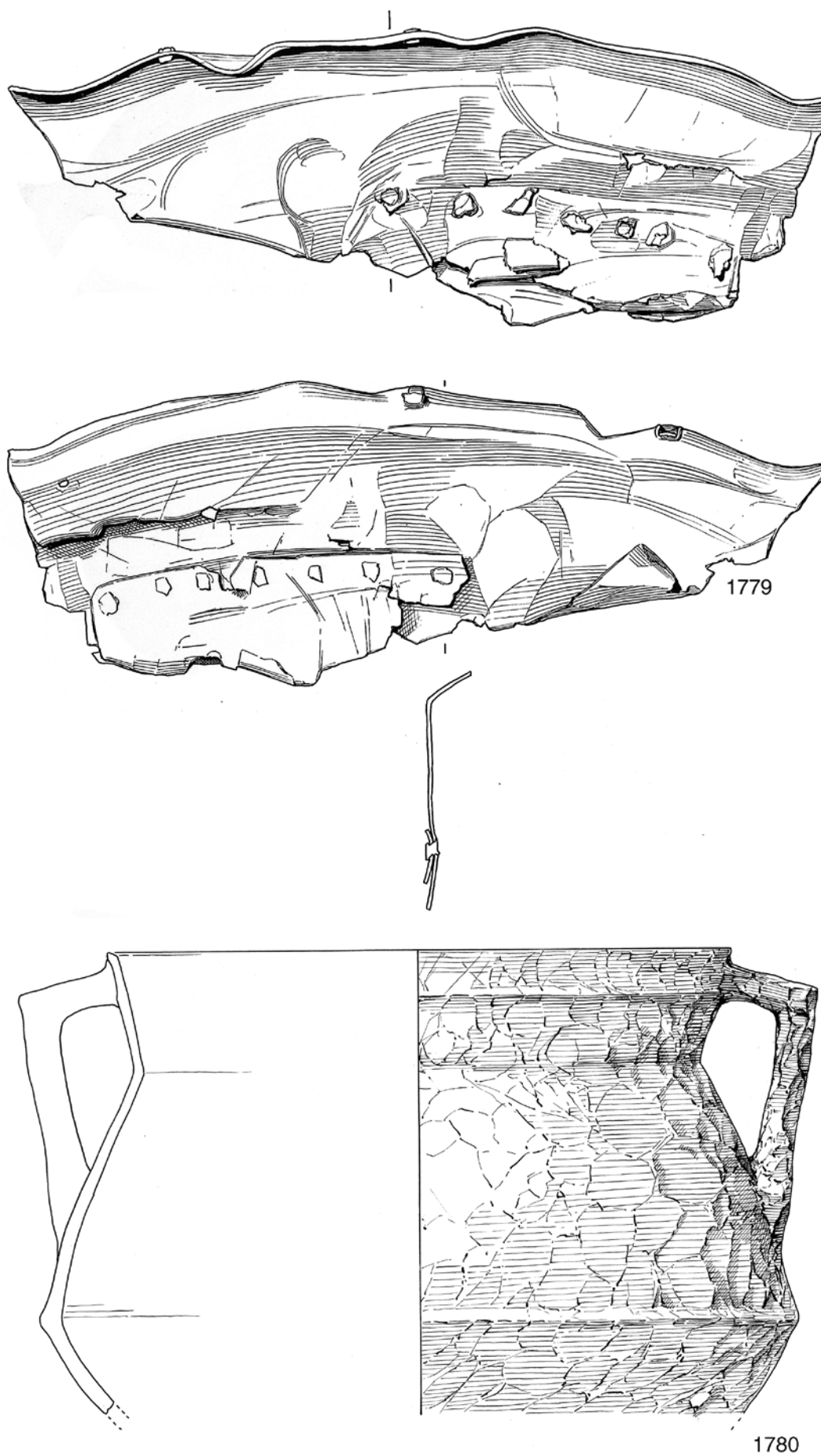


Figure 141 *Metal vessels, nos 1779–80, scale 1:2*

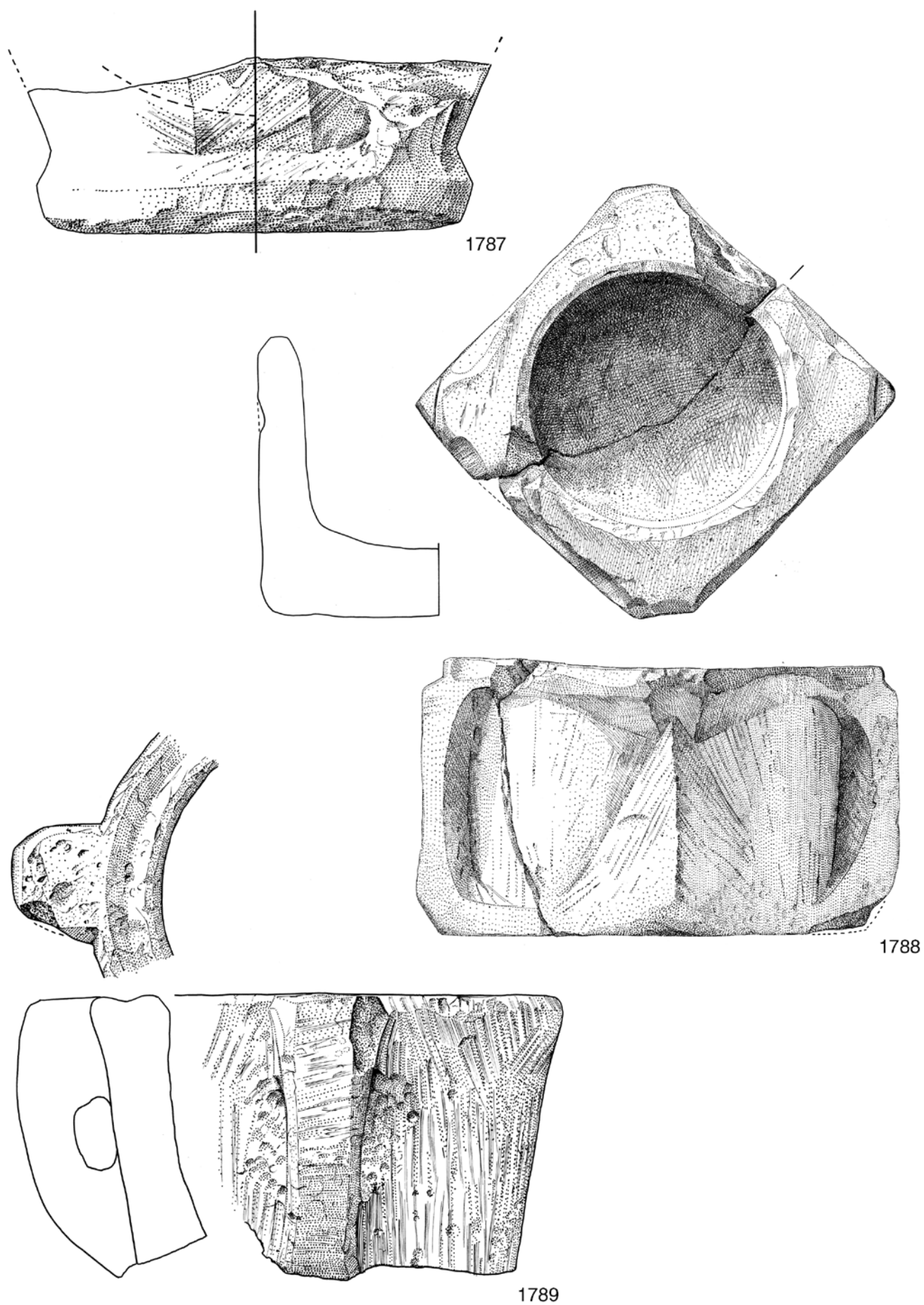


Figure 142 Stone vessels, nos 1787, 1789, scale 1:2; 1788, scale 1:3

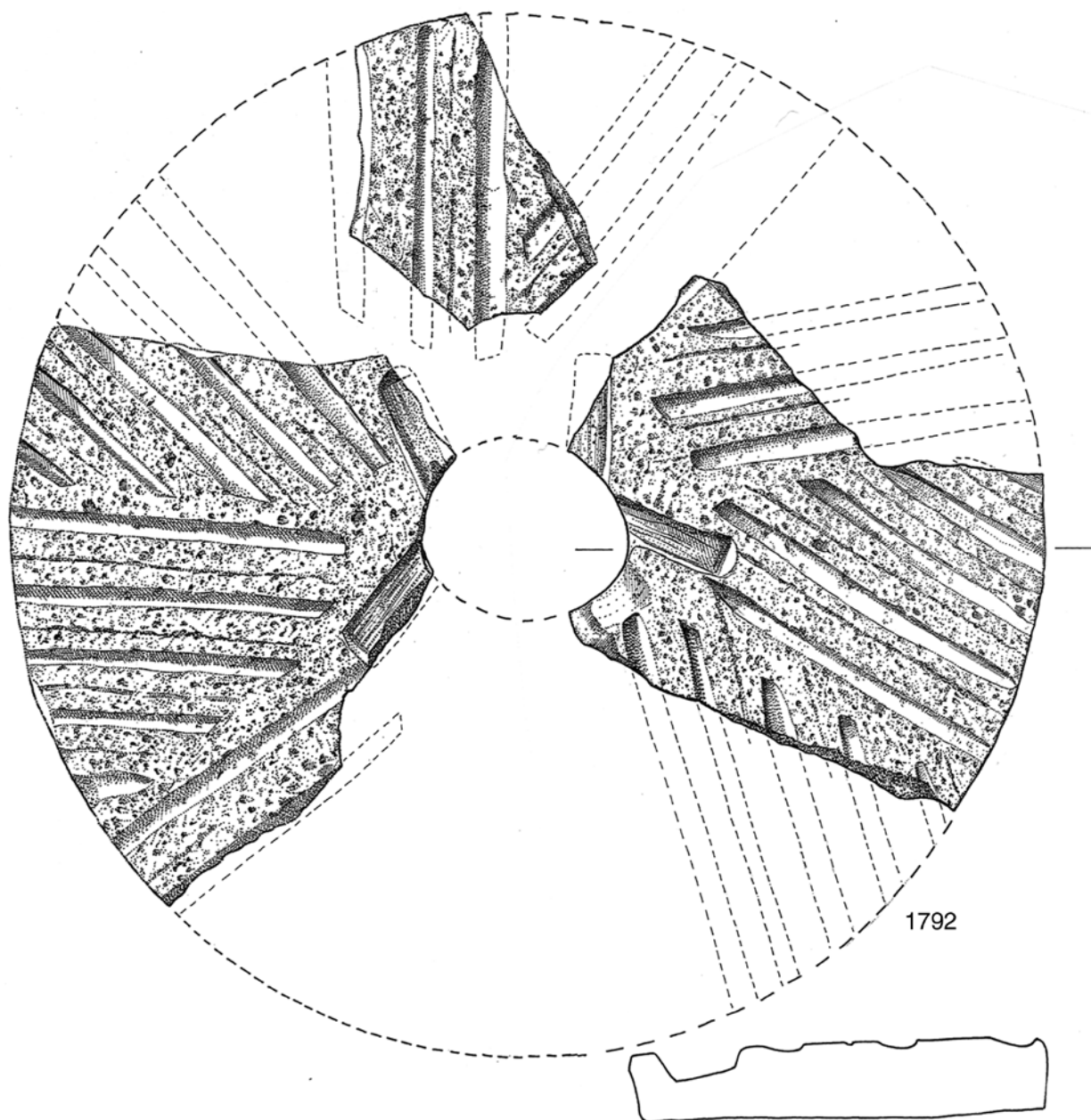


Figure 143 Quern, no 1792, scale 1:4

### Querns

A number of fragments probably originally from querns were recovered from post-Roman phases at Victoria Road. They were invariably found in tertiary contexts (pits and soil layers) and in poor and fragmentary condition. The stone types present were all employed for the manufacture of querns during the Roman period (Part 2, Category 4) and thus the material may be completely residual.

Fragments from querns of Niedermendig lava were also found in two pits (F10 and F82), respectively of late Saxon and 11th- to 12th-century date, at Sussex Street. Here they are more likely to be post-Roman, as Roman activity on the site was limited.

All of these pieces were in too fragmentary a state to warrant individual description, measurement and illustration. Another such fragment, of Niedermendig lava, was found in a 15th- to 16th-century pit (F214B) at St John's Street. This site did, however, produce one quern in relatively good condition, which is catalogued below.

**1792** Fig 143 sf SJS 269. Four fragments from a lower stone of Niedermendig lava. D 580mm, D of central hole 100mm, T at rim 39mm, T at centre 41mm. Bi-directional grooving on the grinding surface and four slots arranged ?crosswise around the central hole. The form is apparently early medieval, in that it is flat and about two feet in diameter, although the grooving might suggest a Roman date (Crawford and Röder 1955, 69–70, fig 1, 7). 17th- to 18th-century pit F201 (I, 224).

**Lamps with a contribution by C Matthews****Stone lamps**

The stone lamps vary from hollowed out rough blocks of chalk (1793–6) to well-made examples of Caen stone (1797 and 1798). The former are late Saxon or early medieval in date, the latter later medieval. The external walls of the fragment of a Caen stone lamp 1798 bear incised decoration, similar to that on a lamp from Exeter of probable late medieval date (Allan 1984, fig 164, S2). Like examples from the excavations carried out in Winchester before 1972 (WS7.2, 984–5), these stone lamps are rarely burnt, suggesting that they contained removable reservoirs.

**1793** Fig 144 sf HG 366. Lamp made from a block of chalk. D (maximum) 78mm, H 58mm. The underside and outer wall of the lamp have been roughly shaped, as has the floor of the well. The inner wall has been smoothed. The grooves running around the outside of the well floor indicate that this was done by turning the block around the blade of a knife. Late Saxon pit F172 (III, 827).

**1794** Fig 144 sf VR 4354. Lamp hollowed from a rough chalk block. D (maximum) 104mm, H 44mm. The underside and edges are rough, the concave well is smooth. Late Saxon or early medieval, and found in the fill of 12th- to 13th-century pit F796 (XIII, 3148).

**1795** Fig 144 sf CT 208. Hollowed chalk lamp. D (maximum) 80mm, H 44mm. Worked on base, sides and inside well. 13th- to 14th-century pit F65 (VII, 203). (CM)

**1796** Fig 144 sf SXS 596. Hollowed chalk lamp. D (maximum) 60mm, H 38mm. Worked inside well but the remainder is too chipped to do more than suggest original shape. Demolition of 13th- to 14th-century Building 714.2 (XVII, 991). (CM)

**1797** Fig 144 sf VR 3074. Handled lamp of Caen stone. D (maximum) 79mm, H 63mm. The bowl is octagonal with a concave well and a central deep hollow (see Allan 1984, fig 164, S2). The handle (L 74mm) is also octagonal, four long sides alternating with four short. It has a right angled hole for suspension at the end. 15th- to 16th-century pit F153 (X, 408).

**1798** Fig 144 sf VR 8211. Fragment probably from a square lamp of Caen stone. Longest surviving side 57mm, H 86mm. The floor of the well is rough, the side slightly sloping. Both external walls bear fine shallow incised decoration, on one, possibly a sun motif, on the other, a geometric pattern. 19th- to 20th-century pit F412 (XI, 1217).

**Pottery lamps**

The pottery lamps are illustrated and described in more detail with the other pottery from the Saxon and medieval suburbs and defences. A brief summary is offered here, taken from reports by Kim Holmes, Charlotte Matthews, and Andrew King (P5). However, it should be noted that, although all of the lamps from sites in the western suburb have probably been identified, the study of pottery from the northern and eastern suburbs and the city defences has been confined to selected groups, and some lamps from these sites may remain unexamined. The fabric codes are given here so that this summary can be compared with the relevant pottery reports.

Of the forms defined by Barclay and Biddle (WS7.2, 988, 990), the globular was most common in this assemblage (8), followed in importance by the spiked (4). Only one

flat based lamp was identified with certainty, although another flat based vessel from Sussex Street, apparently of Winchester ware (fabric MWW), might possibly be a lamp. The pedestal form may be represented in one further vessel, but it is too fragmentary for certainty.

All of the globular forms were in sandy fabrics (MDF/ MDL). Apart from the Winchester ware vessel mentioned above, fabrics employed in making the other forms were gritted, in that they were predominantly chalk tempered with sparse or moderate flint and sand (fabrics MBX and MAV) or predominantly flint tempered with some sand (fabric MAP). Of these fabrics, only MDL seems to have been reserved specifically for lamps. However, fabric MDL may appear different from other sandy pottery fabrics merely because it has come in closest contact, after initial firing, with open flame, resulting in more complete oxidation. None of the fabrics are likely to have been made within the town, due to the virtual absence of suitable potting clay, but potential sources of production are quite close (Biddle and Barclay 1974, 151–2).

The numbers of pottery lamps recovered from sites in the suburbs and on the defences are small compared to those from excavations within the town prior to 1972 (WS7.2, 985–6). This may be result of selective study (as described above) or of differing site size and intensity of use, although it is possible that it reflects a genuine difference in socio-economic status (or both). The earliest occurrence of a pottery lamp (of globular form in a sandy fabric) is in a pit filled perhaps in the later 10th or early 11th century at Sussex Street (F107). Pottery lamps continued to be deposited on sites in the western suburb throughout the period in which it was most intensively occupied (the 11th to 14th centuries) and occurred in contexts of the 11th to 13th centuries at Victoria Road and St John's Street in the northern and eastern suburbs. The fabrics in which the lamps are found seem to have been in decline from the 14th century onwards according to a seriation carried out by Varian Denham (P5). Use of pottery lamps in the suburbs and on the defences seems, then, to have been mainly in the 10th to 13th centuries, just as it was on intra-mural sites (WS7.2, 990).

**Candlesticks**

The form of neither of these candlesticks can be fully identified, but the one from St John's Street comes from a pit in which it was associated with pottery of the early 16th century.

**1799** Fig 145 sf SJS 696. Upper part of a copper alloy candlestick with a cylindrical socket ornamented with groups of parallel grooves and mouldings on the stem. The base is missing, but it was probably conical or bell shaped (Brownsword 1985, figs 8–12). 15th or 16th century in date. 16th-century pit F305 (I, 330).

**1800** Fig 145 sf VR 9115. Fragment of a hollow copper alloy ?candlestick stem of uncertain form, but probably similar to one illustrated by Brownsword (1985, fig 16). L 53mm. Late 16th century or later. 19th- to 20th-century pit F1001 (XV, 3901).

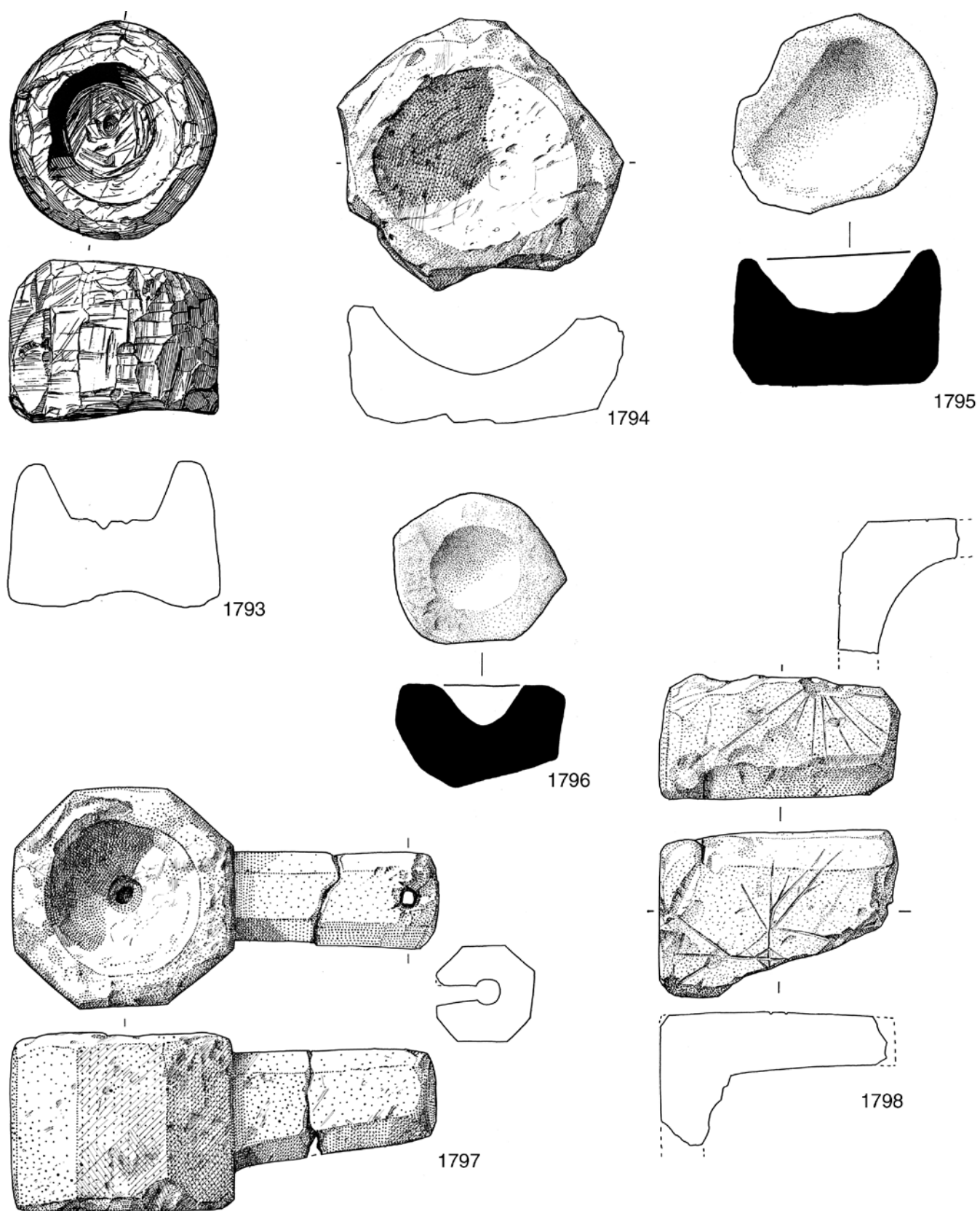


Figure 144 Lamps, nos 1793-8, scale 1:2

**Candle snuffer**

**1801** Fig 145 sf VR 2117. Candle snuffer of iron with oval finger loops and a semicircular snuffing-box. L 112mm. 19th- to 20th-century pit F1 (X, 5).

**Photograph frame**

*not illustrated*

**1802** sf CHR 682. Copper alloy photograph frame. Leaf decoration at two corners at the base and leaves plus ?fruit on arched top. Punched and incised decoration around the rest of the frame. L 109mm, W 64mm. 19th- to 20th-century soil layer (IV, 584).

**Fittings for boxes and furniture**

*with contributions by D A Hinton and J Watson*

**Decorative mounts****Bone**

Bone strips similar to these Winchester examples came from 11th- to 12th-century contexts on the Flaxengate site, Lincoln (Mann 1982, fig 16). They were used to ornament wooden boxes or chests, and Mann cites many other parallels (*ibid* 18–19). A number of well stratified pieces from Castle Acre, Norfolk, date to the mid- or later 12th century (Margeson 1982, 246–8). Other examples from Winchester are illustrated by Biddle and Hinton (WS7.2, figs 226–7). The fragment from Crowder Terrace showing part of a large circular motif (**1809**) may be similar to mounts from Coppergate, York, which had open circles backed with gilt sheet bronze (Waterman 1959, pl 17). A fragment possibly of cattle scapula with a ring-and-dot motif also from Crowder Terrace suggests that manufacture of these strips may have been carried out on, or close to, the site (Category 16).

**1803** Fig 146 sf VR 10178. Fragment of a bone strip. L 23mm, W 17mm, T 2mm. An elongated D-shaped notch has been cut from the centre of the surviving end, which has been partly cut through, partly broken. This fragment may be residual Roman. Late Saxon pit F1032 (XV, 3950).

**1804** Fig 146 sf SXS 9. A slightly tapering strip of bone, 39 by 11mm (maximum) and T 3mm, with six slantwise grooves cut into it. The strip has fractured across one of the grooves. Probably intended as a piece of inlay or part of a decorative mount. Late Saxon fill of pit F10 (VIII, 50).

**1805** Fig 146 sf SJS 305. Bone strip with quadruple ring-and-dot ornament. L 62mm, W 13mm. Part of one long edge has broken off. The strip was clearly cut from a longer piece as both ends are partly cut and partly broken across motifs. 11th- to 12th-century pit F2 (I, 2).

**1806** Fig 146 sf VR 4459. Bone strip, slightly curved longitudinally, with one end missing. L 107mm, W 14mm at the surviving end, tapering to 13mm at the broken end, T 2mm. The surviving end is marked with three parallel transverse grooves. Double ring-and-dot motifs alternate with single ring-and-dots along the length of the strip. The single ring motifs are set off-centre. There is a hole for an attachment fitting near the surviving end. 12th- to 13th-century pit F644 (XII, 2434).

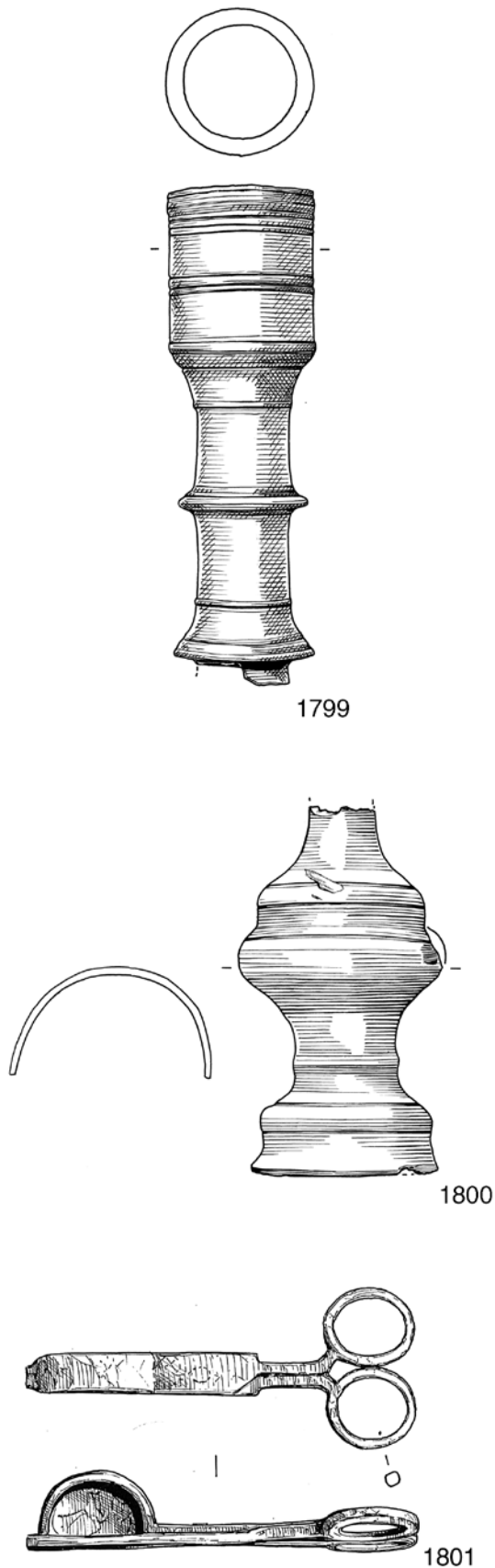


Figure 145 Candlesticks and snuffer, nos 1799–1800, scale 1:1; no 1801, scale 1:2



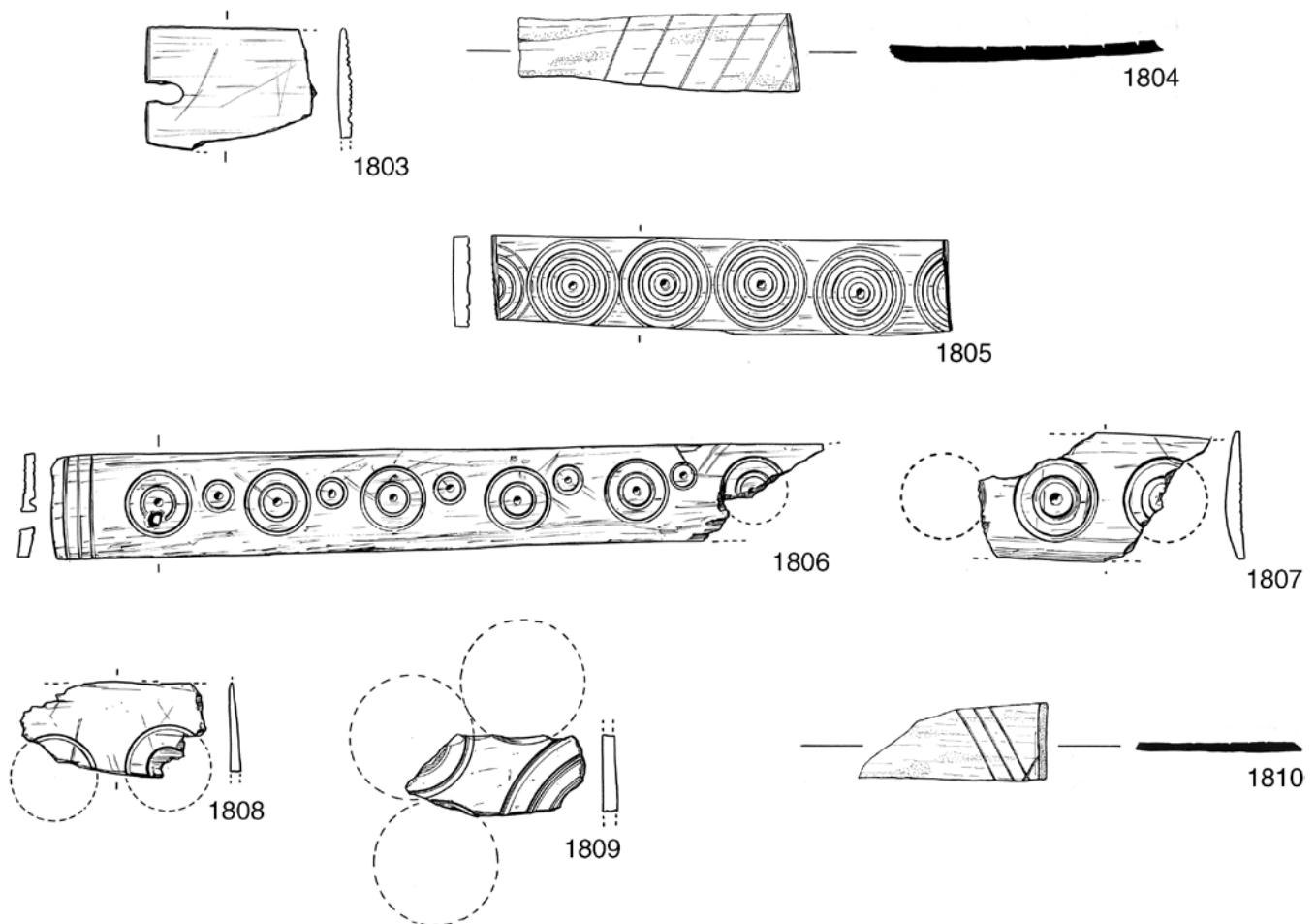


Figure 146 Bone fittings for boxes and furniture, nos 1803–10, scale 1:1

**1807** Fig 146 sf CT 176. Fragment of a bone strip with double ring-and-dot ornament. L 31mm, W 28mm. 13th to 14th-century well F70 (VII, 188).

**1808** Fig 146 sf CT 259. Fragment of a bone plaque or strip with double ring-and-dot ornament. L 25mm, W 13mm. No edges survive. 13th- to 14th-century well F70 (VII, 255).

**1809** Fig 146 sf CT 348. Fragment of a bone plaque or strip with incised circular designs. L 26mm, W 12mm. No edges survive. One design is probably a double ring-and-dot, the other shows a small part from two concentric rings, outermost approximately 55mm D. 13th- to 14th-century well F70 (VII, 255).

**1810** Fig 146 sf SXS 4. Two fragments of worked bone. One has three slantwise grooves cut into it at one end as **1804**, and part of another groove at right angles to them. It has been sawn through at the end decorated with these grooves. The other end has been broken. L 25mm, W 10mm. The other strip is plain and has been broken at both ends. L 32mm, W 11mm. 13th- to 14th-century pit F9 (VIII, 26).

### Copper alloy

The copper alloy mount **1813** is of a type also used to decorate caskets, and is paralleled by a group from Castle Acre Castle, Norfolk, dated to the 12th century (Goodall, A. 1982, 235–6, fig 43).

**1811** Fig 147 sf HG 345. Consists of two fragments of corroded copper alloy sheet and a slightly curved corroded

?hook. The smaller sheet fragment (14 by 12mm) is pierced by a small dome-headed tack (L 10mm), around which, on the underside of the sheet, are traces of mineral replaced organic material. There may be the remains of two or more tacks on the larger sheet fragment (21 by 12mm). The ?hook is oval or rectangular in section (5 by 4mm) and has a flat circular pierced terminal set at one end, and a smaller flattened terminal (possibly incomplete) at the other. It resembles a buckle tongue, but is over large (L 57mm) and not very stout. See also **1814**. 11th- to 12th-century pit F171 (III, 802).

**1812** Fig 147 sf CT 71. Copper alloy gilt mount. A bar with two projecting loops. The ends of the bar are slightly expanded and fitted with rivets, both of which have flat discoid heads and roves on the underside. Slightly convex profile. L 46mm. Perhaps for attachment to a domed wooden casket. 13th- to 14th-century pit F71 (VII, 225). (DAH)

**1813** Fig 147 sf SXS 15. Copper alloy gilt strip. Bifurcated, the ends widened and pierced for attachment. W approximately 60mm, maximum L approximately 65mm. 19th- to 20th-century soil layer (VIII, 73). (DAH)

*not illustrated*

**1814** sf HG 342. Four pieces of very corroded sheet copper alloy, all around 21mm wide, pierced by a number of rivets and with mineral preserved wood remains on one side. Jacqui Watson identifies them as mounts from a rectangular wooden object, probably a type of box made of maple (*Acer* sp.), and contributes the following comments:



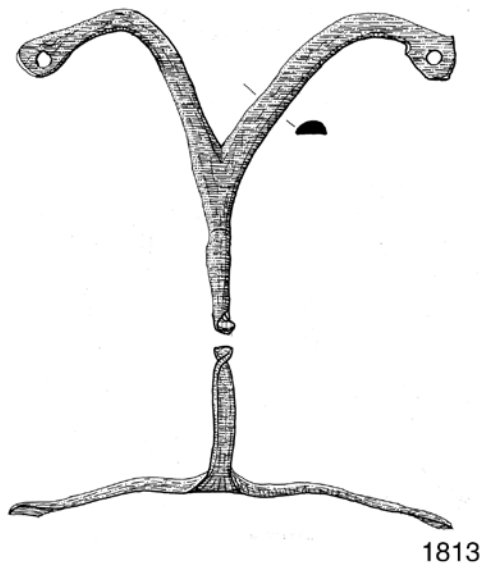
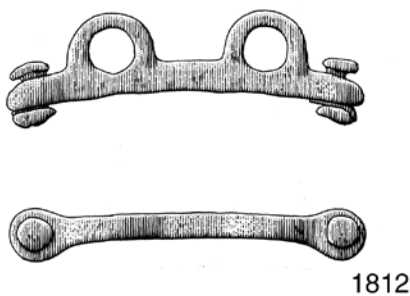
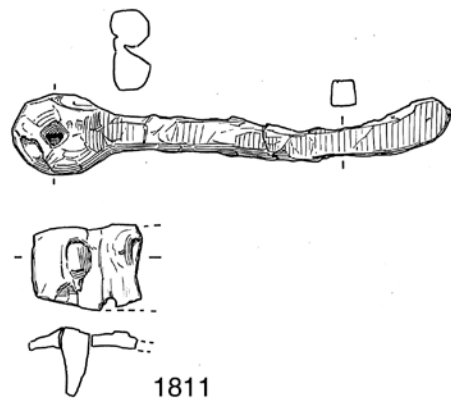


Figure 147 Copper alloy fittings, nos 1811–13, scale 1:1

The largest of the pieces is bent almost at a right angle with the wood remains on the outside face. This bracket appears then to have been mounted on the inside of the corner as there is no obvious deformation of the metal, which would be expected if it had been turned inside out.

Another strip must originally have been placed over a corner, as one side has been mounted on the wood cross section and the other on the tangential surface. The cross section portion could indicate that the sides were at least

17.8mm thick, if just simple butt joints had been used in its construction.

At least one surface of the object appears to have been decorated, as the remains of six parallel lines incised with a v-shaped engraver, around 2mm wide, 1mm deep and 1mm apart were cut into the cross section of the wood. It is possible that 1811, from the same context, was also from the same object. 11th- to 12th-century pit F171 (III, 802).

## Iron

Of over 200 iron objects existing as plates or strips which have been pierced at least once, some of the smaller items can be identified as having been primarily mounts, incomplete hinges or other fittings for boxes and caskets (the others are catalogued in Category 11).

Note may first be made of 1823. It is very corroded (and has not been illustrated), but the X-radiograph shows clearly that it was a small strip with a simple animal head terminal; a projecting tongue was probably pierced for attachment. The X-radiograph shows plating, probably tin. This object is from a late Saxon context and the terminal was probably very similar to those found on a group of mounts and hinge fittings from 10th-century contexts at 16–22, Coppergate, York (Ottaway 1992, 631).

Other smaller iron fittings include 1817, which may have been Y-shaped, and a number of others which are strips with rounded, pierced terminals (1815, 1816, 1818–22, 1824, 1827–31). 1817, 1829 and 1832 have ornamental grooves cut into the surface, and together with 1827 and 1831, are plated with non-ferrous metal. 1826 is a spirally twisted strip with a triangular terminal and 1825 survives as a small triangular terminal. It may be noted that 1829 and 1832 are very similar to a strip from an 11th- to 12th-century context at Lower Brook Street, Winchester (WS7.2, 788, no 2443), although the features from which they came were later in date.

**1815** Fig 148 sf SSS 27. Iron strip, broken at one end, at the other there is a pierced rounded terminal. L 75mm, W 8mm; terminal D 15mm. Late Saxon soil layer (I, 74)

**1816** Fig 148 sf CT 221. Circular iron strap terminal, pierced, a stub of strap survives. Plated. L 33mm, W 22mm. 13th- to 14th-century pit F65 (VII, 206).

**1817** sf CT 232. Consists of an iron strip which is broken and bent at one end, at the other is a thin collar and then a trapezoidal, pierced, terminal from which a short strip projects at 45 degrees to the first; there was probably a second, now missing, projecting from the other side of the terminal giving the object a Y-shape (possibly a small corner bracket). Plated. L 44mm, W 11mm, T 2mm. 13th- to 14th-century pit F60 (VII, 223).

**1818** Fig 148 sf VR 0. Short strip of iron with an incomplete terminal. L 28mm, W 15mm. Layer in 13th- to 15th-century Building 935.3 (XII, 2267).

**1819** Fig 148 sf VR 2421. Iron strip which has an incomplete rounded, pierced terminal at one end, at the other end the strip is broken across a piercing. L 75mm, W terminal 30mm. 15th- to 16th-century pit F60 (X, 134).

**1820** Fig 148 sf VR 2003. Iron strip. Eye at one end, broken at the other. L 41mm; eye W 16mm. 17th- to 18th-century pit F5 (X, 11).

**1821** Fig 148 sf NHW 61. Iron strip, it narrows from the

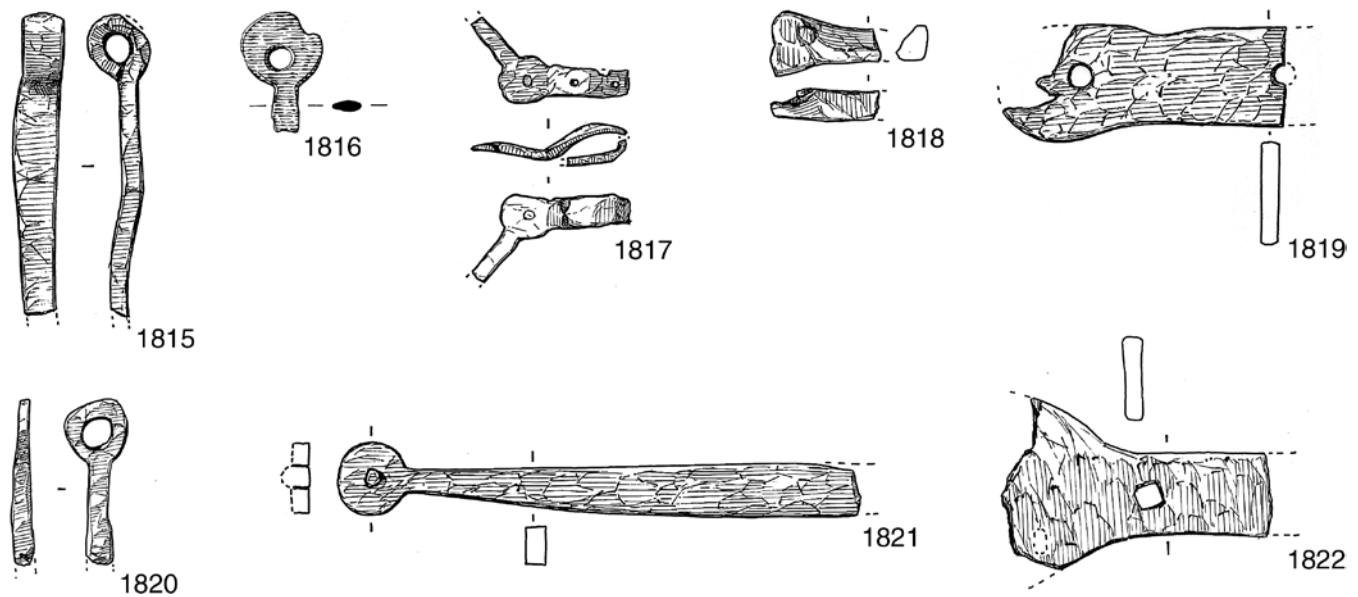


Figure 148 Iron fittings, nos 1815–22, scale 1:2

centre towards one end where there is a rounded pierced terminal (possibly a hinge strap originally). L 137. W terminal 18mm. Post-medieval or modern garden soil (II, 205).

**1822** Fig. 148 sf VR 3593. Iron plate, broken at one end; at the other it probably developed into a rounded terminal, now incomplete, L 70mm, W 43mm. Modern layer (XII, 2008).

#### not illustrated

**1823** sf SXS 102 Very corroded. X-radiograph shows a short length of iron strip with a stylised animal head terminal with projecting tongue – originally pierced? – and a collar between strip and terminal. Plated. L 25mm, W 6mm. Late Saxon fill of pit F53 (VIII, 323).

**1824** sf SXS 171. Length of iron strap, slightly curved, broken at one end with a rounded, pierced terminal at the other. L 50mm, D 12mm. Late Saxon fill of pit F10 (VIII, 68).

**1825** sf CHR 73. A pierced triangular iron terminal, broken at the base. L 20mm, W 11mm. Late Saxon soil layer (I, 86)

**1826** sf SJS 0. Iron strip (?spirally twisted). Broken at one end; at the other it is flattened and widened into a narrow triangular terminal which is pierced. L 47mm, W 9mm, T 2mm. Late Saxon or early medieval pit 791 (IV, 761).

**1827** sf CT 193. Iron. Incomplete. It was probably the rounded terminal of a strap or hinge strap. It is pierced in the centre and a short projection from one side may be a stub of the strap. Plated (copper). D 32mm. 11th- to 12th-century fill of ditch F74 (VII, 193).

**1828** sf VR 0. Short length of iron strip; it is broken at one end, but widened into a pierced terminal, now incomplete, at the other. L 33mm, W 14mm. 13th- to 14th-century pit F966 (XIV, 3785).

**1829** sf VR 0. Short length of iron strip, broken at one end, an incomplete rounded terminal at the other. Radial grooves on the terminal. Plated. L 39mm, W 17mm. Layer in 13th- to 15th-century Building 936.4 (XII, 2523).

**1830** sf SBS 185a. Broken at each end, at one it narrows and thickens, curved in cross-section. L 50mm, W 19mm, T 5mm. 14th- to 15th-century quarry F70 (I/II, 71).

**1831** sf VR 0. Iron strip, slightly curved, broken at one end; at the other end there is a round, pierced terminal. Plated. L

40mm; terminal D 10mm. 14th- to 15th-century pit F98 (X, 226).

**1832** sf VR 0. Iron strip which tapers away from the centre towards each end; it is broken at one end and at the other has a rounded, pierced terminal which has incised grooves around its edge. Plated. L 55mm; terminal, D 16mm. 15th- to 16th-century pit F27 (X, 76).

#### Hinge straps

**1837** and **1841** are probably hinge straps from the lids of chests (and **1836** and **1840** may be additional fragmentary examples). Both straps have a link at the head which would have articulated with the eye at the head of a strap on the back of the chest. **1838** is a broken eye and eyes also exist on **1835**, **1839** and **1842** (the two last largely incomplete). In all four cases the eye was formed by drawing out the head of the strap and curving it over.

Linked hinge straps were invariably used on chests in the pre-Conquest period (Ottaway 1992, 624–5), but became less common after the 12th century as they were gradually replaced by pinned hinges. **1835** is from a 19th-century context and may be residual.

In view of their small size, the hinge straps **1833** and **1834** must come from boxes or caskets. They are single straps with a link at the head; **1834** is plated.

All are of iron.

**1833** Fig 149 sf VR 4169. Exists as a small plate with a link at one end and broken at the other. L 36mm, D of loop 10mm. 15th- to 16th-century pit F764 (XIII, 3041).

**1834** Fig 149 sf VR 4311. Exists as a plate with a link at one end below which it widens before being broken, pierced twice. Plated (tin). L 37mm, W 12mm. 15th- to 16th-century pit F776 (XIII, 3108).

**1835** Fig 149 sf SJS 635. The eye was formed by drawing out the head of the strap. L 63mm, W 38mm. 19th- to 20th-century pit F301 (I, 308).

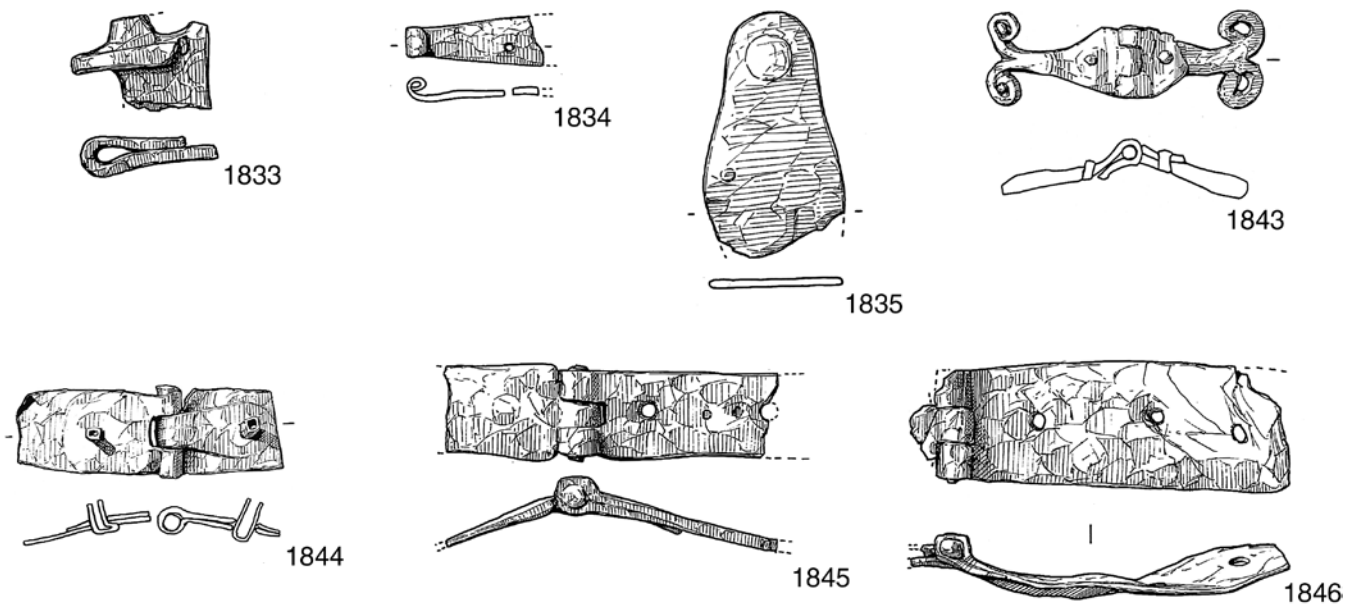


Figure 149 Iron hinge straps, nos 1833–5 and pinned hinges, nos 1843–6, scale 1:2

#### not illustrated

**1836** sf VR 3990. Corroded, incomplete and bent out of shape. There is a probable link at the head, below which the strap had parallel sides. Pierced at the breakage point. L 60mm, W 17mm. Late Saxon soil layer (XII, 2326).

**1837** sf NR 14. Narrows towards one end, at the other it has been drawn out and curved over to form an eye- now broken. L 87mm, W 16mm, T 3mm. Late Saxon pit F27 (II, 44).

**1838** sf NR 17. Looped eye and strap fragment. L 22mm. Late Saxon pit F51 (II, 80).

**1839** sf VR 0. An incomplete strap with an eye at the head formed by drawing out. L 50mm, W 17mm. 15th- to 16th-century pit F27/38 (X, 93).

**1840** sf VR 0. Incomplete strap with link at head, broken across a piercing. L 40mm, W 26mm. 15th- to 16th-century pit F44 (X, 99).

**1841** sf VR 2162. Incomplete. There is a link at the head below which the strap has convex sides and is pierced at the widest point. L 52mm, W 24mm. 15th- to 16th-century pit F27/38 (X, 92).

**1842** sf CHR 514. It consists of a drawn-out loop at one end of a short length of strap. L 47mm, W 23mm. Post-medieval or modern layer (III, 505).

#### Pinned hinges

The majority of the iron pinned hinges come from chests or caskets and in some cases could have been part of a stapled hasp fitting rather than a hinge.

**1844** consists of two rectangular straps and **1848** was probably similar, although now very corroded. The straps of **1845** and complete strap of **1846** are, or were, also rectangular, but slightly larger than those of **1844** and they are plated. **1849** is a single strap which narrows to a point. **1847** exists as two short straps which widen to a convex end.

The most elaborately formed pinned hinge is **1843**. It exists as two joined straps. Those parts of each strap

nearest the pin have wavy edges and then narrow towards the centre where they become a strip which bifurcates at the end to form two looped terminals. It is also plated. Where analysed, the non-ferrous platings on the objects are all tin or tin-lead alloy.

Seven other pinned hinges have been found in Winchester from 14th- to 19th-century contexts (WS7.2, 975–6, nos 3458–64). None are directly comparable to those described above, although no 3462 from an 18th-century context (*ibid*) is similar to **1847**.

**1843** Fig 149 sf VR 0. Two linked straps. Both are similar in form with an upper half which is pierced, has wavy edges and narrows towards the centre where it becomes a strip which bifurcates at the base; each arm has a looped terminal. Plated (tin). L of straps 45 and 41mm, W 17mm. 13th- to 14th-century pit F960 (XIV, 3788).

**1844** Fig 149 sf VR 2703. Both straps are rectangular, broken at the ends and pierced once. Plated (tin) L 60mm, W 28mm. 15th- to 16th-century pit F153 (X, 408).

**1845** Fig 149 sf VR 3078. Both straps incomplete, one is rectangular, broken at the end and pierced twice; the other is largely incomplete. Plated (tin-lead). L of straps 57mm, 33mm; W 22mm. 15th- to 16th-century pit F153 (X, 408).

**1846** Fig 149 sf VR 4108. Rectangular strap, pierced twice. A fragment of the second strap survives. Plated (tin-lead). L 90mm, W 30mm. Modern layer (XIII, 3006).

#### not illustrated

**1847** sf SBS 0. The straps widen to convex ends and are ?pierced once. L 52mm, W 37mm. 17th- to 18th-century soil layer (I/II, 24).

**1848** sf SJS 442. Very corroded. The ?rectangular straps are now at c 90 degrees to each other. Straps L 85 and 50mm, W 30mm. 17th- to 18th-century soil layer.

**1849** sf VR 0. One strap is incomplete. The complete strap narrows to a point, pierced by two square holes. L 87mm, W 28mm. Construction of 19th-century buildings on the Hyde Street frontage (XI, 1600).

**Stapled hasps**

There are nine small stapled hasps of iron which must come from boxes or caskets. Stapled hasps were fitted to the lid of the container and may exist either as an L-shaped strap, one arm of which was fitted to the top of the lid, or as a flat strap which was fitted to the front of the lid or was hinged with another strap fitted to the top. Near the base of the hasp a staple was attached which fitted into a slot in the front of the container where it could be secured by the sliding bolt of a lock similar to **1861** (below).

Of the hasps under discussion, **1854** was L-shaped (now broken), but four others (**1850–3**) are flat with a link at the head. The remaining four (**1855–8**) are incomplete. The most elaborate in form are **1851** and **1853**. Below the link at the top of **1853** is a panel with concave sides which steps in to become a thin strip with a knob terminal. Below the link at the head of **1851** is a panel above and below which is a relief strip, below this the object widens slightly, but is broken above the base. **1850** is a complete hasp of simple form; it has an attachment loop at the head, the staple is attached in the centre and the plate narrows below it to the base where there is a small knob. Inasmuch as they survive, the other hasps appear simple in form and either widen or narrow towards the tip which on **1855** has a rolled terminal. All but **1857** are tin-plated.

Small stapled hasps with non-ferrous plating, but not directly comparable in form to those described above, come from medieval contexts on other sites in Winchester (WS7.2, 977–9, nos 3495–3502).

**1850** Fig 150 sf 10CS 26. Loop at the head, staple attached in the centre, the plate narrows below the staple to the base where there is a small knob. L 80mm, W 11mm. Occupation layer in 13th- to 14th-century phase of Building 521.2 (I, 42).

**1851** Fig 150 sf VR 0. The head is looped over for attachment; below it there is a panel with a raised ridge at top and base, the plate then widens slightly towards the base which is missing. Plated (tin). L 61mm, W 17mm. Layer in 13th- to 15th-century Building 936.4 (XII, 2523).

**1852** sf VR 307. The head of the plate is looped over for attachment, below it the plate widens slightly towards the base which is missing. A U-shaped staple is fitted on to the same side of plate as the loop. Plated (tin). L 66mm, W 16mm, T mm; staple L 12mm, W 10mm. 13th- to 15th-century soil layer (IV, 186).

**1853** Fig 150 sf VR 2502. The head of the plate is looped over for attachment, below the loop it steps out and there is a panel with concave sides which at its base steps in to a thin strip. At the tip it has a small knob. Plated (tin). L 72mm, W 15mm, T 5mm. 15th- to 16th-century pit F76 (X, 183).

**1854** Fig 150 sf VR 2708. The plate was originally curved over at 90 degrees, but one arm is largely missing. The surviving arm narrows towards the base which is missing. Plated. L 48mm, W 22mm. 15th- to 16th-century pit F153 (X, 408).

**1855** Fig 150 sf SJS 492. Lower part of the plate only, it has a rolled tip. The staple is rectangular. L 48mm, W 28mm, W across staple 24mm. 17th- to 18th-century soil layer (I, 322).

**1856** Fig 150 sf SJS 648. Lower part of the plate, the tip is now bent back, but was originally recurved. There are two transverse grooves across the face opposite to that to which the staple is attached. The staple is rectangular. Plated. L 71mm, W 20mm. 19th- to 20th-century pit F301 (I, 302).

*not illustrated*

**1857** sf SXS 107. It consists of the lower part of the hasp plate with the staple attached; the plate narrows at the tip and begins to curve over to form a terminal, now missing. L 33mm, W 20mm. 11th- to 12th-century pit F54 (VIII, 331).

**1858** sf SJS 375. A parallel-sided plate with staple attached at one end, the head is missing. Plated. L 60mm, staple L 10mm, W 15mm. Soil layer of uncertain date – ?Roman (IV, 375).

**Corner bracket**

*not illustrated*

**1859** sf VR 8508. One arm of a small iron bracket which probably comes from a box. Pierced near the end. L 52mm, W 25mm. 13th- to 14th-century pit F966 (XIV, 3785).

**Locks**

**1860** Fig 150 sf VR 9689. Copper alloy lock plate from mounted lock for a small box. One corner is damaged. 31mm square. The raised central part is fitted with two hooked bars. The hook of the bar near the damaged corner is missing. There is a keyhole in the centre. Both margin and centre are ornamented with patterns of linear sunken rope decoration. The plate was fixed by four small rivets, all now missing. 13th- to 14th-century pit F1071 (XV, 4185).

**1861** Fig 150 sf VR 4135. A complete lock of iron consisting of a lock plate in which there is a key hole and slot for the staple of a stapled hasp, a sliding bolt with two projections on the underside and a tumbler fixed to the plate through a rounded terminal. The bolt is fixed to the plate by two staples. The object is tin plated. L 39mm, W 24mm.

The relatively small size of the object suggests it came from a box or casket. The way in which a lock of this type operated is shown by Goodall (WS7.2, fig 320). The lock type has its origins in the 8th century, if not earlier (Ottaway 1992, 660). It also had a long life and there is no need for **1861** to be residual in 15th- to 16th-century pit F754 (XIII, 3019).

*not illustrated*

**1862** sf SXS 81. Sliding iron lock bolt from a similar lock to **1861**. Tip of one arm missing, two half crescent-shaped projections in centre of one side. L 82mm, W across projections 16mm. Late Saxon pit F53 (VIII, 269).

**Handles**

**1863** and **1866** are drop handles of iron, probably from chests or other items of furniture. They are both curved and their terminals were set in loops projecting from the handle-plates (little of which survive). **1866** has grooves running around it and both are plated. The two copper alloy pieces may be residual Roman.

**1863** Fig 150 sf SJS 0. Iron drop handle. It is curved and the terminals are set in loops projecting from the handle-plate, now fragmentary; one terminal has a domed tip. Plated. L 122mm, T 5mm. Unstratified.

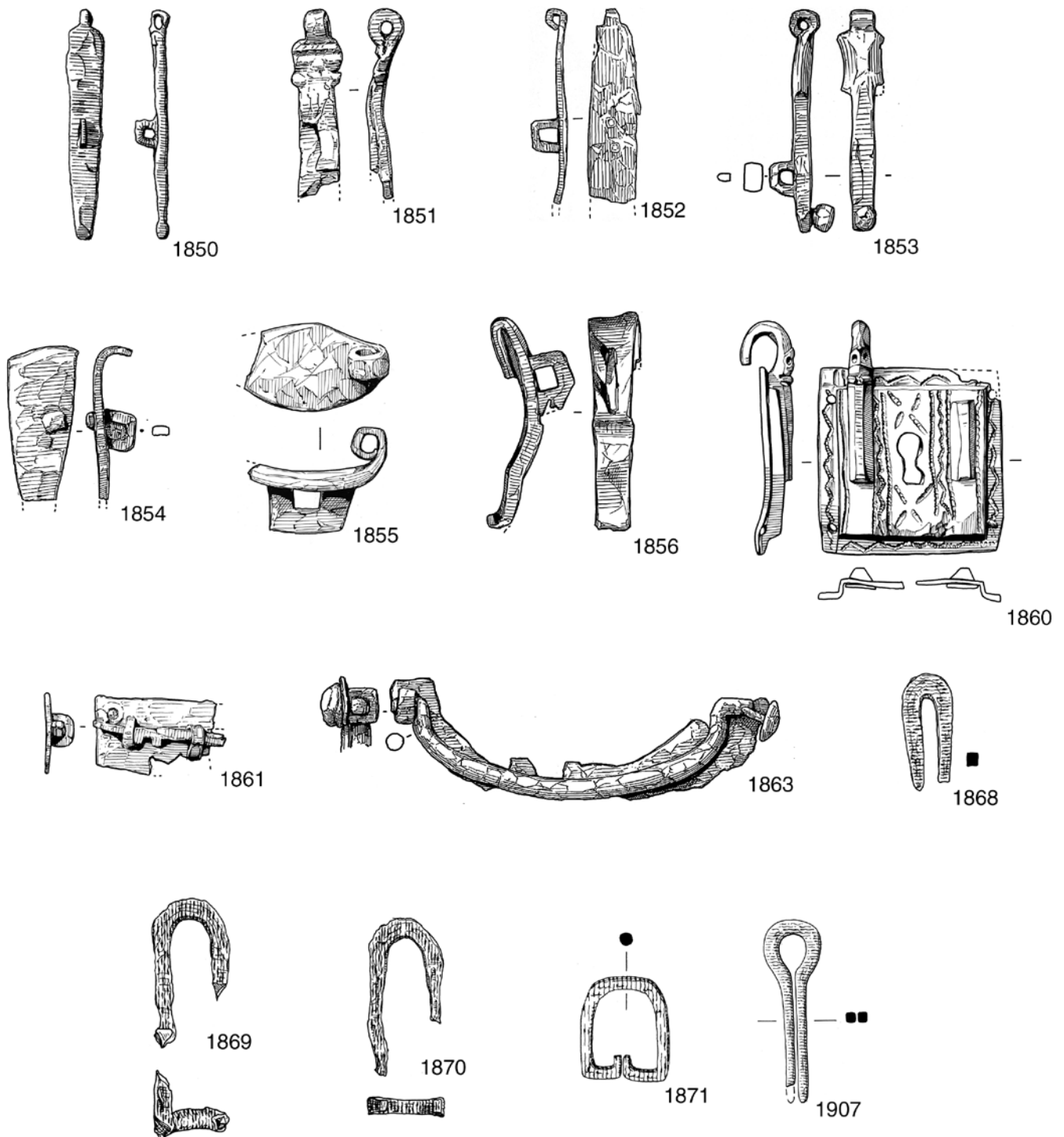


Figure 150 Metal fittings, no 1860, scale 1:1; nos 1850–6, 1861, 1863, 1868–71, 1907, scale 1:2

*not illustrated*

**1864** sf HG 325. Part of a copper alloy handle. Plain terminal with rivet hole. Late Roman and Saxon soil layer (III, 933). Possibly residual Roman.

**1865** sf VR 3440. Fragment of copper alloy drop handle with moulded centre. Terminals are missing. L 42mm. Late Saxon pit F753 (XIII, 3005). Possibly residual Roman.

**1866** sf 27JS 601. Iron handle, incomplete; it has a looped terminal at one end. There are inlaid bands of non ferrous-

metal running around it. Plated. L 112mm, W 8mm. Late Saxon pit F54 (I, 379).

**1867** sfs SBS 207. Drop handle of iron. It has 90 degree corners, one arm is missing. L 94mm, W 29mm. 15th- to 16th-century soil layer (II, 55).

### Iron staples

The majority of the staples are relatively small in size- the arms are less than c 60mm in length- and would

probably have been used for securing fittings such as hasps or handles on furniture. Most are U-shaped, but 8 are rectangular and three looped.

### U-shaped

- 1868** Fig 150 sf SXS 23. L 35mm, W 16mm. Late Saxon fill of pit F8 (VIII, 46).  
**1869** Fig 150 sf SXS 68. One arm incomplete, the other is out-turned at the tip. L 48mm, W 25mm. Late Saxon fill of pit F36 (VIII, 265).  
**1870** Fig 150 sf SXS 78. L 45mm, W 26mm. Late Saxon fill of pit F53 (VIII, 269).  
**1871** Fig 150 sf SXS 32. Arms inturned and clenched. L 35mm, W 31mm. 11th- to 12th-century pit F30 (VIII, 134).

### *not illustrated*

- 1872** sf VR 5114. L 38mm, W 25mm. Late Roman and Saxon soil layer (XII, 2441).  
**1873** sf VR 3970. L 37mm, W 18mm, T 4mm. Late Saxon soil layer (XII, 2286).  
**1874** sf SXS 10. One arm missing. L 50mm, W 25mm. Late Saxon fill of pit F10 (VIII, 51).  
**1875** sf SXS 82. L 45mm, W 18mm. Late Saxon fill of pit F53 (VII, 269).  
**1876** sf SXS 84. L 40mm, W 16mm. Late Saxon fill of pit F53 (VII, 269).  
**1877** sf HA 17. Looped staple. L 85, W 28mm. 13th- to 14th-century soil layer (II, 13).  
**1878** sf VR 0. L 40mm, W 22mm, T 4mm. 13th- to 14th-century pit F960 (XIV, 3788).  
**1879** sf VR 9542. L 77mm, W 43mm, T 8mm. 13th- to 14th-century pit F1071 (XV, 4028).  
**1880** sf CT 187. Arms incomplete. L 30mm, W 20mm. 13th- to 14th-century well F70 (VII, 188).  
**1881** sf VR 0. One arm incomplete. L 40mm, W 33mm, T 6mm. 13th- to 15th-century soil layer (X, 191).  
**1882** sf VR 0. L 45mm, W 28mm, T 10mm. Layer in 13th- to 15th-century Building 936.4 (XII, 649).  
**1883** sf VR 2542. One arm missing. L 65mm, W 32mm, T 6mm. 13th- to 15th-century soil layer (X, 61).  
**1884** sf SBS 155. One arm incomplete. L 57mm, W 35mm, T 6mm. 14th- to 15th-century fill of quarry pit F70 (I/II, 71).  
**1885** sf VR 0. One arm is missing, the other is incomplete. There is a lead ring fused to the incomplete arm. L 60mm, W 45mm, T 5mm. 14th- to 15th-century pit F795 (XIII, 3140).  
**1886** sf VR 2393. One arm missing. L 50mm, W 27mm, T 5mm. 14th- to 15th-century pit F48 (X, 160).  
**1887** sf VR 0. L 44mm, W 24mm, T 5mm. 15th- to 16th-century pit F315 (X, 924).  
**1888** sf VR 0. One arm incomplete. L 44mm, W 29mm. 15th- to 16th-century pit F751/757/759 (XIII, 3022).  
**1889** sf VR 0. L 35mm, W 15mm, T 4mm. 15th- to 16th-century pit F313 (X, 952).  
**1890** sf VR 3371. One arm incomplete. L 63mm, W 30mm, T 7mm. 15th- to 16th-century pit F27/38 (X, 848).

- 1891** sf VR 4270. L 49mm, W 24mm, T 7mm. 15th- to 16th-century pit F776 (XIII, 3085).  
**1892** sf VR 4373. L 50mm, W 23mm, T 5mm. 15th- to 16th-century pit F776 (XIII, 3155).  
**1893** sf VR 6117. One arm missing. L 43mm, T 6mm. 15th- to 16th-century pit F309 (X, 935).  
**1894** sf SJS 407. One arm missing. L 67mm, T 8mm. 15th- to 16th-century yard surface associated with Building 1021.3 (I, 219).  
**1895** sf VR 0. L 54mm, W 40mm. 17th- to 18th-century pit F5 (X, 12).  
**1896** sf VR 0. Incomplete. L 32mm, W 30mm. Post-medieval soil layer (V, 170).  
**1897** sf VR 4109. L 65mm, W 35mm, T 6mm. 19th- to 20th-century soil layer (XIII, 3006).  
**1898** sf SJS 304. L 37mm, W 26mm. Unstratified (I).

### Rectangular

### *not illustrated*

- 1899** sf VR 0. L 21mm, W 40mm. 13th- to 14th-century pit F791 (XIII, 3129).  
**1900** sf VR 3866. In pieces, ?rectangular. Layer in 13th- to 15th-century Building 935.3 (XII, 2263).  
**1901** sf VR 0. One arm incomplete. L 34mm, W 35mm, T 6mm. 15th- to 16th-century pit F776 (XIII, 3085).  
**1902** sf VR 4150. L 58mm, W 50mm, T 6mm. 15th- to 16th-century pit F751/757/759 (XIII, 3025).  
**1903** sf SBS 6. L 30mm, W 75mm, T 4mm. 19th- to 20th-century soil layer (II, 23).  
**1904** sf VR 4013. One arm largely missing. L 50mm, W 63mm, T 8mm. 19th- to 20th-century soil layer (XIII, 3001).  
**1905** sf VR 0. L 25mm, W 35mm. Unstratified (XIII).  
**1906** sf VR 931. Distorted rectangular staple. Unstratified (V).

### Looped

- 1907** Fig 150 sf VR 130. One arm incomplete. L 48mm, W 22mm, T 6mm. 13th- to 15th-century soil layer (V, 14).

### *not illustrated*

- 1908** sf MA 22. Looped staple. L 65, W 22mm. 13th- to 14th-century pit F10 (III, 22).  
**1909** sf SJS 741. Incomplete looped staple. L 50mm. 15th- to 16th-century pit F313 (I, 337).

### Staple or clamp

### *not illustrated*

- 1910** sf VR 3857. Very corroded. Arms incomplete. L 64mm, T 8mm. Late Saxon soil layer (XII, 2217).

## 5 Objects used for recreational purposes

This collection includes a variety of game pieces and fragments of musical instruments. Bone skates have also been included here, but in the harsh winters of the medieval period they also provided a practical way of moving around and might perhaps more correctly have been placed in the category relating to transport (Category 8).

Clay pipes were recovered from a kiln at St John's Street. These are to be published separately, along with the structural report (Parker and Piecey, in prep).

### Game pieces

#### Counters

The bone counter from Sussex Street, from a 12th- to 13th-century context is of a type often decorated with ring-and-dot motifs and concentric grooves and dated to the late Saxon and early medieval periods. Other 12th-century examples come from Castle Acre, Norfolk (Margeson 1982, fig 47, 48–52).

The rough slate counter from Victoria Road comes from a medieval pit on property 936. Three similar counters from Exeter came from contexts ranging in date from the 12th to the 14th or 15th centuries (Allan 1984, 302). A roughly circular fragment of glazed tile from St John's Street, dated to the 12th to 13th centuries, may also be a counter.

**1911** Fig 151 sf SXS 604. A large bone gaming counter decorated with ring-and-dot motifs, concentric circular grooves and mouldings and a small central hole probably from a lathe centre. The upper face is slightly convex. The underside is entirely exposed cancellous tissue. Similar to one from Southampton (Harvey, Y. 1975, fig 247, no 1930) and others from Winchester (Cunliffe 1964, fig 52, nos 1–3; WS7.2, 702–04, nos 2225–2231). D 49mm, maximum T 11mm. 12th- to 13th-century pit F391 (XVII, 853).

**1912** Fig 151 sf VR 4328. A roughly trimmed counter of slate. D 49mm, T 5mm. 13th- to 14th-century pit F791 (XIII, 3129).

*not illustrated*

**1913** sf SJS 499. Roughly circular tile fragment. Partly glazed on upper surface. Maximum D 66mm, T 12mm. 12th- to 13th-century pit F214a (I, 290).

#### Dice

Close dates cannot be assigned to these dice on the basis of their form. The Victoria Road example,

though from a modern context, is probably post-medieval, but may be as early as medieval as it is cut with opposite numbers adjacent in numerical sequence. This deviates from the convention followed from the Roman period to the present day of opposite sides totalling seven. Eight dice from Castle Acre, Norfolk, the earliest from deposits dated c 1140, the latest of the late 12th century, all follow this variant numbering system and may be the earliest examples of it (MacGregor 1985, 131). The die from St John's Street comes from the fill of a late 15th- to 16th-century pit. It is marked with opposite sides totalling seven.

**1914** Fig 151 sf SJS 71. Small bone die with deeply cut single ring-and-dot motifs to mark the numerals, which conform to the rule of opposing sides totalling 7. There is a slight depression in the centre of the side marked four, which could be the result of scraping out and smoothing a misapplied central motif. 9 by 9 by 9mm. Possibly early post-medieval (compare Allan 1984, fig 195, 40). 15th- to 16th-century pit F313 (I, 336).

**1915** Fig 151 sf VR 2007. Small bone die with numerals marked by single ring-and-dot motifs. On this example, one is opposite two, three opposite four and five opposite six. 9 by 9.5 by 10mm. Medieval or later. 19th- to 20th-century soil layer (X, 7).

#### Dominoes

Dominoes have been played from as early as the 16th century (Margeson 1993, 217; MacGregor 1985, 141), but the majority of excavated examples are dated to the later post-medieval period (for example, Harvey, Y. 1975, fig 249, no 1950; Fairclough 1979, fig 54, nos 38–40). The two from St John's Street and the one from Crowder Terrace are from 19th- and 20th-century contexts. They are not well finished, which may be an indication of a dating earlier than the 19th century.

**1916** Fig 151 sf SJS 2. Bone domino with a single groove across the centre, marked six/ four. The groove was originally miscut on a slight angle but was corrected before covering the full width of the piece. L 27.5mm, W 14mm, T 4mm. Many tool marks, mostly from a saw, remain on all surfaces. 19th- to 20th-century soil layer (I, 101).

**1917** Fig 151 sf SJS 670. Bone domino with a single fine groove across the centre, marked five/two. L 31mm, W 16mm, T 3mm. As with **1916**, the piece is not well finished but bears many tool marks. 19th- to 20th-century pit F301 (I, 303).

**1918** Fig 151 sf CT 133. A bone domino, a double eight with hollowed out pips probably made with a gouge. They are laid out somewhat irregularly (as Harvey, Y. 1975, fig. 249, no. 1950). The highest domino in modern games is double six. L 32mm, W 15mm, T 6mm. Mechanical clearance of the site F32 (VI, 116).

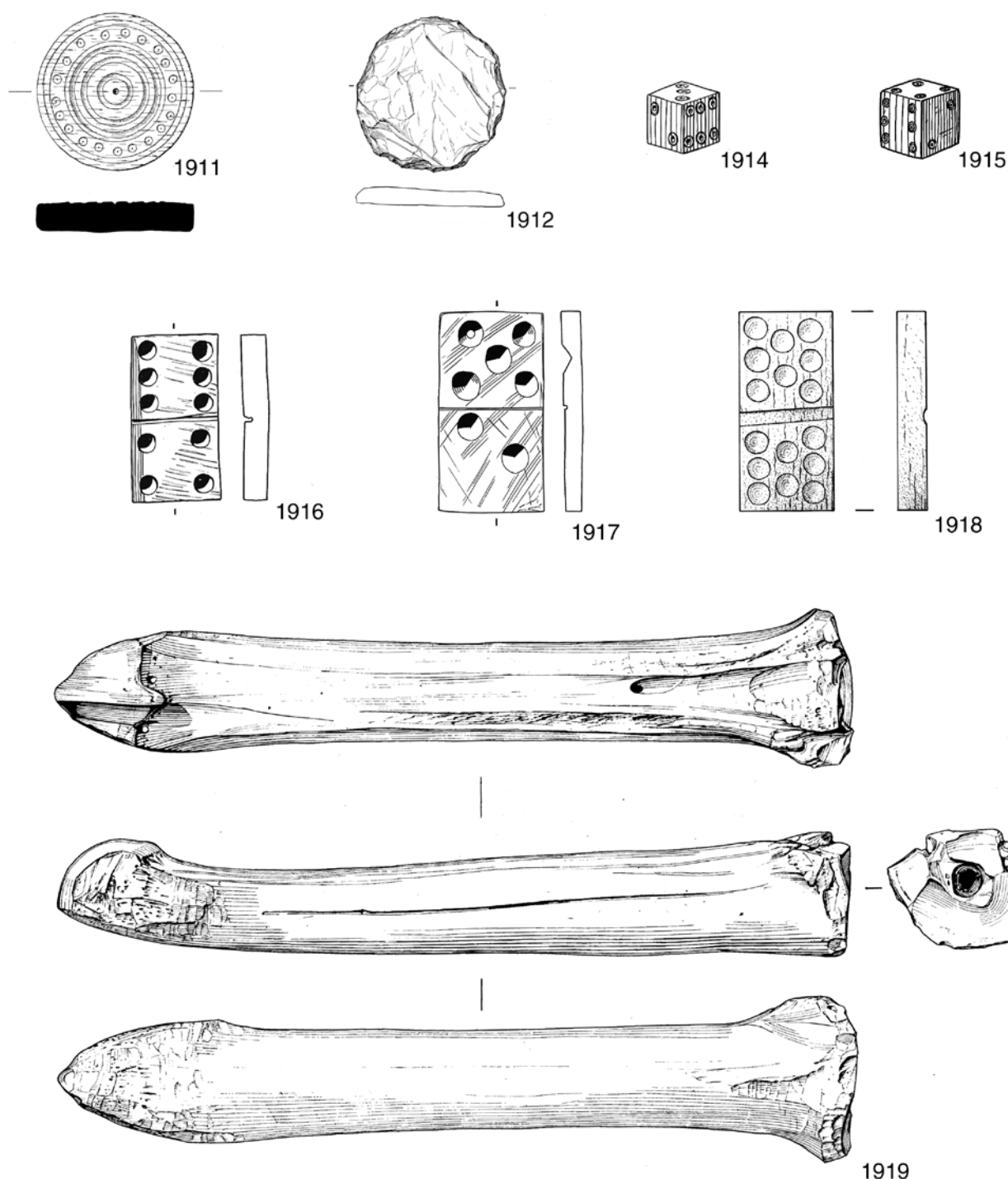


Figure 151 Game pieces and skate, nos 1911–12, 1919, scale 1:2; nos 1914–18, scale 1:1

### Skates

Many examples of skates made from horse metacarpals have been published in recent years. The most thorough discussion of details, such as date and method of manufacture and wear, can be found in MacGregor (1985, 141–4). All three examples from Victoria Road come from medieval contexts, with **1919** possibly being as early as the 11th century.

**1919** Fig 151 sf VR 9511. Bone skate made from a horse metacarpal. L 256mm. A tapering hole has been drilled into the

proximal articulation. The distal end has been trimmed to a point. 11th- to 12th-century pit F1021 (XV, 3939).

*not illustrated*

**1920** sf VR 13016. Bone skate made from a horse metacarpal. The proximal articulation has a central drilled perforation. The distal end has been trimmed to a point. L 200mm. There are traces of burning on one side of the distal end. The underside is well worn. 12th- to 13th-century pit F796 (XIII, 3152).

**1921** sf VR 5862. Bone skate made from a horse metacar-



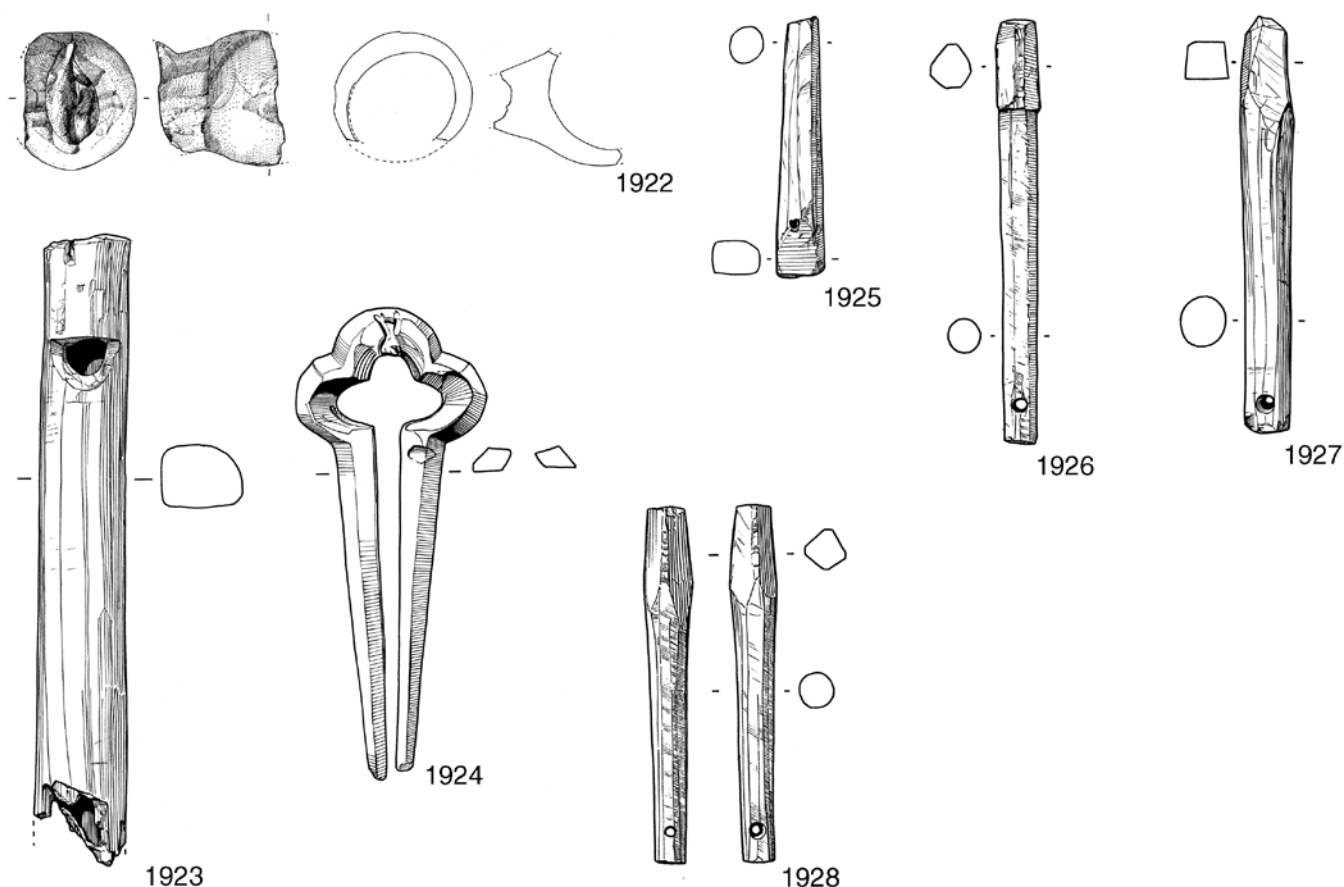


Figure 152 Toy and musical instruments, nos 1922, scale 1:2; nos 1923–8, scale 1:1

pal. L 262mm. The proximal articulation and the upper (dorsal) face are damaged. The distal end has been trimmed to a point. Neither end is pierced. The well worn underside has many striations from use. 13th- to 14th-century pit F790 (XIII, 3447).

### Toy

**1922** Fig 152 sf VR 1019b. A fragment of a pipeclay figurine, probably an animal, made in one piece, rather than in a two piece mould. L 31mm, W 37mm. 13th- to 15th-century soil layer (V, 14).

### Musical instruments

All but three of the pieces in this collection come from medieval contexts, and the unstratified whistle fragment from Henly's Garage is of a common medieval type. Similar whistles made from naturally tubular bones such as sheep tibia or goose ulna, come, for example, from Exeter (Megaw 1984, 349–51), where they are dated to the 12th and 13th centuries, and from a context of the mid-12th century at Castle Acre, Norfolk (Margeson 1982, 254). Two of the tuning pegs from stringed instruments came from building 936.4 at Victoria Road, and the Jew's harp from the adjacent property, 935.

Three of the illustrated plain bone tuning pegs

(1926–8) are of Geddes's (1985, 152) Type A, long, and perforated at the circular end, and one (1925) is of Type B, shorter and perforated at the square end.

### Whistle

**1923** Fig 152 sf HG 91. Fragment of a bone whistle, probably made from a goose ulna. L (surviving) 85mm. The lower part, with the finger holes, is missing. Unstratified (I).

### Jew's harp

**1924** Fig 152 sf VR 7283. Copper alloy Jew's harp with trefoil shaped head. The tongue is missing. L 63mm. Lawson (WS7.2, 724–5) describes the method of playing a Jew's harp. No typology could be defined in Jew's harps from Amsterdam (Baart 1977, 477) but the head of this piece suggests a date in the 14th century. 13th- to 14th-century pit F517 (XI, 1564).

### Tuning pegs

**1925** Fig 152 sf VR 2606. Fragment of a bone tuning peg. L 34mm. The surviving end is subrectangular in section, and perforated by a hole that tapers from one side to the other. The broken end is circular in section. 13th- to 14th-century pit F97 (X, 248).

**1926** Fig 152 sf VR 5516. Bone tuning peg. L 56mm. The peg

is circular in section for most of its length and has a thickened subrectangular end for gripping and turning. The perforation at the circular end is straight sided. Layer in 13th- to 15th-century Building 936.4 (XII, 2526).

**1927** Fig 152sf VR 5637. Bone tuning peg similar to **1928**, but the square-section top end is not well finished. L 55mm. The perforation is straight sided. Layer in 13th- to 15th-century Building 936.4 (XII, 2566).

**1928** Fig 152sf VR 6746. Bone tuning peg. L 47mm. The peg is square in section at the top, circular at the bottom, which is perforated to take the string. The perforation tapers from one side of the peg to the other. 15th- to 16th-century pit F308 (X, 920).

*not illustrated*

**1929** sf VR 6732. Fragment of bone tuning peg. Square in section at the top and circular at the bottom. L 37mm. 15th- to 16th-century pit F308 (X, 920).

**1930** sf VR 2583. Fragment of bone tuning peg. Square in section at the top and circular at the bottom. L 25mm. 19th- to 20th-century soil layer (X, 257).

### Powder horn

Powder horns were popular containers for powder and shot in the early post-medieval period and were often, like this example from Water Lane in the eastern suburb, highly decorated. A date of c 1620–70 is suggested for this piece (Rosemary Weinstein, pers. comm.).

**1931** Fig 153 sf WL 1. Fragment of a powder horn. L 122mm, W (maximum) 33mm. Made from a cattle horn, the surviving

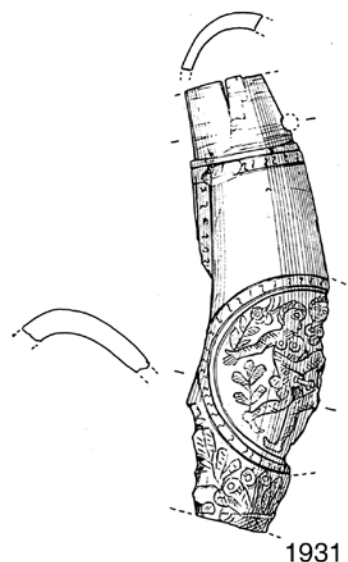


Figure 153 Powder horn, no 1931, scale 1:2

end is recessed to take a rim and stopper of wood or metal (MacGregor 1985, 153). The surface is decorated with finely incised foliate, figured and geometric designs. The dominant feature is a roundel depicting a naked man embracing a seemingly reluctant naked woman. The surface detail of their limbs and hair, and of the leaves of flowering plants in the background, is provided by hatching or diagonal lines. Suspended in the air between the pair is a stylised figure consisting of a circular head with features clearly delineated and petal-like hair, above a neck, breasts, and, probably, a stomach with the navel marked. This may be intended to represent Venus. 17th- to 18th-century soil layer (I, 4)

## 6 Objects employed in weighing, measuring, and commerce

Other than coins, the majority of items in this section relate to weighing, in some cases perhaps domestic, in others commercial, the latter being particularly likely for a large weight bearing the arms of England. An unusual item is part of a 17th-century pocket sundial from Victoria Road, evidence of the growing popularity of the sciences at that period.

### *Scales with a contribution by D A Hinton*

Although equal-arm balances were in use throughout the Middle Ages (Goodall 1981, 64), the majority seem to come from late Saxon or early medieval contexts in England (see, for example, Oakley and Webster 1979). Their use may have diminished as the use of coin for exchange increased.

These examples from Winchester are in keeping with the suggested dating; the set of balance and triangular scale pans from Sussex Street **1932**, the balance from Victoria Road **1933** and the triangular scale pan from Chester Road **1934** all came from contexts of the 11th or 12th centuries. The two balances are similar to an example of the late 12th or early 13th century from Colchester (Crummy 1988, fig 66, 2988) and to another from Thetford, Norfolk (Goodall 1984a, fig 113, 59). A circular pan from Castle Acre Castle, Norfolk, dated c 1056 to 1058 (Goodall 1982, fig 45, 49) is very similar to the one from Victoria Road.

### *Balance and scale pan set*

**1932** Fig 154 sfs SXS 44, 45, and 47. Set of copper alloy equal arm balance scales. The bar (sf 44, L 102mm) has suspension rings at each end, from which would have hung the triangular, slightly dished scale pans (sf 45, L 38mm; sf 47, L 32mm), which are perforated at the corners to take the threads. 11th- to 12th-century pit F30 (VIII, 151). (DAH)

### *Balance*

**1933** Fig 154 sf VR 5075. Fragment of a copper alloy balance with beam arms of equal length and a triangular pointer. L (surviving) 38mm. The base of the pointer is pierced for suspension, and the hole, originally circular, has worn at the top to pear shaped. No divisions are marked on what remains of the arms, indicating that this is probably a simple equipoise balance, used with weights (or equivalent) in one scale pan and object(s) to be weighed in the other. 12th- to 13th-century pit F644 (XII, 2416).

### *Scale pans*

**1934** Fig 154 sf CHR 43. Triangular dished copper alloy scale

pan. The two surviving corners are pierced. L of surviving edge 40mm. 11th- to 12th-century soil (erosion) layer (I, 83).

**1935** Fig 154 sf VR 4133. Circular dished copper alloy scale pan pierced near the rim at three equidistant points. D 31mm. A crease running up to the rim was formed during the manufacture of the pan from sheet metal. 15th- to 16th-century pit F754 (XIII, 3019).

**1936** Fig 154 sf SXS 8. Broken copper alloy scale pan. Circular, with the edge turned up and one suspension hole extant. D approximately 65mm. 17th- to 18th-century soil build-up (VIII, 7). (DAH)

### *Weights*

Five weights were found, three from the St John's Street site. The shield-shaped **1937** belongs to a class of object identified as weights, but formerly lacking absolute certainty in the identification (Egan 1998, 320). A particularly large example weighing a half-stone (6¼lbs avoirdupois / 1 clove) and also bearing the three lions of England is dated to the reign of Edward I (1272–1307; Connor 1987, 136–7, fig 29). However, very much smaller shield-shaped objects from London do not match a standard weight system so convincingly (Egan 1998, 322).

This example from Winchester is particularly important in that it not only conforms to a weight system, but has that weight inscribed upon it. At 335g it is close to 11.8 ounces avoirdupois, that is ¾lb. The scored line crossed by three strokes on the right hand side can therefore be identified as a tally mark for three ¼lbs. Weights of this size were probably used to measure out quantities of valuable imported goods, such as spices. The use of the royal arms further adds to its importance, indicating that this weight has been regulated to a standard set by the crown. It may be a precursor to Winchester's set of 14th-century weights (Connor 1987, fig 28). The reason for the perforation of the object is uncertain. Being so off-centre it seems unlikely to be for suspension, but it may be that the weight was threaded onto string with others for safe storage when not in use.

Weights from Exeter similar to the heavy plano-convex **1938** are of equally simple form, and its size indicates use for commercial purposes. The spherical **1939** may also have been used for commercial purposes, but for the small amounts used by, for example, an apothecary.

The shield-shaped weight came from what is possibly an occupation layer in Building 961.2. This building is difficult to interpret, as most of it lay beyond the excavated trench. It is broadly dated to the 13th to 15th centuries, but it is more likely to be later in this range than earlier. Although apparently unpretentious in its size and construction, the building was

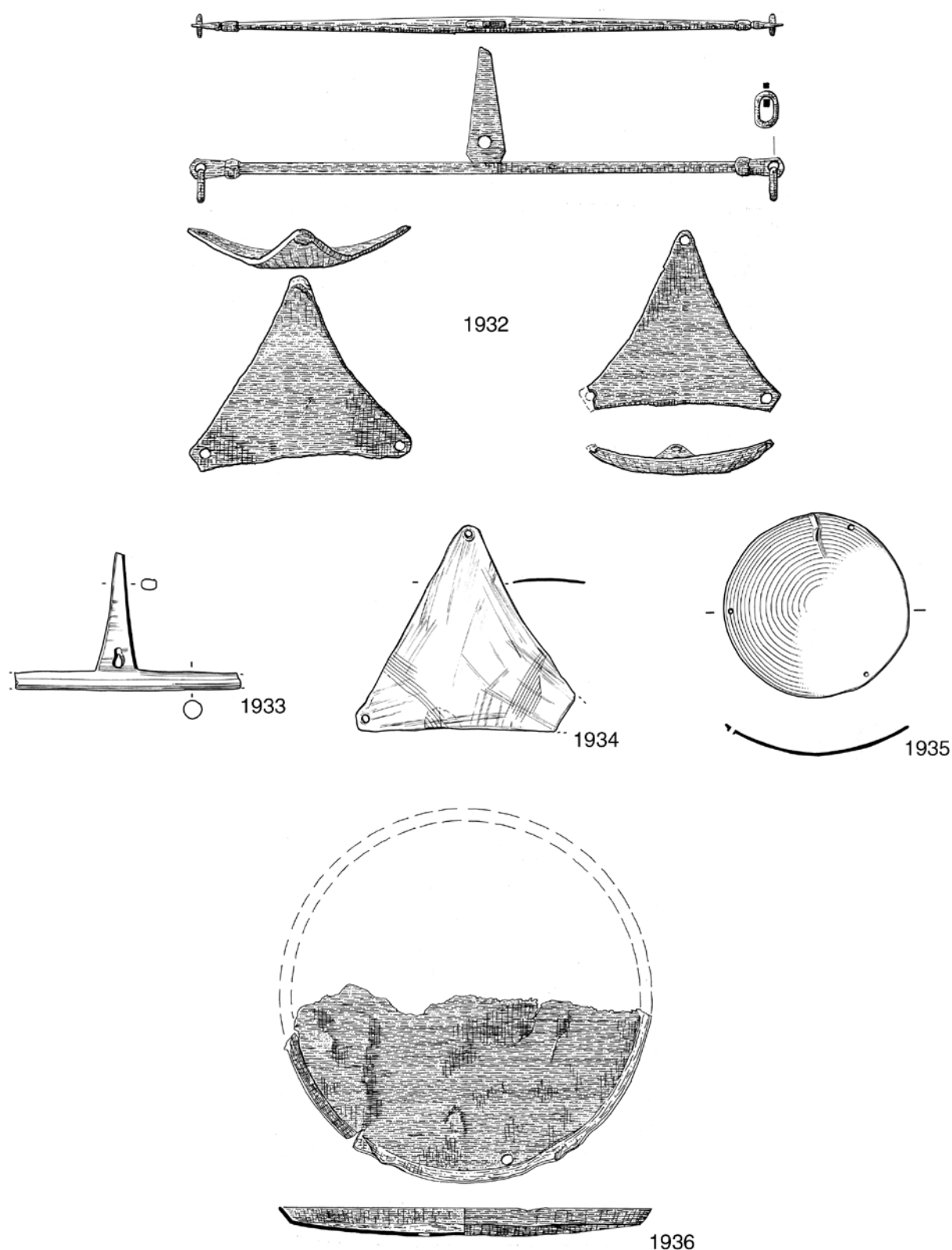


Figure 154 Balances and scale pans, nos 1932-6, scale 1:1

associated with Building 961.1, which survived to the present day as a large barrel vaulted undercroft. The plano-convex weight was from the construction of a later building in the same trench, and the association of the two weights suggests a site on which commercial activity was important.

**1937** Fig 155 sf SJS 931. Lead shield shaped weight. H 61mm, W (maximum) 46mm, T 18mm Weight 335 g (11.8 ounces). A perforation passes from the back up through the concave upper edge. There is a scored line with three cross strokes on the right hand side. The field bears the royal arms of England of the period 1195-1340 (Scott-Giles 1967, 77), three lions passant gardant, with the addition of three pellets at

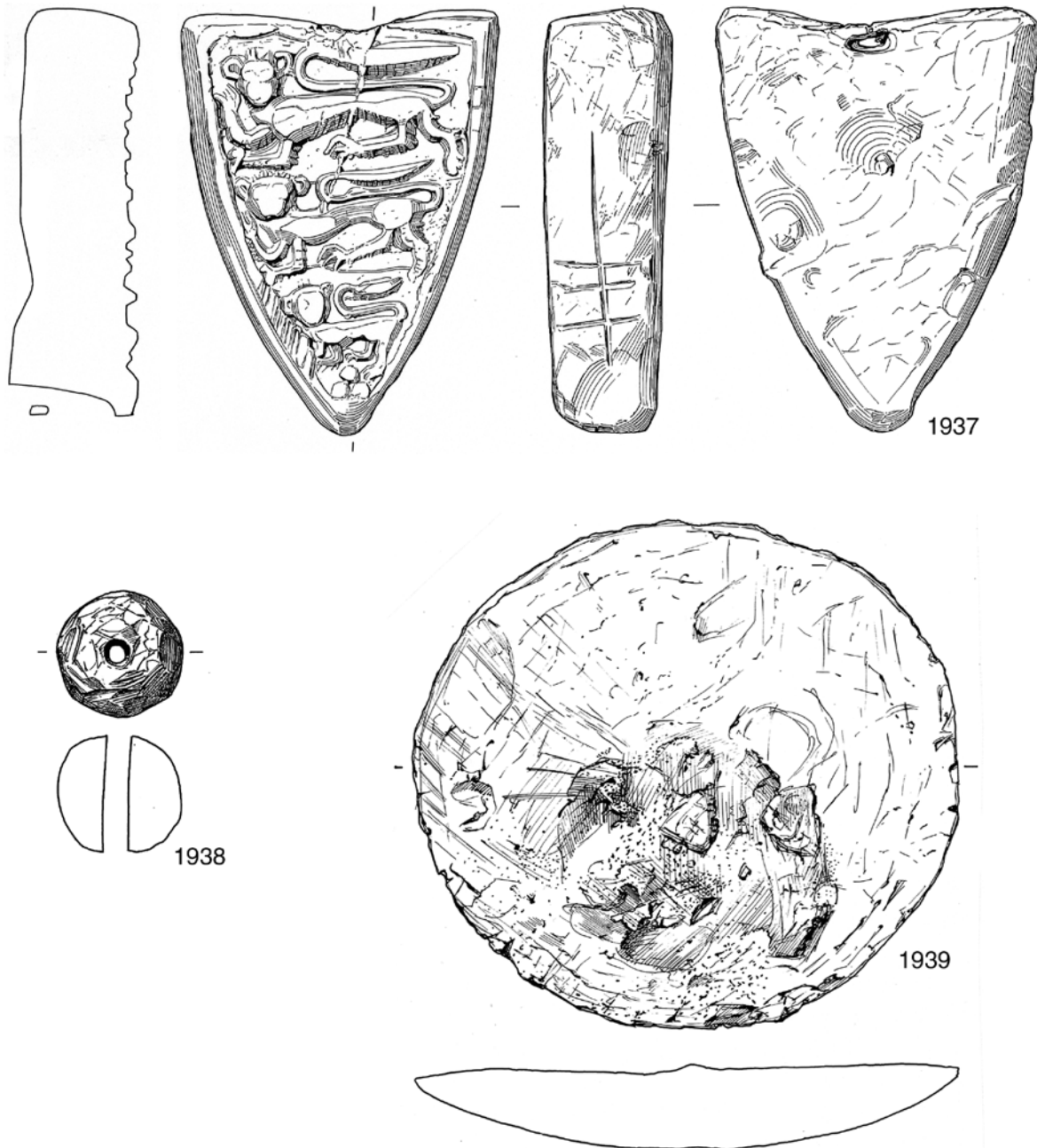


Figure 155 Lead weights, nos 1937-9, scale 1:1

the base. Any features on the faces of the animals have been worn away. Occupation in 13th- to 15th-century building 961.2 (IV, 735).

**1938** Fig 155 sf VR 234. Small spherical lead weight with central perforation. D 19mm, D of perforation 4mm. Lead weights of any period or size were rarely well-finished, and the surface of this example is no exception, being rough from the mould and from use. It seems also to have been trimmed after manufacture, either to make it more spherical or perhaps to make it weigh short. 13th- to 15th-century cellar or quarry F28 (IV, 165) on tenement 937.

**1939** Fig 155 sf SJS 902. Large plano-convex lead weight (or ingot). More or less circular, maximum D 161mm, maximum T 25mm. Weight 5.5 lb. A variety of smaller lead weights was recovered from excavations in Exeter (Goodall, A, 1984b,

fig 194, 220-4), all from contexts dating from 1500 or later. Construction of 17th- to 18th-century Building 961.5 (IV, 616).

*not illustrated*

**1940** sf CHR 181. Roughly square copper alloy ?weight. 14 by 13 by 3mm. Weighs 3g. Layer generated by the latest use of the Roman cemetery (I, 149). May be Roman in date, although 5th to 9th century pottery was recovered from the same deposit.

**1941** sf SJS 902. Large plano-convex lead weight (or ingot). More or less circular, maximum D 161mm, maximum T 25mm, weight 5.5lb. A variety of smaller lead weights was

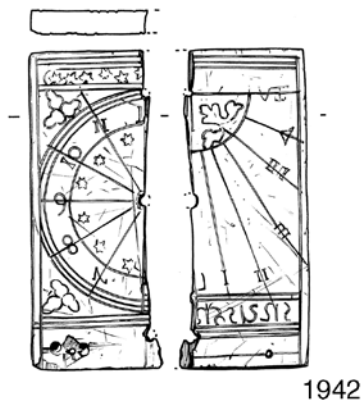


Figure 156    Sundial, no 1942, scale 1:1

recovered from excavations in Exeter (Goodall, A 1984b, fig 194, 220–4). Wall in 17th- to 18th-century Building 961.5 (IV, 616).

### Sundial

Ivory and wooden pocket sundials were imported in large numbers from Nuremberg in the 16th and 17th centuries, and ranged from elaborate and expensive individually crafted pieces to cheap mass-produced items such as the unstratified example from Victoria Road. There is no close parallel for this item in Gouk (1988), but the decoration suggests it may be of 17th-century date (Penelope Gouk, Rosemary Weinstein, pers comm).

**1942** Fig 156 sf VR 2008. A fragment of an ivory pocket sundial, with characteristic ‘engine turning’ on one edge. L 42mm, W (surviving) 17mm. It has broken across three holes set in a line across the centre. There is a rivet hole in one corner, which is recessed and flanked by two depressions on one face. The edge at this end is slightly chamfered to allow for adjacent edges to move about the hinge.

One side is marked out with fine incised lines as a south facing vertical dial, 26mm square, with a hole for a pin gnomon where the base and centre lines meet. The radiating lines are marked from left of centre outwards with the Roman numerals I, II, III, IIII, and V. The end of the base line is marked VI. There is a trefoil acanthus leaf design in the semicircular base of the dial. The top of the plaque, beyond the dial, has a design of incised lines and a band of ‘S’, ‘I’ and reversed ‘S’ decoration.

The other side is marked with a circular twelve-hour ring, with lines radiating out from the central hole to the numerals, here Arabic, and a star in each segment. There is a vegetal design in each corner, and a band of stars between lines along the top, which, on this side, is at the opposite end of the plaque. The central and top holes are slightly wider on this side, tapering down to the other face.

Unstratified (X).

### Numismatic finds

Only 62 items were recovered from the excavations, representing five sites in the northern suburb, two sites in each of the other two suburbs and one site on the city defences. The relatively small numbers may be a reflection of the size and chronological balance of the areas excavated and the methods of recovery employed (Part 1). However, comparison between the amount of Roman coin occurring residually in post-Roman contexts at these sites and the amount of post-Roman coin present gives a rough index of coin recovery. The figures suggest that there were genuinely fewer coins lost in the suburbs from the later part of the 1st millennium AD until relatively recent times. It may also be that greater care was taken to avoid that loss (Tables 25 and 26).

One of the 62 was totally illegible and there were three others that could be dated to the post-medieval period but not further identified. There were also fifteen coins that had been lost after 1700, including one of modern date (Table 26). None of these is

**Table 25 Numbers of post-Roman coins and residual Roman coins**

area	site	no of post-Roman coins	no of residual Roman coins
northern suburb	HA	6	10
	HAB	1	1
	LIDO	2	1
	SBS	5	1
	VR	30	107
western suburb	CT	2	13
	SXS	2	9
eastern suburb	CHR	7	24
	SJS	5*	5
city defences	10CS	2	–

\* includes a coin weight

Table 26 Distribution of post-Roman coins

site	totally illegible	illegible post-medieval	after AD 1700	other post Roman
HA	–	2	2	2
HAB	–	–	1	–
LIDO	–	–	–	2
SBS	–	–	4	1
VR	1	–	2	27
CT	–	–	–	2
SXS	–	–	1	1
CHR	–	1	2	4
SJS	–	–	3	2*
10CS	–	–	–	2

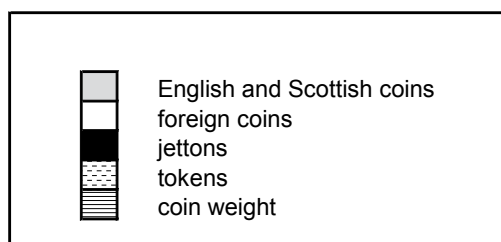
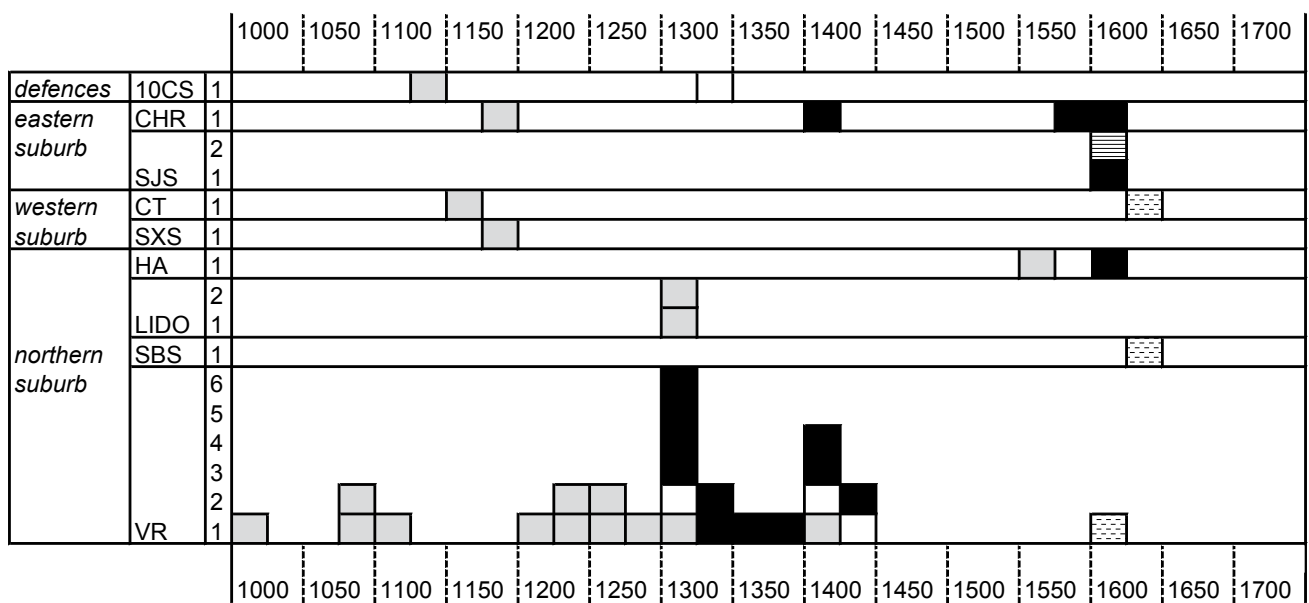
\*includes a coin weight

discussed further, although the recovery of a Scottish trade token of 1791 from Hyde Abbey is perhaps worth noting.

It is not the intention here to consider the remaining items from the point of view of the numismatist, as this is likely to be superseded by the forthcoming publication (WS8) of a much larger sample of coins from the excavations of 1961 to 1969. Rather, this brief discussion is concentrated on the significance of the finds in interpreting the sites from which they

came. There were 19 English and Scottish coins, 16 jettons, 4 foreign coins, 3 tokens and a coin weight. Victoria Road produced 27, and only 16 came from other sites (Fig 157). At 43, this is rather a small sample, and any inferences made here must be viewed as tentative.

The paucity of coin lost before the Norman Conquest, despite the excavation of late Saxon deposits in all of the suburbs, is noteworthy. This is especially true of the western suburb, which is believed to have been



*note: coins with wide date ranges are placed in the middle of the range*

Figure 157 Coin loss from 1000 to 1700

the oldest (Biddle 1976, 265) and where evidence of intensive late Saxon activity was recovered, particularly from the excavations at Sussex Street. However, of the fifteen pre-Conquest coins from Winchester catalogued by Dolley and Blunt (1977, 136–8), twelve came from Cathedral Green, a high status ecclesiastical site (WS7.2, 46, Table 4, ff). This suggests that the virtual absence of pre-Conquest coin in the suburbs reflects their relative status in the earliest centuries of occupation of the Saxon town.

The earliest coin recovered was a penny of Æthelræd II (issued c AD 997–1003) from Victoria Road. Thereafter there is a gap until the reign of William I, which is represented by a halfpenny of the 1080s, and a farthing of William II from the 1090s, both also from Victoria Road. The presence of only one coin of the 12th century (a farthing of Henry I) at Victoria Road is not surprising as the site seems to have undergone a period of decline at this time (Part 1). However, it is only then that the other suburbs are represented, by two coins from the western area (Crowder Terrace and Sussex Street) and one from the eastern (Chester Road). This increase in the amount of coin lost compared with the 11th century is in contrast to sites within the walls of the early medieval town, where the numbers recovered dropped from 33 of the 11th century to 11 (of which 5 were in a hoard) of the 12th (Dolley and Blunt 1977, 136). (If the one from 10 Colebrook Street on the city defences, which is catalogued here, is included, the tally is still only 12.)

Victoria Road accounts for virtually all of the coins recovered from the 13th century to the 15th, although there were two of this period from the Lido site, also in the northern suburb. The pattern (Fig 157) supports the proposition that occupation of the buildings on tenements 935 and 936 was in its heyday during the late 13th and 14th centuries and in decline by the middle of the 15th (Part 1).

The sole find dated between 1200 and 1500 to come from any other suburban site is a 14th- to 15th-century French jetton from Chester Road. This is despite the presence of similar (or grander) buildings on sites in the western and eastern suburbs at this time. Wealth, or engagement in activities of a commercial nature (or both) amongst the users of the buildings on tenements 935 and 936 (and perhaps tenement 795, at the Lido site) may be indicated.

After 1550, the pattern of recovery up to 1700 favours the eastern suburb (Chester Road and St John's Street), a reflection of continuing activity there after the occupation of the other suburbs had declined. It is also worth noting that no coin appears to have been lost at Hyde Abbey until after the Dissolution; one of the illegible post-medieval coins mentioned above was from this site, together with a German jetton and a coin of Elizabeth I, which both appear in Figure 157 and in the catalogue. This is also true of the nearby site at St Bartholomew's School, which produced a single token dating before 1700.

The catalogue is ordered by coin date, rather than date of deposit.

### *English and Scottish coins by M Allen and the late C E Blunt*

**1943** Plate 3 sf VR 8511. Æthelræd II (AD 978–1016), *Long Cross* penny, BMC IVa, North 774. York mint, moneyer Leofstan. Obv: +ÆDELRAED REX ANGLO. Rev: +LEOFSTAN M'O EOFR. Weight 1.21g, die axis 6. This is a type believed to have been in issue from c AD 997–1003. 11th- to 12th-century pit F957 (XIV, 3789).

**1944** Plate 3 sf VR 7453. William I (1066–87), BMC type 7 (*Profile Cross and Trefoils*) penny, North 847. London mint, moneyer Wulfwine. Obv: +PILLELM REX. Rev: +PIILFPINE ON LII. Weight 0.87g, die axis 9. This type is conventionally dated from c 1080 to 1083, but a later dating from c 1085 to 1087 is more probable. Late Saxon pit F937 (XI, 1693). ?Intrusive, or suggests a slightly later date for the pit fill.

**1945** sf VR 5941. William II (1087–1100), BMC type 2 (*Cross in Quatrefoil*), cut farthing, North 852. Mint and moneyer unidentified. Obv: ---ELM---. Rev: +IE[L?]-. Weight 0.29g. This type is conventionally dated to c 1089–c 1092, but it may have been issued in the mid-1090s. 11th- to 12th-century pit F747 (XII, 2717). ?Intrusive, or suggests a later date for the pit fill.

**1946** sf VR 13035. Henry I (1100–35), BMC type 14 (*Pellets in Quatrefoil*) cut farthing, North 870, issued c. 1123–1124/5. Mint and moneyer unidentified. Obv: ---EN---. Rev: ---ON---. Weight 0.34g. 13th- to 14th-century pit F1049 (XV, 4189).

**1947** sf 10CS 86. Stephen (1135–54), BMC type 1 (*Cross Moline or Watford*) penny, North 873, issued 1135/6–c 1145. Mint and moneyer unidentified. Obv: ---ER---. Rev: --T:ON---. Weight 0.89g, broken. Fill behind the early 3rd-century town wall, F54, between it and the older rampart (I, 133), much disturbed by tree roots.

**1948** Plate 3 sf CT 66. Henry II (1154–89), *Cross-and-Crosslets* or *Tealby* class B1 penny, North 953/1, issued early 1160s. Uncertain mint, moneyer Ricard. Rev: +RICA----. Weight 1.43g. 13th- to 14th-century fill of well F70 (VII, 188).

**1949** sf CHR 24. Henry II (1154–89), *Short Cross* class Ib2 penny, North 963, issued 1180–1182. London, moneyer Reinald. Rev: REINALD.ON.LVN. Weight 1.30g. Yard surface associated with 13th- to 14th-century Building 963.1 (I, 45).

**1950** sf SXS 51. Henry II (1154–89), *Short Cross* class Ic penny, North 964, issued c 1185–89. Worcester mint, moneyer Godwine. Rev: +GODWINE.ON.WIR. Weight 1.41g. 13th- to 14th-century fill of property boundary ditch F2 (VIII, 197).

**1951** sf VR 2018. William I of Scotland (1165–1214), *Short Cross and Stars* coinage cut halfpenny, issued c 1205(?)–c 1230. Uncertain mint, moneyers Hue Walter. Obv: ---WI---. Rev: +--W---O-. Weight 0.30g. 14th- to 15th-century pit F18 (X, 38).

**1952** sf VR 84. Henry III (1216–72), *Long Cross* class 3ab cut halfpenny, North 986/1, issued 1248–49. Canterbury mint, moneyer Nicole. Rev: --OL- ON C--. Weight 0.58g. 13th- to 15th-century soil layer (IV, 44).

**1953** sf VR 8514. Henry III (1216–72), *Long Cross* class 3c penny, North 988, issued 1249–50. Canterbury mint, moneyer Nicole. Rev: NICOLE ON CANT. Weight 1.22g. 13th- to 14th-century pit F971 (XIV, 3811).

**1954** sf VR 88. Henry III (1216–1272), *Long Cross* class 5 cut farthing, issued 1250–c 1270. Rev: ----TON----. Weight 0.31g. 13th- to 15th-century soil layer (IV, 75).

**1955** sf VR 2589. Copper alloy core of a contemporary imitation of a Henry III *Long Cross* penny, class 5, c 1250–80? Illegible. Weight 1.71g. 13th- to 15th-century soil layer (X, 267).

**1956** sf VR 5817. Edward I (1272–1307), class 2 (Withers type 7i) farthing, North 1052, issued 1279–80. London mint. Weight 0.33g. Occupation in 13th- to 15th-century Building 936.3 (XII, 2655).





Plate 3 Post-Roman coins, scale 1:1 (photo: John Crook)

**1957** sf LIDO 27. Edward I (1272–1307), class 9b1 penny, North 1037/1, issued 1300. London mint. Weight 1.37g. Unstratified (V).

**1958** sf VR 9517. Edward I (1272–1307) or Edward II (1307–27), class 10cf2b penny, North 1041, issued c 1306–07. London mint. Weight 1.07g. 14th- to 15th-century pit F1034 (XV, 3972).

**1959** sf LIDO 8. Edward I (1272–1307) or Edward II (1307–27), class 10cf3b1 penny, North 1042/2, issued c 1307–09. Canterbury mint. Weight 1.41g. 13th- to 15th-century undercrofted Building 795.1 (V, 78).

**1960** sf VR 5677. Penny, York archiepiscopal mint, issued 1353–1489. Weight 0.40g. Broken, chipped and worn. Masonry feature (possibly a latrine or garderobe) F701 in 13th- to 15th-century Building 936.4 (XII, 2607).

**1961** sf HA 110. Elizabeth I (1558–1603), unidentified denomination, second issue (1561–82). Weight not recorded. Intrusive in a Roman context (XI, 214), soil accumulation representing a period of disuse during the early to mid-4th century.

## Foreign coins

### Anglo-Gallic by J Davies

**1962** Plate 3 sf VR 3623. Henry VI (1422–61), *petit blanc* of Paris, issued 1423–1436. Obv: shields of France and England

set side by side. Legend: HENRICVS REX. Rev: cross cavalry between hR. Legend: SIT:NOME:DNI:BENEDICTV. One third of the flan only. Occupation in 13th- to 15th-century Building 935.2 (XII, 2267).

### French by B Cook

Early 14th-century French coins turn up fairly regularly in England, mainly on coastal sites, but they are not particularly common.

**1963** Plate 3 sf VR 3487. Philip IV of France (1285–1314), billon *double tournois*, Duplessy 229, issued 1297–1303. 15th- to 16th-century pit F776 (XIII, 3108).

**1964** Plate 3 sf 10CS 4. Charles IV of France (1322–28), billon *double parisis*, Duplessy 244B. 15th- to 16th-century soil accumulation (I, 1).

### Italian by B Cook

**1965** sf VR 2264. Venice, Doge Michael Steno (1400–13), silver *soldino* or 'galley halfpenny'. There was a relatively large scale incursion of these coins into England in the early 15th century, brought by the annual arrival of the Venetian galley fleet. Despite government prohibition and confiscation, they were in common use in the years c 1400 to 1415, compensating for the shortage of official English halfpennies and farthings. Unstratified (X).

### Jettons by J Davies

**1966** sf VR 46. Anglo-Gallic jetton, dating to the 13th to 14th century, as Barnard 27. Obv: Lion rampant within a granulated inner circle; a border of pellets. Rev: short cross *recercellée*, cantoned by pellets, within a granulated inner circle; a border of pellets in place of a legend. Weight 0.58g. 13th- to 15th-century soil layer (IV, 44).

**1967** sf VR 2529. Anglo-Gallic jetton, dating to the 13th to 14th century, as Barnard 32. Obv: Lion's face *affrontée*, within a granulated inner circle. A border of pellets and crosses alternate. Rev: short cross *recercellée*, cantoned by pellets, within a granulated inner circle; a border of pellets in place of a legend. Weight 1.00g. Unstratified (X).

**1968** sf VR 2448. Anglo-Gallic jetton, dating to the 13th to 14th century, Barnard 34. Obv: trefoil enclosing three quatrefoils, within a granulated inner circle; a border of pellets and saltires set alternately. Rev: short cross *recercellée*, cantoned by pellets, within a granulated inner circle; a border of pellets in place of a legend. Weight 0.95g. Unstratified (X).

**1969** sf VR 6130. Anglo-Gallic jetton, Sterling type, 1272 to 1377, Barnard Pl. I, 2. Obv: A king's head, full faced, within a granulated circle; beyond, an outer granulated circle and pellets, in place of a legend. Rev: a short cross *recercellée*, cantoned by pellets, within a granulated inner circle; a border of pellets in place of a legend. D 20mm, weight 1.7g. Weight 1.74g. 15th- to 16th-century pit F309 (X, 951).

**1970** sf VR 2527. Anglo-Gallic jetton, dating to the late 13th to 14th century. Obv: no detail visible. Rev: a short cross *recercellée*, cantoned by sixfoils, within a granulated inner circle; a border of pellets in place of a legend. Fragmented flan, conserved with netting, no accurate weight available. 13th- to 14th-century pit F233 (X, 103).

**1971** sf VR 7188. Italian jetton of the Peruzzi of Florence, dating to the late 13th to 14th century, Barnard Pl. III, 8. Obv: A pear slipped, with two leaves pendant, within a granulated inner circle; a border of quatrefoils. Rev: as the obverse.

D 23mm, weight 3.70g. 13th- to 15th-century soil layer (XI, 1514).

**1972** sf VR 3390. French jetton, dating to the mid-14th century, Barnard Pl. IV, 12. Obv: a Moor's head r., bound with a fillet. Legend: AVE.MARIA.GRACIA.PLEN[A]. Rev: a bowed cross of two strands *fleurdelissée*, its voided centre enclosing a lys. The cross is cantoned by cinquefoils. Legend: +AVE MAR[IA]. D 21mm. Weight 0.86g. 15th- to 16th-century pit F754 (XIII, 3019).

**1973** sf VR 5604. French jetton, dating to the late 14th century. Obv: illegible. Rev: a cross of three strands *fleurdelissée*. ?Rose, in centre, within a tressure of four arches. D 26mm. Weight 2.00g. Occupation (F688) in Building 936.4 (XII, 2575).

**1974** sf VR 2026. French jetton, dating to the 14th to 15th century, Barnard Pl. VI, 47. Obv: a heater shield of France modern, within a granulated inner circle. Legend: AVE.MARIA.GRACIT. Rev: a long cross of three strands *fleurdelissée*, with a quatrefoil in the centre, enclosed by a tressure of four arches *fleuronnée* at each angle. In each spandrel is a rose between two leaves. D 25mm (incomplete flan). Weight 0.72g. 14th- to 15th-century pit F8 (X, 42).

**1975** sf VR 6072. French jetton, dating to the 14th to 15th century. Obv: a heater shield of France modern, with a granulated inner circle. Rev: a long cross of three strands *fleurdelissée* with a quatrefoil in the centre, enclosed by a tressure of four arches *fleuronnée* at each angle. D 28mm. Weight 0.90g. 17th- to 18th-century pit F308 (X, 920).

**1976** sf CHR 2. French jetton, dating to the 14th to 15th century. As Barnard Pl. VI, 46. Obv: a heater shield of France modern, within a granulated inner circle. Rev: long cross of three strands *fleurdelissée*. Enclosed with a tressure of four arches *fleuronnée* at each angle. D 30mm. Weight 5.31g. 17th- to 18th-century soil accumulation (I, 19).

**1977** sf VR 3449. French jetton, dating to the 15th century. Obv: a long cross of three strands *fleurdelissée*, two of which are dotted, with a quatrefoil in the centre. Within a dotted border. Mute. Rev: a long cross of three strands *fleurdelissée*, with a quatrefoil in the centre. A very blurred striking and the legend is illegible. D 29mm. Weight 1.98g. Demolition of 13th- to 15th-century buildings on tenements 935 and 936 (XIII, 3055).

**1978** sf CHR 5. German jetton of Hans Krauwinkel, Nuremberg, 1580 to 1610, as Barnard Pl. XXXIII, 84. Obv: three open crowns and three lys arranged alternately around a rose, within an inner circle of rope pattern. Legend: HANN.S.KRAUWINCKEL.IN.NUR. Rev: the *Reichsapfel* within a double tressure of three curves and three angles,

set alternately within an inner circle of rope pattern. Legend: GOTT.ALLEIN.DIE.EERESEI. D 22mm. Weight 1.07g. 17th- to 18th-century soil accumulation (I, 19).

**1979** sf CHR 13. German jetton, Nuremberg, 1550 to 1700, as Barnard Pl. XXXIII, 82. Obv: three open crowns and three lys arranged alternately around a rose, within an inner circle. Rev: the *Reichsapfel* within a double tressure of three curves and three angles, set alternately within an inner circle. D 25mm. Weight 1.59g. 17th- to 18th-century soil accumulation (I, 19).

**1980** sf SJS 81. German jetton, Nuremberg. 1550 to 1700, as Barnard Pl. XXXIII, 82. Obv: three open crowns and three lys arranged alternately around a rose, within an inner circle. Rev: the *Reichsapfel* within a double tressure of three curves and three angles, set alternately within an inner circle. D 25mm. Weight 1.43g. Modern drain F28 (I, 173).

**1981** sf HA 347. German jetton, Nuremberg, dating to the 16th to 17th century, pierced for suspension. Obv: three open crowns and three lys arranged alternately round a rose, within an inner border. The place of a legend is occupied by small v shapes. Rev: The *Reichsapfel* within a double tressure of three curves and three angles set alternately within an inner border. The place of a legend is occupied by ornamentation, as on the obverse. D 22mm. Weight 0.96g. Unstratified (XIV).

### *Tokens by J Davies*

**1982** sf VR 6004. James I (1603–25), royal farthing token, Lennox 'round'. North 2134, issued 1614–25. 17th- to 18th-century pit F302 (X, 902).

**1983** sf SBS 1. Charles I (1625–49), royal farthing token, Richmond 'round'. North 2277, issued 1625–34. 19th- to 20th-century soil layer (III, 17).

**1984** sf CT 50. Token, 1637. Obv: around the edge inscribed WILLIAM BUTLER and within, a central coat of arms. Rev: around the edge inscribed WINCHESTER 1637, and within .B. with W.I. below. 17th- to 18th-century soil accumulation (VII, 181).

### *Coin weight by J Davies*

**1985** sf SJS 10. James I (1603–26). Coin weight, for an Angel. Obv: X.S, with crown above, in a beaded circle. Rev: Angel slaying dragon, in a beaded circle. 19th- to 20th-century pit F26 (I, 100).

## 7 Objects used for, or associated with, written communications

An exceptionally well crafted copper alloy object, probably a stylus, from the fill of a medieval ditch F391 (II, 427) at New Road has already been published by Biddle and Brown (WS7.2, 731–2, no 2283A).

Fig 158 sf NR 111, drawing not to scale, actual L 42mm.

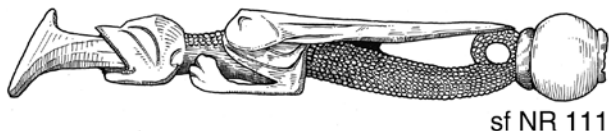


Figure 158 Copper alloy ?stylus, not to scale

The remainder of this group is small, perhaps surprisingly in view of the evidence for commerce in Category 6. It nevertheless includes a lead *bulla* of Pope Lucius III, a book-marker and two parchment prickers that may all be associated with Hyde Abbey.

### Seals and sealing

The seal of Wiliam Star and the papal *bulla* were both recovered from Victoria Road, one in pit fill of the 14th or 15th centuries, the other unstratified. The papal *bulla* comes from a time at which the site at Victoria Road underwent a period of decline; its presence there may be connected with nearby Hyde Abbey.

### Seal

**1986** Fig 159 sf VR 2520. Lead seal matrix of William Star. The legend reads SIGILL.WILEL(M)ISTAR+ around a crescent moon. D 32mm, T 3.5mm. Matrices were often bought with the central design already in place, the legend being added at the time of purchase. The crescent moon may have been the nearest appropriate design to Star's surname. Probably 13th century. 14th to 15th century pit F88 (X, 199).



### Bulla

**1987** Fig 159 sf VR 751. A lead *bulla* of Pope Lucius III (1181–5). Obv: SPASPE, heads of saints Paul and Peter within dotted outlines either side of a Latin cross, all within a dotted border. Rev: LV/CIUS/PP.III. within a dotted border. There are traces of a string hole on the edges. D 37mm, T 5mm.

Lead sealings of this type were used to fix the string ties on papal documents. Those of Innocent IV (1243–54) are the most commonly found in England (MacGregor 1988, 38). Lucius III worked hard both as a cardinal and then during his short tenure of the papacy to establish peace between church and empire with Emperor Frederick I Barbarossa (Kelly 1986, 180–1). Unstratified.

### Pen

MacGregor (1982, 125–6, fig 67, h-i) suggests that implements made from goose radii may have been used as pens, or as 'pen holders', to enable reuse of broken quill points; or as a measuring implement. Wear noted on the shafts of an example from Colchester suggests that an alternative use may be as knitting needles (Crummy 1988, 97).

Concentrations of goose wing bones have been recovered from several pits associated with both tenements 935 and 936 at Victoria Road and it seems that they were deliberately collected and stripped of their feathers for use as quills before being discarded (P10). One such collection was retrieved from F117 (tenement 935), the pit that also produced the implement illustrated. The primary wing feathers, the most useful for quill manufacture attach to the carpometacarpi and the wing digits, and these anatomical parts, rather than the radius as here, account for most of the debris.

Alternatively, as F117 also produced evidence of the specialist treatment of lamb and, especially, cat skins, use of the point **1988** as an awl or a peg in association with these activities could be envisaged.



Figure 159 Seal and bulla, nos 1986–7, scale 1:1

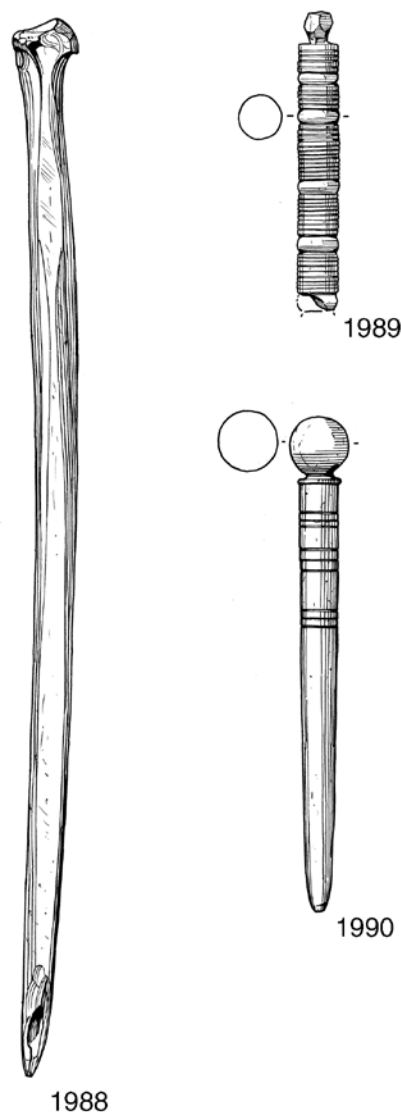


Figure 160 Pen and parchment prickers, nos 1988-90, scale 1:1

At Norwich these points first appear in contexts dating from the 14th century (Margeson 1993, 69) and they probably continued in use into the early post-medieval period (*ibid*; Crummy 1988, 97).

**1988** Fig 160 sf VR 3544. Point, possibly a pen, made from a goose radius, the shaft split at an angle to form a point. L 139mm. 14th- to 15th-century pit F117 (X, 815).

### Parchment prickers

Parchment prickers have often in the past been identified as pins lacking their tips (for example, Harvey, Y 1975, fig 247, no 1928). They were probably first used in the early medieval period, but continued in use for many centuries. A large number of prickers from Battle Abbey came from a dump associated with the Dissolution of the Monasteries and are likely to be of late medieval date (Geddes 1985, 149-51). Both of the Victoria Road examples came from contexts of the 13th to 15th centuries.

**1989** Fig 160 sf VR 9539. Fragment of a grooved and moulded bone shaft probably from a parchment pricker. L 40mm. The small globular head shows facets of knife trimming and has a small central indentation from a lathe centre (*cf* Margeson 1993, fig. 38, 435, 438). The lower end is missing. 13th- to 14th-century pit F1049 (XV, 3990).

**1990** Fig 160 sf VR 3063. A bone parchment pricker with staining at the tip from the iron point. L 65mm. The shaft has three bands of fine incised grooves beneath a globular head. The bands of grooves are paralleled on prickers from Norwich (Margeson 1993, fig. 38, 437-8 and Southampton (Harvey, Y. 1975, fig 247, no 1925). 13th- to 15th-century soil layer (X, 314).

### Book fittings

The book-marker, or page-holder **1991** has punched triangle decoration typical of the later medieval period and also found on the mirror case (Category 2, **1631**). Another example from Winchester has similar decoration, but the lines of triangles run vertically down the plates (WS7.2, fig 215, 2326A). Other markers come from Old Sarum (Wiltshire), Cirencester (Gloucestershire), Whitby (Yorkshire), Northampton and Brixworth (Northamptonshire), West Stow (Suffolk), Pleshey Castle (Essex), and an unspecified site in Norfolk (Williams 1977, 185; Hattatt 1989, 500, no 251). A pair from Old Sarum are probably 14th-century in date (Williams 1977, 185). Two from West Stow supposedly came from the Anglo-Saxon cemetery (West 1985, 67, fig 264, 11-12), though one has medieval double-line punched triangle decoration.

The book-clasps here date to the early post-medieval period. Other examples from Winchester come from 14th- to 17th-century contexts. Norwich clasps from contexts dated to the 16th century (Margeson 1993, 74-5) are similar to **1992** and **1993**.

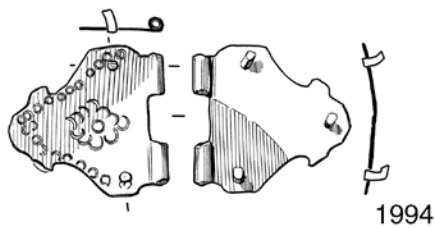
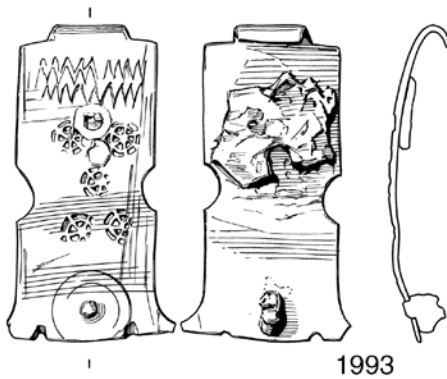
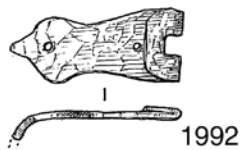
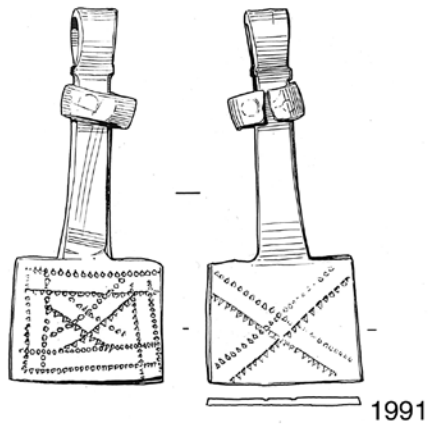
### Marker

**1991** Fig 161 sf VR 7260. Copper alloy book-marker in the form of a pair of tweezers with rectangular end-plates and a penannular slide ring around the shaft. L 50mm, end-plates 19.5 by 16mm. The junction of the suspension loop and shaft is marked by slight projections, perhaps to prevent the ring rising onto the loop. The ring would have been pushed down the shaft to clip the marker over a page. The end-plates are decorated with lines of punched triangles in geometric patterns. Each line is double, with the triangles set facing outwards. On one side there is a saltire, on the other a small saltire within a frame. 19th- to 20th-century pit F532 (XI, 1317).

### Clasps

**1992** Fig 161 sf VR 4144. Strap from a pinned hinge of iron, probably a book clasp. The main body has concave sides before a rounded terminal at one end, which has a short pointed projection at the tip; at the other end there are two loops which held the pin. Pierced twice. Plated (tin-lead). L 45mm, W 20mm. 15th- to 16th-century pit F751/757/759 (XIII, 3025).

**1993** Fig 161 sf SJS 383. Top plate of a copper alloy book clasp.



L 40mm, maximum W 22mm. There is a band of engraved zig-zag decoration at the top and five stamped florets in the centre. The lower of the two iron rivets survives; only corrosion products remain of the upper one. Zig-zag decoration also occurs on the examples from Norwich (*ibid*) and on a clasp from an undated context at Exeter (Goodall, A. 1984b, 347, fig 191). Soil layer contemporary with the collapse of Building 1021.3 (I, 190), dated to 15th to 16th centuries.

**1994** Fig 161 sf NHW 2. Copper alloy single-plate book clasp. L 20mm, W 19mm. There are three rivets for attachment. There is a band of small punched circles around the edge and a lozenge shaped group of larger circles and crescents in the centre. The crescents appear to have been made by using the same punch as used for the circles at an angle. 19th- to 20th-century garden soil (I, 12).

Figure 161 Book fittings, nos 1991, 1993–4, scale 1:1; no 1992, scale 1:2

## 8 Objects associated with transport

Horseshoes, spurs and spur fittings form the main element in this category, the former ranging in date from late Saxon to modern, the latter from late Saxon to 17th century.

### Harness

#### Fitting

This harness fitting, from St John's Street, is an addition to the earlier Saxon assemblage recovered from Winchester. Dated to *c* AD 600, it comes, unfortunately, from a modern level.

**1995** Fig 162 sf SJS 11. Cast copper alloy fitting with low relief decoration. H 26mm, W 37mm. The object would probably have been sewn on to harness using the holes at the top. On

the edge between the two holes, the metal is slightly bent, either by constant wear, or by force applied to detach the fitting from the harness. The decoration consists of two beasts curled up nose to tail, separated by a panel of interlace above an interlace knot set in a prominent roundel. 19th- to 20th-century soil layer (I, 208).

#### Pendant

The various forms of harness pendants and their associated mounts and fittings for attachment to horse harness are described by Griffiths (1986) and Clark (1995). Some rectangular or square pendants may be as early as the 13th century, but a date in the late 14th or 15th century is probable for the example catalogued here, as there were no recorded deposits on the site at 84 Water Lane which predated the late medieval period.

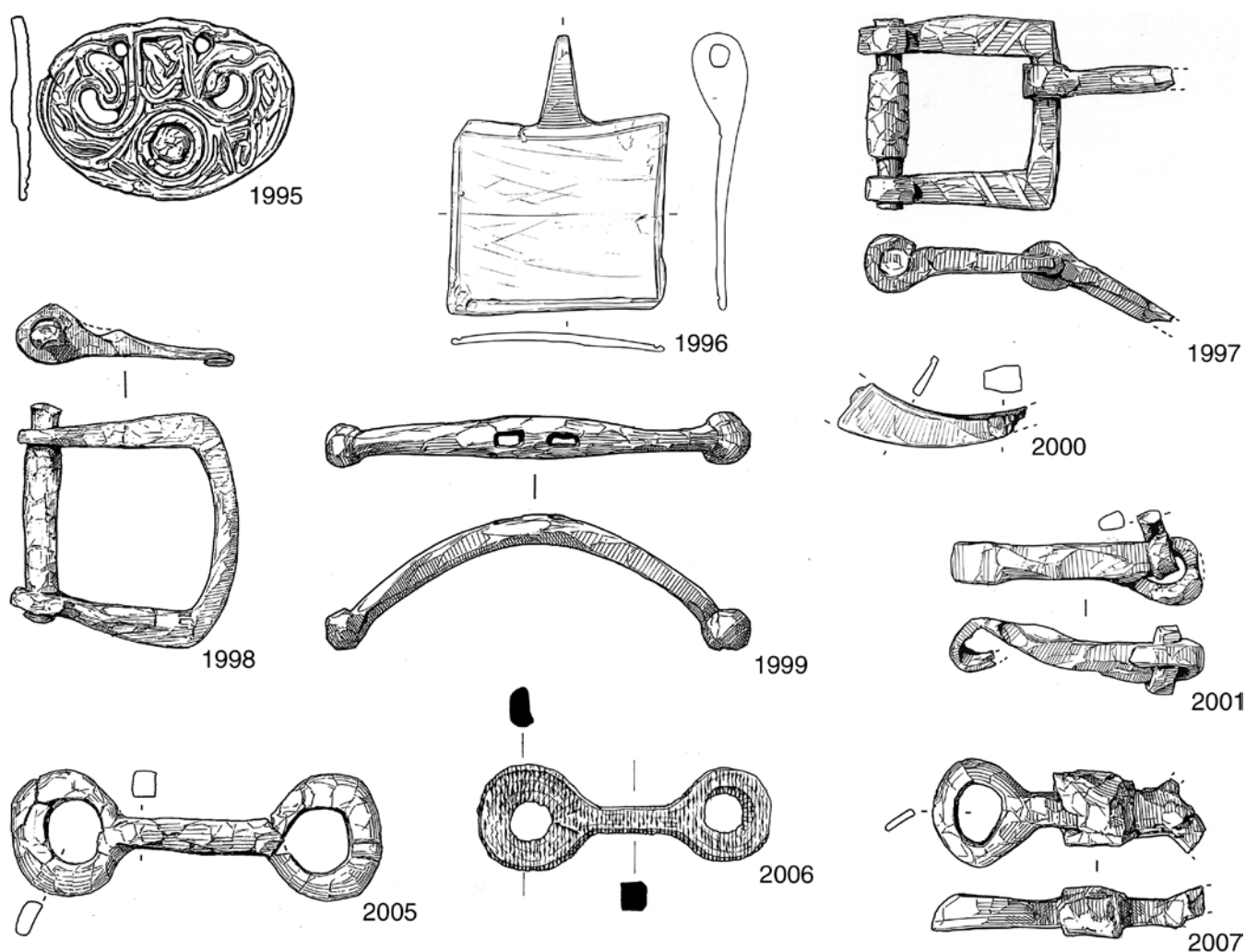


Figure 162 Harness fittings, bits and bridle links, nos 1995–6, scale 1:1; nos 1997–8, 1999–2001, 2005–07, scale 1:2

**1996** Fig 162 sf 84WL 2. Rectangular copper alloy horse harness pendant. H 39mm, W 32mm. The pendant is slightly dished, and the upper edge is concave. The field is plain, but outlined with a single incised groove. Though the piece is clearly intended to be rectangular, poor manufacture has produced slightly irregular sides and a lopsided effect (Griffiths 1986, 1). 17th- to 18th-century soil layer (I, 4).

### Buckles

Two basically rectangular buckle frames of iron have rounded corners at one end and a rotating arm at the other; both are plated. They were used in horse harness (WS7.2, 526). This buckle form was probably introduced in the 11th century and examples from other sites in Winchester (WS7.2, 530–31, 1302–05) are from late 11th- to 14th-century contexts. An example from London, with tin plating, is from a context dated 1270–1350 (Egan and Pritchard 1991, 95, no 428). These two buckles from Winchester's northern suburb are from contexts of the 14th to 15th centuries and the 15th to 16th centuries respectively.

**1997** Fig 162 sf SBS 185b. A rectangular iron frame with one end formed by a revolving arm. The sides have diagonal grooves cut into them; pin in situ. Plated. L 55mm, W 55mm, T 10mm. 14th- to 15th-century fill of quarry F70 (II/III, 71).

**1998** Fig 162 sf VR 4173. A rectangular iron frame with one side formed by a rotating arm. Lead-tin plated. L 65mm, W 65mm. 15th- to 16th-century demolition of medieval buildings on tenements 935 and 936 (XIII, 3055).

### Bits

**1999** is the bar from a bar bit which had a separate link attaching the mouthpieces, or snaffles, to the bridle. It is unusual in being curved rather than straight and thus fitted more snugly around the horse's mouth. **2002** is probably one end of a similar object. Both are plated.

Bar bits offered the rider greater control of their mount than a simple snaffle bit and the type of which these two from Sussex Street form part appear to have been introduced in the 9th century. The cheekpieces are usually straight, but two other curved examples, one from a late Saxon context and the other unstratified, but probably of similar date, are known from Thetford (Ottaway and Goodall 1984, 110–1, fig 126, nos 133–4). The Sussex Street examples are also from late Saxon contexts.

**2000** is probably from a cheekpiece in which the mouthpiece to bridle link and the bar element, in this case curved, were made as one. It probably formed part of a bit comparable to Type E in *The London Museum Medieval Catalogue* (1940, fig19a).

There are also two snaffle links and a ring with a rounded cross-section and a diameter of 78mm, which may be a horse's bit cheek-piece, all from Victoria Road.

**1999** Fig 162 sf SXS 72. Iron cheek piece. Curved with two slots for attachment in the centre and spherical terminals. Encircling grooves. Plated. L 121mm. Late Saxon pit F36 (VIII, 283).

**2000** Fig 162 sf SXS 48. Arm of an iron cheek piece which curves and widens towards the end and is thickened near the

break. An incised groove runs across it near the end. Plated. L 47mm, W 12mm, T 5mm. 11th- to 12th-century pit F30 (VIII, 151).

**2001** Fig 162 sf VR 3667. An iron snaffle link with a fragment of a second attached. Plated (tin). L 73mm, T 9mm, link W 15mm. 15th- to 16th-century pit F776 (XIII, 3108).

*not illustrated*

**2002** sf SXS 787. End of iron cheek piece with spherical terminal and encircling grooves (as **1999**). Plated. L 55mm. 11th- to 12th-century ditch F505 (XVII, 1061).

**2003** sf VR 0. Iron snaffle link, one eye missing. Plated. L 58mm, T 10mm. 15th- to 16th-century pit F776 (XIII, 3108).

**2004** sf VR 2179. Iron ring of rounded cross-section, scarf weld visible. 19th- to 20th-century pit F1 (X, 5).

### Bridle links

These objects, all from late Saxon pits at Victoria Road, Sussex Street and Chester Road, were probably used to join bridle straps in the manner shown in WS7.2 (fig 333). Similar items from 11th-century and, in the last case, 14th-century contexts on Winchester intra-mural sites are catalogued by Goodall (WS7.2, 1043–5, 3881–3, 3885). **2005** and the first three from Winchester intra-mural sites are plated.

**2005** Fig 162 sf VR 8549. An iron strip with an eye at each end. The eye cross-sections are at a slightly oblique angle. Plated (tin-lead). L 110mm, W in centre 10mm, eyes D 36mm, T 10mm. Late Saxon pit F976 (XIV, 3848).

**2006** Fig 162 sf SXS 74. Consists of a central iron strip with a ring at each end, one slightly larger than the other, both have slanted cross-sections. L 85mm, D rings 34 and 30mm. Late Saxon fill of pit F53 (VIII, 269).

**2007** Fig 162 sf CHR 142. Iron. One eye missing, surviving eye has a slanted cross-section. L 75mm, W 33mm. Late Saxon pit F24 (I, 127).

### Spur fittings

There are two iron strap guides (or belt slides), one each from late Saxon contexts at New Road and Chester Road. Both are plated and probably formed part of spur fittings (Ottaway 1992, figs 305–06). Although no directly comparable objects are known to the present writer (PJO) similar strap guides are quite common finds of the 9th to 11th centuries, but do not appear to occur in contexts of later date.

From St Bartholomew's School came a spur buckle with integral strap guide, and a fragment of a similar object was recovered from Victoria Road. Both are tin-plated. The hook, which survives on the object from SBS, would have passed through one of the spur terminals, as can be seen on an early 14th-century spur from Ashwicken, Norfolk (Allison 1955–57). The objects are probably 13th- or 14th-century in origin, although they come from later contexts. An object very similar in form to **2010** comes from a mid-13th-century context at Seacourt, Berkshire (Biddle 1961–62, fig 30, 23).

**2008** Fig 163 sf NR 129. Iron strap guide. Rectangular head with rounded corners, a raised strip runs across it near one

end. Plated. Head L 24mm, W 17mm, clasp W 18mm. Late Saxon fill of the Iron Age enclosure ditch F371 (II, 472).

**2009** Fig 163 sf CHR 121. Iron strap guide. The head has zig-zag sides and a relief strip runs across it from end to end. Plated. Head L 20mm, W across clasp 16mm. Late Saxon pit F28 (I, 133).

**2010** Fig 163 sf SBS 0. Rectangular iron buckle frame, made in one piece, with rounded corners, pin in situ. There is an integral buckle-plate and strap guide. The former has concave sides below the buckle. The strap guide is located at the widest point of the buckle-plate. Below this the buckle-plate's sides step in and there is a hook at the end. Plated (tin). L 42mm, W 18mm. 15th- to 16th-century pit F67 (II, 118).

**2011** Fig 163 sf VR 0. Fragment of rectangular iron buckle with integral strap attachment (as **2010**), pin in situ. Plated. L 20mm, W 17mm. Drawn from X-radiograph. 19th- to 20th-century soil layer (X, 254).

## Spurs

There are fifteen pieces of iron spur in varying states of disintegration, and two copper alloy spurs.

The earliest typologically are three fragments of prick spurs from St Bartholomew's School, St Martin's Close and Henly's Garage. **2014** is part of a spur where the arm is straight and in line with the goad. **2012**, which was intrusive in a context thought to be Roman, is a goad similar to that of **2014**, but has relief moulding at the base and encircling grooves at the head. Both objects probably date to the 10th to 11th centuries and the goads correspond to Type 2 in the *London Museum Medieval Catalogue* (1940, fig 28). **2023** is the back and octahedral goad from a spur which was probably 12th- to 13th-century and similar to one from earlier excavations in Winchester (WS7.2, 1039, no 3865).

Rowel spurs were introduced during the 13th century (Ellis in WS 7.2, 1036–7) and this is the context date of the earliest specimen in this assemblage **2024**, the neck and rowel box of an early rowel spur. In **2015** the surviving arm is curved to fit under the ankle and is stepped in the centre before curving to a figure-of-eight-shaped terminal. **2017** has a down-curving goad and its surviving arm also has a figure-of-eight-shaped terminal to which is linked a distinctive fitting with looped terminals either side of a small disc. An identical fitting can be seen on a 15th-century spur from Bridlington, East Yorkshire (Earnshaw 1973, fig 6, 7) and on a spur from a deposit dated to 1507 at Norwich (Ellis 1993, 220–1). **2016** is an incomplete arm which also has a figure-of-eight-shaped terminal.

**2013**, only a fragment, and **2022** are similar in having incomplete projections at the top of the back which may originally have become tapering crests curving down to the goad. This feature usually dates from the 15th century (Ellis 1977, 63).

**2019** and **2021** are similar in having a down-curving goad with a collar around the base. The former has an arm of simple D-shaped cross-section, but the latter has a more elaborate arm which in the centre has a collar with encircling grooves at either end and fine criss-cross grooves between them. **2021** also has a markedly U-shaped rowel box. Both are from contexts of the 17th to 18th centuries.

One (**2018**) of the two copper alloy spurs comes from the fill of a pit dated to the 15th to 16th centuries, but, like its companion, appears to be of a type more commonly found in the 17th century, at a time when spurs became as much a fashion accessory as a piece of riding equipment (Ellis 1983, 253). It lacks the angled neck of **2020**, but the ornate buckle and iron rivet with domed copper alloy head are frequently found on 17th-century angled neck spurs. A date towards the end of the 16th century might then be appropriate for this piece.

Eight of the iron spur pieces now have remains of plating and since this was the norm in the medieval and early post-medieval periods, the others may also have been plated originally.

**2012** Fig 163 sf SMCW 489. Fragment of an iron prick spur. It has a rounded cross-section and steps in to a point at the head. There are three grooves around the head and a moulding towards the base. Plated. L 58mm, D 10mm. Intrusive in late 4th- to 5th-century inhumation grave 56/69 (70).

**2013** Fig 163 sf VR 3028. A fragmentary iron rowel spur. The largest piece consists of one incomplete arm of D-shaped cross-section, the back and the base of the goad from which there is a short upward curving projection. L 79mm. Another piece is a fragment of arm and terminal. Plated (tin). 14th- to 15th-century pit F131 (X, 284).

**2014** Fig 163 sf SBS 106b. One arm and the goad of an iron prick spur. The goad and arm are in line, the arm terminal is missing. The goad has a rounded cross-section and is incomplete. L 135mm. 15th- to 16th-century soil layer (II, 55).

**2015** Fig 163 sf VR 2704. This was probably a rowel spur, but the goad is incomplete. Iron. The surviving arm is parallel-sided before stepping in and then tapering and curving up to a figure-of-eight-shaped terminal which is pierced twice. Plated (tin-lead). L 134mm, W of arms at back 15mm. 15th- to 16th-century pit F153 (X, 408).

**2016** Fig 163 sf VR 3085. An incomplete curving iron arm which had a figure-of-eight-shaped terminal. Plated. L 75mm, W 10mm, T 2mm. 15th- to 16th-century pit F153 (X, 408).

**2017** Fig 163 sf VR 6163. Rowel spur of iron. One arm is missing. The surviving arm has a figure-of-eight-shaped terminal which is pierced twice. Set in one hole there is a link with a rounded panel in the centre which is drawn out at each end and curved over into a hook at each end. The goad curves down slightly and the rowel has eight points. Plated (tin). L c 130mm, goad L 40mm. 15th- to 16th-century pit F313 (X, 952).

**2018** Fig 163 sf SJS 69. Copper alloy rowel spur, iron rivet with copper alloy head, and strap buckle. Inner L of spur 68mm. The rowel neck is marked by mouldings at the junction with the arms. Traces of an iron rivet remain in the lugs. The arm terminals are figure-of-eight-shaped, supported by a step. Traces of iron rivets remain. The buckle is 36mm L and 19mm W. It has a trapezoidal attachment frame with cross bar, and an elaborate subtriangular loop with heart shaped open centre and pierced corners. The sides meet in a trefoil. The iron rivet has a domed copper alloy head, D 9mm, and is of a type often associated with spurs with angled necks (Ellis 1983, 253). 15th- to 16th-century pit F214B (I, 263).

**2019** Fig 163 sf VR 2105. Rowel spur of iron. The arms taper and curve up near the ends and have a D-shaped cross-section. One terminal is missing, the other is incomplete, but was pierced for attachment. There is a collar at the base of the goad which curves down from the back and the rowel box has a rounded tip. The rowel is missing. L 123mm, W 90mm, arms W 11mm, T 3mm, goad L 28mm. 17th- to 18th-century pit F5 (X, 12).

**2020** Fig 164 sf SJS 67. Copper alloy rowel spur, one arm distorted. Inner L 71mm. The faceted rowel neck is angled. The rowel is missing. The arm terminals are of figure-of-eight-



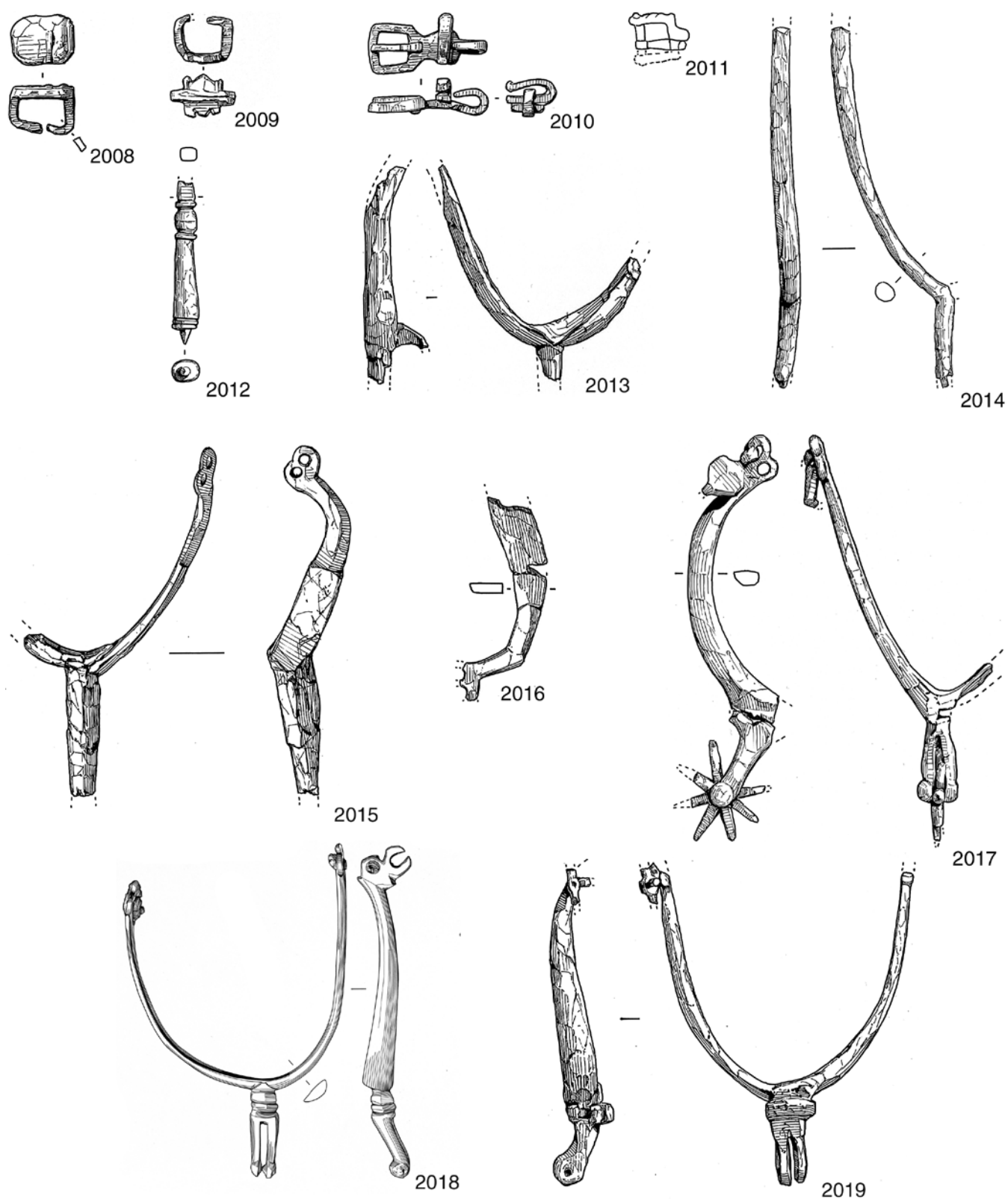


Figure 163 Spur fittings and spurs, nos 2008–19, scale 1:2

form, each supported by a step. 17th- to 18th-century pit F311 (I, 328).

**2021** Fig 164 sf SJS 225. Rowel spur of iron. One arm is incomplete. The other arm has a D-shaped cross-section near the back, there is then a short collar on the outer face with encircling grooves at either end and between them fine criss-cross grooves. The arm then tapers, the upper edge of the outer face

being chamfered, and curves up towards the terminal which is largely missing. Near its base the goad has a short collar. The rowel box is markedly U-shaped, the rowel is missing. Plated (tin-lead). L 120mm, W across arms 80mm, goad L 35mm. 17th- to 18th-century ditch F203 (I, 501).

**2022** Fig 164 sf SBS 4. Rowel spur of iron. The arms taper and curve up to the ends where one has a surviving pierced

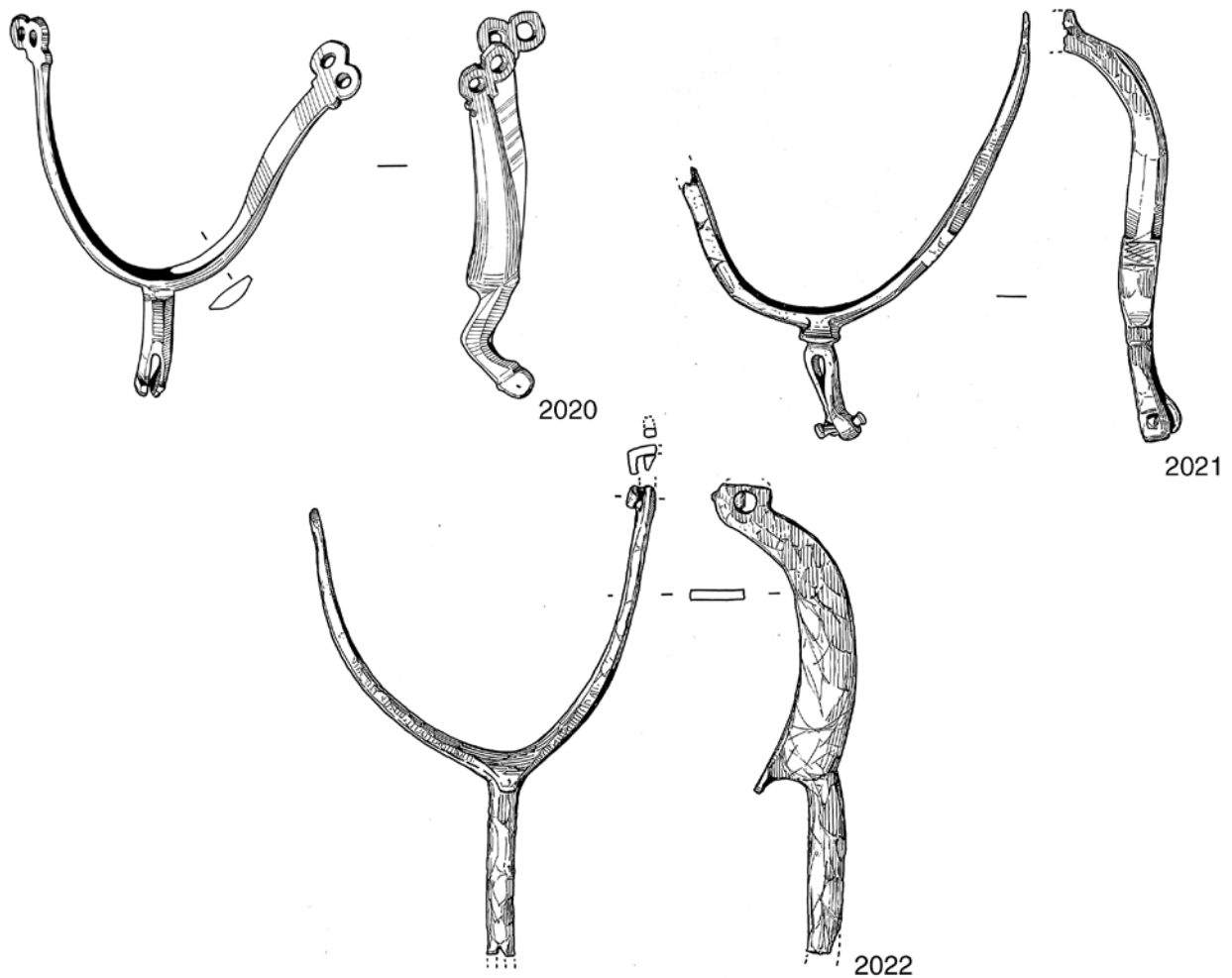


Figure 164 Spurs, nos 2020-2, scale 1:2

terminal. There is a curving projection, now incomplete, from the top of the back above the goad. The goad curved up at the end to the rowel box, the rowel is missing. L 123mm, W 93mm, goad L 54mm. 19th- to 20th-century soil layer (II, 23).

*not illustrated*

**2023** sf HG 372. Back and goad only of an iron prick spur, the goad is octahedral. Plated. L 50mm, W 55mm. Late Saxon pit F172 (III, 827). ?Intrusive, or suggests a somewhat later date for the pit fill.

**2024** sf CT 74. Iron neck and rowel box, a slight collar below the pivot holes. Plated. L 44mm. 13th- to 14th-century pit F71 (VII, 225).

**2025** sf VR 0. Incomplete iron goad from a rowel spur. Plated. L 33mm, W 12mm. Disuse of medieval buildings on tenements 935 and 936 (XII, 2485), 15th to 16th century.

**2026** sf VR 2691. The end of a curving iron arm with an incomplete terminal that was pierced twice. Plated. L 33mm, W 10mm and another fragment. 13th- to 15th-century soil layer (X, 308)

**2027** sf VR 2265. Rowel spur of iron. One arm is missing, the other is incomplete, the goad and rowel box survive, but the rowel is missing. L 110mm, goad L 40mm, T 8mm. 15th- to 16th-century pit F44 (X, 99).

**2028** sf SJS 112. Goad and back of an iron rowel spur, rowel missing. Goad L 90mm. 15th- to 16th-century pit F214B (I, 263).

## Horseshoes

*Note: for terminology see Clark 1986*

There are 95 items catalogued under this heading, but few are anything like complete. The majority survive as single branches in varying states of fragmentation.

The evidence for the development of horseshoe form described by Goodall (WS7.2, 1054-6) is supported by the material from Winchester's suburban sites, although the ceramic sequence on the Sussex Street sites (P5) has allowed refinements of development during the 9th to 11th centuries to be proposed.

There are four horseshoe fragments which are from certain pre-Conquest contexts at Sussex Street (2030-2 and 2037) and three others (2043-5) come from Saxo-Norman contexts. The earliest items are 2032 and 2037, associated with pottery apparently predating the introduction of Winchester ware, which took place possibly as early as c AD 950 (Biddle and Barclay 1974, 150; Part 1). 2032 is the best preserved, being a branch with a smooth outer side and three rounded holes (which are not countersunk), and is also relatively thin (c 3mm) and wide (c 27mm) compared with most other medieval horseshoes from Winchester. Another shoe from Sussex Street 2116

Table 27 Incidence of horseshoe nails

date	form	site										total
		HA	SBS	VR	NR	SXS	CHR	SJS	10CS	HG	JCH	
13th to 14th century	winged	1	–	4	–	–	–	1	–	1	–	7
	D-shaped	3	–	4	1	1	–	2	1	–	–	12
	block	–	–	–	–	–	–	–	–	–	–	–
	other	1	–	2	–	–	–	–	–	–	–	3
	uncertain	–	–	1	2	–	–	–	–	–	–	3
14th to 15th century	winged	–	–	4	–	–	–	–	–	–	–	4
	D-shaped	–	–	11	–	–	–	–	–	–	–	11
	block	–	–	–	–	–	–	–	–	–	–	–
	other	–	–	2	–	–	–	–	–	–	–	2
	uncertain	1	–	3	–	–	–	–	–	–	–	4
15th to 16th century	winged	–	–	–	–	–	–	–	–	–	–	–
	D-shaped	–	–	3	–	–	–	–	–	–	–	3
	block	–	–	6	–	–	–	1	–	–	–	7
	other	–	–	2	–	–	–	–	–	–	–	2
	uncertain	–	1	1	–	–	–	–	–	–	–	2
17th to 18th century	winged	–	–	–	–	–	–	1	–	–	–	1
	D-shaped	–	–	–	–	–	–	–	–	–	–	–
	block	–	–	–	–	–	–	–	–	–	1	1
	other	–	–	–	–	–	–	–	–	–	–	–
	uncertain	–	–	–	–	–	–	1	–	–	–	1
19th to 20th century	winged	–	–	–	–	–	–	–	–	–	–	–
	D-shaped	–	–	1	–	–	–	1	–	–	–	2
	block	–	–	2	–	–	–	–	–	–	–	2
	other	–	–	–	–	–	–	–	–	–	–	–
	uncertain	–	1	–	–	–	–	–	–	–	–	1
unstratified, poorly dated, etc	winged	1	–	–	–	–	–	–	–	–	–	1
	D-shaped	–	–	–	–	–	2	–	–	–	–	2
	block	–	–	–	–	–	–	–	–	–	–	–
	other	–	–	2	–	–	–	–	–	–	–	2
	uncertain	–	–	–	–	–	1	1	–	–	–	2
total		7	2	48	3	1	3	8	1	1	1	75

is of a similar form, but was recovered from a context which cannot now be closely dated. Unfortunately, **2037** is only a fragment with no diagnostic features. The other two items, which were found in association with Winchester ware, are **2030**, a branch, and **2031** a branch end with a turned-over calkin. Both come from horseshoes with wavy outer sides and countersunk nail holes and **2030** has a width of *c* 25mm. The three items from Saxo-Norman pits at Sussex Street are **2045** a branch fragment with a smooth outer side, and **2043–4** which have the markedly wavy outer sides and elongated countersunk holes typical of Norman horseshoes.

The late Saxon contexts of horseshoes from Victoria Road are not as closely datable as those at Sussex Street, but **2035** is a branch fragment 25mm wide and pierced by two round holes which may have been countersunk, although this is not clear due to corrosion. Another branch with smooth sides, a width of *c* 26mm and countersunk holes was recovered from a Saxo-Norman context at Henly's Garage.

The evidence from both the suburbs and intramural sites at Winchester suggests that the earliest horseshoes usually have relatively thin, but wide branches, their maximum widths of 25 to 27mm being greater than that of majority of later shoes. In the 9th and the greater part of the 10th century they have smooth outer edges and holes which are sometimes countersunk (as on WS7.2, fig. 340, 3939), but not always. By the later 10th century, countersunk holes may have been the norm and the effect of making them was, on occasions, to create a slightly wavy outer side (**2030** and **2031**, *ibid* 3940), although smooth sides remain common especially if the branch was relatively wide (*ibid* 3941–3). By the later 11th century wavy outer sides are probably the norm. The turned-over calkin on **2031** is another feature which becomes common in the late 11th to 12th centuries. This sequence of development of the pre-Conquest horseshoe at Winchester confirms and augments that from York and elsewhere (Ottaway 1992, 708–09).

Clark (1986) and Goodall (WS7.2, 1055) have identi-

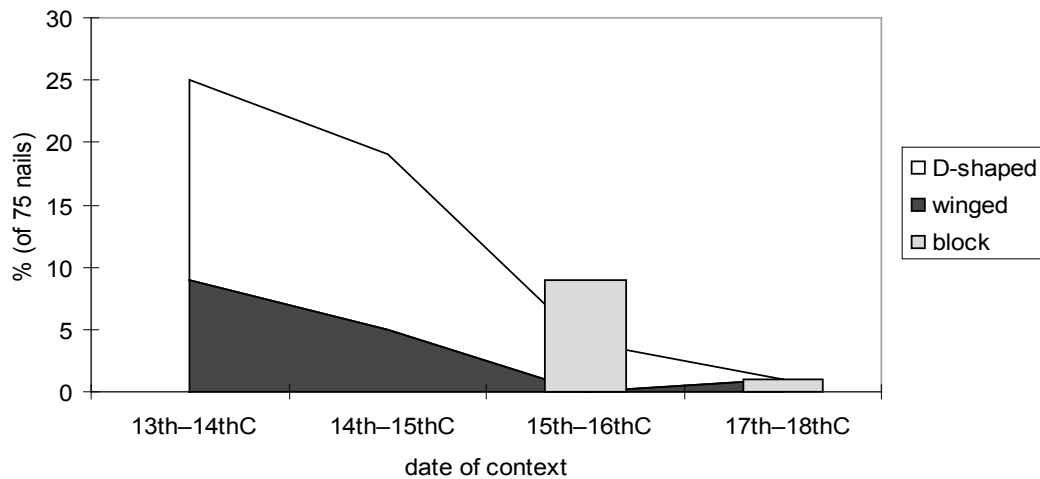


Figure 165 The most common forms of horseshoe nail

fied the typical late 11th- to early 13th-century horseshoe as having a narrower, but thicker branch than those of earlier date, with countersunk holes, the punching of which created a markedly wavy outer side. This form can be seen on **2044** (as noted above), **2039** and **2041** (maximum width 20mm) from contexts of the period. Examples from later contexts, including **2048** and **2053** from 13th- to early 14th-century pits, are probably residual. **2111** (from a 19th- or 20th-century garden soil) with countersunk holes and a wavy outer side has the turned over calkins often found on the Norman horseshoe.

During the 13th century, branches became wider and so countersinking left the outer side smooth rather than wavy as can be seen on **2050** (maximum width 25mm) from a 13th- to 14th-century context which is comparable to WS7.2 (1057–9, fig 341, 3950, 3957–8). **2038**, **2061** and **2071** with countersunk holes and smooth outer sides may also be of this period.

By the 14th century, horseshoes usually had rectangular holes which were not countersunk, and this feature can be seen on the majority of the horseshoes from the Winchester suburban sites. The apparently earliest example of a horseshoe with rectangular holes is seen in a late Saxon pit at Victoria Road, but here it must be intrusive (**2034**). However, others are found on a horseshoe recovered from the occupation of Building 936.3, probably of the late 13th to 14th centuries, on one recovered from a 13th- to 14th-century pit on tenement 936 (both Victoria Road), and on one from occupation of 13th- to 14th-century Building 795.1 (The Lido).

Distinct calkins are difficult to detect on the 13th- to 14th-century shoes, but there are occasional examples of thickened branch ends. A horseshoe of this period of particular interest is **2033**. It was clearly asymmetrical and the third hole of the complete branch is at the tip. There is then a long gap to the first hole in the second branch. This is probably a surgical shoe made to protect a damaged or diseased hoof. A similar shoe comes from a 12th- or early 13th-century context at Lower Brook Street (WS7.2, fig 340, 3953).

At the end of the medieval period and in the post-

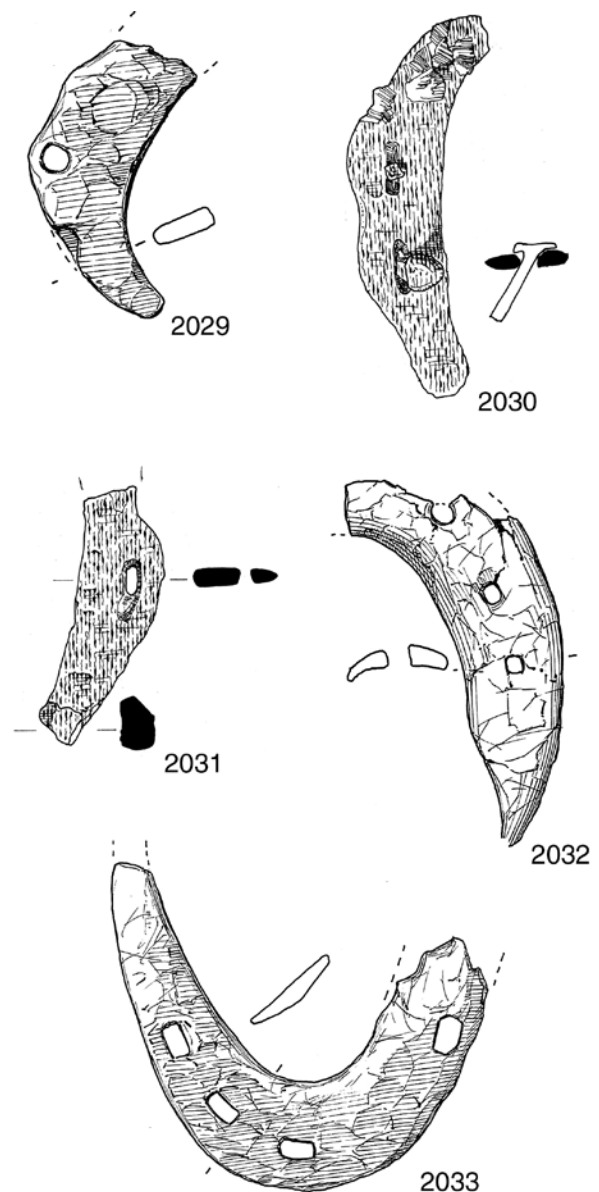


Figure 166 Horseshoes, nos 2029–33, scale 1:2

medieval period horseshoe branches appear to become wider again. At Victoria Road and St John's Street maximum widths of 30mm and more are common. The number of holes in a branch, hitherto standardised at three, may now on occasion be increased. **2118** has four and **2104** has five.

There are 75 horseshoe nails recovered loose (Table 27 and Fig 165) and fragments of others are to be seen in the horseshoes themselves. None of the loose nails was recovered from contexts earlier than the 13th century. The most common form of head is a D shape (30 examples) which was principally used in shoes with countersunk holes (these are sometimes known as 'fiddle-key nails'). Nails with 'winged' heads (12 examples), that is with short projections at the base of the head were probably used in the shoes with non-countersunk rectangular holes. The third principal form of horseshoe nail head (9 examples) is a small block which first appears in 15th- to 16th-century contexts at Victoria Road and St John's Street.

**2029** Fig 166 sf VR 3885. A branch fragment with one rounded hole. L 65mm, W 25mm. Late Saxon pit F588 (XII, 2358).

**2030** Fig 166 sf SXS 11. Branch with wavy outer side and three countersunk holes, nails *in situ*. L 100mm, W 25mm, T 5mm. Late Saxon fill of pit F10 (VIII, 51).

**2031** Fig 166 sf SXS 41. End of branch, wavy outer side, one countersunk hole and turned over calkin. L 66mm, W 21mm. Late Saxon pit F29 (VIII, 154).

**2032** Fig 166 sf SXS 625. Branch, slightly D-shaped in cross section, smooth outer side, tapers markedly at the tip, three round holes. L 115mm, W 27mm, T 3mm. Late Saxon pit F500 (XVII, 1168).

**2033** Fig 166 sf VR 2052. One branch tapers markedly to the tip which is thickened to form a calkin. It is pierced three times with one hole at the tip of the shoe. The other branch is incomplete. There is a gap of c 45mm from the hole at the tip to the surviving hole in this branch. The holes are rectangular. ?Surgical shoe. L 85, W 100, W of branch 22mm. 13th- to 15th-century soil layer (X, 61).

*not illustrated*

#### *late Saxon (9th – 10th century)*

**2034** sf VR 3803. A branch fragment with two rectangular holes. L 78mm, W 18mm. Pit F569 (XII, 2068). ?Intrusive, perhaps from construction of buildings of the late 13th to 15th centuries. Associated in this upper fill with a sherd of medieval pottery, but other fills contained a good late Saxon group (P5).

**2035** sf VR 3983. The end of a branch, very corroded. L 34mm, W 20mm. Pit F629 (XII, 2303).

**2036** sf VR 5085. A branch with a wavy outer side and three countersunk holes. L 105mm, W 20mm. Pit F629 (XII, 2362).

**2037** sf SXS 69. End of branch, wavy outer side, countersunk hole. L 50mm, W 20mm, T 6mm. Pit F36 (VIII, 280).

**2038** sf CHR 154. Branch with three countersunk holes. L 90mm. Pit F24 (I, 127)

#### *Saxo-Norman (11th – 12th century)*

**2039** sf VR 0. End of branch with a thickened calkin, wavy outer side and one countersunk hole. L 51mm, W 20mm. Pit F1021 (XV, 3939).

**2040** sf VR 0. Incomplete, pierced three times. L 61mm, W 25mm. Pit F1021 (XV, 4126).

**2041** sf VR 3651. One branch with a wavy outer side and

three countersunk holes, nails *in situ*. L 100, W 20mm. Pit F798 (XIII, 3136).

**2042** sf VR 9527. Fragment. L 40mm, W 23mm. Pit F1021 (XV, 3939).

**2043** sf SXS 36. Branch, wavy sides, nail in countersunk hole. L 95mm, W 26mm. Pit F30 (VIII, 131).

**2044** sf SXS 111 Complete, wavy outer sides, three countersunk nail holes in each branch. L 120mm, W 108, branch 25mm. Pit F54 (VIII, 335).

**2045** sf SXS 118 Branch fragment, smooth outer side, two holes. L 65mm, W 26mm. Pit F54 (VIII, 335).

**2046** sf HG 350. Branch with smooth outer side and three countersunk holes. L 105mm, W 26mm. Pit F170 (III, 852).

#### *13th – 14th centuries*

**2047** sf LIDO 11. Incomplete branch, thickened calkin, two rectangular holes. L 83mm, W 24mm. Robbed out feature (?base of step) F18 in Building 795.1 (V, 64).

**2048** sf VR 0. Incomplete branch with a wavy outer side and two countersunk holes. L 75mm, W 16mm. Pit F916 (XI, 1658).

**2049** sf VR 0. (a) Incomplete branch with a turned-over calkin and one rectangular hole. L 70mm, W 30mm. (b) End of branch with a thickened calkin. L 48mm, W 20mm. Pit F960 (XIV, 3788).

**2050** sf VR 0. Incomplete branch with two countersunk holes. L 77mm, W 25mm. Pit F1071 (XV, 4028).

**2051** sf VR 0. Branch fragment. L 47mm, W 23mm. Pit F 1114 (XV, 4210).

**2052** sf VR 3774. The end of a branch with a thickened calkin. L 54mm, W 20mm. Pit F558 (XII, 2043).

**2053** sf VR 4344. A branch fragment with wavy outer side and two countersunk holes. L 66mm, W 17mm. Pit F802 (XIII, 3166).

**2054** sf VR 8623. The end of a branch with one countersunk hole. L 51mm, W 23mm. Pit F960 (XIV, 3886).

**2955** sf CT 214. Branch fragment, wavy side, one countersunk hole. L 49mm, W 17mm. Pit F65 (VII, 205).

**2056** sf CT 239. Branch tip with thickened calkin. L 40mm, W 20mm. Pit F71 (VII, 225).

**2057** sf CT 241. Branch end, wavy side, countersunk hole, thickened calkin. L 47mm, W 14mm. Pit F71 (VII, 225).

**2058** sf NR 116. Branch end, wavy side, countersunk hole. L 60mm, W 19mm. Property boundary ditch F391 (II, 459).

**2059** sf NR 117. Branch fragment, two countersunk holes, ?wavy side. L 46mm, W 15mm. Property boundary ditch F391 (II, 454).

**2060** sf SXS 14. Branch with wavy outer side, three countersunk holes and a turned over calkin. L 108mm, W 26mm. Boundary ditch F126 (VIII, 67).

**2061** sf CHR 1494. Incomplete branch with a thickened calkin and two countersunk holes. L 103mm, W 26mm. Large feature (?quarry) F505 (I, 524).

#### *13th – 15th centuries*

**2062** sf VR 83. Branch fragment, one rectangular hole. Turned-over calkin. L 60mm, W 25mm. Soil layer (IV, 44).

**2063** sf VR 2054. A branch fragment. L 35mm, W 18mm. Soil layer (X, 35).

**2064** sf VR 2465. The end of a branch with one countersunk hole. L 47mm, W 25mm. Soil layer (X, 348).

**2065** sf VR 3839. An incomplete branch with one rectangular hole. L 63mm, W 17mm. Floor in Building 935.3 (XII, 2139).

**2066** sf VR 5675. Fragment. L 57mm, W 26mm. Construction F701 of building 936.4 (XII, 2607).

**2067** sf VR 5824. A branch with three rectangular holes. L 103mm, W 25mm. Occupation of Building 936.3 (XII, 2661).

*14th – 15th centuries*

**2068** sf VR 0. Corroded end of branch, one rectangular hole. L 60mm, W 30mm. Pit F505 (XI, 1508).

*15th – 16th centuries*

**2069** sf SBS 106c. An incomplete branch with two rectangular holes. L 80mm, W 22mm. Soil layer (II, 55).

**2070** sf SBS 114. End of branch with thickened calkin. L 50mm. Pit F100 (II, 152).

**2071** sf SBS 190. In two pieces. Each branch has a turned over calkin and is pierced three times with countersunk holes. L 85mm, W 120mm, branch W 26mm. Pit F100 (II, 152).

**2072** sf VR 0. Branch fragment. L 57mm, W 19mm. Pit F44 (X, 99).

**2073** sf VR 0 (a) Incomplete branch, thickened towards the tip, one square hole. L 96mm, W 16mm. (b) Branch fragment with a wavy outer side and countersunk hole. L 55mm, W 16mm. Pit F313 (X, 952).

**2074** sf VR 2163. End of branch. Pit F27 (X, 92).

**2075** sf VR 2290. A branch with a turned-over calkin and three rectangular holes. L 88mm, W 30mm. Pit F44 (X, 99).

**2076** sf VR 3066. Fragments. Pit F140 (X, 365).

**2077** sf VR 3668. The end of a branch with two countersunk holes. L 75mm, W 22mm. Pit F776 (XIII, 3160).

**2078** sf VR 3812. A branch with three rectangular holes. L 77mm, W 22mm. Pit F577 (XII, 2099).

**2079** sf VR 4009. The end of a branch with a thickened and turned-over calkin and one rectangular hole. L 60mm, W 28mm. Pit F778 (XIII, 3075).

**2080** sf VR 4055. The end of a branch with a thickened calkin and one rectangular hole. L 60mm, W 30mm. Pit F751/757/759 (XIII, 3002).

**2081** sf VR 4206. The end of a branch with a thickened calkin. L 46mm, W 17mm. Pit F763 (XIII, 3034).

**2082** sf VR 4224. An incomplete branch with two rectangular holes. L 87mm, W 20mm. Pit F776 (XIII, 3085).

**2083** sf VR 6074. Branch fragment. L 55mm, W 27mm. Pit F308 (X, 920).

**2084** sf VR 6077. Branch fragment. Pit F313 (X, 933).

**2085** sf SXS 791. Branch with three round holes. L 82mm, W 25mm. Soil layer (XVII, 864).

**2086** sf SJS 397. Branch fragment with one rectangular hole. L 40mm, W 32mm. Soil layer (I, 190).

**2087** sf SJS 518. Incomplete branch with thickened calkin and part of a countersunk hole. L 50mm, W 20mm. Soil layer (I, 277).

**2088** sf SJS 579. Incomplete branch with three rectangular holes. L 97mm, W 25mm. Pit F214B (I, 267).

**2089** sf SJS 585. Incomplete branch with three rectangular holes. L 95mm, W 30mm. Pit F215 (I, 270).

**2090** sf SJS 725. Branch fragment with two rectangular holes. L 57mm, W 33mm. Pit F312 (I, 334).

**2091** sf SJS 778. Branch with three rectangular holes. L 105mm, W 34mm. Feature F305 (I, 330).

*16th – 17th centuries*

**2092** sf VR 2601. An incomplete branch with three rectangular holes. L 100mm, W 15mm. Pit F91 (X, 203).

*17th – 18th centuries*

**2093** sf VR 0. Branch fragment with one rectangular hole. L 35mm, W 29mm. Pit F1010 (XV, 3916).

**2094** sf NR 98. Branch end, wavy side, countersunk hole. L 40mm, W 17mm. Posthole or stakehole F153 (II, 196).

**2095** sf SJS 695. Incomplete branch with one rectangular hole. L 108mm, W 32mm. Pit F311 (I, 328).

**2096** sf SJS 726. Branch fragment with a thickened calkin. L 73mm, W 34mm. Pit F311 (I, 328).

**2097** sf SJS 775. In two pieces. Each branch has three rectangular holes. L 107mm, W of branches 31mm. Pit F311 (I, 328).

**2098** sf SJS 776. Branch with three rectangular holes. L 104mm, W 34mm. Pit F311 (I, 328).

**2099** sf SJS 777. Branch fragment with three rectangular holes. L 75mm, W 25mm. Pit F311 (I, 328).

**2100** sf CHR 0. Fragment with one rectangular hole. L 37mm, W 28mm. Soil layer (I, 19).

*19th – 20th centuries*

**2101** sf SBS 92 Branch with two countersunk holes. L 100mm, W 16mm. Pit F59 (III, 48).

**2102** sf SBS 102. (a) Branch fragment with three rectangular holes. L 65mm, W 40mm. (b) Branch with two rectangular holes. L 105mm, W 43mm. Pit F59 (III, 35).

**2103** sf SBS 0. Branch with three holes. L 80mm. Soil layer (II, 23).

**2104** sf VR 2136. Branch with five rectangular holes. L 98mm, W 28mm. Soil layer (X, 6).

**2105** sf VR 2180. An incomplete branch with thickened calkin and two rectangular holes. L 95mm, W 30mm. Soil layer (X, 6).

**2106** sf VR 4027. One branch with two rectangular holes. L 86mm, W 21mm. Soil layer (?topsoil, XIII, 3001).

**2107** sf VR 4029 Incomplete branch with three rectangular holes, two with nails in situ. L 95mm, W 30mm. Soil layer (?topsoil, XIII, 3001).

**2108** sf VR 4032. Branch fragment, one rectangular hole. L 32mm, W 25mm. Soil layer (?topsoil, XIII, 3001).

**2109** sf VR 4067. One branch with a turned-over calkin and four rectangular holes. L 103mm, W 32mm. Soil layer (?topsoil, XIII, 3001).

**2110** sf VR 4090. An incomplete branch with two rectangular holes. L 88mm, W 32mm. Soil layer (?topsoil, XIII, 3001).

**2111** sf VR 4246. A branch with a wavy outer side and turned-over calkin, three countersunk holes. L 90mm, W 18mm. Garden soil (XIII, 3060).

**2112** sf SXS 258. Branch fragment, two small oval holes. L 80, W 12mm. Soakaway F7 (VIII, 12).

**2113** sf CHR 1484. Branch fragment with three rectangular holes. L 67mm, W 30mm. Modern layer (I, 8).

*uncertain date*

**2114** sf NR 42. Branch tip with calkin. L 25mm, W 15mm. Context of uncertain type and date (II, 151).

**2115** sf SXS 154. Branch fragment, smooth outer side, two holes, one with nail. L 88mm, W 30mm. Context of uncertain type and date (VIII, 28).

**2116** sf SXS 527. Branch, smooth outer side, three round holes. L 80mm, W 25mm. Context of uncertain type and date, trench uncertain.

*unstratified*

**2117** sf HA 11. Branch with slightly wavy outer side and three countersunk holes. L 95mm, W 25mm. (II).

**2118** sf SJS 252. Branch with thickened calkin and four rectangular holes. L 111mm, W 32mm. (I).

*intrusive in Roman context*

**2119** sf HA 36. Branch with three countersunk holes. Late 3rd- to 4th-century flint metallurgy over hollow way F10 (II, 11).

# 9 Buildings and services

Roofing slate and ceramic roof tile (including louvres and finials) were recovered loose from most sites on which medieval buildings had once stood, together with a little plaster, mortar, and daub. Due to lack of time and resources, this material has been only cursorily assessed, and almost certainly has *some* potential for further study, although, of course, it was not recovered in situ.

Blocks of building stone were largely provenanced to source, as part of the (MAP2) assessment. The picture has been a little blurred by unidentified residual Roman material occurring in post-Roman contexts, but regional sources of supply seem to have been similar to those in operation in the Roman period (Part 2, Category 9), although quantified analysis might show that some were less, or more important, in medieval times than in Roman. Superficial examination suggests that Quarr limestone from the Isle of Wight was more frequently used. At Victoria Road, and apparently elsewhere (Anderson in WS7.2, 310), Malmstone (greensand) seems to have been the favoured material for the construction of hearths, whilst other types were more generally used.

There was little building stone from further afield in Britain, but in addition to Caen limestone, column base fragments of Tournai marble were found at Hyde Abbey and Victoria Road and these have been examined as part of a wider survey, which was carried out by Freda Anderson (Winchester Museums Service, in archive). As might be expected, the excavations at Hyde Abbey produced other pieces of architectural merit, which would benefit from further analysis, should resources become available. In this connection, the recovery of a quantity of inlaid floor tiles from

the nearby site at King Alfred Terrace (KAT88) is also worth noting.

The analysis of post-medieval window glass is, in any case, beyond the scope of this volume, but the removal, during renovations in 1982, of four composite panels of Victorian leaded stained glass from the rear of 46 St John's Street, should perhaps be mentioned. The fragments of medieval window glass from the excavations at Henly's Garage and Jewry Street, Crown Hotel on the city defences, were too few and small to warrant further study, but a full report on similar material from the suburbs appears below. Window comes and those iron fixtures and fittings that could be identified as structural in function are also catalogued in this section.

## The medieval window glass from the suburbs by H E M Cool

Medieval window glass was recovered in very small quantities from seven sites, and was mainly found in pits and garden soil accumulations. The incidence of these fragments is summarised in Table 28. The majority were found at Victoria Road, the site which also produced the greatest variety of types, but even there the total amount recovered is equivalent to one small pane of glass approximately 15cm square. In such circumstances, these fragments can contribute relatively little to understanding the glazing of the buildings on the sites. Individually, however, some of the early fragments are worthwhile for extending patterns of use first observed on the Winchester intra-mural sites reported on by Biddle and Hunter (WS7.2, 350–86).

**Table 28 Overall distribution of medieval window glass**

area	site	durable early medieval	non-durable undecorated	non-durable painted
northern suburb	Hyde Abbey	–	2.54	–
	Victoria Road	2.88	131.62	85.04
western suburb	Crowder Terrace	–	2.79	10.89
	New Road	–	1.32	–
	Sussex Street	–	6.00	–
eastern suburb	Chester Road	–	0.73	–
	St John's Street	–	34.89	8.39
total		2.88	179.89	104.32

Note: figures expressed as surface area (in cm sq)

**Table 29** Distribution of late medieval window glass by context date

area	site	13th–14th century	late 14th–15th century	15th–16th century	17th century+ and unstratified, unphased, intrusive
northern suburb	Hyde Abbey	–	–	–	2.54
	Victoria Road	26.18	17.75	139.98	29.52
western suburb	Crowder Terrace	2.79	–	–	10.89
	New Road	–	–	–	1.32
	Sussex Street	6.00	–	–	–
eastern suburb	Chester Road	–	0.73	–	–
	St John's Street	9.41	–	10.39	10.39

Note: figures expressed as surface area (in cm sq)

### **Early medieval window glass**

In their study of the early medieval window glass, Biddle and Hunter defined four typological groups (WS7.2, 351). The first three were of durable glass made in the Roman tradition and the fourth used potash as the alkali and was thus non-durable. The only durable window glass recovered from the suburban sites was a fragment (**2121**) belonging to Group 1b (*ibid* 352) from an 11th- to 12th-century pit at Victoria Road. Other fragments of Group 1b glass from Winchester were found in 10th-century contexts or later (*ibid* 369) but it may have first been used in Winchester up to two centuries earlier (*ibid* 352). In general the status of pre-Conquest glazed buildings is unclear though Biddle and Hunter (WS7.2I, 354) raise the possibility that the city-wide distribution of fragments belonging to Groups 1 and 2 are evidence for late Saxon domestic glazing. The single fragment from Victoria Road extends this city-wide distribution but the context of the fragment casts no light on the nature of the building it was derived from.

The precise date at which non-durable Group 4 glass began to be used at Winchester is unclear, but it is present in some quantities in early 10th-century contexts (*ibid* 362). It is more difficult to identify Group 4 window glass than the other early medieval types as it is visually very similar to late medieval non-durable glass. It can, therefore, only be identified with certainty if it is found in a context of the late 12th century or earlier. Two fragments from Victoria Road fulfil this criterion. **2120** was found in a late Saxon context (pit F976) and **2122** in one of the 11th or 12th century.

### **Later medieval window glass**

All of the later medieval window glass recovered is made of non-durable potash glass and in most cases the fragments are almost completely devitrified. The distribution of this material by broad chronological divisions based on the date of the context in which the fragments were found is shown in Table 29. The fragments found during the excavations at Sussex Street in 1979 were associated with 13th- to 14th-century Building 714.2.

In addition, the 13th- to 15th-century buildings on tenement 936 at Victoria Road (Buildings 936.3 and 936.4) produced one plain and one painted (**2129**) fragment. None of the other fragments were directly associated with structures as they were found in pits or garden soil accumulations. However, four pits dug after the buildings on tenements 935 and 936 had been demolished produced material that was probably residual from them.

The painted fragments which can be independently dated belong mainly to the 13th and 14th centuries. **2125**, from Victoria Road, comes from a quarry decorated with a foliage or trefoil design similar to those found at Wolvesey Palace and discussed by Kerr (WS7.2, 412 fig 102.900.1–6). It is likely to be of mid-13th-century date. The patterns on **2124** and **2134**, also from Victoria Road, are less well-preserved but are also likely to come from contemporary windows with stiff-leaf foliage or trefoil designs. Naturalistic foliage designs of the 14th century (*ibid* 412, fig 103) are represented by **2123** from Victoria Road and possibly **2133** from St John's Street. The third type of foliage design is represented by **2126**, which consists of fragments from a quarry with a Tudor rose, centrally surrounded by straight lines parallel to the edges of the quarry. These were common in the 14th to 15th centuries.

The designs on the other painted fragments cannot be identified. Back painting is present on two of these fragments (**2128** and **2130**) and in one case (the fragment from Crowder Terrace) this technique has been applied to a red flashed fragment, which is unusual.

### **Undecorated medieval window glass from early contexts**

*not illustrated*

**2120** sf VR 9967. Winchester Group 4, light green, T 4mm, A 1.38cm square. Late Saxon pit F976 (XIV, 3832).

**2121** sf VR 3921. Winchester Group 1b, blue-green, T 1mm, A 2.88cm square. 11th- to 12th-century pit F758 (XIII, 3116).

**2122** sf VR 9123. Winchester Group 4, colour indeterminate, T 3.5mm, A 1.95cm square. 11th- to 12th-century pit F1021 (XV, 3939).



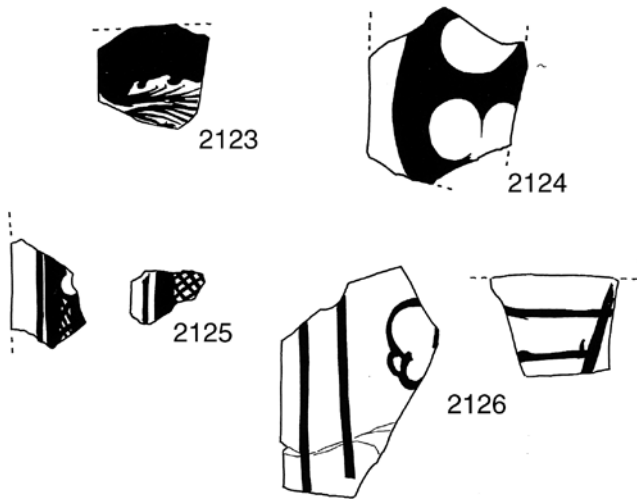


Figure 167 Window glass, nos 2123–6, scale 1:2

### Painted medieval window glass

**2123** Fig 167 rf VR 3010. Fragment of non-durable glass. Part of a naturalistic oak leaf reserved against a reddish brown wash. One edge grozed; devitrified; exterior pitted. T 3.5mm, A 5.99cm sq. 15th- to 16th-century pit F60 (X, 134).

**2124** Fig 167 rf VR 3011. Fragment of non-durable glass. A design of trefoils back to back reserved against reddish brown paint (parts of 3 lobes extant). Three edges grozed; devitrified; exterior pitted; paint chipped. T 4.5, A 13.57cm sq. 15th- to 16th-century pit F27 (X, 117).

**2125** Fig 167 rfs VR 4002–4. Six fragments of non-durable glass with reddish brown paint. Two fragments with painted cross-hatch bordered by one thick and one thin line, one with edge of trefoil or foliage design reserved against a cross-hatched background. 1 edge grozed. Devitrified. T 3mm, A 12.90cm sq. 15th- to 16th-century pit F153 (X, 408).

**2126** Fig 167 sf VR 6190. Two fragments of non-durable glass with pinkish brown paint from quarry decorated with a central rose and bordering lines. One fragment retains parts of two lines and an edge of a rose; the other has three lines. Edges broken; devitrified with core of green glass remaining. T 5mm, A 23.58cm sq. 15th- to 16th-century pit F320 (X, 978).

### not illustrated

**2127** sf CT 532. Fragment of green glass with reddish brown paint. Design includes one broad band and part of another large painted 'A'. One edge grozed; surfaces devitrified and exterior pitted. T 2.5mm., A 8.74cm sq. Intrusive in early Bronze Age (beaker) pit F42 (VI, 135).

**2128** sf CT 533. Fragment of green glass flashed with red on exterior and with a curved line of reddish brown paint on interior. Edges broken. T 2mm, A 2.15cm square. Intrusive in early Bronze Age (beaker) pit F42 (VI, 135).

**2129** rf VR 5815. Fragment of non-durable glass with traces of reddish-brown paint. Edges broken; devitrified; exterior pitted. T 3mm, A 1.71cm sq. Floor in 13th- to 15th-century Building 936.4 (XII, 2452).

**2130** rf VR 3396. One fragment of non-durable glass with traces of wash from back painting. Edges broken. T 3mm, A 7.56cm sq. 13th- to 15th-century soil layer (X, 264).

**2131** sf VR 6123. Fragment of non-durable glass with traces of reddish brown paint in an indeterminate pattern. Two edges grozed; devitrified; exterior pitted. Slightly curved

section indicating quarry cut from near edge of pane. T 4.5, A 15.83cm sq. 15th- to 16th-century pit F320 (X, 959).

**2132** sf SJS 22. Fragment of green glass with reddish brown paint consisting of two narrow curved lines bordered on one side by thick band. Exterior pitted. T 3mm, A 5.14cm sq. 15th- to 16th-century pit F305 (I, 319).

**2133** sf SJS 734. Fragment of green glass with reddish brown paint, possibly stamens or a stem from a foliate design. Exterior pitted. T 3.5mm, A 3.25cm sq. 15th- to 16th-century pit F319 (I, 336).

**2134** rf VR 3939. Fragment of non-durable glass. A lobed design reserved against much decayed paint (part of two lobes extant). T 4mm, A 3.90cm sq. Unstratified (XIII).

### Window comes

Only Victoria Road produced lead comes of demonstrably medieval date, from soils associated with the occupation of the medieval buildings on tenements 935–938, and, in one case from Building 935.2 itself (2137).

The only other site to furnish more than one came was St John's Street. **2146** was found in the demolition of 18th-century Building 961.6, which also produced a number of iron fixtures and fittings (see below). Another fragment was associated with 19th-century Building 961.8 (2144). The latter consists of two strips joined at an acute angle to form part of the frame for a lozenge-shaped pane.

Other fragments of lead which may have been from buildings are discussed under Category 18.

### not illustrated

**2135** sf VR 308. Two strips 69mm and 67mm in L. 13th- to 15th-century soil layer (IV, 86).

**2136** sf VR 3106. One strip. L 46mm. 13th- to 15th-century soil layer (X, 472).

**2137** sf VR 3777. One strip bent in half. L (bent) 31mm. Occupation of 13th- to 15th-century Building 935.2 (XII, 2045).

**2138** sf VR 2158. One strip, twisted. H-section. L (bent) 48mm. 15th- to 16th-century pit F27 (X, 76).

**2139** sf VR 2190. ?Two strips twisted together. L (bent) 55mm. 15th- to 16th-century pit F44 (X, 99).

**2140** sf SJS 27. One strip. L 40mm. 15th- to 16th-century pit F305 (I, 319).

**2141** sf HA 156. One strip, twisted. L (bent) 75mm. 17th- to 18th-century feature F175 (XI, 330).

**2142** sf VR 4303. Three strips. H-section. L of largest (bent) 95mm. 17th- to 18th-century pit F781 (XIII, 3104).

**2143** sf SJS 488. Fragment of lead ?came, H-section. L (bent) 25mm, W 15mm. 17th- to 18th-century yard surface (I, 260).

**2144** sf SJS 943. Two strips, one with triangular junction. L 46mm and 34mm. Feature (F586) in 19th-century Building 961.8 (IV, 585).

**2145** sf VR 4105. One strip. L 36mm. 19th- to 20th-century soil layer (XIII, 3006).

**2146** sf SJS 954. Three strips from central junction. L (bent) 85mm, 83mm and 78mm. Demolition of 18th-century Building 961.6 (IV, 604).

**2147** sf NHW 6. One strip. L 100mm. 19th- to 20th-century soil layer (I, 11).

**2148** sf VR 2895. Fragments of comes forming a junction of three panes of glass. L 43mm. H-section. Unstratified (XII).

## Iron fixtures and fittings

Only those items very likely to be, or definitely from structures are catalogued here. For iron fittings of less well-determined function see Category 11.

### Staples

The larger U-shaped staples especially those with arms over 90mm long may have been used in structural items such as doors.

**2149** Fig 168 sf VR 3111. U-shaped. L 92mm, W 60mm, T 10mm. 14th- to 15th-century pit F131 (X, 483).

*not illustrated*

**2150** sf VR 0. U-shaped, one arm missing. L 85mm, W 36mm, T 5mm. 13th- to 14th-century pit F960 (XIV, 3788).

**2151** sf 10CS 24. U-shaped. L 99mm, W 48mm. Demolition of Building 521.2 (I, 38), 14th to 15th centuries.

**2152** sf SJS 0. Large rectangular staple or joiner's dog, one arm incomplete. L 71mm, W 40mm, T 8mm. Demolition of 18th-century Building 961.6 (IV, 604).

### Wall eye

This object from St John's Street is probably a wall eye, frequently used in gardens to assist in holding shrubs and other plants in place against a wall. The shank was driven into a suitable joint leaving the eye projecting.

**2153** Fig 168 sf SJS 575. The shank tapers to a point at one end; at the other there is a slight step and then a rounded eye terminal. L 96mm, terminal W 20mm. 17th- to 18th-century soil layer (I, 253).

### Wall ties

These objects from St Bartholomew's School, Victoria Road, and St John's Street are wall ties or hold fasts, objects with a tapering shank which were driven into joints in masonry or brickwork. At the thick end the shank was flattened out into a pierced terminal (pierced twice in the case of **2155** and three times in the case of **2157**), which would have held a timber structural member in place. The terminal of **2156** is missing, but it was probably a wall tie also, unless it was a 'wall-anchor' similar to one from Castle Yard (WS7.2, 334, no 512), the terminal of which is unpierced. Comparable wall ties from elsewhere appear to be exclusively late or post-medieval.

**2154** Fig 168 sf VR 1023a. It has a shank of rounded cross-section and at its thicker end it is flattened out and widened into an oval, pierced terminal. L 60mm, terminal W 16mm. 13th- to 15th-century soil layer (V, 14).

**2155** Fig 168 sf SBS 95b. It consists of a tapering bar which is flattened at the wider end to form an oval plate which

is pierced twice. L 125mm, W 26mm, bar L 64mm. 19th- to 20th-century soil layer (III, 27).

**2156** Fig 168 sf SJS 0. It has a stout tapering shank, pinched at wider end to form a terminal which is missing. L 200mm, W 20mm. Levelling over demolition of Building 961.8 (IV, 549) 19th to 20th centuries.

**2157** Fig 168 sf SJS 0. It consists of a long spike and a terminal with convex sides which narrows to a pointed end and is pierced three times. L 230mm, terminal L 85mm, W 26mm. Unstratified (trench uncertain).

### Wall anchor

This object, from St John's Street is probably an incomplete wall anchor of a different form to the one from Castle Yard (WS7.2, 334, no 512). It is broken, but probably had two tapering shanks. If so, it would have been held in place against a brick or masonry wall by a bracket seated against the projection, as can be seen on an example recorded in an early 17th-century house at Great Yarmouth (O'Neil 1953, pl 61a).

**2158** Fig 168 sf SJS 0. It has a tapering shank, at the thicker end one face is raised into a triangular projection, beyond this it is flattened out and a second tapering shank was probably broken off across a nail hole. L 160mm, W 25mm, T across projection 20mm. Demolition of 18th-century Building 961.6 (IV, 604).

### Structural brackets

**2160** has a sturdy shank of rounded cross-section 92mm long which at each end has a rounded, pierced terminal set at 90 degrees. **2159** and **2161** were probably similar objects, but have one terminal missing.

**2159** Fig 169 sf VR 840. It consists of a shank which is broken at one end and curved over at 90 degrees and widened to form a terminal, now incomplete. L 95mm, terminal L 25mm, W 32mm. 13th- to 15th-century soil layer (V, 208).

**2160** Fig 169 sf VR 4271. Consists of a straight shank which is curved over at each end and flattened out into a rounded (?pierced) terminal. L 92mm, shank T 5mm, terminals L 20mm, W 20mm. 15th- to 16th-century pit F776 (XV, 3085).

*not illustrated*

**2161** sf SJS 0. It has a tapering shank and at the wider end, set at 90 degrees; there is a pierced oval plate. Shank L 165mm, W 18mm, plate L 43mm, W 21mm. Demolition of 18th-century Building 961.6 (IV, 604).

### Hinge fittings

#### Hinge pivots

There are thirteen hinge pivots which would have been used for suspending doors and windows. The objects are, with one exception, L-shaped with tapering shanks of rectangular cross-section and guide arms of rounded cross-section. **2167** has a shank with

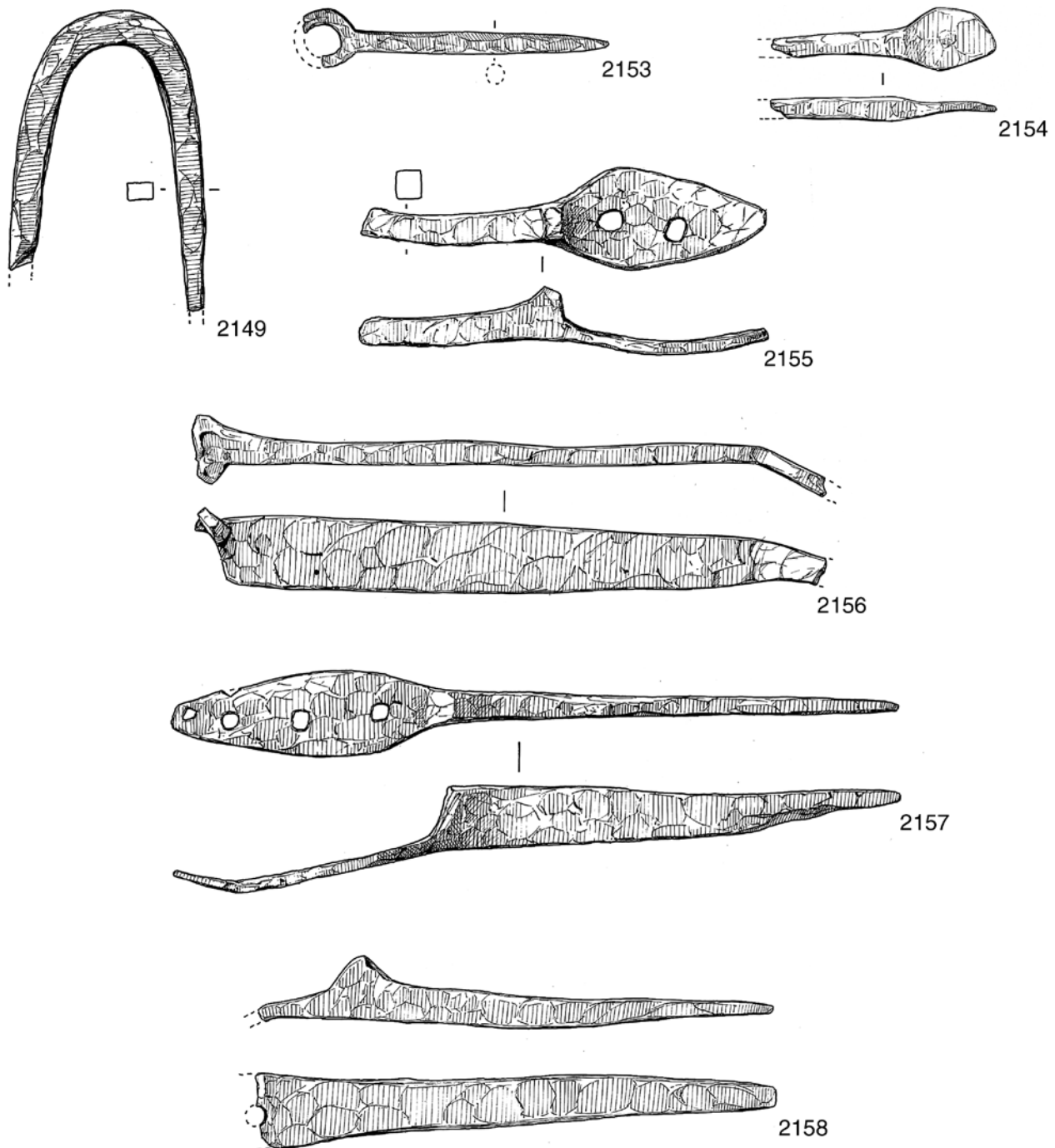


Figure 168 Iron fixtures and fittings, nos 2149, 2153-8, scale 1:2

a down-turned end indicating that it had been set in masonry (*cf* WS7.2, 330). It also, unusually, exhibits some evidence of wear at the junction of guide arm and shank.

The earliest of the L-shaped hinge pivots are **2164** (late Saxon) and **2165** (11th-century) and they may be set alongside other early examples from Winchester (WS7.2, 557, 564-73). Apart from **2166**, which was recovered from a medieval soil layer, all of the remaining examples from the extra-mural sites are from contexts of the 15th century or later date.

The remaining hinge pivot is **2162** which would have

been set in masonry. This object is directly comparable to one from Wolvesey Palace (WS7.2, 338, no. 558), believed to be of mid-12th-century date. The object was found in 13th- to 14th-century Building 714.2 at Sussex Street.

**2162** Fig 169 sf SXS 614. It has a stout shank which bifurcates at one end, and at the other end is a short guide arm, possibly incomplete. L 85mm, W 50mm, T 15mm. 13th- to 14th-century Building 714.2 (XVII, 979).

**2163** Fig 169 sf VR 6065. Shank tip missing. Guide arm L 30mm, W 6mm, shank L 53mm, W 10mm. 13th- to 15th-century soil layer (X, 921).

*not illustrated*

- 2164** sf SXS 168. The guide arm and shank are both incomplete, the latter bent downwards towards the tip. Guide arm L 28mm, shank L 38mm. Late Saxon fill of pit F10 (VIII, 49).
- 2165** sf SXS 418. Complete. Guide arm L 60mm, W 7mm, shank L 60mm, W 20mm. 11th- to 12th-century pit F30 (VIII, 104).
- 2166** sf VR 2503. Guide arm L 41mm, T 12mm, shank L 105mm, W 12mm. 13th- to 15th-century soil layer (X, 191).
- 2167** sf SBS 215. Shank end curved down (for use in masonry). Guide arm L 53mm, shank L 70mm. 15th- to 16th-century pit F67 (II, 66).
- 2168** sf VR 2429. Guide arm L 50mm, T 12mm, shank L 113mm, W 14mm. 15th- to 16th-century pit F60 (X, 134).
- 2169** sf SJS 584. Guide arm L 33mm, T 14mm, shank L 43mm, W 10mm. 15th- to 16th-century pit F215 (I, 270).
- 2170** sf SJS 601. Guide arm L 50mm, T 13mm, shank L 105mm, W 16mm. 15th- to 16th-century pit F300 (I, 300).
- 2171** sf SJS 0. Guide arm L 68mm, W 15mm, shank L 112mm, W 20mm. Demolition of 18th-century Building 961.6 (IV, 604).
- 2172** sf SJS 325. Guide arm L 45mm, T 10mm, shank L 63mm, W 12mm. 19th- to 20th-century pit F26 (I, 100).
- 2173** sf HA 0. Both arms incomplete. Guide arm L 40mm, shank L 50. Fill of wartime air raid shelter (I, 9).
- 2174** sf VR 0. Guide arm L 38mm, W 10mm, shank L 40mm, W 11mm. Unstratified (XIV).

### Hinge fittings with U-shaped eyes

There are eight examples of hinge fittings which have, or probably had, a strap either side of a U-shaped eye. With the exception of **1785**, which is smaller and probably comes from an item of furniture (Category 4), they probably come from doors, gates, or shutters and would have been used with hinge pivots (see above).

The most unusual in form is **2176**. The straps are both 150mm long, pierced twice for attachment and one strap divides into three near the end. In the centre is terminal with a rounded end, on either side of which is a simple scrolled projection.

Of a form more common in the late and post-medieval periods are **2175** and **2180**. The latter has a strap, 155mm long, which narrows to a rounded, pierced terminal tapered to a pointed tip. On the other side of the eye is a much shorter strap which is little more than a rounded terminal. Both the longer and shorter straps of **2175** have rounded, pierced terminals which taper to a point. **2178** is simpler in form in that the longer strap, 210mm, and pierced three times for attachment, is parallel sided and the shorter strap on the other side of eye has a rounded end. The shorter strap of **2181** is unusual in not being pierced and having a recurved looped end.

**2177** and **2179** were probably similar in form to **2178** and **2180**, although both are incomplete. The surviving strap of **2177** has part of a rounded terminal and the shorter strap of **2179** probably took the form of a rounded terminal with a tapering tip.

The object from Henly's Garage (**2175**) is from a late Saxon or early medieval context in which it may be intrusive, the others from contexts of the 15th century or later.

**2175** Fig 169 sf HG 347. In two pieces. Both the longer and shorter straps end in rounded, pierced terminals which taper or tapered to a pointed tip, nails in situ. L 120mm, W across arms 33mm, W of arms 29mm. 11th- to 12th-century pit F171 (III, 802).

**2176** Fig 169 sf VR 0. It has straps of equal length. The end of one strap divides into three, in the centre there is a projection with a rounded end and on each side of it is a simple scrolled projection. L 150mm, W (across scrolled terminals) 53mm. Demolition of medieval buildings on tenements 935 and 936 (X, 921), 15th-century date.

**2177** Fig 169 sf VR 2171. The eye is broken, the surviving strap narrows towards the base where there was probably a rounded, pierced terminal. L 245mm, W 33mm. 15th- to 16th-century pit F27 (X, 92).

**2178** Fig 169 sf VR 4152. The straps on either side of the eye are of unequal length. The longer strap is pierced three times, the shorter is pierced once, rounded end. Longer strap L 210mm, W 24mm, shorter strap L 62mm. 15th- to 16th-century pit F751/757/759 (XIII, 3025).

**2179** Fig 170 sf SJS 766. The longer strap is incomplete, pierced twice. On the other side of the eye is a short strap with a roughly rounded terminal which tapers to a pointed tip. L 182mm, W 31mm. 15th- to 16th-century feature F307 (I, 312).

**2180** Fig 170 sf SJS 786. The longer strap narrows to a rounded, pierced terminal which tapers to a pointed tip, the main body is pierced twice. The shorter strap has a rounded, pierced terminal. L 155mm, W 20mm. 15th- to 16th-century pit F310 (I, 353).

**2181** Fig 170 sf SJS 0. The principal strap is broken at one end, it also narrows slightly from the centre towards the eye, the second strap is short and has a recurved tip. The principal strap is pierced three times. L 205mm, W 24mm, W across loop 25mm, T 8mm. Demolition of 18th century building 961.6 (IV, 604).

### Pinned hinges

**2182** is from a door and consists of a rectangular attachment plate with its larger axis set at 90 degrees to a strap which narrows to the tip. **2183** is another attachment plate. **2182** is from a 17th- to 18th-century context, but could be earlier. A hinge of comparable form was found in a context dated to 1507 at Pottergate, Norwich (Margeson 1985, 61, fig 44, 67) and others have been recorded in buildings of the early 17th century at, for example, Great Yarmouth (O'Neil 1953, pl 63b).

**2182** Fig 170 sf VR 2564. It consists of (a) a strap which narrows away from the pin and is pierced, (b) the attachment plate which is an elongated rectangle with its longer axis set at right angles to the strap, pierced five times. Attachment plate L 45mm, W 23mm, Strap L 97mm, W 40mm. 17th- to 18th-century pit F113 (X, 259).

*not illustrated*

**2183** sf SJS 683. Pinned hinge attachment plate. It is rectangular with two sockets. L 60, W 30mm. 17th- to 18th-century pit F303 (I, 318).

### Door bolts

**2184** Fig 170 sf VR 937. The shank has a rounded cross-section and is incomplete. The other arm tapers and has a

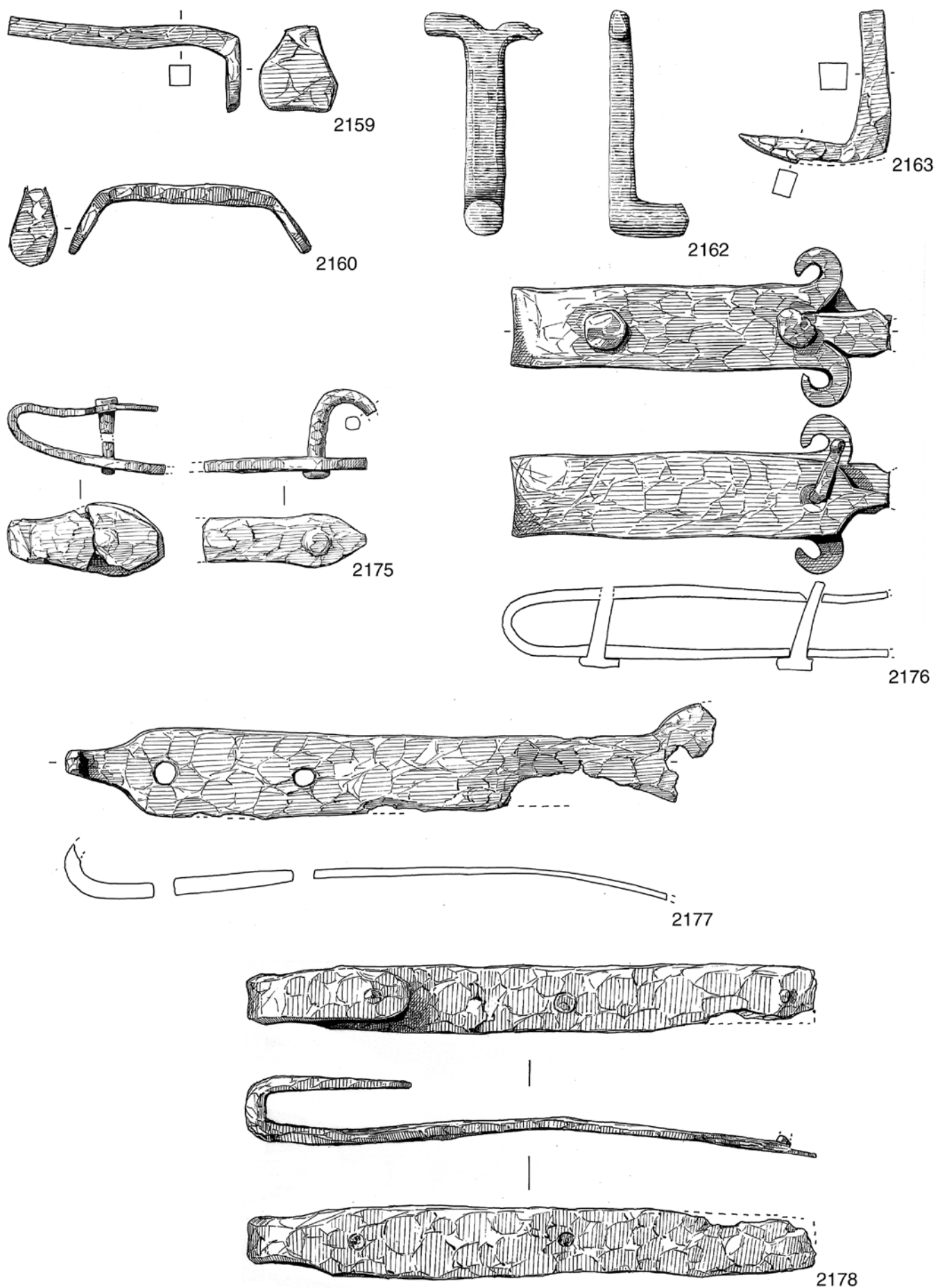


Figure 169 Iron fixtures and fittings, nos 2159–60, 2162–3, 2175–8, scale 1:2

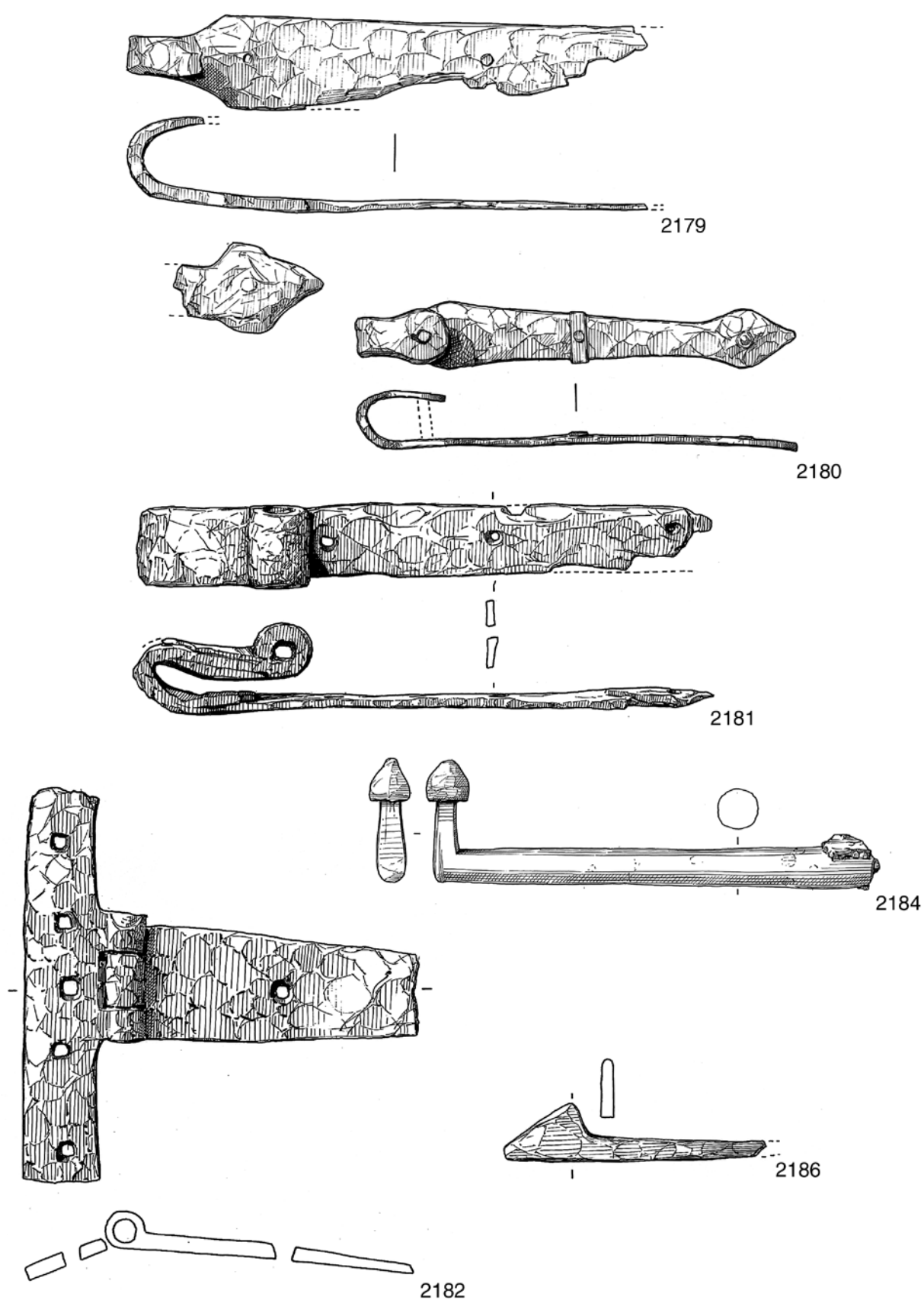


Figure 170 Iron fixtures and fittings, nos 2179-82, 2184, 2186, scale 1:2

domed terminal. Arms L 137 and 41mm. Post-medieval pit F17 (V, 172).

*not illustrated*

**2185** sf SJS 825. Sliding bolt with ball head attached to a rectangular bolt plate. Plate L 60mm, W 30mm. Fill of 19th-century clay pipe kiln (II, 527).

### **Latch rests**

There are two latch rests with the usual triangular terminal and tapering shank. They are comparable to one from Wolvesey Palace (WS7.2, 347, no. 694) which was from a 13th- or 14th-century context.

**2186** Fig 170 sf VR 4138. L 91mm, W 20mm. 14th- to 15th-century pit F756 (XIII, 3023).

*not illustrated*

**2187** sf VR 7127. The shank is incomplete. L 50mm, W 20mm. 14th to 15th century pit F505 (XI, 1500).

### **Wall hooks**

*not illustrated*

**2188** sf CT 213. L-shaped with a tapering shank. Shank L 55mm, hook arm L 28mm. 13th- to 14th-century pit F65 (VII, 204).

**2189** sf CHR 363. Shank L 50mm, W 8mm, hook L 32mm, W 5mm. 13th- to 14th-century feature F18 (I, 100).

**2190** sf VR 2242. L-shaped wall hook. L hook arm 32mm, L shank 62mm. 15th- to 16th-century pit F44 (X, 99).

**2191** sf VR 4051. L-shaped wall hook, the hook tip is curved inwards. W 10mm, hook L c.33mm, shank L 75mm. 15th- to 16th-century pit F152 (XIII, 3002).

## 10 Tools

Among the craft tools items from leatherworking and woodworking tools predominate, and there are large groups of knives and hones ranging in date from Saxon to post-medieval. The hones point to strong trade links with Norway, and many of those that are sourced from Britain may be residual Roman.

### Craft tools

Tools which were used for metalworking, or which are likely to have been so used are catalogued with finds of Category 15.

### Awls

Iron awls are small tools with two tapering arms, one, the working arm and the other the tang, usually of equal length. They were used in a variety of crafts, but those with arms of diamond-shaped cross-section were used primarily for leatherworking. One arm of **2193** is of this form.

The other awls have arms of rectangular cross-section, except for **2199** which has arms of rounded cross-section. A slight shoulder occurs between the tang and working arm of **2192** and **2194**. The handles do not usually survive, but there is some wood around the centre of **2196** and encircling it is a collar 35mm in diameter which would originally have gripped the handle and prevented it from slipping.

All have arms of equal length unless stated.

**2192** Fig 171 sf HG 365. There is a slight shoulder between the arms. L 60mm. Late Saxon pit F172 (IV, 827).

**2193** Fig 171 sf VR 2762. Both arms taper to a pointed

tip, one has a rectangular cross-section, the other has a diamond-shaped cross-section. L 89mm, L of arms 59 and 30mm, W 9mm. 13th- to 14th-century pit F159 (X, 429).

**2194** Fig 171 sf JCH 301. Part of one arm missing. Rectangular cross-section. L 93mm. 18th- to 19th-century soil layer (IV, 403).

*not illustrated*

**2195** sf VR 3856. Bent in centre. L originally 150mm, T 6mm. Late Saxon soil layer (XII, 2214).

**2196** sf SXS 619. Tapers towards each end, one is wedge-shaped (?tang), the other more pointed. In the centre it is encircled by a collar originally securing the handle of which some wood remains survive. Awl L 104, T 9mm. Collar D 36mm, L 25mm. 13th- to 14th-century Building 714.2 (XVII, 984).

**2197** sf VR 0. Rectangular cross-section. L 73mm, W 6mm. 15th- to 16th-century pit F776 (XIII, 3108).

**2198** sf VR 4154. Very corroded. L 90mm, W 12mm, T 8mm. 15th- to 16th-century pit F751/757/759 (XIII, 3025).

**2199** sf VR 4013. Rounded cross-section, tip of one arm missing. L 56mm, W 9mm. 19th- to 20th-century soil layer (XIII, 3001).

### Axe

The iron blade of a small carpenter's axe from which the haft is now missing was recovered from Victoria Road. The object comes the latest Roman or earliest post-Roman soils and is not otherwise closely datable. It is possible that it is Roman.

**2200** Fig 172 sf VR 325. The haft is missing, the blade faces are symmetrical and flare to a slightly convex cutting edge. The blade is also symmetrical in cross-section. L 138mm, W 65mm, T 15mm. Late 4th- to early 5th-century (or later) soil layer (V, 61).

### Spoon Augers

There are two iron spoon augers, tools used for drilling and enlarging holes in timber.

**2201** Fig 172 sf VR 4011. It has a narrow, elongated blade with a pointed tip and a wedge-shaped tang. L 116mm, blade L 55mm, W 7mm, tang L 26mm, W 7mm. 19th to 20th century soil layer (XIII, 3001).

*not illustrated*

**2202** sf SBS 0. Tang and blade somewhat corroded. L 106mm, blade L 21mm, W 8mm. 18th- to 19th-century soil layer (II/III, 24).

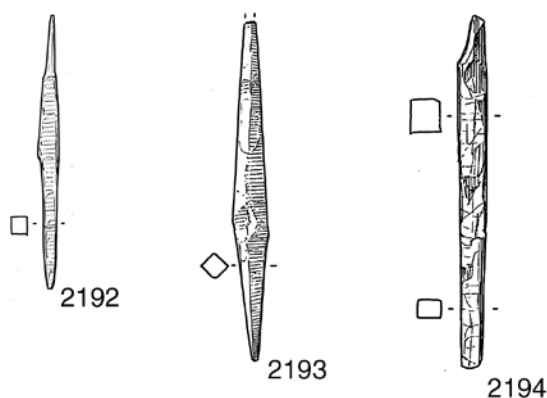


Figure 171 Iron awls, nos 2192-4, scale 1:2



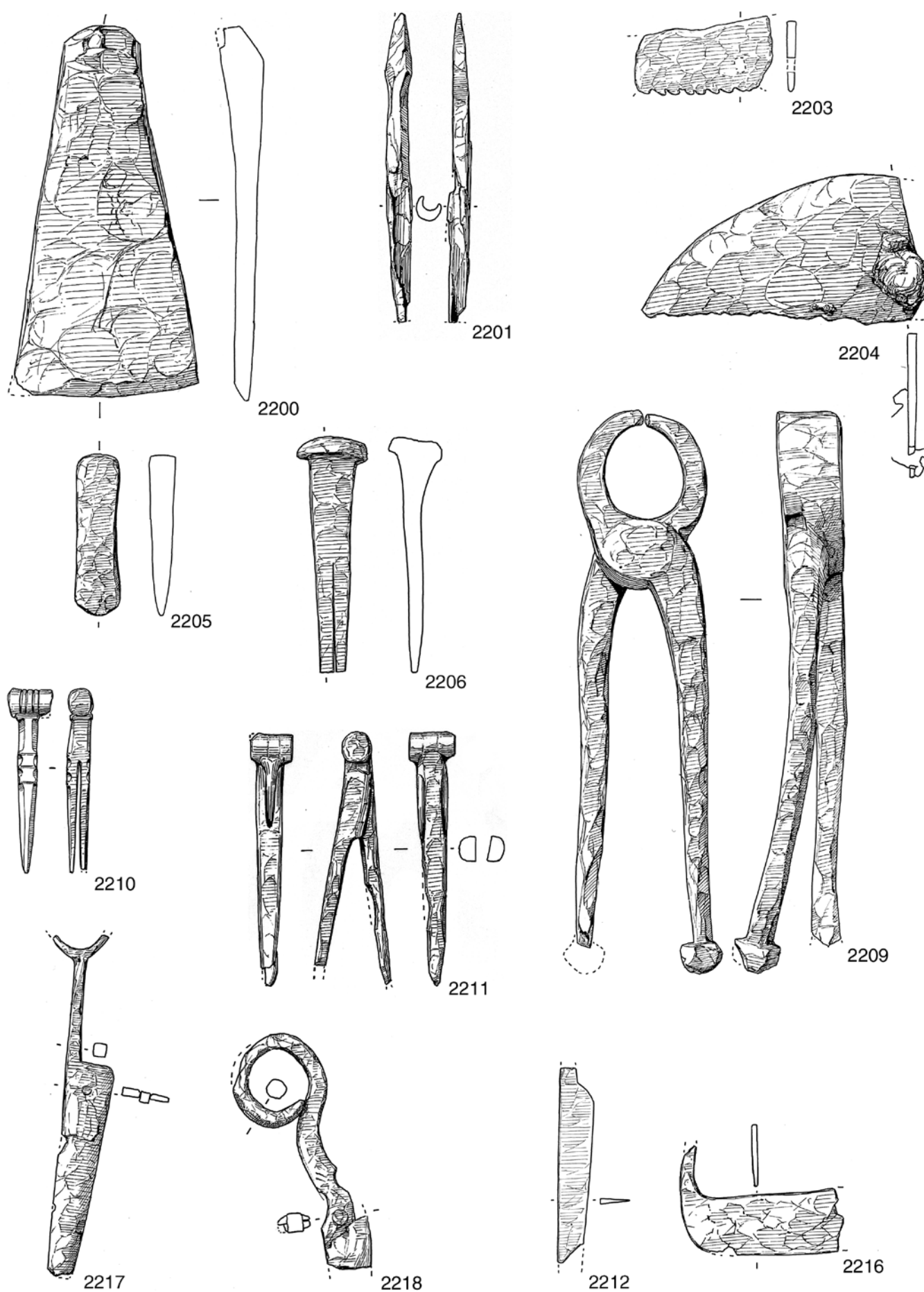


Figure 172 Iron tools, nos 2200-01, 2203-06, 2209-12, 2216-18, scale 1:2

**Saw blades**

**2203** Fig 172 sf VR 2833. Iron blade fragment, the back of which curves down towards the tip. Broken at both ends. L 50mm, W 29mm. 13th- to 14th-century pit F166 (X, 473).

**2204** Fig 172 sf SJS 0. End of an iron saw blade. Convex back, straight serrated edge. L 108mm, W 50mm. Levelling over demolition of 19th-century Building 961.8 (IV, 549).

**Wedges**

There are two iron wedges which would probably have been used for splitting timber.

**2205** Fig 172 sf VR 627. It has parallel sides and a convex wedge-shaped tip. L 60mm, W 15mm, T 13mm. 13th- to 15th-century soil layer (IV, 256).

**2206** Fig 172 sf SJS 514. It has a burred head, the shaft has split upwards from the tip, possibly along a weld line. L 85mm, shank W 17mm. 15th- to 16th-century pit F214B (I, 267).

**Claw hammer heads**

One object (**2207**) from a medieval context at Victoria Road is the upper part of the head of a claw hammer with the eye and 'claws' surviving. **2208** and another object from New Road are complete claw-hammer heads but the former was found unstratified and the latter is modern and has not therefore been catalogued.

Claw hammers appear to be an introduction of the post-Conquest period in England and it may be noted that the earliest of the three found on intra-mural sites in Winchester (WS7.2, 277, no 400) is from an 11th- to 12th-century context.

*not illustrated*

**2207** sf VR 7430. Part of an iron claw hammer, the eye and 'claws' survive. L 60mm, W 40mm. 13th- to 14th-century pit F916 (XI, 1618).

**2208** sf JCH 37. The head of an iron claw hammer. L 80mm, W 28mm. Context of uncertain type and date (III, 85).

**Pincers**

**2209** is a pair of iron pincers with a round mouth which was probably used for drawing nails. It comes from a 19th-century context, but could be earlier, since a comparable pair of medieval date was found in London (Hinton 1988, fig 183, 177) and another of late 16th- to early 17th-century date comes from Norwich (Atkin *et al* 1985, 62, fig 46, 86).

**2209** Fig 172 sf VR 830. Rounded mouth, one arm has a spherical expansion at the tip. L 212mm. 19th-century terracing F1000 (XIV, 3900).

**Compasses**

There are two pairs of compasses of iron, which were probably used for marking-out in woodworking. Both pairs of compasses come from recent contexts and may be of that date, but could equally well be earlier. The more distinctive pair, **2210**, is similar to one from a mid- to late 18th-century context at Cathedral Green, Winchester, (WS7.2, 273, no 410) but is also very similar to pairs from a late medieval context at Grenstein, Norfolk (Goodall 1980, 129, fig 77, 18), from a late 15th- to 16th-century context at Sandal Castle (Goodall 1983, 240, fig 5, 48) and from a 16th-century context at Amsterdam, the arms of which also have relief work on the edges (Baart 1977, 490, no 966).

In both cases one arm has a slot at the head which accommodates the other and the hinge pin has projecting rounded terminals.

**2210** Fig 172 sf VR 0. Pair of compasses. The arms have relief work in the form of small V-shaped cuts in their edges and bear a raised collar below the hinge. L 68mm. 19th- to 20th-century soil layer (X, 257).

**2211** Fig 172 sf VR 4107. Pair of compasses. L 96mm. 19th- to 20th-century soil layer (XIII, 3006).

**Shears**

All are of iron.

**2212** Fig 172 sf VR 2556. The blade back is straight and the tip is missing. The cutting edge is concave. Sloping shoulder below a stub of stem. L 70mm, blade L 60mm, W 13mm, T 2mm. 19th- to 20th-century soil layer (X, 257).

*not illustrated*

**2213** sf VR 0. Fragment of blade and tang. L 56mm, W 10mm. 13th- to 14th-century pit F1066 (XV, 4059).

**2214** sf VR 3763. Blade and stub of stem. The blade has a convex back, the end is missing, the cutting edge is straight. L 87mm, W 17mm. Demolition (F566) of medieval buildings on properties 935 and 936 (XII, 2032), dated to 15th century.

**2215** sf SJS 536. Part of the bow, one arm and part of a blade. L 97mm. 15th- to 16th-century pit F214B (I, 267).

**Leatherworker's slicker**

An object from a late Saxon context at Sussex Street is an incomplete leatherworker's slicker, an iron blade with an upturned tang at each end which would attach it to a wooden handle. The tool was used in currying – to force the dirt from hides and to remove grease. Slickers are more common in post-Conquest than pre-Conquest contexts, but two from the 10th and 11th centuries have been found previously in Winchester (WS7.2, 249, nos 324–5) and another of the same date comes from Beverley (Goodall 1991, 132, 135, fig 102, 319).

**2216** Fig 172 sf SXS 491. One half of the blade survives and at the end there is a projecting tang. X-radiograph shows

a weld between back and cutting edge. Blade L 60mm, W 25mm, tang L 17mm. Late Saxon pit F78 (VIII, 388).

## Scissors

A fragment from a pair of what may be iron sewing scissors is catalogued with other sewing equipment (Category 3). These scissor arms, also from St John's Street, are of a slightly different form and may have been more general in function. The blade of **2218** is incomplete, but it has a crudely formed oval finger loop which is set symmetrically on the axis of the stem. In this sense, it is comparable to a pair of much better-made scissors from a 15th- to 16th-century context in the Brooks area of Winchester (WS7.2, 863, no 2878). The finger loop of **2217** is largely missing, but was clearly smaller than that of **2218** and again is symmetrical to the axis of the stem.

**2217** Fig 172 sf SJS 598. One arm of iron. The finger loop is largely missing. The shoulder is straight, the blade narrows towards the tip and has a straight back. L 130mm, blade L 82mm, W 17mm. 15th- to 16th-century pit F214B (I, 267).

**2218** Fig 172 sf SJS 676. One arm of iron. The finger loop is circular and the tip is not welded back onto the stem. The shoulder is straight, the blade narrows, but is incomplete. L 96mm, bow D 37mm, blade L 40mm, W 25mm. 15th- to 16th-century feature F307 (I, 316).

## Antler tool

**2219** Fig 173 sf SXS 834. A tool made from a red deer antler tine that has been trimmed to a subrectangular section and smoothed to a polish. The trimming has exposed the core of the tine in places. The thicker end has been broken, but enough remains to show that it had been cut and smoothed. The point of the tool is too thick for an awl, and it is rather large for an awl, while the trimmed section makes it unlikely to be a wedge used to split bone or antler. It is probably related to antler tools of similar section from Northampton and elsewhere (Oakley 1979, 310–13). L 118mm. Late Saxon pit F494 (XVII, 1122).

## Handles

Two bone strips from a Saxo-Norman context at Sussex Street (**2220**), are probably plates from a two-piece knife or tool handle (*cf* Oakley 1979, fig 141, no 79), whilst a roughly made antler handle, also from Sussex Street (**2221**), may be from a short hoe or similar tool. The bone handle **2222** derives from a context marking the demolition of Building 935.2 at Victoria Road, and is unlikely to be earlier than late medieval. Its zoomorphic terminal links it to examples from Norwich (Margeson 1993, 121) dated to the late 14th to mid-15th centuries. A fragment of a handle (**2224**) with cable decoration also comes from a late medieval context at Chester Road, while both plates from a knife with a scale tang **2225** are likely to be early post-medieval in date. **2226** is a knife handle of unusual form from the same 15th- to 16th-century context. The tubular bone object **2223** may be a handle, but lacks any trace of iron

to suggest that it was fitted over a tang. Though from a post-medieval context, it is likely to be medieval or earlier in date.

**2220** Fig 173 sfs SXS 53 and 55. Two polished bone strips 74 by 11mm (maximum) and T 3mm, possibly from a split rib. Each strip has the remains of two copper alloy rivets fixed 43mm apart and 18 and 12mm from their respective ends. The more complete rivet on sf SXS55 fits to the appropriately placed rivet head on sf SXS53 (an uncorroded break in the metal can be distinguished on each piece). The positions of the rivets and the convex longitudinal section of each strip suggest that these are plates from a two-piece knife or tool handle. This identification is strengthened by possible traces of staining from iron corrosion products at the inner face of each strip. 11th- to 12th-century pit F30 (VIII, 199).

**2221** Fig 173 sf SXS 618. A handle of red deer antler, roughly made and presumably the work of the person requiring the handle rather than an antler working craftsman. The burr has been left intact. The trimmed off beam end has been sawn (marks from misplacing the saw remain) then knife-trimmed to roughly bevel the edge. The lowest tine may have received similar treatment, but later working has mainly obscured this. A hole was drilled (probably after several attempts as parts of the perforation are wider than others) slantwise through the beam to exit through the end of the cut-off tine. A small patch of the surface was trimmed smooth near the perforation to allow a short small hole to be drilled. The exit hole of the perforation in the lowest tine has been enlarged by cutting away the core of the tine with a knife. L 142mm. Layer in 13th- to 14th-century Building 714.2 (XVII, 984).

**2222** Fig 173 sf VR 8420. Bone one-piece handle with traces of iron at the base. L 68mm. The openwork top has interconnecting cutouts of arches surmounted by circles, two on the broad and one on the narrow faces. Some of the arches are slightly figure-of-eight-shaped, indicating that they were drilled out, then trimmed. Over this architectural design is a stylised sitting dog with the haunches and facial features marked. The method by which the blade was attached is uncertain, but it may have been by fixing with an iron rivet a tang inserted into the base of the handle. Demolition of 13th- to 15th-century Building 935.2 (XI, 1651).

**2223** Fig 173 sf CHR 314. A fragment of a bone tube, possibly a handle. The sides are marked with rough crosses. L 55mm, sub-square section 11 by 11mm. There is no trace of iron or any other substance inside the tube. 17th- to 18th-century soil layer (I, 19).

## *not illustrated*

**2224** sf CHR 0. End fragment of a bone two-piece handle with cable decoration. No perforation through the handle. L 45mm, W 11mm. ?Late medieval fill of large feature (cellar, quarry or wellhead) F15 (I, 61).

**2225** sfs VR 2414 and 13119. In three pieces. (a) one side of a two-piece antler handle. Iron staining from scale tang. End is hooked. At least four rivets. L 89mm. (b) Other side, in two pieces. 15th- to 16th-century pit F27 (X, 76).

**2226** sf VR 2157. A pistol grip handle of ?bone. An iron strip runs from the bolster at the end of the missing blade around the underside and rounded end. L 105, W 30mm. 15th- to 16th-century pit F27 (X, 76).

**2227** sf VR 0. One piece bone knife handle fragment, end is hooked. The handle is not fully perforated. L 93mm, maximum D (existing) 28mm. 17th- to 18th-century pit F113 (X, 272).

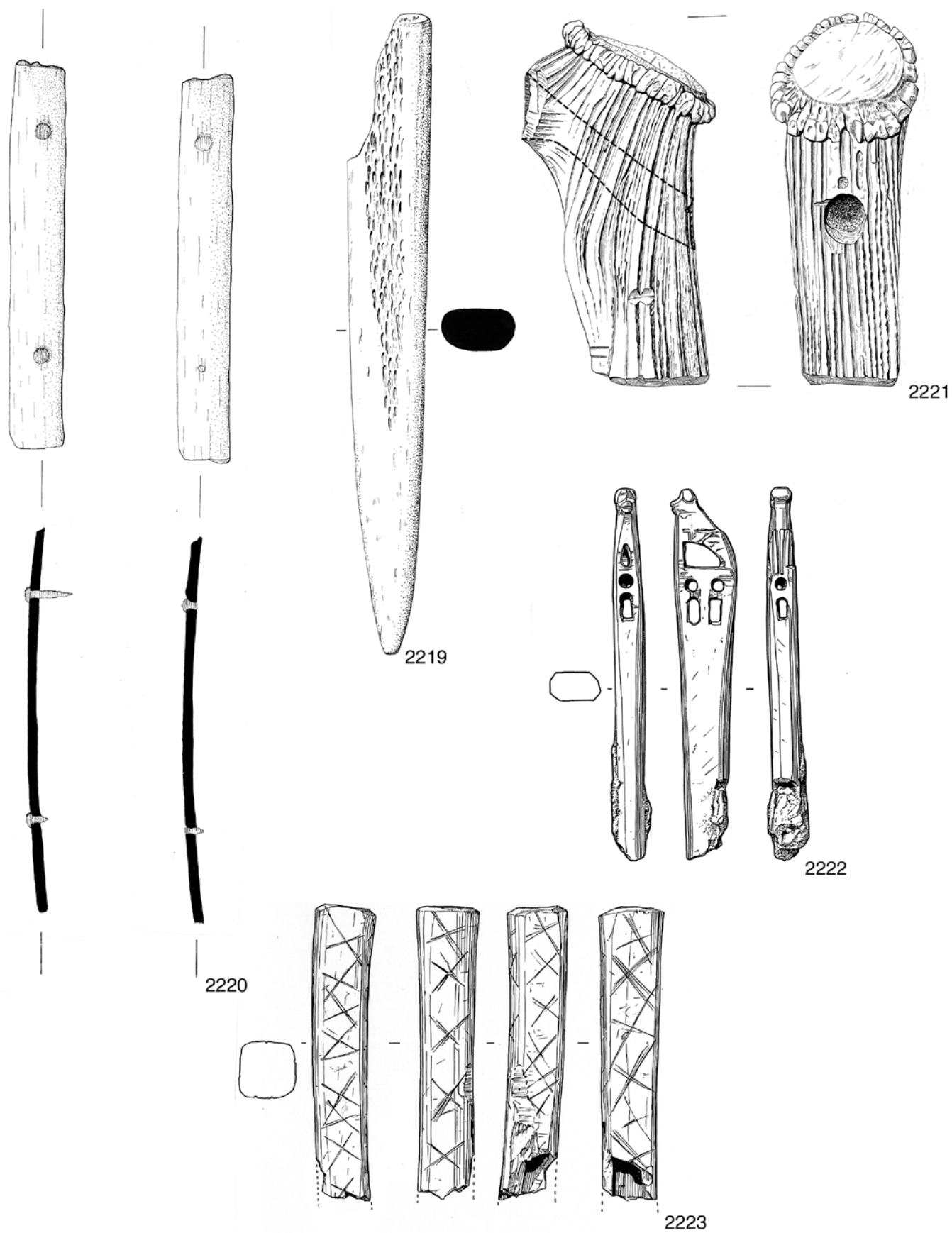


Figure 173 Bone tools and handles, nos 2219-20, 2222-3, scale 1:1; no 2221, scale 1:2



Figure 174 Blades, nos 2228–9, scale 1:2

## Blades

### Cleaver

Amongst the bladed tools from this group of sites, this cleaver comes from a 17th- to 18th-century context from St John's Street. It may be earlier in origin, although as noted below, cutler's marks were usually inlaid before the mid-16th century.

**2228** Fig 174 sf SJS 201. Iron. The blade has a straight back, the end is damaged. The cutting edge was probably S-shaped which means that the blade is now at its widest near the end. There is a cutler's mark which is hexagonal with a cross in the centre and pellets in each angle. The tang is incomplete. L 195mm, blade L 170mm, W 45mm. 17th- to 18th-century ditch F203 (I, 501).

### Bladed Tool of Uncertain Function

The function of this object is not clear, but it could be a smoker's tool, the arm being used for routing a pipe and the blade for cutting the end off cigars.

**2229** Fig 174 sf VR 0. Iron. It consists of a flat tang which narrows towards one end where the sides appear to be deliberately wavy; at the other end one side steps in and there is a short blade. The plate is pierced in the centre and near the blade end, presumably for the attachment of scale plates, and on the rivet in the latter is hinged a tapering arm. L 100mm, W 12mm, T 5mm, L arm 69mm. 19th- to 20th-century pit F412 (XI, 1217).

## Knives

Excluding bone knife handles, which are catalogued above, there are 211 iron knives, some complete, but most incomplete or fragmentary, from post-Roman contexts, nearly half of which come from the Victoria Road site (Table 30). None of these knives appears to be Roman in origin, although a few of the more fragmentary specimens may be of that period. There are also one knife blank or 'mood' and a pocket knife.

Post-Roman knives may be divided into two types according to the form of the tang. Whittle-tang knives have a tang which tapered to a pointed or wedge-shaped tip and was fitted into the core of the handle. Scale-tang knives have a tang which existed as a flat strip to which the scale plates were riveted to form a handle. The introduction of the scale-tang knife appears to occur in the 13th century, but evidence from London, York, and Norwich suggests that they were not widespread until the 14th century (Ottaway and Rogers 2002, 2762).

The extra-mural and defences sites produced 74 whittle-tang knives, 50 scale-tang knives, and 87 blades on which either no tang survived or insufficient to determine the type (Table 30). If the northern and eastern suburbs sites are considered alone the numbers are 52 whittle-tang to 49 scale-tang knives, a ratio of nearly 1:1. This contrasts markedly with that in the assemblages from the western suburb (20 whittle-tang, 1 scale-tang) and from the intra-mural sites published by Goodall (WS7.2, 835–60). Of those catalogued in that volume, whittle-tang knives outnumbered scale-tang knives by approximately 6.5:1. It is not entirely clear what, if any, tang form was possessed by the 'knife blade fragments' and 'miscellaneous knife fragments' (*ibid* 858–60), but if the 'incomplete whittle-tang knives' (*ibid* 857–8) are added to the catalogued specimens the ratio rises to *c* 8.5:1. The contrast between sites in the northern and eastern suburbs, and those in the western suburb and within the walls is a clear reflection of the relative lack of pre-13th century occupation outside the city walls except to the west (see also above).

One of the main problems of classifying knives is that the original form of the blade has usually been altered by wear and sharpening. For this reason the form of the blade back and the form of the cutting edge should, initially at least, be analysed separately. Since the former is unlikely to be greatly affected by wear it is here that classification may begin. A simple, but effective method of determining a blade's back form (Ottaway 1992, 559) is, first of all, to establish whether it has two straight parts meeting at an angle (form A),

**Table 30** Distribution of knives by tang type

area	site	tang type			total
		whittle tang	scale tang	other/ fragmentary	
northern	HA	1	–	1	2
suburb	HAB	–	–	1	1
	LIDO	1	–	–	1
	SBS	3	5	10	18
	VR	31	27	45	103
	total	36	32	57	125
western	CT	4	–	–	4
suburb	NR	2	–	1	3
	SXS	14	1	1	16
total		20	1	2	23
eastern	CHR	4	1	5	10
suburb	SJS	12	16	21	49
total		16	17	26	59
city	HG	2	–	–	2
defences	JCH	–	–	1	1
	27JS	–	–	1	1
total		2	–	2	4

a straight rear and curved front part (if concave, form B, if convex form C), a wholly curved back (form D) or a wholly straight back (form E). Secondly, any knife with a blade back which is wholly straight or had a straight rear part (all forms except D) may be placed on a horizontal line between the tip of the blade and the mid-point of the tip of the tang to determine whether the straight part is horizontal or slopes up or down.

In addition to back form, other aspects of knives are amenable to classification. They include the relationship of the back to the cutting edge; they may be parallel for much of the blade's length or, alternatively, converge giving the blade a tapered appearance. The location of the blade tip may also vary; when the knife is viewed horizontally the tip will usually be in line with the base of the blade at its junction with the tang or at about half the blade's width. The relationship of back to cutting edge and location of the tip will, of course, be affected by the extent of wear on the cutting edge. Cutting edge form can itself be classified (see below), although clearly this may relate as much to the use of a knife as to the way in which it was manufactured.

Knife form may be analysed on the basis of dimensions and ratios between them (Ottaway 1992, 574–8), but this has not been possible in the assemblage under discussion here because the vast majority of the knives is incomplete.

### Whittle-tang knives

There are six examples (2234, 2236, 2242, 2245, 2252 and 2263) of whittle-tang knives with back form A, (often known as an 'angle-back'), largely from contexts dating to the late Saxon and early medieval periods. In the case of 2236 and 2252 the front part of the blade back is slightly concave. This is a common variant (Ottaway 1992, 561).

The angle-back blade becomes common in England in the 7th century and the earliest example from Winchester was found in a mid-7th- to 8th-century grave at Lower Brook Street (WS7.2, 844, no 2687). The form remains common in contexts of the 9th to 11th centuries (Ottaway 1992, 562–4) and there are numerous specimens from intra-mural sites at Winchester. The form becomes less frequent in contexts of medieval date, but does not disappear entirely. A number of angle-back knives from medieval contexts in Winchester are published (WS7.2, 846–7) and none of those from the extramural sites need be residual. The small number of angle-back blades from the suburban sites probably reflects the lack of occupation outside Winchester's walls, except on the western side, during the period when the form was most popular.

It may, finally, be noted that there is a small knife blade (tang missing), 2363, of back form A from a context at Victoria Road which is thought to be late Roman. This blade is, however, likely to be post-Roman.

There is only one example, **2249**, of a knife with blade back form B where the front part is concave. The concave element on **2249**, which is from a 13th- to 14th-century context, is very pronounced and the blade is also unusual in having an asymmetrical cross-section. One face slopes outwards before sloping in to the cutting edge; a horizontal ridge across the blade face is thereby created. This feature is not common, but has also been found on three knives of Anglo-Scandinavian date from 16–22 Coppergate, York (Ottaway 1992, 579).

Blade back form B is known in pre-Conquest contexts and may be seen as a development of the angle-back form where the front part is slightly concave (see above). The form is also known in the medieval period and examples were found in well-dated riverside contexts in London (Cowgill *et al* 1987, nos 16, 46, 86).

Blades with a back which is straight before becoming convex and curving down to the tip (form C) are common throughout the post-Roman period. Amongst the earliest in the Winchester suburbs assemblage are a group of three from late Saxon contexts in the western suburb (**2237**, **2235**, and **2261**).

Well-preserved examples of form C may be assigned (by the method described above) to one of three sub-groups according to whether the straight part is horizontal, upward or downward sloping. Subdivision of the specimens in this assemblage is, however, not possible in most cases, although **2239**, and probably **2248** and **2233** had blade backs with a horizontal rear part (form C1). The blades of the first two also have cutting edges with a pronounced S-shape while that of **2233** is straight before curving up at the tip. The tips are at half the blade's width. The form of these blades would suggest that they are 12th-century or earlier in date and both **2233** and **2239** are from contexts which are late Saxon, while **2248** is from a 13th- to 14th-century context.

**2243** probably has a back where the rear part slopes up from the shoulder before curving down to the tip (form C2). The knife is also unusually large, being c 205mm long, and the blade is pierced near the junction with the tang. At first sight, it would seem that the hole would not have functioned to secure the handle as it is too far forward of the tang. A whittle-tang knife from Lower Brook Street (WS7.2, 850, no 2786), is, however, similar in having a blade pierced for a rivet. This had clearly secured a wooden handle, remains of which survived, covering the rear part of the blade. Like **2243**, the object from Lower Brook Street is also a large knife and has a blade of similar form. It comes from an 11th-century context and **2243** comes from a context which is probably 11th- or 12th-century. These two knives with their handles set in whittle-tangs, but additionally secured by a rivet may, perhaps, be seen as the precursors of the fully developed scale-tang knife.

**2237** has a good example of the blade back which slopes down slightly before curving to the tip (form C3). This form probably developed as a result of wear on a blade the back of which was originally horizontal and **2237** has the S-shaped cutting edge often

associated with wear. Blades with form C3 are very common in late 9th- to 11th-century contexts and their emergence may, to some extent, be associated with developments in metallographic structure (see below, and Ottaway 1992, 570, 598–9). It may also be noted that **2237** has a tang which is unusually long, being virtually the same length as the blade. This is a feature which is again very common on knives of the late 9th to mid-11th centuries, but almost unknown before and after it (Ottaway 1992, 577).

Knives with blades the backs of which are convex from shoulder to tip (back form D) are, like those with back form C, common throughout the post-Roman period. Amongst the five from Victoria Road, **2232** is from the earliest context.

Knives with backs which are straight from shoulder to tip (back form E) are rare in both late Saxon and medieval contexts. **2241** is, however, a knife from a context thought to be late Saxon which has a straight back. It is very substantial being 204mm long with a blade 170mm long and up to 30mm wide. The cutting edge is now S-shaped due to wear and curves up sharply at the tip.

The back of the well-preserved knife, **2246**, from a medieval context, is clearly straight and downward sloping from the shoulder to the tip. The cutting edge, which appears unworn, curves up sharply at the tip. This knife is difficult to parallel exactly in the medieval period, but a very similar specimen comes from a well-dated early 13th-century context in London (Cowgill *et al* 1987, fig 54, 12) and it is possible that this blade form has a relatively restricted date range.

### Cutting edges

Most late Saxon, medieval and post-medieval knives were probably made with cutting edges that were either straight, straight before curving up at the tip or slightly convex. Wear most commonly created a cutting edge which was either concave or had an elongated S-shape (for example, **2237**, **2239**, **2241** and **2242**). The appearance of heavy wear may be linked to the metallographic structure of the knife (Ottaway 1992, 598–9). Knives with steel strips which were welded on to a softer (ferritic) iron back to form a cutting edge would, in due course, lose their effectiveness as the steel was worn away. Knives with an all steel blade or a blade with a steel core which ran through the width of the blade would, however, remain effective after much greater use permitting the development of a very pronounced wear pattern. Metallographic research at Winchester by Tylecote (WS7.2, 140–59), at York (McDonnell in Ottaway 1992; Ottaway and Wiemer 1993), and elsewhere suggests that the welded-on steel strip was the most common type of knife blade macro-structure in the 8th to early 10th centuries, but that other types, notably the steel-cored, became common during the 10th century and dominant in the 11th and 12th centuries. This development seems to be accompanied by the greater occurrence of heavily worn cutting edges.

### Blade surface features

A number of the blades from the Winchester suburban sites have features cut or worked into their surfaces. One face of the blade of **2235** (late Saxon context) has a shallow channel of concave cross-section running diagonally across it. This feature has also been found, usually occurring on both blade faces, on eleven Anglo-Scandinavian knives from 16–22 Coppergate, York (Ottaway 1992, 579) and may be confined to knives of the late 9th and 10th centuries.

**2276** (13th- to 14th-century context) has a narrow groove cut into the top of one of the blade faces. Such grooves are common on late Saxon blades (Ottaway 1992, 580–1), but can also occur on those of the medieval period.

On occasions, features cut into late Saxon knives are inlaid as is shown on **2238**. On each blade face a wide incised channel is inlaid with an upper and lower panel composed of a pair of twisted wires – probably copper and brass – to give a herring bone pattern. A central panel has a pair of rather wider twisted wires making a running S-shaped pattern. This knife is an important addition to a small group of middle to late Saxon inlaid knives with patterns of varying complexity usually based entirely, or in part, on twisted copper, copper alloy and silver wires. Three examples were found in York (Ottaway 1992, 579–81), but otherwise these inlaid knives come almost exclusively from the south and east of England. They must have been considered highly prestigious objects and represent one of the peaks of the Anglo-Saxon metal-worker's achievement. Amongst the earliest are three middle Saxon examples from Hamwic (Southampton City Museums archive, site SOU24 item no 1889, site SOU99 item no153, and site SOU169 item no 266); other late Saxon examples include those from London (Clark 1980; Pritchard 1991, 124–6, figs 3.1 – 3.3, no1), Wicken Bonhunt (Musty *et al* 1973) and Winchester itself at Assize Courts North (WS7.2, 841, no. 2654) and St Mary's Abbey (Winchester Museums archive, sf AVG 1084). Although the blade back form of **2238** could not be determined, it may be noted that inlay occurs almost exclusively on blades with back form A. Winchester has also, however, produced two inlaid pivoting knives (WS7.2, 840, nos 2644 and 2648).

Inlaid grooves may also be found on two whittle-tang knives from medieval contexts (see also scale-tang knives) **2256** and **2258**. In the case of **2258** the groove is inlaid with brass and the blade also has a cutler's mark inlaid with tin. **2256** is from a 15th- to 16th-century context while **2258** is from a probable 17th-century context, but is likely to be earlier. The combination of inlaid grooves and an inlaid cutler's mark can be seen on two late 14th-century whittle-tang knives from London (Cowgill *et al* 1987, fig 61, 99, 101).

A development of the 16th century was the introduction of a bolster between the blade and tang which was forged in one piece with them (Hayward 1957, 4). Bolsters appear on both whittle- and scale-tang knives. **2259** has a bolster and whittle-tang set in a horn handle of rounded cross-section which widens

towards a rounded end. The knife comes from a 17th- to 18th-century context and is typical of the period.

### Handles

It was only possible in a few cases to identify the handle material on the other whittle-tang knives, but **2239**, **2259**, **2266**, **2267** and **2295** had horn handles and the remains of wooden handles were found on **2243**, **2235**, **2265**, and **2301**.

The most unusual and distinctive handles belonged to **2244** and **2273**. Both knives are badly corroded, but have a brass collar at the shoulder and then a number of closely spaced brass discs set on the tang; in the case of **2244** horn discs were found to occupy the spaces between them. Knives with these distinctive handles probably date exclusively to the late 11th to early 13th centuries. **2244** comes from an 11th- to 12th-century context and **2273** from a 13th- to 14th-century context. They are comparable to knives from Goltho dated 1000 to 1080 (Goodall 1987, fig 157, 64–5), from London, dated to the early to mid-13th century (Cowgill *et al* 1987, fig 54, 15), and from Oslo dated to the 12th century – on which the horn elements survive in relatively good condition – (Faerden 1990, 271–2, fig 34).

### Scale-tang knives

Determination of the original form of the scale-tang knife blades is difficult as it does not appear that any of them are complete except perhaps for **2318** and **2340** which are, however, badly corroded. The latter may have a straight back (form E) while the former has a gently convex back (back form D). On the other scale-tang knives the blade backs are either straight to the break or are straight before beginning to curve down near the break (back form C). For much of their length the backs and cutting edges often appear roughly parallel. The cutting edges themselves are usually slightly convex or straight before, in some cases, curving up at the ends. There are no examples of pronounced wear except on **2340** where the cutting edge appears S-shaped.

Grooves run along the top of three blades **2310**, **2317** and **2321**. One blade, **2306**, has an inlaid cutler's mark.

There is usually no distinct shoulder between the blade and tang on the scale-tang knives, although one can be seen on **2308**. The junction between the two elements is or was, however, often marked by non-ferrous shoulder-plates which were soldered, brazed or in two cases (**2328** and **2343**) riveted into place. The plates may be simply a thin strip, but others are wider and moulded with shallow vertical channels as on **2307**, **2319** and **2322**. Of those shoulder-plates which have been analysed, seven were brass, four were tin or tin-lead alloy (including that on **2361**, a knife of unknown tang type), one was copper and one was gun metal.



There is one scale-tang knife with a bolster, **2339**, which comes from a 17th- to 18th-century context.

The scale-tangs themselves exhibit some variety. The tangs were usually pierced three or four times for attachment of the scale plates. The rivets which held them in place are often non-ferrous and sometimes take the form of tubes the ends of which were probably soldered over. The upper and lower edges of the tang were sometimes plated or had a non-ferrous strip soldered on. Of those which have been analysed tin or tin-lead alloy was used on four tangs and silver on one (**2306**). **2776** (Category 18), a plate fragment which is probably from a knife tang, has silver and tin on the edges.

The tangs and their handles were usually parallel-sided, but some widened towards the end. Where they survive, the ends are straight or rounded while that of **2316** is tri-lobate. **2309** is a broken tang which had a small, brass conical cap at the end.

There are two examples of scale-tangs which formed part of the 'pistol-grip' handles (**2339** (with bolster) and **2320**), which were popular in the 18th century (Hume 1982, 178). Both come from 17th- to 18th-century contexts. **2347** is a scale-tang, the blade now missing, which appears to have had an additional thin iron strip riveted to the top and rounded end. The introduction of scale-tangs offered new decorative possibilities to the knife maker and two examples from this assemblage may be noted. **2348** has small inlaid circles running the length of the handle and **2334** has a line of rivets between those securing the scale plates which serve no practical function.

The material used for scale plates has only been identified on a few of the knives. Three (**2316**, **2335** and **2349**) had scale plates made of bone, four (**2319**, **2320**, **2322** and **2350**) of horn and three (**2308**, **2311** and **2336**) of wood.

### Cutlers' marks

There are eleven examples of cutler's marks, nine of which are inlaid with non-ferrous metal. Of those analysed, two were tin or tin-lead alloy, one was brass, one was bronze and one was copper. In every case the marks are on the left side of the blade when viewed from the handle to the tip. Cutler's marks began to appear on knife blades in the 13th century and this is the context date of the earliest example from Victoria Road **2251**. Until the mid-16th century the marks were usually inlaid with non-ferrous metal, but after that date the practice died out (Hayward 1957, 5). Of the two uninlaid examples from Victoria Road **2372** is from a medieval context (the inlay may have fallen out) while **2358** is from a 15th- or 16th-century context.

Marks occurred on both scale-tang and whittle-tang knives. Two scale-tang knives in this assemblage (**2306** and **2324**) and one whittle-tang knife (**2258**) have a cutler's mark, but the rest of the marks come from blades with no surviving tang. In the majority of cases the motif is difficult to define, but there are two in the form of letters, possibly the cutler's initials. **2251** has a

'B' and **2372** has 'UU' or 'CC'. In addition, the mark on **2258** is in the form of a key while that on an unstratified blade from Victoria Road **2435** is in the form of a hollow six-pointed star. None of these marks corresponded to those on knives from the intra-mural sites (WS7.2, 835–60).

### Pattern welding

There is one example of a blade fragment which was pattern-welded (**2356**) from a 13th- to 14th-century context. Pattern-welding occurs occasionally on knives, as opposed to weapons, from the 8th century onwards, but the late medieval period sees the practice come to an end. Four examples of pattern-welded knives from medieval contexts in London (Cowgill *et al* 1987, nos 1, 4, 7, 17) are dated up to the mid-13th century.

### Other types

**2230**, from a 19th-century context, is a folding pocket knife of which the blade is largely missing.

Finally, **2231** appears to be a knife mood and consists of a 'blade' with a rectangular cross-section and a whittle-tang. The object had probably been discarded before final forging of the cutting edge. Another specimen came from a 13th- to 14th-century context at Cathedral Green (WS7.2, 841, no. 2650), although the Victoria Road example is from a recent context.

### Pocket knife

**2230** Fig 175 sf VR 0. The blade is broken off at the point of articulation with a collar made in one piece with the iron binding riveted to the edge of the case. This is of pistol-grip form. L 93mm, W 22mm. 19th- to 20th-century feature F951 (XIV, 3703).

### Knife blank or mood

**2231** Fig 175 sf VR 3580. The 'blade' edges are straight and parallel, the tip is missing. The shoulder is vertical, the tang has a wedge-shaped tip. L 150mm, blade L 104mm, W 12mm, T 2mm. 19th- to 20th-century drain F551 (XII, 2001).

### Whittle-tang knives

#### *Saxon and Saxo-Norman*

**2232** Fig 175 sf VR 3918. The blade tapers markedly, the back is convex and the tip is at half the blade's width, the cutting edge is straight before curving up to the tip. The tang is bent upwards and incomplete. L 75mm, blade L 50mm, W 25mm, T 2mm. Latest Roman and earliest post-Roman soils (XII, 2334).

**2233** Fig 175 sf VR 5087. The blade back is straight to a point c 45mm from the shoulder and then curves down to the tip which is at half the blade's width. The cutting edge was straight before curving up at the tip. The shoulder is

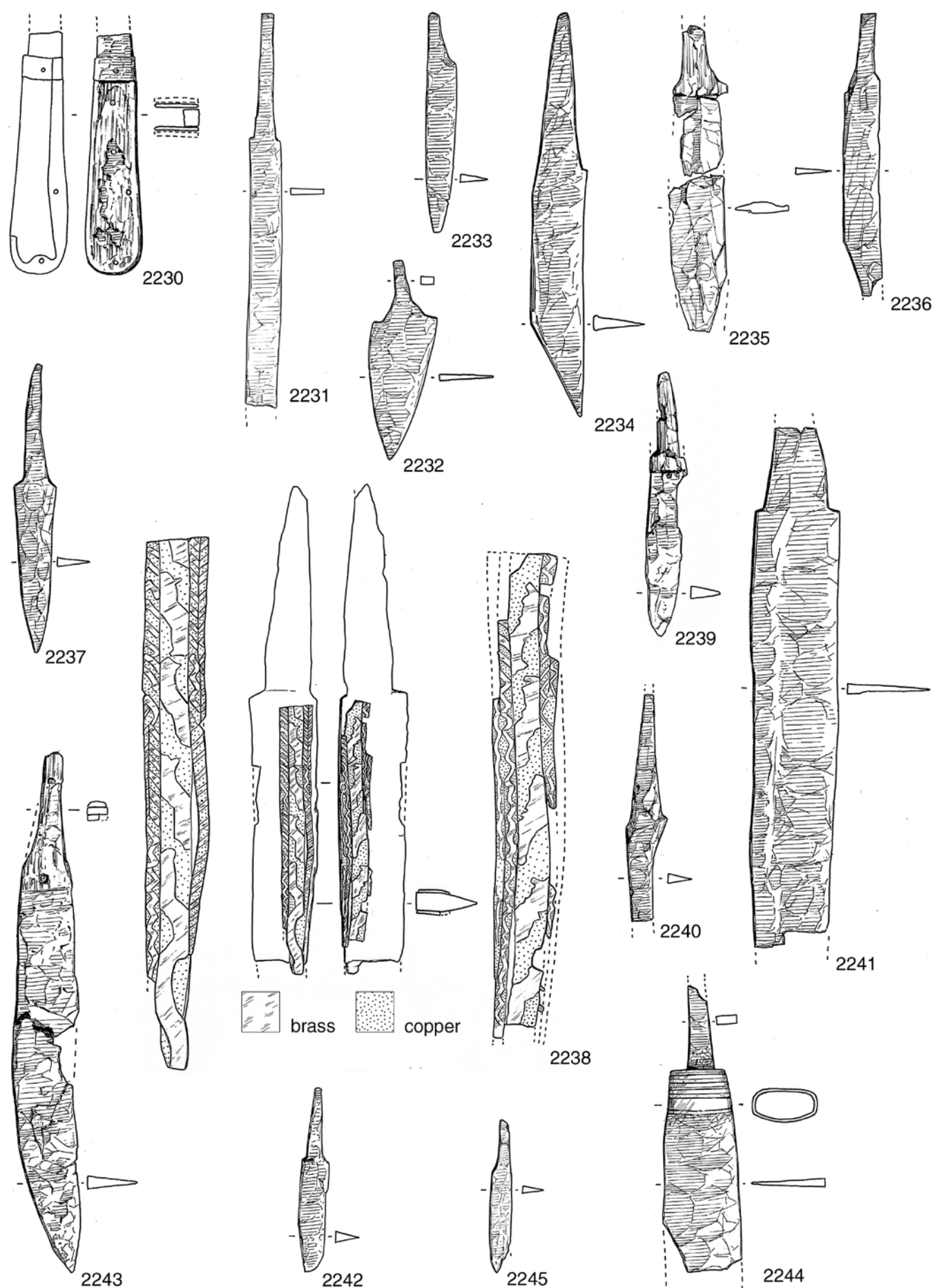


Figure 175 Knives, nos 2230-45, scale 1:2



Plate 4 Knife, no 2238, scale 1:1 (photo: John Crook)

straight, the tang is incomplete. L 87mm, blade L 65mm, W 11mm, T 3mm. Late Saxon soil layer (XII, 2427).

**2234** Fig 175 sf NR 8. The blade back is straight and slopes up to a point c 58mm from the shoulder from where it slopes down, at 28 degrees, to the tip. The cutting edge is very slightly S-shaped. The tang is complete. L 153mm, blade L 92mm, W 19mm, T 4mm. Late Saxon pit F27 (II, 44).

**2235** Fig 175sf SXS 19. In two pieces and corroded. The back is straight before curving down to the tip which was probably at half the blade's width. The cutting edge was probably convex. On blade face has a shallow tapering concave channel running diagonally across it beginning near the cutting edge near the blade-tang junction. Tang tip missing, mineralised remains of a wooden handle (maple, *Acer* sp.). L 112, blade L c 75mm, W 20mm. Late Saxon fill of pit F10 (VIII, 82).

**2236** Fig 175 sf SXS 77. The blade back is straight to a point c 43mm from the shoulder and then slopes down while becoming slightly concave towards the tip which is missing. The cutting edge was probably straight before curving up at the tip. The tang tip is missing. L 108, blade L 83mm, W 14mm, T 2mm. Late Saxon pit F53 (VIII, 269).

**2237** Fig 175 sf SXS 93. The blade tapers from the shoulder; the back straight and slopes down to a point c 41mm from the shoulder before curving down to the tip which is at half the blade's width. The cutting edge is slightly S-shaped. The shoulder is sloping and the tang is in two pieces. L 121mm, blade L 62mm, W 17mm. Late Saxon pit F53 (VIII, 269).

**2238** Fig 175 and Plate 4 sf SXS 800. The blade is incomplete the back is straight to a point c 40mm from the shoulder before beginning to curve or slope down towards the tip. The cutting edge is slightly convex. Both sides of the blade are inlaid with strips of brass and copper wire. The pattern is as follows: the upper and lower panel have two strips of twisted wires, one copper and one copper alloy, making a herring-bone pattern; the wider central panel has two twisted strips, one copper and one copper alloy making a running S-shaped pattern. L 93mm, blade L 50mm, W 14mm, T 4mm. Late Saxon pit F500 (XVII, 1186).

**2239** Fig 175 sf CHR 107. The blade back is straight and horizontal to a point c 61mm from the shoulder and then curves down to the tip which is at half the blade's width. The cutting edge has a pronounced S-shape. The tang is probably incomplete and has horn remains adhering to it. L 99mm, blade L 69mm, W 13mm, T 2mm. Late Saxon pit F24 (I, 128).

**2240** Fig 175 sf HG 356. The blade back is roughly straight and slopes down towards the tip which is missing. The cutting edge is slightly concave. There is a slight sloping shoulder and the tang tapers to a rounded tip. L 85mm, blade L 37mm, W 15mm, T 6mm. Late Saxon pit F172 (III, 827).

**2241** Fig 175 sf HG 379. The blade is incomplete, the back is roughly straight from shoulder to the break. The cutting edge is slightly S-shaped. There is a slight sloping shoulder and the tang tip is probably missing. L 204mm, Blade L 170mm, W 30mm, T 5mm. Late Saxon pit F176 (III, 808).

**2242** Fig 175 sf VR 0. The blade back is straight and horizontal to a point c 24mm from the shoulder before sloping down, at 10 degrees, towards the tip which is missing, but was at half the blade's width. The cutting edge is S-shaped. The shoulder slopes and the tang is complete. L 69, blade L 42mm, W 10mm, T 2mm. 11th to 12th century pit F1021 (XV, 3939).

**2243** Fig 175 sf VR 8580. In two pieces. The blade back is straight and probably sloped up to a point c two thirds along its length from the shoulder before becoming slightly convex and sloping down to the tip. The cutting edge is irregular, but was slightly convex. The blade is pierced near the junction with the tang. The shoulder slopes and the tang is complete. Traces of a wooden handle (of alder, *Aldus* sp.). L c 205mm, blade L c 160mm, W 22mm, T 3mm. 11th- to 12th-century pit F957 (XIV, 3860).

**2244** Fig 175 sf VR 9533. The blade is very corroded and incomplete. The blade back is straight, the cutting edge is slightly convex. There is a brass collar at the shoulder and there were rounded brass plates around the tang set at close intervals, three survive. There is horn between the brass plates. Traces of leather sheath were detected. L 109mm, blade L 62mm, W 29mm, T 3mm. 11th- to 12th-century pit F1042 (XV, 3978).

**2245** Fig 175 sf SXS 807. The blade back is straight and horizontal to a point 37mm from the shoulder before sloping down, at 17 degrees, to a tip. The cutting edge is straight before curving up slightly near the tip. L 75mm, blade L 57mm, W 11mm. 11th- to 12th-century pit F506 (XVII, 1328).

### Medieval

**2246** Fig 176 sf LIDO 24. The blade back is straight and downward sloping from shoulder to tip which is at one third the blade's width. The cutting edge is convex. The shoulder is vertical and the tang complete. L 111mm, blade L 78mm, W 15mm. 13th- to 14th-century fill of cellar F17 (V, 156).

**2247** Fig 176 sf VR 0. The blade back is slightly convex, the tip is missing. The cutting edge is straight. L 56mm, blade L 37mm, W 7mm, T 3mm. 13th- to 14th-century pit F1067 (XV, 4368).

**2248** Fig 176 sf NR 108. The blade back is is straight and horizontal to a point c 2.6mm from the shoulder and then curves down to the tip. The cutting edge is slightly S-shaped. The tang is probably incomplete. L 83mm, blade L 53mm, W 11mm, T 3mm. 13th- to 14th-century property boundary ditch F391 (II, 418).

**2249** Fig 176 sf SXS 770. Blade only. The blade back is straight to a point c 60mm from the shoulder before becoming concave. The cutting edge is slightly convex. One blade face slopes outwards slightly below the back before sloping back to the cutting edge; this has resulted in a ridge along the centre of the face. L 82mm, W 16mm, T 5mm. Feature (F446) marking the disuse of 13th- to 14th-century Building 714.2 (XVII, 1093).

**2250** Fig 176 sf VR 3813. The blade tapers, the back is slightly convex, the tip is missing, the cutting edge is straight. The

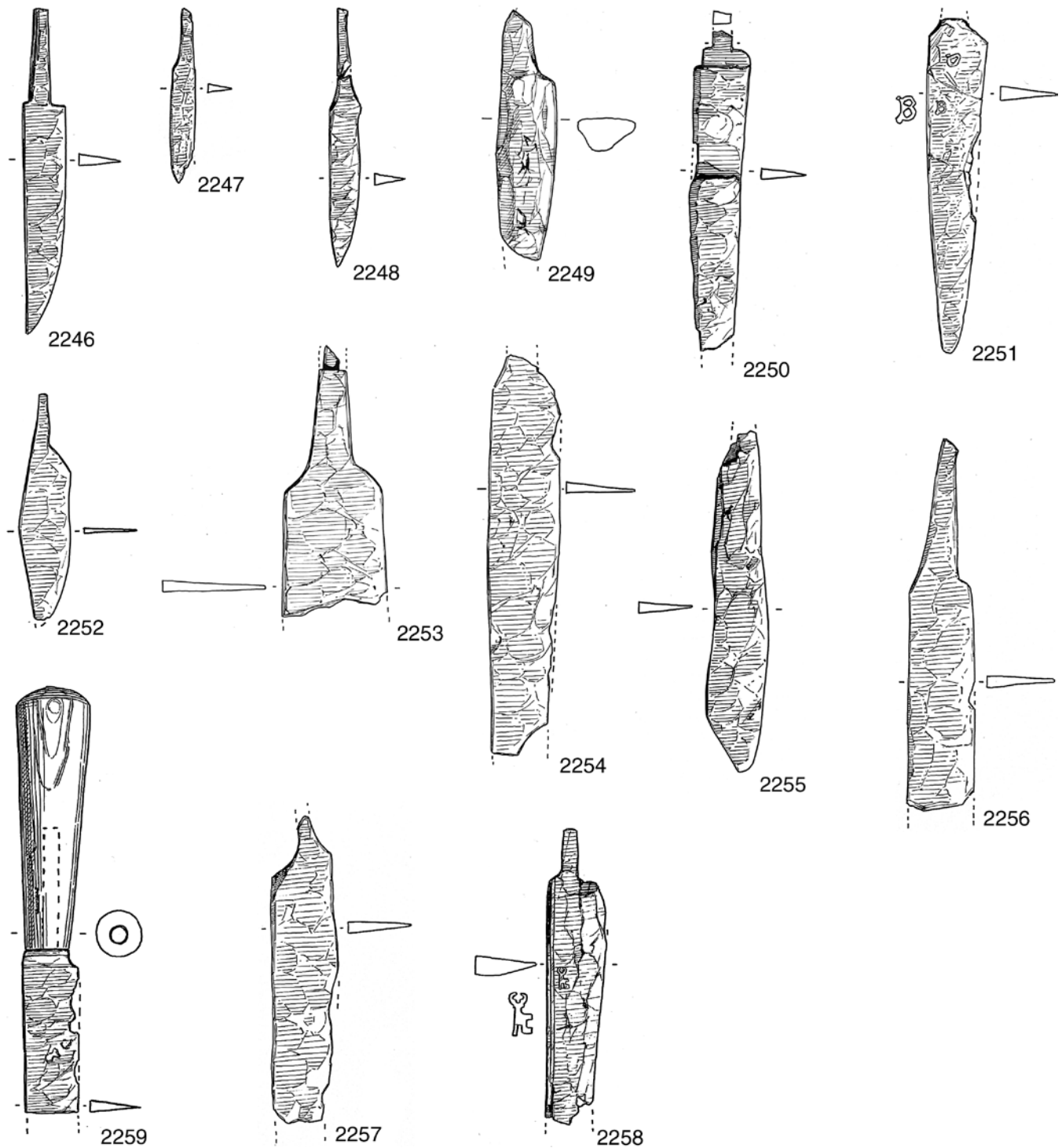


Figure 176 Knives, nos 2246–59, scale 1:2

tang is largely missing. L 104mm, W 15mm, T 3mm. 13th- to 15th-century soil layer (XII, 2099).

**2251** Fig 176 sf VR 5810. Blade in three pieces. The back is slightly convex, the tip is missing. The cutting edge is straight before curving up at the tip. There is an inlaid (copper) cutler's mark in the form of a B. Only a stub of tang survives. L 110mm, W 19mm, T 5mm. Demolition of 13th- to 15th-century Building 936.3 (XII, 2647).

**2252** Fig 176 sf SJS 1029. The blade back slopes up to a point 24mm from the shoulder and then slopes down at *c* 25 degrees, becoming slightly concave, to the tip which is at half the blade's width. The cutting edge is slightly S-shaped.

L 78mm, blade L 58mm, W 17mm, T 2mm. 13th- to 15th-century soil layer (IV, 668).

**2253** Fig 176 sf SBS 185c. The blade and tang are incomplete. L 82mm, W 30mm, T 5mm. 14th- to 15th-century fill of quarry pit F70 (I/II, 71).

#### *Post-medieval and later*

**2254** Fig 176 sf SBS 213. The blade is incomplete, the back is straight as far as the break. The cutting edge is slightly convex. The shoulder is concave and the tang is largely

missing. L 135mm, W 23mm, T 3mm. 15th- to 16th-century pit F67 (II, 66).

**2255** Fig 176 sf VR 2170. The blade widens slightly and the back is roughly straight to a point c 57mm from the shoulder before curving down to the tip, the cutting edge is slightly convex. The shoulder is slight and the tang is largely missing. X-radiograph shows a clear butt-welded cutting edge. L 113mm, W 16mm, T 5mm. 15th- to 16th-century pit F27 (X, 92).

**2256** Fig 176 sf VR 4153. The blade widens slightly from shoulder towards the tip which is missing. After a gently rising concave shoulder the back is then straight, the cutting edge is also straight. The tang tapers to a point. L 123mm, blade L 75mm, W 21mm. 15th- to 16th-century pit F751/757/759 (XIII, 3025).

**2257** Fig 176 sf CHR 1489. The blade narrows towards the tip which is missing, the back is straight, the cutting edge was convex. The tang is largely missing. L 100mm, W 20mm, T 2mm. Post-medieval drain F1 (I, 9).

**2258** Fig 176 sf SJS 122. The blade back is straight, the tip is missing. The cutting edge is straight at the rear, but the rest is broken. A groove inlaid with brass runs along top of blade face(s) and there is a cutler's mark in the form of a key inlaid with tin. A stub of tang. L 101mm, blade L 83mm, W 19mm. 17th- to 18th-century yard surface F50 (I, 260).

**2259** Fig 176 sf SJS 770. The blade is incomplete, but the back is straight as far as the break and the cutting edge is slightly concave. There is a short bolster between the blade and a tang which is set in a horn handle. It has a rounded cross-section which expands towards a rounded end. L 146mm, blade L 55mm, W 18mm, handle D 23mm. 17th- to 18th-century pit F303 (I, 315).

#### *not illustrated*

#### *Late Saxon and Saxo-Norman*

**2260** sf VR 294. The blade back and cutting edge are straight and parallel, the tip is missing, the shoulder is concave. The tang is largely missing. L 59mm, blade L 44mm, W 14mm. Latest Roman and earliest post-Roman soils (V, 61).

**2261** sf SXS 63. The blade back is straight to a point c 52mm from the shoulder before curving down to the tip which is corroded. The cutting edge is S-shaped. The shoulder is sloping, the tang tip is missing. L 128mm, blade L 80mm, W 10mm. Late Saxon pit F36 (VIII, 264).

**2262** sf SXS 278. Blade largely missing, tang incomplete. L 60mm, W 15mm. Late Saxon fill of pit F10 (VIII, 51).

**2263** sf SXS 778. Blade only, the back is straight (and probably sloped up) to a point c 57mm from the shoulder from where it slopes down, becoming slightly concave, towards the tip, which is missing. The cutting edge is slightly convex. Vertical shoulder. L 97mm, W 16mm. Late Saxon posthole F32 (VIII, 115).

**2264** sf CHR 178. Corroded and in two pieces. L 88mm, W 9mm. Late Saxon pit F24 (I, 130).

**2265** sf VR 0. In three pieces which do not now fit together. (a) End of blade, tip missing. L 47mm, W 15mm, T 4mm. (b) Blade and piece of tang. L 60mm, W 14mm, T 3mm. (c) Tang with wood remains on it. L 41mm, overall length of knife c 150mm. 11th- to 12th-century pit F957 (XIV, 3831).

**2266** sf VR 4293. In three pieces. The blade is incomplete, the back and cutting edge are straight. There are horn remains on the tang. L c 96mm, blade L 61mm, W 12mm. 11th- to 12th-century pit F957 (XIII, 3036).

**2267** sf SXS 268. Blade and tang incomplete. Mineralised remains of a horn handle. L 51mm, W 18mm.

**2268** sf SXS 797. The blade back is straight and probably curves down near the tip which is missing. The cutting edge

is S-shaped. Sloping shoulder. L 87mm, blade L 56mm, W 11mm. 11th- to 12th-century pit F489 (XVIII, 1120).

#### *Medieval*

**2269** sf VR 0. The blade back is convex, the tip is missing, the cutting edge is convex. The tang is incomplete. L 77mm, blade L 63mm, W 20mm. 12th- to 13th-century pit F832 (XIII, 3277).

**2270** sf SJS 403. Blade fragment with stub of tang. L 42mm, W 20mm. 12th- to 13th-century pit F53 (I, 194).

**2271** sf HA 18. Blade incomplete, back and cutting edge straight, no shoulder, stub of tang. L 60mm, W 20mm, T 3mm. Levelling for 13th- to 14th-century cobbled surface (II, 13).

**2272** sf VR 0. Fragment of blade and tang. L 56mm, W 10mm. 13th- to 14th-century pit F1066 (XV, 4059).

**2273** sf CT 72. In two pieces, the blade is badly corroded. The blade back is straight before curving down to the tip. The cutting edge is slightly S-shaped. The tang is largely missing, but at the junction with the blade is encircled by a number of copper alloy discs. L c 202mm, W 23mm. 13th- to 14th-century pit F60 (VII, 223).

**2274** sf CT 81. Blade tip missing; the back is straight before starting to curve down at the break. The cutting edge is slightly concave. Shoulder vertical, tang complete. L 67mm, W 11mm. 13th- to 14th-century well F70 (VII, 254).

**2275** sf CT 82. Fragmentary. L < 50mm, W 11mm. 13th- to 14th-century well F70 (VII, 253).

**2276** sf CT 84. The back is straight before beginning to slope or curve down near the tip, which is missing. The cutting edge is S-shaped. A groove runs along the top of one or both blade faces. Sloping shoulder, tang incomplete. L 69mm, blade L 51mm, W 15mm, T 6mm. 13th- to 14th-century well F70 (VII, 250).

**2277** sf VR 353. Blade fragment with a stub of tang. L 36mm, W 17mm. 13th- to 15th-century soil layer (IV, 187).

**2278** sf VR 5804. In four pieces and badly corroded. The blade back appears to be straight and the cutting edge concave. The tang tapers to a point. L c 120mm, blade L c 75mm, W 15mm. Demolition of 13th- to 15th-century Building 936.3 (XII, 2647).

**2279** sf VR 6147. The blade back is roughly straight, the tip is missing, the cutting edge is straight and slopes up. The tang is incomplete. L 75mm, blade L 60mm, W 12mm. 14th- to 15th-century pit F310 (X, 941).

**2280** sf VR 7203. Badly corroded. The blade and tang are incomplete. L 85mm, W 28mm. 14th- to 15th-century pit F505 (XI, 1526).

#### *Post-medieval and later*

**2281** sf SBS 0. The blade back is straight before curving down to the tip, the cutting edge is slightly S-shaped, the tang is largely missing. L 52mm, blade L 40mm, W 7mm, T 6mm. 15th- to 16th-century pit F67 (II, 144).

**2282** sf VR 0. (a) The blade is incomplete. The back and cutting edge are straight. The tang tip is missing. L 53mm, blade L 23mm, W 10mm. (b) The blade is incomplete, the tang is fragmentary. L 33mm, W 10mm. 15th- to 16th-century pit F44 (X, 99).

**2283** sf VR 0. Blade and tang fragment. L 45mm, W 18mm. 15th- to 16th-century pit F312 (X, 932).

**2284** sf VR 2427. Incomplete blade and tang. L 64mm, W 21mm. 15th- to 16th-century pit F60 (X, 134).

**2285** sf VR 2435. The blade tapers slightly, it has a straight back and cutting edge and the tip is missing. L 110mm, blade L 70mm, W 9mm. 15th- to 16th-century pit F44 (X, 99).

**2286** sf SJS 0. Corroded and incomplete blade and tang. L 47mm, W 10mm. 15th- to 16th-century pit F214B (I, 263).

**2287** sf SJS 19. The blade is incomplete and the tang tapers to a point. L 64mm, blade L 20mm, W 15mm. 15th- to 16th-century pit F305 (I, 319).

**2288** sf SJS 38. The blade back and cutting edge are slightly convex and they converge slightly, the tip is missing, but was probably at half the blade's width. The tang is largely missing. L 106mm, W 20mm, T 5mm. 15th- to 16th-century pit F305 (I, 319).

**2289** sf SJS 97. An incomplete blade which is thickened along the back and a stub of tang. L 60mm, W 17mm. 15th- to 16th-century pit F313 (I, 337).

**2290** sf SJS 99. The blade back and cutting edge are slightly convex and the tip is rounded. It has a sloping shoulder and the tang is complete. L 115mm, blade L 79mm, W 16mm. 15th- to 16th-century pit F313 (I, 337).

**2291** sf SJS 510. The blade is incomplete, the tang tip is missing. L 62mm, W 14mm. 15th- to 16th-century pit F214B (I, 267).

**2292** sf VR 0. The blade is incomplete, the back and cutting edge are roughly straight. The shoulder slopes and the tang is incomplete. L 48mm, blade L 33mm, W 7mm. 16th- to 17th-century fill of pit F117 (X, 271).

**2293** sf VR 0. Blade and tang fragment. L 48mm. 17th- to 18th-century pit F808 (XIII, 3181).

**2294** sf CHR 18. Incomplete blade, the back is straight and the cutting edge convex as far as the break. It has a sloping shoulder and the tang is incomplete. L 74mm, blade L 47mm, W 19mm. 17th- to 18th-century soil layer (I, 19).

**2295** sf SJS 729. The blade is incomplete, the tang is set in a horn handle and its tip is missing. Traces of organic material on the blade are possibly leather and could be the remains of a sheath. L 70mm, W 16mm. 17th- to 18th-century pit F311 (I, 335).

**2296** sf VR 4016. Corroded. The blade tip is missing, the back is slightly convex. The tang is incomplete. L 96mm, W 20mm. 19th- to 20th-century soil layer (XIII, 3001).

**2297** sf VR 4028. The blade back is straight, the tip is missing, the cutting edge is corroded. The shoulder is rounded and there is only a stub of tang. L 90mm, W 21mm, T 4mm. 19th- to 20th-century soil layer (XIII, 3001).

**2298** sf VR 4114. The blade and tang are incomplete. L 51mm, W 20mm.

**2299** sf VR 4136. An incomplete blade with a stub of tang. L 62mm, W 32mm. 19th- to 20th-century soil layer (XIII, 3001).

**2300** sf SJS 331. Corroded and in two pieces. The blade back and cutting edge were probably straight and the tip is missing. The tang tapers to a point. L c 90mm, blade L c 60mm, W 11mm. 19th- to 20th-century pit F26 (I, 100).

**2301** sf SXS 257. Blade and tang incomplete. Mineralised remains of wooden handle. L 60mm, W 18mm. Context not phased (VIII, 7).

**2302** sf VR 0. In two pieces. The blade tip is missing, but the tang is complete. L 85mm, blade L 46mm, W 12mm. Unstratified (XIV).

**2303** sf SXS 202. Corroded blade, tang largely missing. L 56mm, W 15mm. Unstratified (VIII).

**2304** sf SXS 485. ?Tang L 101mm, W 8mm. Unstratified (VIII).

**2305** sf SXS 486. The blade back is straight to a point 45mm from the shoulder and then curves down to the tip which is at half the blade's width. The cutting edge is S-shaped. The shoulder is concave, the tang is largely missing. L 70, blade L 62mm, W 10mm, T 3mm. Unstratified (VIII).

## Scale-tang knives

### Medieval

**2306** Fig 177 sf VR 0. The blade is incomplete. The back is straight, the cutting edge is irregular and there is an inlaid

(bronze) cutler's mark. There are non-ferrous shoulder plates. The scale tang is incomplete and there is silver plating on the edges. L 75mm, blade L 42mm, W 12mm. 14th- to 15th-century pit F64 (X, 153).

**2307** Fig 177 sf VR 7119. The blade back is straight to a point c 64mm from the junction with tang after which it curves down slightly towards the tip which is missing. The cutting edge is roughly straight before curving up slightly at the tip. There were non-ferrous (tin-lead) shoulder plates. The tang is parallel-sided and is plated on the edges (tin-lead). L 126mm, blade L 79mm, W 14mm, T 2mm. 14th- to 15th-century pit F505 (XI, 1500).

### Post-medieval and later

**2308** Fig 177 sf SBS 106d. The blade is incomplete. It has no shoulder and the tang widens to a rounded end. It is pierced four times and there are tubular brass rivets in the holes. The remains of wooden (possibly box, *Buxus* sp.) scale plates survive. L 138, blade L c 25mm, tang W 10mm, T across scale plates 12mm. 15th- to 16th-century soil layer (II, 55).

**2309** Fig 177 sf VR 0. An incomplete scale-tang. It is pierced three times and has a short projection at the end attached to the tip of which is a brass cone which is pierced by three groups of three small holes. L 74mm, W 12mm, T 2mm. 15th- to 16th-century pit F27 (X, 93).

**2310** Fig 177 sf VR 0. Slightly bent in the centre and the blade is very corroded, tip missing. The blade back appears straight, a groove runs along the top of one face. There are non-ferrous shoulder plates (brass plating over lead-tin base). The tang is incomplete, tapers, pierced once. L 93mm, blade L 58mm, W 10mm. 15th- to 16th-century pit F44 (X, 99).

**2311** Fig 177 sf VR 0. The blade is largely missing. There are gun metal shoulder plates. The scale-tang is pierced three times, wood scale plates survive making a handle oval in cross-section. L 78mm, W 10mm. 15th- to 16th-century pit F308 (X, 920).

**2312** Fig 177 sf VR 2394. The blade back is straight, the tip is missing. The cutting edge is roughly straight before curving up at the tip. There is an inlaid (tin-lead) cutler's mark. The tang is largely missing. L 90mm, W 14mm, T 3mm. 15th- to 16th-century pit F65 (X, 154).

**2313** Fig 177 sf VR 2702. Incomplete blade, the back and cutting edge are straight and parallel. There was a non-ferrous (tin-lead) shoulder plate, the tang is largely missing, but there is non-ferrous metal (tin-lead) on what remains. L 52mm, blade L 34mm, W 15mm. 15th- to 16th-century pit F153 (X, 408).

**2314** Fig 177 sf VR 3448. The blade is incomplete, the back is straight to a point c 75mm from the junction with the tang and then curves down towards the tip which is missing. The cutting edge is convex. The tang is incomplete, but what remains is pierced by an unusual oval hole. L 149mm, blade L 103mm, W 21mm, T 4mm. 15th- to 16th-century pit F771 (XIII, 3068).

**2315** Fig 177 sf VR 4457. The blade back is straight, the tip is missing. The cutting edge is slightly convex. There are non-ferrous (brass) shoulder plates and an incomplete scale-tang which is pierced twice, there is non-ferrous metal around the holes and on the underside of the tang. L 115mm, blade L 63mm, W 17mm, T 2mm. 15th- to 16th-century soil layer marking the disuse of the medieval buildings on tenements 935 and 936 (XII, 2485).

**2316** Fig 177 sf SJS 77. A scale-tang which widens to a trilobate end. Its sides are slightly concave and it is pierced three times, non-ferrous rivets in situ. There are traces of bone scale plates. L 51mm, W 16mm. 15th- to 16th-century pit F313 (I, 336).



**2317** Fig 177 sf SJS 91. The blade back and cutting edge are straight and they converge slightly, the tip is missing. Two grooves run along the top of the blade face(s). There are non-ferrous shoulder plates and the scale-tang is largely missing. L 101mm, blade L 75mm, W 17mm, T 4mm. 15th- to 16th-century pit F313 (I, 337).

**2318** Fig 177 sf SJS 507. The blade back is straight and the cutting edge was S- shaped, the tip is missing. It has an incomplete scale-tang which is pierced once, a plated rivet in situ. L 102mm, blade L 82mm, W 22mm, T 3mm. 15th- to 16th-century pit F214B (I, 267).

**2319** Fig 177 sf SJS 718. The blade is incomplete, the back and cutting edge are straight and converge slightly. It has moulded brass shoulder plates. The tang widens near the end which is missing, it is pierced four times and there are iron rivets. Traces of horn scale plates. L 115mm, blade L 40mm, W 15mm. 15th- to 16th-century feature F204 (I, 375).

**2320** Fig 178 sf VR 2956. A scale-tang in pistol-grip form with horn scale plates and pierced three times. L 110mm, W 22mm. 17th- to 18th-century pit F227 (X, 630).

**2321** Fig 178 sf VR 6044. Blade and scale-tang fragment. A groove runs along the top of the blade face(s). There is a non-ferrous (brass) shoulder plate. L 40mm, W 16mm. 17th- to 18th-century pit F302 (X, 902).

**2322** Fig 178 sf SJS 455. The blade is incomplete. It has one moulded brass shoulder plate and an incomplete scale-tang which is pierced twice, rivets in situ. There are horn remains on the tang. L 75mm, blade L 30mm, W 16mm, T 3mm. 17th- to 18th-century soil layer (I, 135).

**2323** Fig 178 sf SBS 104. The blade is bent in the middle. The blade back is straight, the tip is missing. The cutting edge is slightly convex. It has an incomplete scale-tang which is pierced twice, non-ferrous rivets in situ. L c 135mm, blade L 85mm, W 20mm. 18th- to 19th-century soil layer (II, 104).

**2324** Fig 178 sf VR 4039. The blade back was roughly straight before curving down near the tip which is missing. The cutting edge is straight before curving up slightly near the tip. Cutler's mark inlaid with copper. There are non-ferrous (brass) shoulder plates and the tang is largely missing. L 75mm, blade L 71mm, W 15mm. 19th- to 20th- century soil layer (XIII, 3001).

#### *not illustrated*

#### *Medieval*

**2325** sf VR 2213. An incomplete blade and incomplete scale-tang. There is a tinned shoulder plate and tin plating on the tang edges. L 48mm, W 15mm. 13th- to 15th-century soil layer (X, 61).

**2326** sf VR 2383. Broken at each end. Plated (silver-tin, thickest in strips along each side). Probably a fragment of knife scale-tang. L 22mm, W 10mm. 14th- to 15th-century pit F64 (X, 153).

**2327** sf VR 2580. The blade and scale-tang are incomplete. L 59mm, W 15mm. 14th- to 15th-century pit F111 (X, 257).

**2328** sf SJS 354. The blade and tang are incomplete. It has non-ferrous (copper, trace of zinc) shoulder plates attached by rivet of brass. L 62mm, W 18mm, T 3mm. Construction of 15th-century Building 1021.2 (I, 149).

#### *Post-medieval and later*

**2329** sf SBS 0. (a) An incomplete blade and a stub of scale-tang. L 60mm, blade L 56mm, W 20mm, T 3mm. (b) The blade is largely missing. It has non-ferrous shoulder plates,

and incomplete scale-tang which has plating on the edges. L 44mm, W 16mm. 15th- to 16th-century pit F67 (II, 66).

**2330** sf VR 0. Fragment of a scale-tang knife. It has non-ferrous (tin-lead) shoulder plates, the surviving hole in the tang has a non-ferrous (tin-lead) tube in situ. L 35mm. 15th- to 16th-century soil layer marking the disuse of medieval buildings on tenements 935 and 936 (XII, 2489).

**2331** sf VR 2166. A scale-tang which is incomplete and in three pieces. It is pierced three times and there are remains of a non-ferrous shoulder plate. L 65mm, W 11mm. 15th- to 16th-century pit F27 (X, 92).

**2332** sf VR 3758. Two fragments of a scale-tang knife. 15th- to 16th-century soil layer marking the disuse of buildings on properties 935 and 936 (XII, 2031).

**2333** sf VR 6126. Blade and tang fragment, the latter with plating (tin with copper residue) along the edges. L 32mm, W 11mm, T 2mm. 15th- to 16th-century pit F313 (X, 952).

**2334** sf VR 6145. A scale-tang, very corroded. It has a non-ferrous shoulder plate. There are three principal non-ferrous rivets and in line between them the scale plates had a number of smaller decorative rivets which did not run through the width of the tang. L 65mm, W 12mm. 15th- to 16th-century pit F313 (X, 952).

**2335** sf VR 6715. A very corroded scale-tang with bone scale plates, it is pierced three times and has rivets in situ. L 110mm, W 15mm. 15th- to 16th-century pit F312 (X, 932).

**2336** sf SJS 192. A fragment of scale-tang with non-ferrous shoulder plates. Wooden scale plates. L 20mm, W 20mm. 15th- to 16th-century soil layer (I, 287).

**2337** sf SJS 674. A scale-tang with traces of a non-ferrous shoulder plate. L 90mm, W 13mm. 15th- to 16th-century feature F307 (I, 316).

**2338** sf SJS 773. The blade is missing, there are non-ferrous shoulder plates, the end of the tang is missing and it is pierced four times with non-ferrous rivets in situ. L 94mm, W 20mm. 15th- to 16th-century pit F305 (I, 319).

**2339** sf VR 2561. The blade is largely missing, but is attached to a bolster which expands towards a scale-tang of pistol-grip form, it is pierced three times and has rivets in situ. L 164mm, blade L 43mm, W 18mm, bolster L 25mm, tang W 22mm. 17th- to 18th-century pit F113 (X, 259).

**2340** sf VR 7118. The blade back is roughly straight, the tip is rounded, the cutting edge has an elongated S-shape. There are thin non-ferrous shoulder plates; the tang is incomplete and pierced three times. L c.210mm, blade L 131mm, W 26mm. 17th- to 18th-century pit F502 (XI, 1502).

**2341** sf CHR 318. Fragment of a scale-tang, one non-ferrous rivet in situ. L 43mm, W 11mm. 17th- to 18th-century soil layer (I, 19).

**2342** sf SJS 205. An incomplete blade. The back is straight and the cutting edge curves down at the rear, before sloping up to the break. There are brass shoulder plates and the tang is incomplete. L 64mm, W 20mm. 17th- to 18th-century ditch F203 (I, 501).

**2343** sf SJS 576. A fragment of blade with non-ferrous shoulder plates secured by a rivet. The tang is incomplete, pierced once and has a non-ferrous rivet in situ. L 35mm, W 13mm. 17th- to 18th-century soil layer (I, 253).

**2344** sf SJS 622. The blade is largely missing. It has non-ferrous shoulder plates and the tang is incomplete. L 52mm, W 20mm. 17th- to 18th-century soil layer (I, 306).

**2345** sf SJS 623. The blade is largely missing. It has non-ferrous shoulder plates, the tang is pierced three times and widens towards the end which is missing. L 81mm, W 21mm. 17th- to 18th-century soil layer (I, 306).

**2346** sf SBS 102. A scale-tang in two pieces. It widens towards the end which is rounded and is pierced four times, there are non-ferrous tubular rivets in the holes. L c 134mm, W 20mm. 19th- to 20th-century fill of pit F59 (III, 35).

**2347** sf VR 0. A scale-tang, very corroded. It has a riveted

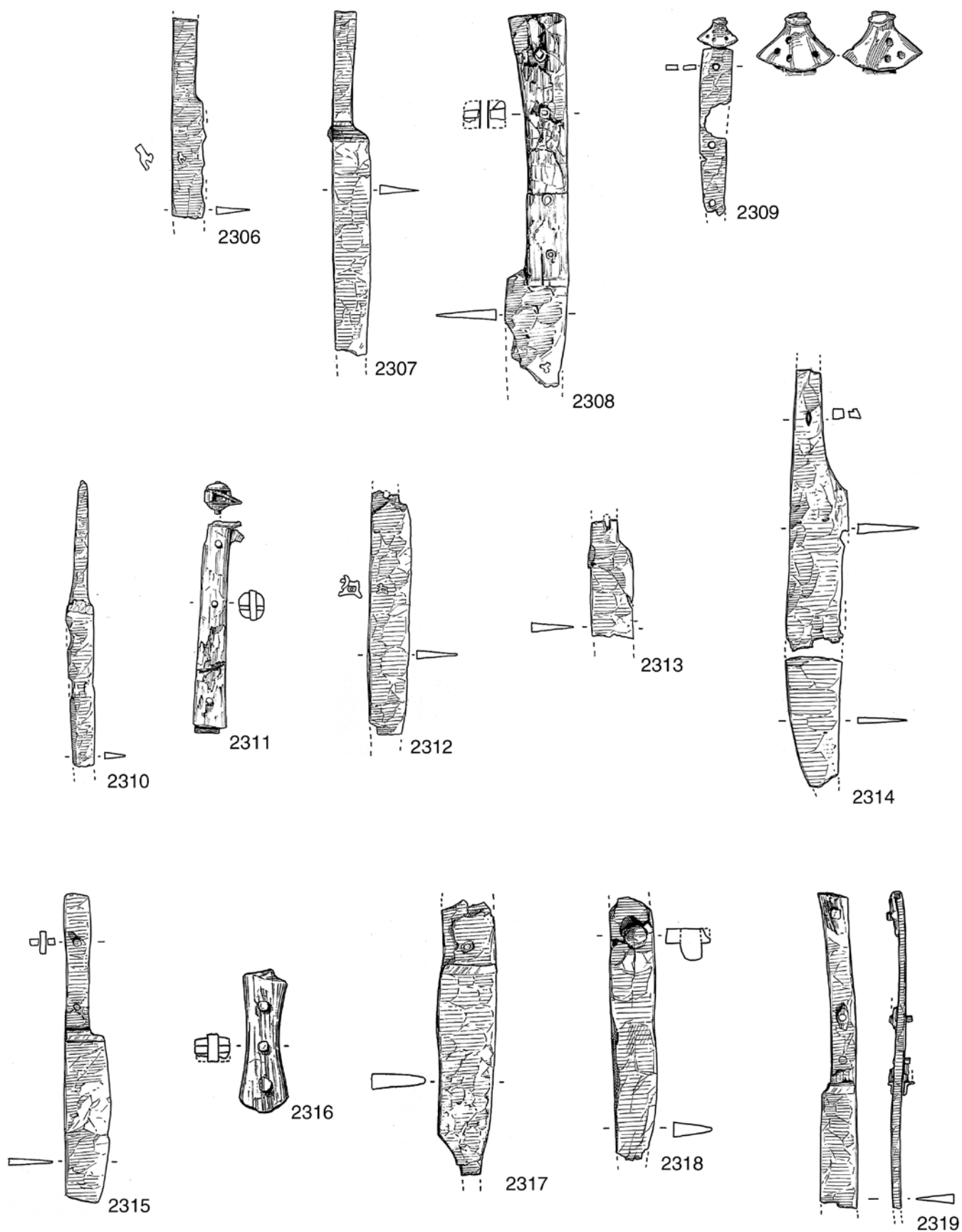


Figure 177 Knives, nos 2306–19, scale 1:2

iron strip along the side and around the end. Two rivets in the body of the tang. L c 90mm, W 14mm. 19th- to 20th-century feature F1 (X, 5).

**2348** sf VR 2010. An incomplete scale-tang. It is pierced

twice, the hole nearest the end has a non-ferrous tube in it, the other has non-ferrous rivet, the end is rounded. Running along the centre line of the scale plates were small circles inlaid with non-ferrous wire. There were also further inlaid



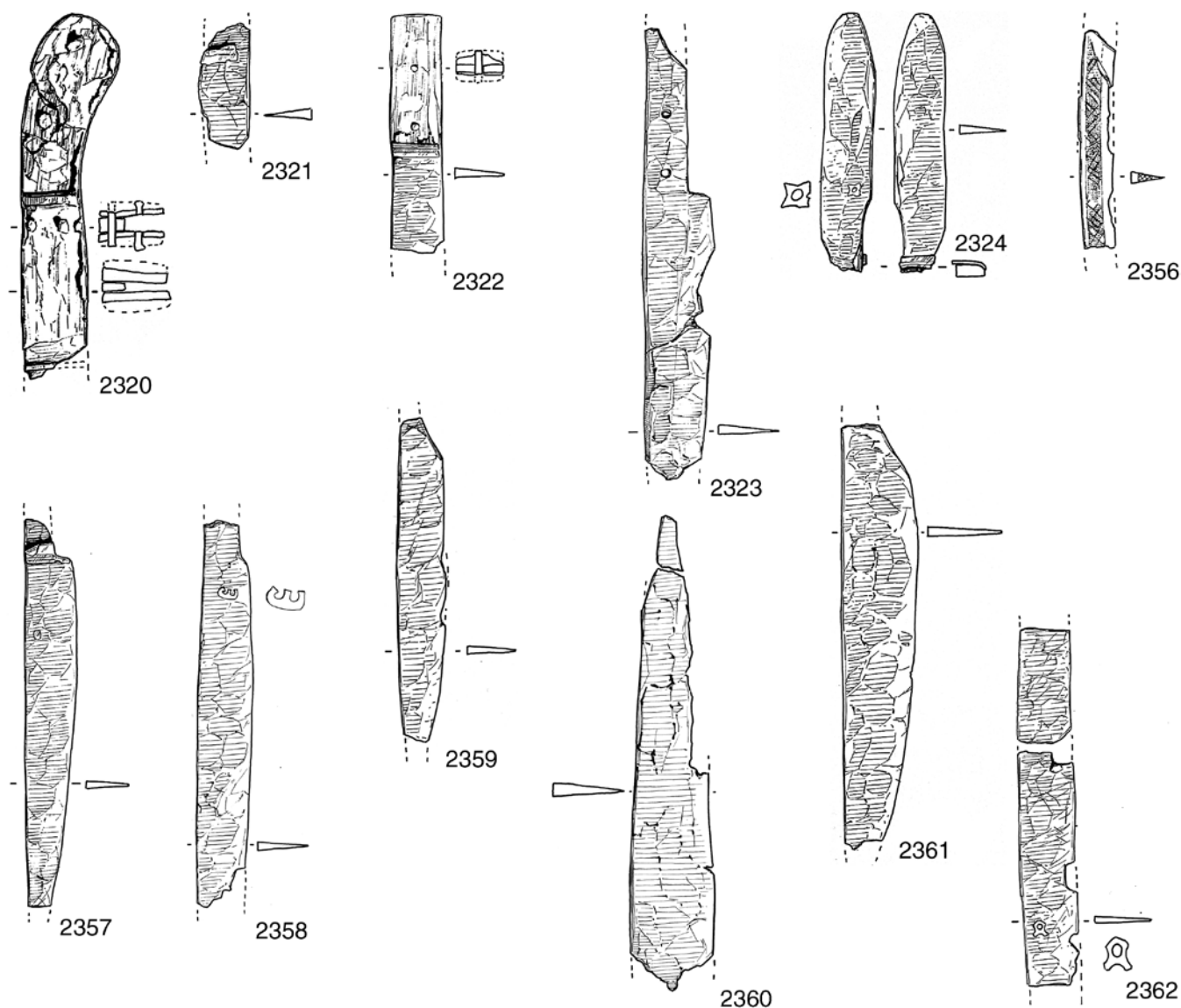


Figure 178 Knives, nos 2320–4, 2356–62, scale 1:2

circles beyond the end rivet. L 38mm, W 7mm. 19th- to 20th-century soil layer (X, 7).

**2349** sf VR 2104. A scale-tang with bone scale plates. It is pierced three times and there are non-ferrous rivets in situ. L 72mm, W 16mm. 19th- to 20th-century pit F1 (X, 5).

**2350** sf VR 2116. A few blade fragments and an incomplete scale-tang with horn scale plates. It has a convex end and is pierced twice, non-ferrous rivets in situ. L 50mm, W 18mm. 19th- to 20th-century pit F10 (X, 22).

**2351** sf VR 7440. (a) The blade back is straight before curving down at the tip, the cutting edge is slightly S-shaped. There were probably non-ferrous shoulder plates, the tang is incomplete. L 205mm, blade L 132mm, W 25mm. (b) The blade is largely missing. The tang widens to a rounded end and is pierced three times, non-ferrous rivets in situ. L 120mm, W 20mm. 19th to 20th century feature F407 (XI, 1212).

**2352** sf SXS 297. It narrows towards the tip which is missing. It is pierced three times and there are brass rivets in situ. L 85, W 18, rivets L 11mm. 19th- or 20th-century soakaway F7 (VIII, 17).

**2353** sf SJS 337. An incomplete blade and scale-tang. L 52mm. 19th- to 20th-century pit F26 (I, 100).

**2354** sf SJS 0. The blade is largely missing, a bolster lies between it and the incomplete scale-tang which is pierced

twice. L 100mm, blade L 29mm, W 15mm. 19th- to 20th-century pit F322 (I, 361).

**2355** sf SJS 251. A very corroded scale-tang. L 52mm, W 12mm. Unstratified (I).

### Other forms and fragments

#### Medieval

**2356** Fig 178 sf VR 0. Blade only. It is broken near shoulder, the back is straight before curving down towards the tip which is missing. The cutting edge is now irregular. It has a pattern-welded core. L 65mm, W 10mm, T 3mm. 13th- to 14th-century pit F916 (XI, 1714).

#### Post-medieval and later

**2357** Fig 178 sf SBS 50. The blade narrows towards the tip which is missing. The back and cutting edge are convex. There is an inlaid cutler's mark. It has non-ferrous (copper alloy) shoulder plates and the tang is largely missing. L

115mm, blade L 98mm, W 14mm, T 2mm. 15th- to 16th-century pit F67 (II, 66).

**2358** Fig 178 sf VR 3452. Blade only. The back is straight, the tip is missing. The cutting edge is slightly convex. There is a cutler's mark (not inlaid). L 113mm, W 14mm, T 2mm. 15th- to 16th-century pit F771 (XIII, 3068).

**2359** Fig 178 sf VR 3465. Blade only. The back is slightly convex, the tip is missing, the cutting edge is slightly convex. L 91mm, W 12mm. 15th- to 16th-century pit F771 (XIII, 3058).

**2360** Fig 178 sf VR 6118. Blade only. The back is slightly convex, the cutting edge is broken. L 132mm, W 25mm, T 4mm. 15th- to 16th-century pit F313 (X, 952).

**2361** Fig 178 sf VR 2152. It is at its widest near the shoulder, the back is straight, the tip missing and the cutting edge is convex. There are traces of a tin shoulder plate. L 128mm, W 21mm, T 4mm. 16th- to 17th-century pit F5/6/7 (X, 12).

**2362** Fig 178 sf VR 2160. An incomplete blade in two pieces. The back and cutting edge are straight and parallel. It has an inlaid cutler's mark. L c.105mm, W 13mm, T 2mm. 19th- to 20th-century soil layer (X, 6).

*not illustrated*

#### *Late Saxon and Saxo-Norman*

**2363** sf VR 37. Blade only. The back is straight and slopes up to a point c three quarters along its surviving length from the rear and then slopes down, at c 10 degrees, and becomes slightly concave, the tip is missing. The cutting edge is now irregular. L 92, W 14mm. Late 4th- to early 5th-century (?and later) soil sealing late Roman cemetery (IV, 90).

**2364** sf SXS 279. Blade fragment. L 46mm, W 18mm. Late Saxon fill of pit F10 (VIII, 51).

**2365** sf CHR 178. Blade fragment. Late Saxon pit F24 (I, 130).

**2366** sf 27JS 601. Blade only. It tapers from shoulder to tip and has a convex back and a straight cutting edge. (?inlaid groove runs along the top of one blade face) L 78mm, W 25mm, T 3mm. Late Saxon pit F54 (I, 379).

**2367** sf CHR 42. Blade fragment. L 35mm, W 19mm. Late Saxon and early medieval erosion layer (I, 83).

**2368** sf VR 0. Very corroded. Blade only, tip missing. L 76mm, W 18mm. 11th- to 12th-century pit F1021 (XV, 3939).

#### *Medieval*

**2369** sf SJS 153. Blade fragment in three pieces. L 60mm, W 15mm, T 5mm. 12th- to 13th-century soil layer (I, 403).

**2370** sf VR 0. End of blade, tip rounded. L 34mm, W 11mm. 13th- to 14th-century pit F966 (XIV, 3785).

**2371** sf VR 2843. Incomplete blade. The back is straight before curving down near to the tip, the cutting edge is roughly straight. L 60mm, W 11mm. 13th- to 14th-century pit F181 (X, 542).

**2372** sf VR 3089. Blade only. It narrows towards the tip which is missing, the back and cutting edge are slightly convex. There is a cutler's mark (not inlaid) 'UU' or 'CC'. L 93mm, W 10mm. 13th- to 14th-century pit F166 (X, 412).

**2373** sf VR 3563. Blade only. The back and cutting edge are slightly convex. L 62mm, W 10mm. 13th- to 14th-century pit F274 (X, 803).

**2374** sf VR 8509. Blade fragment. L 40mm, W 17mm. 13th- to 14th-century pit F966 (XIV, 3785).

**2375** sf VR 8510. Blade fragment with a straight back. L 60mm, W 15mm, T 3mm. 13th- to 14th-century pit F966 (XIV, 3785).

**2376** sf JCH 65. Blade only, it narrows to the tip. The back is straight before curving down towards the tip. The cutting

edge is straight. L 70mm, W 27mm. 13th- to 14th-century pit F37 (III, 176).

**2377** sf VR 36. Blade only, very corroded. L 67mm, W 15mm. 13th- to 15th-century soil layer (IV, 66).

**2378** sf VR 946. Blade only. The back is straight, the tip is missing. L 75mm, W 16mm. 13th- to 15th-century soil layer (V, 14).

**2379** sf VR 2791. Blade fragment. L 41mm, W 8mm, T 2mm. 13th- to 15th-century soil layer (X, 501).

**2380** sf VR 5521. An incomplete blade. The back is straight before curving down to the tip, the cutting edge is slightly convex. L 60mm, W 20mm. Occupation of 13th- to 15th-century Building 936.4 (XII, 2529).

**2381** sf VR 5674. An incomplete blade. The back is straight and the cutting edge convex. L 60mm, W 18mm. Construction (F701) of 13th- to 15th-century Building 936.4 (XII, 260).

**2382** sf SBS 0. (a) Blade fragment. L 50mm, W 15mm, T 2mm. (b) Blade fragment. L 50mm, W 17mm, T 2mm. 14th- to 15th-century fill of quarry pit F70 (I/II, 71).

**2383** sf VR 0. Blade fragment. L 32mm, W 21mm. 14th- to 15th-century pit F505 (XI, 1508).

**2384** sf VR 7136. Blade only. It is in two pieces which do not now join. The back is straight, the cutting edge has a slight S-shape and curves up at the tip. L 57 and 43mm, W 15mm, T 3mm. 14th- to 15th-century pit F505 (XI, 1500).

**2385** sf CHR 0. Blade fragment. L 40, W 15mm. 14th- to 15th-century soil layer (III, 514).

**2386** sf VR 3768. Two blade fragments. 15th-century demolition (F566) of the medieval buildings on tenements 935 and 936 (XII, 2032).

#### *Post-medieval and later*

**2387** sf SBS 59 Blade fragment. There is probably a shallow groove along the top of the blade face(s). L 65mm, W 11mm. 15th- to 16th-century pit F67 (II, 118).

**2388** sf SBS 125. Blade fragment. L 47mm. 15th- to 16th-century pit F67 (II, 119).

**2389** sf SBS 215. (a) Blade only. It narrows to the tip, the back is straight before curving down at the tip. The cutting edge is convex. L 73mm, W 21mm, T 2mm. (b) Blade fragment. L 37mm, W 15mm. 15th- to 16th-century pit F67 (II, 66).

**2390** sf VR 0. (a) Blade fragment. L 46mm, W 21mm. (b) Blade fragment. L 31mm, W 11mm. 15th- to 16th-century pit F44 (X, 99).

**2391** sf VR 2374. (a) Blade only. A groove runs along top of the blade face(s) and there is an inlaid cutler's mark. Traces of non-ferrous shoulder plates. L 51mm, W 11mm. (b) The end of a blade, it has a convex back and cutting edge, and a pointed tip. L 46mm, W 15mm. 15th- to 16th-century (?structural) mortar layer (X, 85).

**2392** sf VR 2425. Blade only with back and cutting edge straight and parallel, tip rounded. L 60mm, W 13mm, T 4mm. 15th- to 16th-century pit F60 (X, 134).

**2393** sf VR 3081. A blade in three pieces. The back and cutting edge are convex. L 84mm, W 18mm. 15th- to 16th-century pit F153 (X, 408).

**2394** sf VR 3661. Blade fragments. 15th- to 16th-century pit F776 (XIII, 3108).

**2395** sf VR 4049. Blade fragment. L 60mm, W 11mm, T 2mm. 15th- to 16th-century pit F152 (XIII, 3002).

**2396** sf VR 4265. The blade back is straight, the tip is rounded, the cutting edge is straight before curving up to the tip. There is no distinct shoulder, but there is a small bolster between the blade and the tang. The tang is largely missing. L 84mm, blade L 71mm, W 12mm. 15th- to 16th-century pit F771 (XIII, 3076).

**2397** sf VR 4314. Blade fragment. L 60mm, W 12mm, T 3mm. 15th- to 16th-century pit F776 (XIII, 3108).

**2398** sf VR 6128. Very corroded blade, in three pieces. L 120mm. 15th- to 16th-century pit F313 (X, 952).

**2399** sf SJS 0. Blade fragment L 50mm, W 15mm. 15th- to 16th-century pit F305 (I, 330).

**2400** sf SJS 33. The blade narrows towards the tip. The back and cutting edge are straight before curving inwards near the tip. The shoulder is vertical and there are non-ferrous shoulder plates. The tang is largely missing. L 123mm, W 12mm, T 5mm. 15th- to 16th-century pit F305 (I, 319).

**2401** sf SJS 98. Blade fragment. L 50mm, W 13mm. 15th- to 16th-century pit F313 (I, 337).

**2402** sf SJS 399. Blade only, the back is straight before curving down to the tip, the cutting edge is slightly convex. L 62mm, W 15mm. 15th- to 16th-century soil layer (I, 190).

**2403** sf SJS 465. Blade fragment. L 55mm, W 18mm. 15th- to 16th-century soil layer (I, 190).

**2404** sf SJS 677. Incomplete blade. L 51mm, W 16mm. 15th- to 16th-century feature F307 (I, 316).

**2405** sf SJS 678. Blade only. The back is straight before curving down to the tip which is at half the blade's width. The cutting edge is straight before curving up at the tip. L 95mm, W 12mm, T 2mm. 15th- to 16th-century feature F307 (I, 316).

**2406** sf SJS 732. Blade fragment. L 46mm, W 16mm. 15th- to 16th-century pit F313 (I, 336).

**2407** sf VR 2150. Blade fragment. L 65mm, W 33mm. 16th- to 17th-century pit F5/6/7 (X, 12).

**2408** sf NR 7. Incomplete blade only. L 70mm, W 18mm. 17th- to 18th-century posthole F28 (II, 45).

**2409** sf CHR 296. Blade fragment, the back is convex, the cutting edge is straight. L 50mm, W 15mm. 17th- to 18th-century soil layer (I, 19).

**2410** sf SJS 0. Blade fragment. L 50mm, W 15mm, T 4mm. 17th- to 18th-century yard surface F50 (I, 181).

**2411** sf SJS 0. Blade fragment, a groove runs along the top of the face(s). L 50mm, W 14mm. 17th- to 18th-century ditch F203 (I, 230).

**2412** sf SJS 0. Blade fragment L 50mm, W 20mm. 17th- to 18th-century pit F311 (I, 328).

**2413** sf SJS 202. In two pieces. The blade narrows towards the tip which is missing. The back is straight, the cutting edge is irregular. There is no distinct shoulder and the tang is incomplete. L c 115mm, blade L c 95mm, W 20mm. 17th- to 18th-century ditch F203 (501).

**2414** sf SJS 245. Blade fragment. L 43mm, W 16mm. 17th- to 18th-century ditch F203 (501).

**2415** sf SJS 454. Blade fragment, it has a convex back and convex cutting edge. L 53mm, W 28mm. 17th- to 18th-century soil layer (I, 135).

**2416** sf SJS 672. Blade fragment. L 46mm, W 20mm. 17th- to 18th-century pit F303 (I, 315).

**2417** sf SJS 730. Blade fragment. L 38mm, W 15mm. 17th- to 18th-century pit F311 (I, 335).

**2418** sf SJS 0. Incomplete blade. The back is straight, the cutting edge is now a little irregular, but was slightly convex. L 90mm, W 18mm. Demolition of 18th-century Building 961.6 (IV, 604).

**2419** sf VR 0. Incomplete and corroded blade. The blade back and cutting edge are convex. L 106mm, W 21mm. Construction of 19th-century buildings on Hyde Street frontage (XI, 1600).

**2420** sf HA 0. Incomplete blade only. L 50mm, W 13mm. 19th- to 20th-century fill of cellar in Building 744.4 (XII, 31).

**2421** sf HAB 124. Blade incomplete, back and cutting edge straight and parallel, tang largely missing. L 55mm, W 15mm, T 3mm. 19th- to 20th-century feature F17 (V, 120).

**2422** sf SBS 7. Blade fragment. L 62mm, W 26mm. 19th- to 20th-century soil layer (II, 23).

**2423** sf SBS 15. Blade only. L 50mm, W 13mm. 19th- to 20th-century soil layer (II, 23).

**2424** sf SBS 95c. Very corroded, the blade is incomplete. L 86mm. 19th- to 20th-century soil layer (III, 27).

**2425** sf VR 0. Blade fragment. L 60mm, W 28mm. 19th- to 20th-century feature F851 (XIV, 3703).

**2426** sf VR 3581. A blade broken at each end. The back and cutting edge are straight and parallel. L 158mm, W 11mm, T 2mm. 19th- to 20th-century drain F551 (XII, 2001).

**2427** sf VR 3610. Fragments of a blade with a strip of tin running along the back. 19th- to 20th-century soil layer (XIII, 3060).

**2428** sf VR 4019. Corroded blade only. The back is straight before curving down to the tip. L 80mm, W 14mm, T 7mm. 19th- to 20th-century soil layer (XIII, 3001).

**2429** sf VR 4026. Blade fragment, the end is rounded. L 45mm, W 13mm, T 3mm. 19th- to 20th-century soil layer (XIII, 3001).

**2430** sf VR 4031. Blade fragment. 19th- to 20th-century soil layer (XIII, 3001).

**2431** sf VR 4087. Blade fragment? L 38mm, W 16mm. 19th- to 20th-century soil layer (XIII, 3001).

**2432** sf SJS 329. Blade fragment. L 50mm, W 19mm. 19th- to 20th-century pit F26 (I, 100).

**2433** sf SJS 345. Blade fragment. L 77mm, W 20mm. 19th- to 20th-century soil layer (I, 111).

**2434** sf SJS 463. The blade narrows and the tip is missing, the back is straight and the cutting edge is convex. The shoulder is indistinct and there are non-ferrous shoulder plates. The tang is incomplete. L 49mm, W 13mm. 19th- to 20th-century soil layer (I, 179).

**2435** sf VR 0. Blade only. The back is straight before curving down to the tip. The cutting edge is roughly straight. It has an inlaid cutler's mark in the form of a hollow six pointed star. L 59mm, W 11mm. Unstratified (X).

**2436** sf VR 0. Blade fragment with non-ferrous plating along the back and a non-ferrous shoulder plate. L 27mm, W 11mm. Unstratified (X).

### Hones with a contribution by C Matthews

This collection is composed chiefly of hones of Norwegian ragstone, a fine grained schist quarried at Eidsborg, Telemark, in southern Norway. Hones of this stone were imported from the 9th century onwards (Mann 1982, 30), and predominate over British stones on many sites in the late Saxon and medieval periods, for example, at Thetford, Norfolk (Moore and Ellis 1984, 107–111), Lincoln (Mann 1982, 27–30), Northampton (Moore and Oakley 1979, 280–3), King's Lynn, Norfolk (Ellis 1977b, 317–20) and Colchester (Crummy 1988, 76–9). The cargo of a Viking ship wrecked off the coast of Norway included some whetstones (Graham-Campbell and Kidd 1980, 134). However, only one Norwegian rag hone is listed from Exeter (Allan 1984, 298), suggesting that, while their dominance of the market on the eastern and southern coast was assured, on the west, and inland, local stones were prevalent. Evidence from Northampton suggests that these hones continued to be imported in post-medieval times, but this is not clear elsewhere (Crummy 1988, 77). Here, there were four hones from 15th- to 16th-century contexts at Victoria Road, but these may be residual.

Hones of phyllite were also imported over the same period (Moore and Oakley 1979, 280–3), probably from a source along the south eastern coast of Norway (Tweddle 1986, 185). They are usually small

and are often pierced for suspension (Crummy 1988, fig 79, no 3419, MacGregor 1982, fig 40, no 604, Mann 1982, fig 28, nos 253–4, 259, 269, fig 29 no 264) as are two of these examples. The value of these hones, despite their small size, is demonstrated by **2452**, the lower end of a broken hone, re-perforated to allow continued use. Secondary perforation was also noted on a phyllite hone from the Flaxengate site in Lincoln (Mann 1982, 29). A phyllite hone from Thetford had part of an iron ring remaining in its hole (Moore and Ellis 1984, fig 147, no 33), and Mann (1982, 30) cites examples from Birka with rings of iron, silver, and bronze. Though not demonstrated in this collection, perforation for suspension was characteristic of small hones, not solely phyllite ones. It is found, for example, on a Norwegian rag hone from Lincoln (Mann 1982, fig 29, no 236), on a micaceous siltstone hone from Exeter (Allan 1984, fig 168, no 24), on a sandstone hone from Thetford (Moore and Ellis 1984, fig 147, no 25) and on a slate hone from York (Tweddle 1986, fig 687).

Only one of these imported hones can be dated to the 9th or 10th centuries. Two are of 11th- or 12th-century date and the rest are from contexts ranging in date from the 13th to the 18th centuries.

A third stone type represented in this collection is ragstone. It is uncertain whether this material was used for hones in the late Saxon and medieval periods as well as by the Romans (Part 2, category 10; Allan 1984, 298, Mann 1982, 30) and it is quite likely that they are residual Roman, since they all come from sites with Roman occupation. The fragment of a large ragstone hone from a medieval context in Building 936.2 at Victoria Road is the only example that suggests agricultural or industrial use.

Two hones were of Pennant sandstone from the Bristol, Mendip and Severn Estuary area, and one of a sandy limestone, perhaps from Portland. Two appear to be reused building material. Like the hones of ragstone, some of these could be residual Roman.

### **Norwegian rag**

**2437** Fig 179 sf SXS 646. Hone of Norwegian ragstone. Section maximum 16 by 14mm. L 83mm. 13th- to 14th-century soil layer (XVIII, 1292). (CM)

**2438** Fig 179 sf SXS 731. Hone of Norwegian ragstone. Section maximum 35 by 30mm. L 75mm. Fill of post hole F466 in Building 714.3 (XVII, 1064), 13th- to 14th-century date. (CM)

**2439** Fig 179 sf VR 3864. Fragment of a tapering Norwegian ragstone hone. L 65mm, section maximum 20 by 15mm. There is a deep point sharpening groove on one face. 13th- to 15th-century Building 935.2 (XII, 2263).

**2440** Fig 179 sf VR 4164. Norwegian ragstone hone with a pronounced waist, complete except for some surface loss and edge chipping at one end. L 106mm. the section is very irregular, subsquare to subcircular, maximum 29 by 28mm. 15th- to 16th-century pit F751/757/759 (XIII, 3033).

**2441** Fig 179 sf VR 6066. Very worn Norwegian ragstone hone, with slightly damaged ends. L 76mm, rectangular section, maximum 20 by 14mm. 15th- to 16th-century pit F315 (X, 925).

*not illustrated*

**2442** sf VR 9513. Fragment of a rectangular section hone of Norwegian ragstone. L 50mm, section 17 by 12mm. 11th- to 12th-century pit F1021 (XV, 3939).

**2443** sf VR 7445. Fragment of a tapering rectangular section hone of Norwegian ragstone. L 77mm, section maximum 15 by 12mm. 13th-century pit F522 (XI, 1586).

**2444** sf CT 230. Fragment of a hone of Norwegian ragstone. Section maximum 15 by 10mm. L 47mm. 13th- to 14th-century pit F65 (VII, 219). (CM)

**2445** sf JCH 93. Fragment of hone of rectangular section. Section (maximum) 31 by 19mm. L (incomplete) 91mm. Norwegian ragstone, with a partial perforation at one end. 13th- to 14th-century pit F37 (III, 161).

**2446** sf VR 137. Small chip from a Norwegian ragstone hone. L 50mm, W 17mm, T 6mm. 13th- to 15th-century soil layer (IV, 125).

**2447** sf VR 2458. A point of a small tapering square section hone of Norwegian ragstone. L 43mm, section maximum 10 by 11mm. 13th- to 15th-century soil layer (X, 314).

**2448** sf VR 6122. Fragment of a waisted rectangular section hone of Norwegian ragstone. L 100mm, section maximum 33 by 24mm. A point sharpening groove has begun to develop on one broad face. 15th- to 16th-century pit F312 (X, 955).

**2449** sf VR 6063. Complete Norwegian ragstone hone of rectangular section. L 102mm, section maximum 23 by 16mm. Point sharpening groove on one face. 15th- to 16th-century pit F308 (X, 920).

**2450** sf SJS 610. Fragment of Norwegian ragstone hone of roughly sub-rectangular section. Section (maximum) 23 by 19mm. L (incomplete) 88mm. 17th- to 18th-century pit F300 (I, 300).

### **Phyllite**

**2451** Fig 179 sf VR 5834. Complete hone of blue phyllite, perforated at the top for suspension. L 52mm, W 19mm, T 4mm. 11th- to 12th-century pit F758 (XIII, 3442).

**2452** Fig 179 sf CHR 851. Lower end of a hone of blue phyllite. After the hone broke, this lower fragment was sufficiently large to merit being perforated for suspension and continued use. L 48mm, W 14mm, T 6mm. 13th to 14th-century feature (?quarry or robbing) F520 (III, 540).

**2453** Fig 179 sf VR 248. Lower end of a slightly tapering rectangular section hone of blue phyllite, in this example a deep purple. L 67mm, section maximum 10 by 8mm. The squared off point is damaged. 13th- to 15th-century cellar or quarry F28 on tenement 937 (IV, 170).

*not illustrated*

**2454** sf CHR 484. Part of a phyllite hone of roughly rectangular section. Section (maximum) 20 by 9mm. L (incomplete) 36mm. Late Saxon pit F24 (I, 127).

### **Ragstone**

**2455** Fig 179 sf VR 7414. Complete hone of micaceous sandstone with worn 'waisted' sides, striations along both wide faces, and some slight grooving from point sharpening. L 86mm, maximum W 27mm, maximum T 15mm. Late Saxon soil layer (XI, 1603).

**2456** Fig 179 sf NR 84. Hone. Section maximum 25 by 12mm. Length 63mm. Late Saxon pit F50 (II, 97). (CM)

**2457** Fig 179 sf VR 5807. A fragment of a large rectangular section hone, L 181mm, W 79mm, T 27mm. One broad face

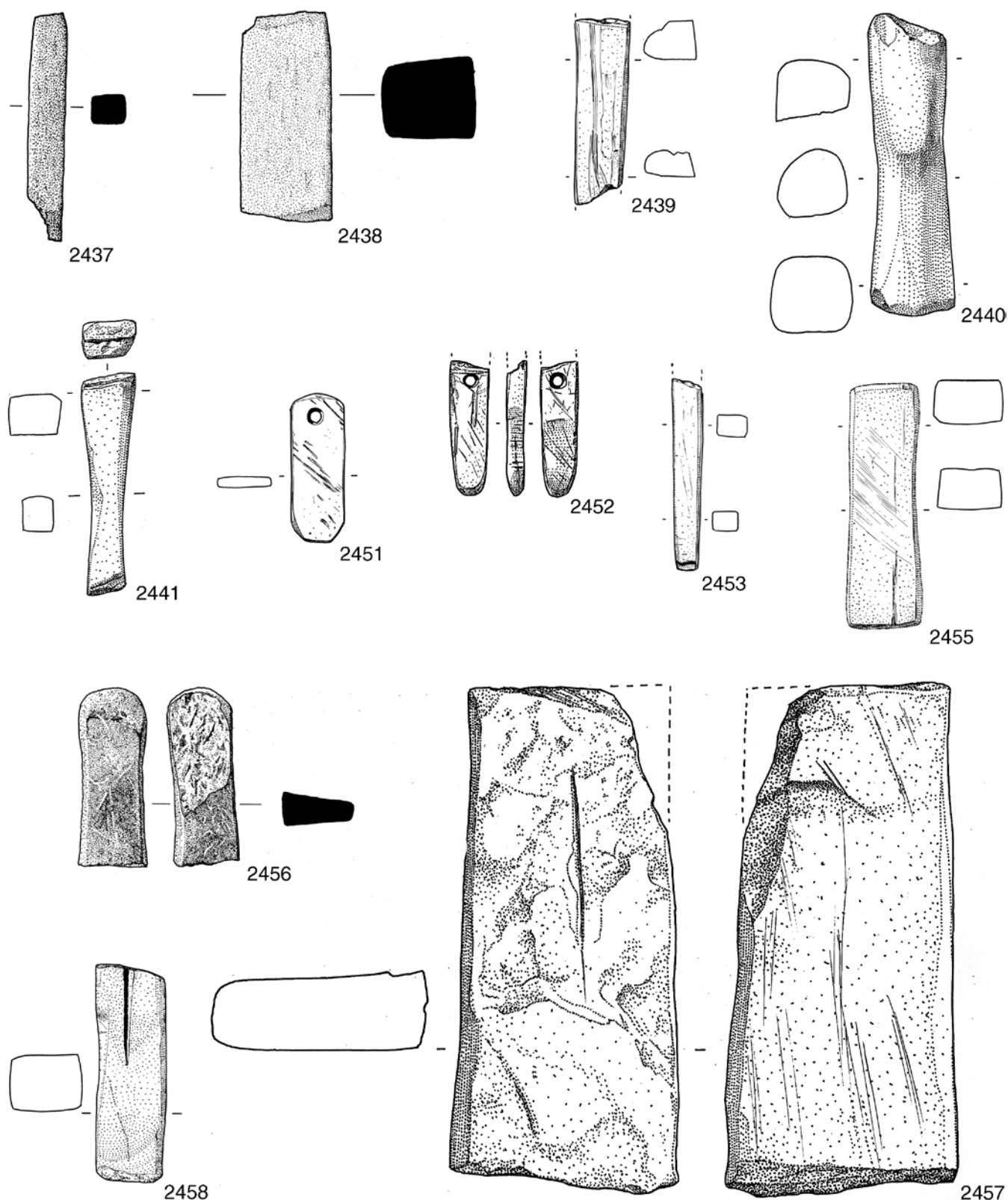


Figure 179 Hones, nos 2437–41, 2451–3, 2455–8, scale 1:2

is spalled and has a short shallow point sharpening groove in the centre. Demolition of Building 936.3 (XII, 2647), dated to 13th to 14th centuries.

**2458** Fig 179 sf JCH 14. Fragment of a square section hone of ragstone. There is a point sharpening groove in the centre of one face. The opposite face is badly spalled. L (incomplete) 75mm, section 23 by 21mm. 19th- to 20th-century soil layer (II, 8).

*not illustrated*

**2459** sf SXS 529. Numerous fragments and splinters. The highly polished edges of some of the pieces suggest original use as a hone. Late Saxon pit F10 (VIII, 51). (CM)

**2460** sf SJS 159. Fragment of ?hone of rectangular section.

Section (maximum) 30 by 15mm. L (incomplete) 71mm. 12th- to 13th-century pit F214a (I, 290).

**2461** sf CHR 1072. Part of a tapering hone of rectangular section with one point-sharpened groove. Section (maximum) 40 by 23mm. L (incomplete) 59mm. 13th- to 14th-century feature (?quarry or robbing) F520 (III, 540).

**2462** sf VR 5787. Part of a tapering ragstone hone. Rectangular in section. Section (maximum) 48 by 23mm. L (incomplete) 111mm. Construction (wall F745) of Building 936.4 (XII, 2635), 13th to 15th century.

**2463** sf VR 2689. Fragment of a hone of rectangular section. Maximum 34 by 19mm. L (incomplete) 56mm. 13th- to 15th-century soil layer (X, 308).

**2464** sf VR 7019. Fragment of a hone of rectangular section. Maximum 37 by 22mm. L (incomplete) 92mm. 14th- to 15th-century pit F413 (XI, 1218).

**2465** sf SXS 25. Part of a hone. Section maximum 42 by 28mm. L 69mm. Soil build-up in hollow over medieval property boundary ditch F126 (VIII, 118). (CM)

**2466** sf VR 4322. Fragment of a hone of square section. Maximum 21 by 20mm. L (incomplete) 47mm. 15th- to 16th-century pit F771 (XIII, 3110).

**2467** sf VR 3592, XII 2008. Fragment of a hone of rectangular section. Maximum 43 by 20mm. L (incomplete) 47mm. 19th- to 20th-century soil layer (XII, 2008).

### **Other types**

*not illustrated*

**2468** sf SXS 756. Part of a block of fine grained sandstone used as a hone. Section maximum 65 by 30mm. Length 100mm. Late Saxon pit F500 (XVII, 1186). (CM)

**2469** sf HG 1646. Fragment of a hone of rectangular to D-shaped section. Maximum 33 by 19mm. L (incomplete) 57mm. Sandy limestone, perhaps from Portland. 11th- to 12th-century pit F184 (III, 876).

**2470** sf VR 8513. Part of ?hone of sub-rectangular section. Section 53 by 30mm. L (incomplete) 75mm. Pennant sandstone. 13th- to 14th-century pit F971 (XIV, 3805).

**2471** sf NR 92. Flattish fragment of red sandstone with smoothed surface from use ?as a smoothing stone. Section maximum 65 by 20mm. L 110mm. 13th- to 14th-century property boundary ditch F65 (II, 101). (CM)

**2472** sf VR 5789. Part of hone of rectangular section. One end is rounded off, other is broken. Section 45 by 15.5mm. L (incomplete) 161mm. Pennant sandstone. Construction (wall F745) of Building 936.4 (XII, 2635), 13th- to 15th-century date.

# 11 Fasteners and fittings

This section includes objects which were clearly fittings of some kind, but for which it is impossible to suggest a more precise function, unless it is given by the context; for example, the corner brackets and nails from the medieval cemetery at Crowder Terrace (below).

The vast majority of the items are of iron, including over 5000 nails, nearly 250 pierced plates and strips, and about 70 locks and keys. A small collection of copper alloy nails, studs, tacks and bosses is also catalogued. Other copper alloy fittings include a number of pieces of U-section binding from Chester Road, a hinged fitting, an escutcheon plate, and two fittings made of thin copper alloy sheet, one gilt. All are from recent contexts except a few of the binding fragments and the two sheets.

## Nails and studs

### Copper alloy nails

#### with globular, bun shaped or biconical head

*not illustrated*

**2473** sf VR 3128. D of head 11mm. Circular section ?iron shaft, incomplete. L 14mm. 13th- to 14th-century pit F182 (X, 490).

**2474** sf JCH 144. Iron and copper alloy head of nail. D 10mm. 15th- to 16th-century pit F39 (III, 242).

**2475** sf VR 2892. D of head 8mm. Polygonal section shaft. L 40mm. Unstratified (XI).

#### with flat head

*not illustrated*

**2476** sf VR 238. Nail or ?tack, bent. L 11mm. Latest Roman and earliest post-Roman soil (V, 61).

**2477** sf VR 328. Nail or ?tack. L 12mm. Latest Roman and earliest post-Roman soil (V, 61).

**2478** sf VR 3602. Nail in two pieces. D 9mm, L 24mm. Late Saxon soil layer (XII, 2126).

**2479** sf VR 3496. ?Flat-headed corroded nail. D 8mm, L (incomplete) 15mm. Late Saxon pit F769 (XIII, 3066).

**2480** sf NR 207. Broken with bent fragment of sheet attached. D 3mm. Late Saxon fill of the Iron Age enclosure ditch F371 (II, 481).

**2481** sf NR 215. Complete. L 7mm, D 2mm. Late Saxon fill of the Iron Age enclosure ditch F371 (II, 482).

**2482** sf VR 3641. ?Flat-headed corroded nail. D 10mm, L 16mm. 12th- to 13th-century pit F617 (XII, 2324).

**2483** sf SJS 60. Near complete nail. L 8mm, D of head 6mm. 15th- to 16th-century pit F305 (I, 330).

**2484** sf SJS 829. Copper alloy nail with split point. L (bent) 53mm, D of head approximately 10mm. 19th- to 20th-century pit F322 (I, 361).

**2485** sf VR 5062. Complete nail. D 8mm, L 17mm. Feature (F826) of uncertain type and date (XIII, 3254).

#### with convex head

*not illustrated*

**2486** sf CHR 149. Complete copper alloy nail. L 17mm, D of head 9mm. Late Saxon (and earlier) hillwash from the slopes above the site (I, 121).

**2487** sf VR 3601. Conical head. D 8mm, L (?incomplete) 13mm. Late Saxon pit F769 (XIII, 3066).

**2488** sf VR 3645. Conical head. Incomplete nail. D 9mm, L 15mm. Late Saxon soil layer (XII, 2326).

**2489** sf HG 181. Conical head. Small incomplete nail. L 14mm. Late Saxon pit F110 (IV, 1011).

**2490** sf VR 31. Conical head. D 9mm. Rectangular section shaft. L 16mm. 13th- to 15th-century soil layer (IV, 44).

**2491** sf VR 45. ?Conical head. D 9mm. ?Square section shaft, incomplete. L 6mm. Layer in 13th- to 15th-century Building 938.1 (IV, 18).

**2492** sf VR 164. D of head 9mm. Square section shaft, bent, incomplete. L 13mm. Layer in 13th- to 15th-century Building 938.1 (V, 14).

**2493** sf VR 3625. Small nail. L 10mm, D of head 6mm. 13th- to 15th-century soil layer (XIII, 3127).

**2494** sf VR 2009. Conical head. Complete nail. D 6mm, L 16mm. 19th- to 20th-century soil layer (X, 6).

**2495** sf VR 2028. Complete nail. D 9mm, L 15mm. 19th- to 20th-century soil layer (X, 7).

**2496** sf VR 5071. D of head 9mm. Square section shaft. L 15mm. Unstratified (XII).

## Lead nails

*not illustrated*

**2497** sf VR 12909. Possibly a nail shaft. L 57mm. 15th- to 16th-century pit F308 (X, 920).

**2498** sf VR 12910. Possibly a nail shaft. L 55mm. 15th- to 16th-century pit F310 (X, 941).

## Iron nails

There are in excess of 5000 nails in the assemblage and many more shank fragments. For the most part, the nails have not been studied in detail, but appear to be largely of the same form. The shanks have a rectangular cross-section with a wedge-shaped tip and the heads are roughly rounded. Nails of this form were standard throughout the Roman and post-Roman periods and only ceased to be made in large quantities in the 20th century with the disappearance of iron suitable for hand-forging. Small numbers of different nail forms occur in contexts of all periods in this assemblage, but it is only in those of post-medieval date that any marked diversity



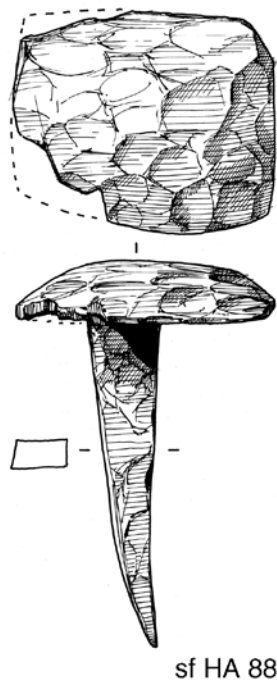


Figure 180 Nail with rectangular head, scale 1:2

is apparent. Among the more unusual variants of this period are, firstly, a few very substantial dome-headed studs, for example, one from a 17th- to 18th-century pit F311/318 (I, 328) at St John's Street (shank now incomplete) and, secondly, Figure 180 sf HA 88 (IV, 37), which is 110mm long and has a rectangular head measuring 70 by 53mm. These may come from large doors, but they were both structural and decorative.

Requiring comment also are approximately 35 nails which had been plated – with tin where this has been examined. Nails are one of the categories of iron object to which tin-plating was apparently first applied during the 8th century. Plated nails regularly occur in late Saxon (or Anglo-Scandinavian equivalent) and medieval contexts, although they have only come to light in any number as a result of mass X-radiography. They are usually relatively small and often dome-headed. Their function was probably as much

as decorative as structural and they are known to have been used on boxes and caskets.

The medieval cemetery at Crowder Terrace, which is believed to be in Winchester's Jewish burial ground (Keene 1985, 1034), produced 120 loose coffin nails from five graves (1, 2, 3, 6 and 7, P7). Graves 1 and 3 were the most prolific, having 49 and 42 respectively (grave 1 also accommodated the four coffin fittings, 2598 and 2599), whilst grave 2 only contained three. The complete, or virtually complete nails, of which there were 71, ranged in length from 15 to 65mm, with an average length of 46mm (Fig 181). Numerous iron nails were also found in graves in the York Jewish cemetery, the maximum number in the grave being 107 (Lilley *et al* 1994, 343).

These statistics suggest that the boards used were relatively thin, compared to those in Winchester's Roman cemeteries (Part 2, Category 11), a conjecture confirmed by mineralised wood remains on one of the nails from grave 1, which indicated a board around 14mm (see also 2598 and 2599). In addition, unless the nails from grave 2 were residual, some variation within the cemetery in methods of coffin construction is implied.

### Copper alloy studs

#### with flat head

*not illustrated*

**2499** sf VR 173. Fragment of a stud. D of head 11mm. Square section shaft, incomplete. L 4mm. Layer in 13th- to 15th-century Building 938.1 (V, 14).

**2500** sf SBS 149. Shaft missing. Concentric groove around outer edge. D 28mm. 19th- to 20th-century soil layer (I, 15).

**2501** sf NHW 14. Fragment of stud head with turned-down rim. D 26mm. 19th- to 20th-century garden soil (I, 7).

**2502** sf 10CS 102. Head and part of shaft. Head probably decorated but now very corroded. D 11mm. Unstratified (I).

**2503** sf SJS 5. Shaft missing. Concentric groove around outer edge. Approximately half survives. D 28mm. 19th- to 20th-century pit F26 (I, 100).

**2504** sf VR 5812. ?Head of stud with central perforation. D 28mm. Layer in 13th- to 15th-century Building 936.2 (XII, 2647).

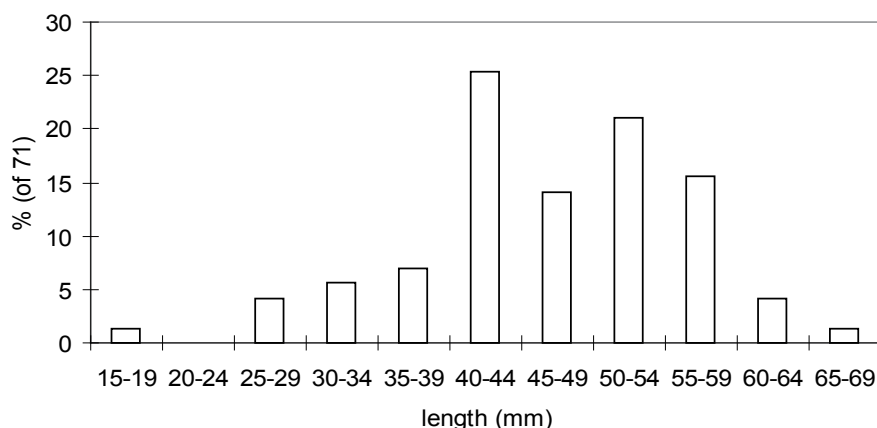


Figure 181 Coffin nails from the medieval cemetery at Crowder Terrace



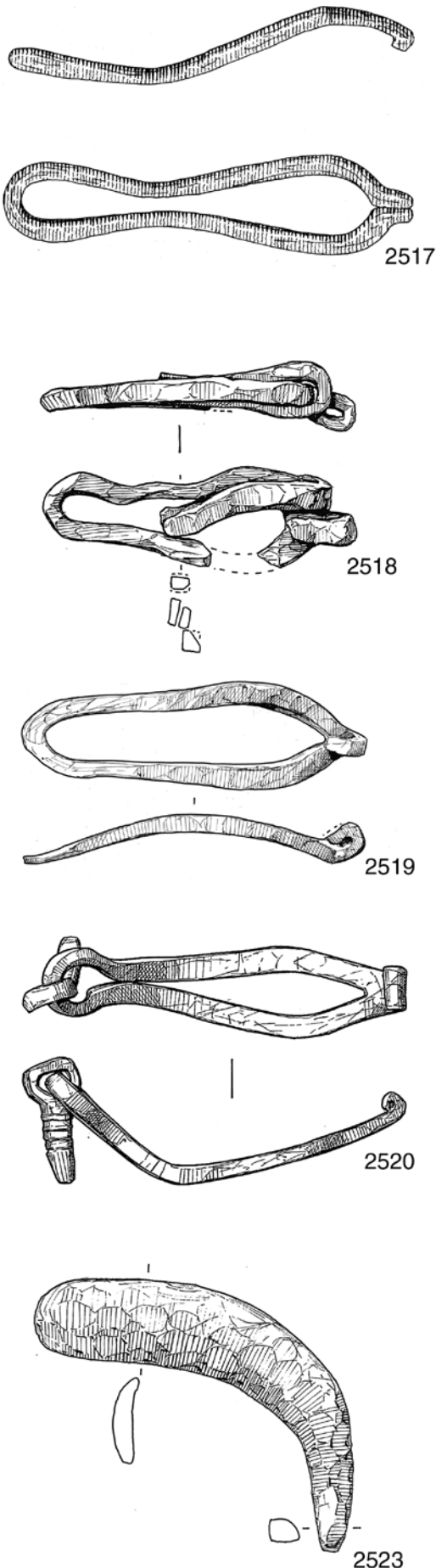


Figure 182 Looped hasps and hinge fitting, nos 2517–20, 2523, scale 1:2

**2505** sf VR 3454. Roughly square flat-headed stud with thick shaft. Head 22 by 20mm. 15th- to 16th-century pit F771 (XIII, 3059).

**2506** sf VR 9555. Concentric groove around outer edge and turned-down rim. D 21mm, L (incomplete) 5mm. 13th- to 14th-century pit F1071 (XV, 4028).  
with convex head

#### with convex head

*not illustrated*

**2507** sf SXS 106. Gilt, with convex head. L 11mm, D 14.5mm. 11th- to 12th-century pit F54 (VIII, 331).

**2508** sf VR 2216. Probably convex head of stud but now crushed. 13th- to 15th-century soil layer (X, 61).

**2509** sf SJS 42. Head of stud only. D 24mm. 15th- to 16th-century pit F305 (I, 319).

**2510** sf NR 101. With convex head. L 24mm, D 14.5mm. 17th- to 18th-century posthole F155 (II, 198).

**2511** sf VR 339. Small stud, ?crushed. L 10.5mm. Post-medieval soil layer (V, 74).

**2512** sf SJS 868. Head of ?stud. Central hole in top. D 6mm. Fill of 19th-century clay pipe kiln F62 (II, 527).

#### Bosses

*not illustrated*

**2513** sf VR 3655. Three fragments of a small copper alloy boss. Late Saxon pit F624 (XII, 2337).

**2514** sf VR 3408. Small copper alloy boss with suspension loop. D 13mm. 15th- to 16th-century pit F771 (XIII, 3006).

**2515** sf VR 4044. Fragment of crushed copper alloy boss. D 24mm. 15th- to 16th-century pit F757/757/759 (XIII, 3001).

**2516** sf VR 2945. Copper alloy boss. D 22mm. 17th- to 18th-century pit F227 (X, 630).

#### Looped hasps

There are five iron hasps which exist as figure of eight shaped loops. **2520** was fixed in place by means of a small eyed fitting with a screw thread shank, whilst the other four would have been fixed in place by means of a staple through a link at one end. When in use all five of the hasps would have been secured over a staple by a padlock or linch-pin. **2522** is the link and end of another looped hasp.

The dating of the contexts from which these objects were recovered confirm that the figure-of-eight shape was common throughout the post-Roman period. Other hasps with this form from Winchester have been found in 10th- to 13th-century contexts (WS7.2, 975–7, nos 3473–82, 3486).

**2517** Fig 182 sf SXS 61. Figure of eight shaped. L 125mm, W 29mm. 11th- to 12th-century pit F30 (VIII, 199).

**2518** Fig 182 sf VR 3662. Figure of eight shaped; the attachment link survives with part of the staple in situ. L 100mm, W 30mm, T 10mm. 15th- to 16th century pit F776 (XIII, 3108).

**2519** Fig 182 sf SJS 490. An oval loop with a slight kink in the centre of both sides; it becomes pointed at one end where

the attachment link is located. L 105mm, W 32mm. 15th- to 16th-century soil layer (I, 268).

**2520** Fig 182 sf VR 4074. Figure of eight shaped and curved at the junction of the loops. The shorter loop is set into the eye of a fitting with a tapering shank and a screw thread. L 115mm, W 27mm, T of strip 6mm, fitting L 45mm. 19th- to 20th-century soil layer (XIII, 3006).

*not illustrated*

**2521** sf SXS 38. Figure of eight shaped, end missing. L 115mm, strap W 28mm. 11th- to 12th-century pit F30 (VIII, 134).

**2522** sf SJS 0. End of a loop with an attachment link. L 41mm, W 25mm. 12th- to 13th-century pit F47 (I, 174).

### Hinge fittings

**2523** Fig 182 sf SBS 215. Incomplete bifurcated strap terminal of iron (?from hinge) with one curving arm surviving and stub of another. L 120mm, W 26mm, T 5mm. 15th- to 16th-century pit F67 (I, 66).

*not illustrated*

**2524** sf VR 5577. Small iron hinge strap with a looped eye. Corroded and distorted. It consists of strap which is broken at one end, but at the other develops into a loop set at right angles. The strap is pierced ?once. Strap L c 50mm, W c 20mm; loop L 36mm, W 20mm. Layer in 13th- to 15th-century Building 936.4 (XII, 2551).

**2525** sf NHW 15. Copper alloy hinged fitting. Flat plate with two lobes with narrow clasps folded towards back. L 26mm, W 35mm. 19th- to 20th-century garden soil (I, 7).

### Locks and keys

#### Locks

Locks may be divided into two groups: fixed locks, which were set in doors, chests and other containers, and padlocks which were movable.

#### Fixed locks

**2526** is a complete lock and it operated in a similar fashion to **1861**, but the lock plate is larger and more elaborate. The object comes from a context thought to be late Saxon, but it is probably late medieval. A similar, but smaller lock, also bearing non-ferrous plating, came from a 14th- to 15th-century context at Wolvesey Palace (WS7.2, 1017, fig. 321, no. 3691).

**2527** and **2528** are ward plates which would have been located inside a lock and governed the passage of the key.

All are of iron unless otherwise stated.

**2526** Fig 183 sf HG 364. Shield-shaped lock. It has a semi-circular plate of which the central part is c 5mm proud of a flange around the exterior, this latter is pierced three times on the straight side and an indeterminate number of times

on the curved side, tacks in situ. The surface is covered with small indented dots which are particularly dense on the edges of the edge of the flange. The case and tacks are plated. The lock mechanism has a sliding bolt with two rounded projections from the lower edge and a tumbler; there is a ward either side of the key hole. Wood remains survive on the inner face of the flange. Case L 170, W 120mm. ?Intrusive in late Saxon pit F172 (III, 827).

**2527** Fig 183 sf VR 2420. Lock ward plate. It is triangular with straight ends, and it is pierced at each end and has a rounded key hole. On the inner face there are the remains of the frame and a ward on each side of key hole. L 90mm, W 25mm. 15th- to 16th-century pit F60 (X, 134).

**2528** Fig 183 sf SBS 202. Lock ward plate. It has a key hole in the centre and there is a ward projecting from either side of it on one face. L 63mm, W 40mm. 19th- to 20th-century soil layer (III, 23).

**2529** Fig 183 sf VR 0. Openwork lock ward plate. It consists of a central ovalish part in which there is a key hole and projecting on either side are two upward curving 'wings' with central slots. L 45mm, W 25mm. Unstratified (IV) and possibly modern.

*not illustrated*

**2530** sf VR 4104. Copper alloy escutcheon. Trilobate at base. Three rivet holes. L (bent) 38mm, maximum W 24mm. 19th- to 20th-century soil layer (XIII, 3006).

#### Padlocks

**2531** is a barrel padlock with a cylindrical case which has a T-shaped key hole. This lock would have been opened by a key with the bit in line with the stem (Ottaway 1992, 666–7) comparable to others found in Winchester in 12th- to 13th-century contexts (WS7.2, 1022, fig 324, nos 3726–30). The case of **2531** is strengthened and decorated with strips applied with brazing metal and the end-plates are recessed into it. This latter feature usually indicates an 11th-century or later date. The free arm tube is welded directly to the case, a feature more common on padlocks dated earlier than c 1100 than on later examples which usually have a fin between the case and tube. Padlocks very similar in every respect to **2531** and dated to the 11th century come from Lund, Sweden (Blomqvist and Mårtensson 1963, fig 117; Mårtensson 1976, 403, fig 359).

**2533** is a complete padlock case which is unusual in its size and proportions being 30mm in diameter, but only 21mm long. The object also has unusual decorative treatment, the principal feature located on one end-plate being a cross with rounded ends formed by an applied strip. There is no good parallel for this attractive object which comes from a 13th- to 14th-century context.

**2539** is the end of a small padlock case plated with copper alloy. **2534** is a small cylindrical padlock case to which a fragment of the free arm tube adheres. It is plated, probably with copper alloy, as are several case fragments with applied strips.

Other barrel padlock parts include several bolts attached to spines bearing springs, **2543**, the remains of a spine and springs, **2551**, a free arm tube and attachment fin and **2542** a free arm tube. **2536** is a trian-

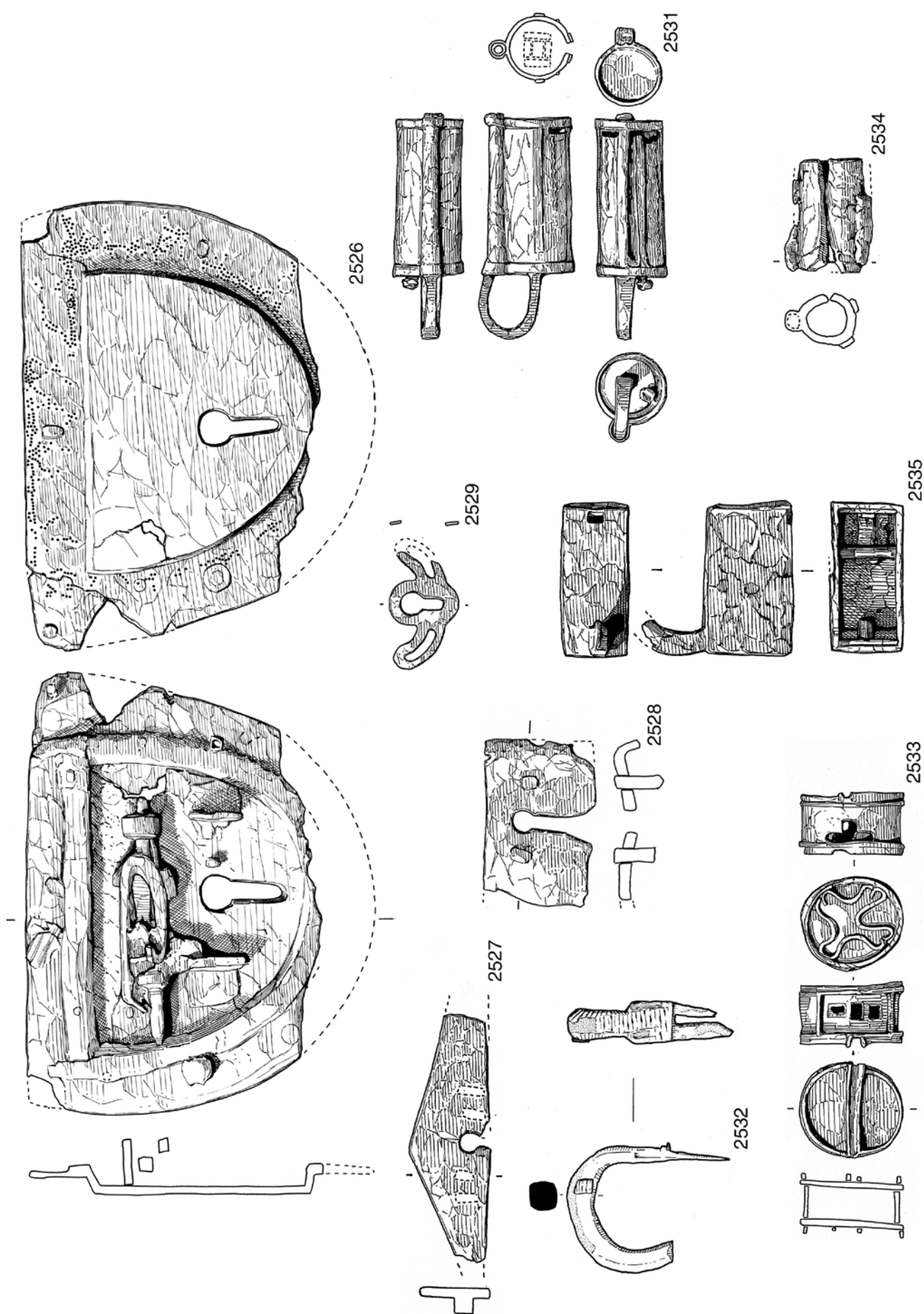


Figure 183 Fixed locks and padlocks, nos 2526-9, 2531-5, scale 1:2

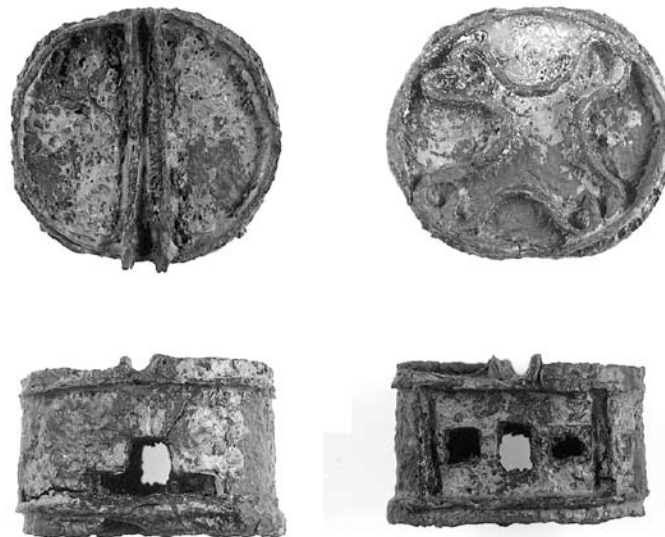


Plate 5 Padlock, no 2533, scale 1:1 (photo: Sandi Clarke)

gular plate, with non-ferrous plating, which probably served a decorative and strengthening function on a padlock case similar to an early 10th-century example from York (Ottaway 1992, fig 281, 3610). Three similar plates come from 10th-century contexts elsewhere in Winchester (WS7.2, 1008–09, nos 3636, 3638–9). **2535** is a padlock with a hinged shackle and a rectangular case. It comes from a 15th to 16th century context and is similar to one from a 16th-century context at Wolvesey Palace (WS7.2, 1015, no 3684).

All are of iron.

**2531** Fig 183 sf VR 0. Complete barrel padlock with T-shaped key hole. The end-plates are recessed into the end of the case and the free-arm tube is welded directly to it; the bolt is in situ. There are strips applied with brazing on the case which are wavy in panels either side of the key hole. The plating, or brazing, which covers the whole object is leaded copper with trace of zinc. L 85mm, case L 58mm, D 24mm. 11th- to 12th-century pit F1021 (X, 3939).

**2532** Fig 183 sf CT 74. Padlock bolt, one arm incomplete, the other has a fragment of the closing plate attached and two leaf springs. Plated (copper). L 60mm, W 48mm, T 10mm. 13th- to 14th-century pit F71 (VII, 225).

**2533** Fig 183 and Plate 5 sf CHR 35. The bolt is missing. The case is a short cylinder. There are three small rectangular holes in what was the top of the case for the bolt and on the opposite side there is a small T-shaped slot- the key hole. A thin relief strip runs around the ends which are recessed into the cylinder. On one end-plate there is an applied strip worked into the shape of a cross with rounded ends; a relief strip runs across the other end-plate. Brass plating. L 21mm, D 30–37mm. 13th- to 14th-century fill of large feature (quarry, cellar, or wellhead) F15 (I, 66).

**2534** Fig 183 sf VR 2700. A small cylindrical barrel padlock case of which the end-plates are missing, a fragment of the free-arm tube adheres. Plated. L 43mm, D 21mm. 15th- to 16th-century pit F153 (X, 408).

**2535** Fig 183 sf VR 4165. Padlock with hinged shackle and sliding bolt. The case is cuboid, there was originally a shackle hinged at one end of the top- a fragment survives. At the other end there is a small rectangular bolt hole. Near the same end of the case, but inside it and half way down there is a strengthening rod. Plated with brass. Case L 55mm, H 34mm, W 24mm. 15th- to 16th-century pit F751/757/759 (XIII, 3033).

*not illustrated*

**2545–7** are probably part of the same object.

**2536** sf SXS 21. Triangular fin from barrel padlock case. ?Plated. L 90mm, W 13mm. Late Saxon pit F8 (VIII, 46).

**2537** sf VR 7432. (a) Spring mechanism with two leaves and a closing plate. L 45mm, W 23mm. (b) Bolt fragment. L 45mm, W 40mm (c) ?Case fragment. 13th- to 14th-century pit F916 (XI, 1618).

**2538** sf VR 9510. Padlock spring. It exists as a plate which is pierced by a large hole at one end and at the other appears to bifurcate to form two leaf springs. L 68mm, W 17mm. 13th- to 14th-century pit F1018 (XV, 3929).

**2539** sf CT 89. End of case recessed into a fragment of the cylinder which had decorative encircling grooves. Plated (copper). D 24mm. 13th- to 14th-century well F70 (VII, 250).

**2540** sf VR 0. Padlock fragment consisting of a spine with springs and part of a bolt with attached closing plate. Plated on the closing plate. L 63mm, W 15mm. Layer in 13th- to 15th-century Building 936.4 (XII, 2523).

**2541** sf VR 3791. A barrel padlock case fragment with applied strips. Plated L 30mm, W 25mm. Layer associated with the occupation of 13th- to 15th-century Building 935.2 (XII, 2074).

**2542** sf VR 0. Free-arm tube fragment. Plated (copper and trace of zinc). L 33mm, D 12mm. 14th- to 15th-century pit F111 (X, 252).

**2543** sf SBS 154. Two leaf springs joined at the base- from a barrel padlock. L 72mm. 15th- to 16th-century pit F67 (II, 102).

**2544** sf CHR 515. A fragment of case. It has applied strips and is plated. L 36mm, W 30mm. Post-medieval soil layer (I, 505).

**2545** sf VR 2608. A barrel padlock case of which one end is missing. Plated (tin, lead and traces of copper). L 56mm, D 25mm. 17th- to 18th-century pit F113 (X, 259).

**2546** sf VR 2652. A fragment of a barrel padlock case with a relief strip applied to it. Plated. L 50mm, W 25mm. 17th- to 18th-century pit F113 (X, 259).

**2547** sf VR 2658. Four case fragments including a piece of circular end-plate. Plated. 17th- to 18th-century pit F113 (X, 259).

**2548** sf VR 2949. ?End of a barrel padlock case. Plated. L 27mm, D 31mm. 17th- to 18th-century pit F227 (X, 630).

**2549** sf SBS 108. Six pieces of a cylindrical barrel padlock case. It had an applied strip running around one end and

applied strips running its length. Copper-plated. L c 85mm. Unstratified.

**2550** sf SXS 263. Object lost. From X-radiograph this appears to be a padlock bolt, one arm of which has one of two-three surviving leaf springs surviving. Plated, probably with copper. L 115mm. Unstratified (VIII).

**2551** sf SJS 0. The free-arm tube and attachment fin from a barrel padlock. Plated. L 79mm, W 17mm. Unstratified.

## Keys

### Keys for fixed locks

There are two slide keys from Victoria Road, **2559** and **2584**. Both have L-shaped bits with two prongs. **2559** is from a medieval context and **2584** is unstratified, but they are either Roman or Saxon in origin (see Part 2, Category 11)

There are 33 keys, or parts of keys, for fixed locks with sliding bolts. These keys can be divided into two groups according to whether they had a hollow stem, which would have fitted over a spindle at the back of the lock, or a solid stem which would have projected beyond the bit and engaged in a socket in the back of the lock.

Six keys have stems which are hollow throughout. Keys with this feature are common in the medieval and post-medieval periods, but before the 12th century they were usually made of a single piece of metal whereas afterwards the bow was usually made separately and welded on to the stem. **2553** was made in the former manner and the bow also has a flat rectangular cross-section which is a characteristic pre-Conquest feature. The object is tin-plated. A similar key came from a 9th century context at Lower Brook Street (WS7.2, 1025, no 3741) and many others are known from 8th- to 11th-century contexts elsewhere (Ottaway 1992, 668–9).

Two other keys with hollow stems come from medieval contexts: **2556** and **2573**; and **2563** was from a 15th- to 16th-century context. **2556** probably had a non-ferrous bow of which only the moulded base remains. From late/ post-medieval or modern contexts come **2568** and **2580** which are similar in having a non-ferrous collar at the head of the stem, and **2582**, the bow of which is missing.

There are four examples of keys with solid stems, but a hollow tip. This form is an innovation of the medieval period and continued in use in the post-medieval period. **2558** comes from a 13th- to 14th-century context and **2567**, **2570** and **2578** come from late or post-medieval contexts.

There are six keys with solid stems which project beyond the bit **2554**, **2557**, **2560**, **2562**, **2575**, and **2581**. The earliest is **2554** which is dated to the 11th or 12th century. There are also three examples (**2555**, **2561**, and **2585**) of another form of key with a solid stem which, in this case, splits into two parallel prongs, the lower having the bit attached to it. **2555** is from an 11th- to 12th-century context and there are five others from 11th- to 13th-century contexts on sites elsewhere in Winchester (WS7.2, 1028, nos 3781–5). **2561** is from a 14th- to 15th-century pit and may be residual.

The keys exhibit a number of bow forms which reflect changing styles through the late Saxon, medieval and post-medieval periods. The most common form is rounded or oval and examples are found on keys of all three periods. As noted, the cross-section of **2553** probably marks it out as pre-Conquest; after the Conquest a rounded cross-section is usual. The lozenge-shaped bow which can be seen on **2554** and **2555** appears to be an innovation of the 11th century and probably remained current until the later 13th or early 14th centuries. Similar knops to those at the corners of the lozenge on **2554** can be seen on other 11th-century examples from Winchester (WS7.2, 1028, no 3782, 1030–2, nos 3808–9).

A D-shaped bow may be seen on **2557**, **2560** and **2565**, which come from 13th- to 16th-century contexts. **2564**, from a 15th- to 16th-century context, has a pear-shaped bow while **2566** and **2579**, from 16th- to 18th-century contexts, have the kidney-shaped bows common at that time. The bow of **2575**, from a 14th- to 15th-century context, is a simple heart-shape, a form which was common then; in due course it became more pronounced as on one from Wolvesey Palace (WS7.2, 1029–30, no 3801) from a context of the late 17th century. The bow of **2567**, from a 17th- to 18th-century context, is incomplete, but there are two projections into it from the head of the stem. This is a post-medieval feature and can also be seen, for example, on another key from a 19th- to 20th-century context at Wolvesey Palace (WS7.2, 1035, no 3856), which resembles **2567** in other respects.

All the bits are essentially rectangular, but the complexity of the ward-cut patterns varies. There are a number of simple bits with one or two ward-cuts while others have one or more multi-chambered ward-cuts. From the 11th century onwards a central channel running the width of the bit becomes common (for example, **2562** and **2579**) and is related to the use of locks with a ward plate comparable to **2527**. The bit of **2554** has two such channels in a bit which is unusually wide. As in any assemblage of medieval and post-medieval keys there are idiosyncratic bit forms such as **2563** (15th- to 16th-century context), with a diagonal and semi-circular ward cut in the inner and outer sides.

A well-known feature of iron keys throughout the post-Roman period is decoration in the form of mouldings and incised grooves. Mouldings can be seen at the head of the stem on seven keys (**2554**, **2558**, **2561**, **2567**, **2569**, **2570**, and **2583**) and grooves around the stem occur on three (**2554**, **2563**, and **2573**). Mouldings and grooves are frequently accompanied by non-ferrous plating as on **2554**, **2558**, **2561**, **2563**, and **2573**, and plating also occurs on another six keys. None of the keys with plating can be dated later than the 16th century and the treatment may have been little used after this time.

All are of iron.

**2552** Fig 184 sf VR 8541. Oval bow only. Plated (tin). L 29mm, W 18mm. Late Saxon pit F976 (XIV, 3832).

**2553** Fig 184 sf CHR 111. It is made from a single piece of

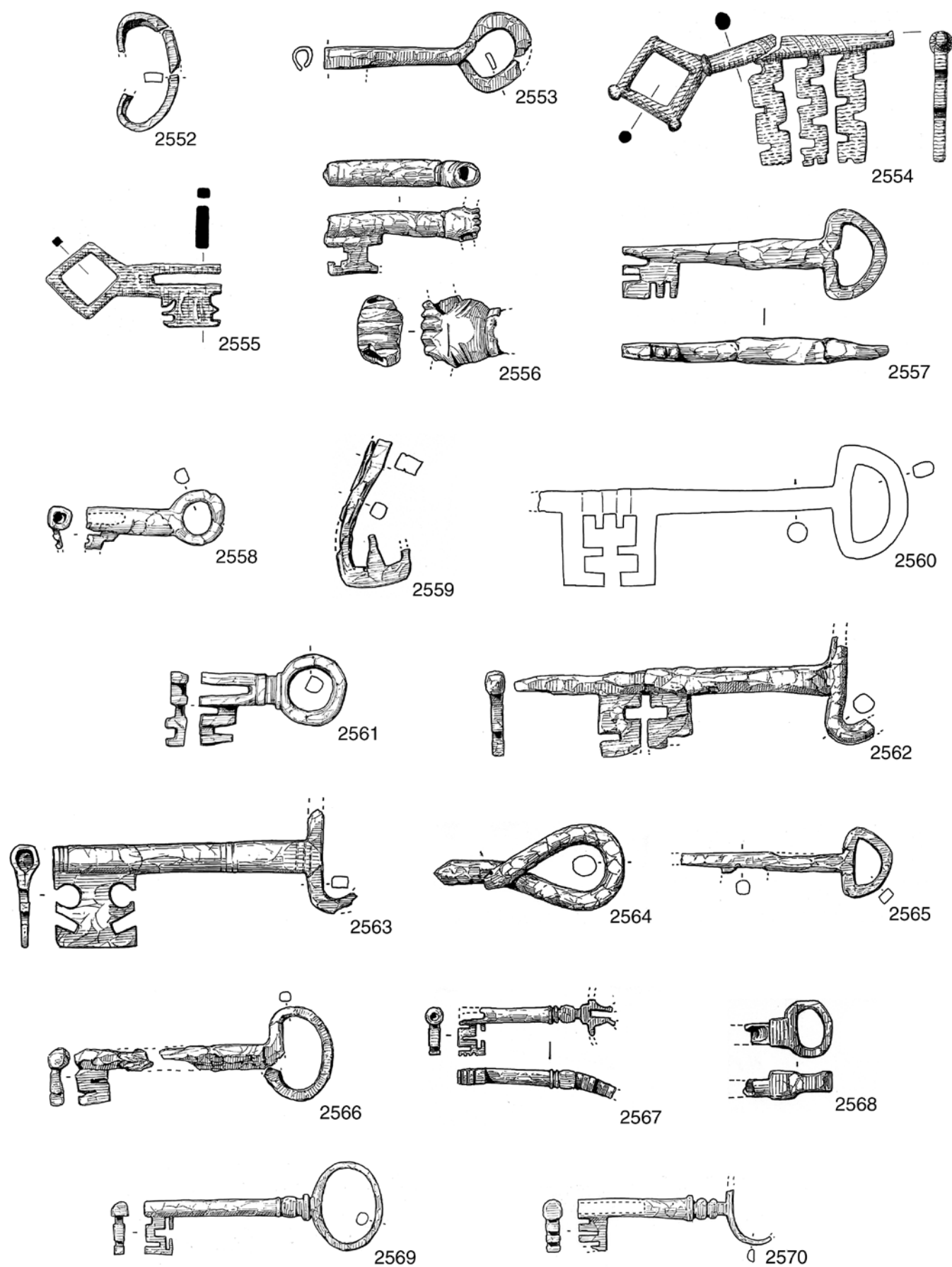


Figure 184 Keys, nos 2552–70, scale 1:2

iron. The bow is rounded and has a flat rectangular cross-section, the stem is hollow, the bit is missing. Plated. L 77mm, bow D 25mm. Late Saxon pit F24 (I, 129).

**2554** Fig 184 sf SXS 39. Lozenge-shaped bow which had knobs at the angles, only one extant. A solid stem projects beyond the bow. The stem has a collar at the base of the bow and a spiral groove around it. The bit is essentially rectangular but is formed from three unusually long strips each with three ward cuts on one side and two on the other. Plated (copper alloy). L 105mm, bow W 40mm, bit L 45mm, W 48mm. 11th- to 12th-century pit F30 (VIII, 134).

**2555** Fig 184 sf SXS 119. Lozenge shaped bow and short solid stem which bifurcates at the midpoint, the bit is attached to lower arm and has two ward-cuts in each side. L 65mm, bow 29mm, bit W 24mm. 11th- to 12th-century pit F54 (VIII, 335).

**2556** Fig 184 sf VR 0. It probably had a non-ferrous (brass) bow, but only the moulded base survives. The stem is hollow and the bit has one ward-cut on each side. L 58mm, stem D 9mm, bit L 22mm. 12th- to 13th-century pit F1021 (XV, 3939).

**2557** Fig 184 sf VR 0. The bow is D-shaped. The stem is solid and the upper part has a rectangular cross-section while the lower has a rounded cross-section; it tapers towards the bit which has two ward-cuts in the outer edge and two in the lower. L 100mm, bow W 34mm, bit L 21mm, W 20mm. 13th- to 14th-century pit F966 (XIV, 3785).

**2558** Fig 184 sf VR 2476. The bow is rounded and there is a moulding at the junction of bow and stem. The stem is hollow at the tip and the bit is incomplete. Plated (tin). L 52mm, bow D 20mm, bit L 12mm. 13th- to 14th-century pit F141 (X, 368).

**2559** Fig 184 sf VR 154. Slide key, L-shaped, the bit has two prongs. The stem is bent and incomplete. L 55mm, bit W 27mm. 13th- to 15th-century soil layer (V, 14).

**2560** Fig 184 sf VR 3617. The bow is in pieces, but was D-shaped. The stem is solid and projects beyond the bit which is principally formed by two inverted opposing F-shaped strips. L 117mm, bit L 35mm, W 33mm. Drawn from X radiograph. Layer in 13th- to 15th-century Building 935.3 (XII, 2263).

**2561** Fig 184 sf VR 8515. The bow is circular and there is a moulding at junction with the stem. The stem is solid and divides into two parallel prongs in the centre, the bit is attached to the lower and has a ward-cut in its inner and outer edges. Plated (tin). L 55mm, bow D 27mm, bit L 12mm, W 18mm. 14th- to 15th-century pit F968 (XIV, 3793).

**2562** Fig 184 sf VR 3029. The bow is largely missing, but was D-shaped. The stem is solid and projects beyond the bit which has a central chamber in the form of a cross. Plated (tin-lead). L 120mm, stem W 8mm, bit W 30mm. 14th- to 15th-century pit F131 (X, 284).

**2563** Fig 184 sf SBS 123. The bow is incomplete, but was D-shaped. The stem is hollow and there is a group of three grooves around it below the bow, in the centre and at the tip. The bit has a diagonal ward cut below a semi-circular ward cut in both the outer and inner sides. Plated (tin). L 110mm, W across bit 38mm, stem D 10mm. 15th- to 16th-century pit F67 (II, 119).

**2564** Fig 184 sf VR 4050. The bow is a pear-shaped loop. The stem is solid and the bit is missing. L 70mm, bow L 40, W 30mm, stem T 6mm. 15th- to 16th-century pit F152 (XIII, 3002).

**2565** Fig 184 sf VR 6141. The bow is D-shaped. The stem is solid. The bit is largely missing. Plated (tin and trace of lead) L 78mm, bow W 24mm, stem T 7mm. 15th- to 16th-century pit F313 (X, 952).

**2566** Fig 184 sf SBS 150. (a) The bow is kidney-shaped. The stem is solid, the bit is missing. L 65mm, W 36mm. (b) The end of a stem and a bit which appears to be an S-shaped

strip. L 30mm, W 22mm. (a) and (b) probably fitted together. 17th- to 18th-century pit F185 (II, 188).

**2567** Fig 184 sf VR 2563. The bow is incomplete, but had two short projections into it from its base. There is a moulding at the head of the stem which is hollow above the bit. The bit is basically rectangular, but has an unusually elaborate ward-cut pattern. L 60mm, stem T 6mm, bit L 10mm, W 17mm. 17th- to 18th-century pit F113 (X, 259).

**2568** Fig 184 sf VR 4111. The bow is oval. The stem is largely missing, but was hollow. There is a ?non-ferrous collar around head of the stem. L 33mm bow W 20mm. 19th- to 20th-century soil layer (XIII, 3006).

**2569** Fig 184 sf MA 139. (a) The bow is oval. The stem is solid with a moulding at the head. The bit has two ward-cuts on the outer edge and three on the inner edge, one is triple chambered. L 89mm. Topsoil.

**2570** Fig 184 sf MA 139. (b) The bow is oval (incomplete). The stem is hollow at the tip and has a moulding at the head. The bit has three ward-cuts on the outer edge. L 72mm. Topsoil.

#### *not illustrated*

**2571** sf SJS 972. The bow is oval and there is a stub of stem only. L 31, W 35mm. Late Saxon or early medieval pit F791 (IV, 416).

**2572** sf VR 9532. The bow is missing. The stem is solid and the bit is incomplete, but had a central ward-cut. Plated. L 60mm, W (across remains of bit) 18mm. 13th- to 14th-century pit F1056 (XV, 4003).

**2573** sf VR 0. The bow is missing. The stem is hollow to near the break and it has grooves running around it. The bit was L-shaped in cross-section and has a ward-cut in each side. Plated. L 49mm, W 9mm, W across the bit 24mm. Construction of 13th- to 15th-century Building 938.1 (IV, 8).

**2574** sf VR 0. Rectangular bit and stub of stem only. L 25mm, W 17mm. Layer in 13th- to 15th-century Building 936.4 (XII, 2523).

**2575** sf VR 0. The bow is heart-shaped. The solid stem projects beyond the bit which is a simple rectangle. L 41mm, bow W 19mm, bit L 9mm, W 19mm. 14th- to 15th-century pit F505 (XI, 1508).

**2576** sf VR 3120. Bit only, it has rectangular ward-cuts on opposing sides. L 23mm, W 15mm. 14th- to 15th-century pit F131 (X, 483).

**2577** sf VR 4134. The bow is circular and the stem incomplete. L 44mm, bow D 30mm. 15th- to 16th-century pit F754 (XIII, 3019).

**2578** sf VR 4232. The bow is circular. The stem is hollow for about half its length. The bit is incomplete, but there is evidence for four ward-cuts. Plated. L 146mm, bow D 41mm, stem D 12mm. 15th- to 16th-century pit F764 (XIII, 3052).

**2579** sf SJS 87. The bow is kidney-shaped. The stem is solid and the bit takes the form of two L-shaped strips back to back. L 155mm, bow W 48mm, stem T 10mm. 15th- to 16th-century pit F313 (I, 337).

**2580** sf SJS 689. The bow is oval. The stem is hollow and there is a non-ferrous (copper) collar at the junction with the bow. The bit is missing. L 73mm bow W 33mm. 15th- to 16th-century pit F305 (I, 319).

**2581** sf SJS 690. The bow is oval. The stem is solid and its tip is missing. The bit has four ward-cuts, two in the outer side and two in the inner. L 83mm, bow W 29mm. 15th- to 16th-century pit F305 (I, 319).

**2582** sf SBS 158. The bow is missing. The stem is hollow and the bit has four ward-cuts- two in the outer side and one in the other sides. Plated. L 74mm, stem D 10mm, bit W (across stem) 31mm. 16th- to 17th-century pit F7 (I, 6).

**2583** sf SJS 409. The bow is incomplete but was oval. The



stem is solid and there is a moulding at the junction with the bow. The bit is rectangular and has one ward-cut in its outer side. L 61mm, W across bit 19mm. 17th- to 18th-century pit F201 (I, 221).

**2584** sf VR 898. Slide key, L-shaped, the bit is incomplete, but had two prongs. L 90mm, bit L 30mm, stem W 8mm. Unstratified (V).

**2585** sf VR 0. It consists of the tip of a bifurcated stem and bit resembling **2561**. The bit has two ward-cuts in each side. Plated. Unstratified (X).

### Padlock keys

There is one complete barrel padlock key, **2586**, to which ten other fragments may be added. **2586** has a rounded bit at angle to a stem which widens towards the head where there is a looped terminal. It would have been used with a padlock similar to those from Lower Brook Street (WS7.2, 1008–09, nos 3647–9) which have a key hole at the end of the case. **2586** is from a late Saxon context and is similar to a key from a late 10th- or early 11th-century context at Cathedral Green (WS7.2, 1022–3, no 3706). Amongst the other fragments **2591** (post-medieval context) and **2587** (late Saxon context) were also similar to **2586** in having been relatively large keys with bits, now missing, at an angle to the stems and looped terminals. **2591** is probably residual, but this form of padlock key has a long life; other examples are known from 13th-century contexts at Winchester (*ibid*, nos 3715–6).

**2590** was probably a padlock key which functioned in a similar way to **2586**, but has a stem with concave sides. **2592** is an incomplete stem. There are also three circular bits: **2593–2595**.

**2588** and **2589** are parts of keys of slightly different form to those already described. **2589** has a bit composed of four short prongs which project from the corners of the stem, now incomplete. The key is from a 13th- to 14th-century context and the bit and stem are very similar to those on a key from Lower Brook Street (*ibid*, no 3724), which came from a probable 13th-century context. The stem of **2588** is also incomplete, but the bit takes the form of four projections, shorter and simpler than those of **2589** from its base. It is from a 13th- to 14th-century context and while comparable bits are uncommon it may be noted that several 12th- to 13th-century keys with this bit form come from medieval contexts at 16–22 Coppergate, York.

All are of iron.

**2586** Fig 185 sf SXS 66. Circular bit, the stem widens towards the head where there is a looped terminal with a recurved tip. L 180mm. Late Saxon pit F53 (VIII, 269).

**2587** Fig 185 sf CHR 124. The bit is incomplete, but was at 45 degrees to the stem. The stem widens towards the top where it slopes in to a looped terminal with a recurved tip. L 187mm, stem W 24mm. Late Saxon pit F28 (I, 133).

**2588** Fig 185 sf VR 0. The end of a stem with a bit formed from four short projections, one at each corner. L 32, W 10mm. 13th- to 14th-century pit F159 (X, 429).

**2589** Fig 185 sf CT 218. The bit consists of four short prongs projecting from each corner of the base of the stem which is incomplete. Plated (tin). L 45mm, stem W 10mm. 13th- to 14th-century pit F65 (VII, 206).

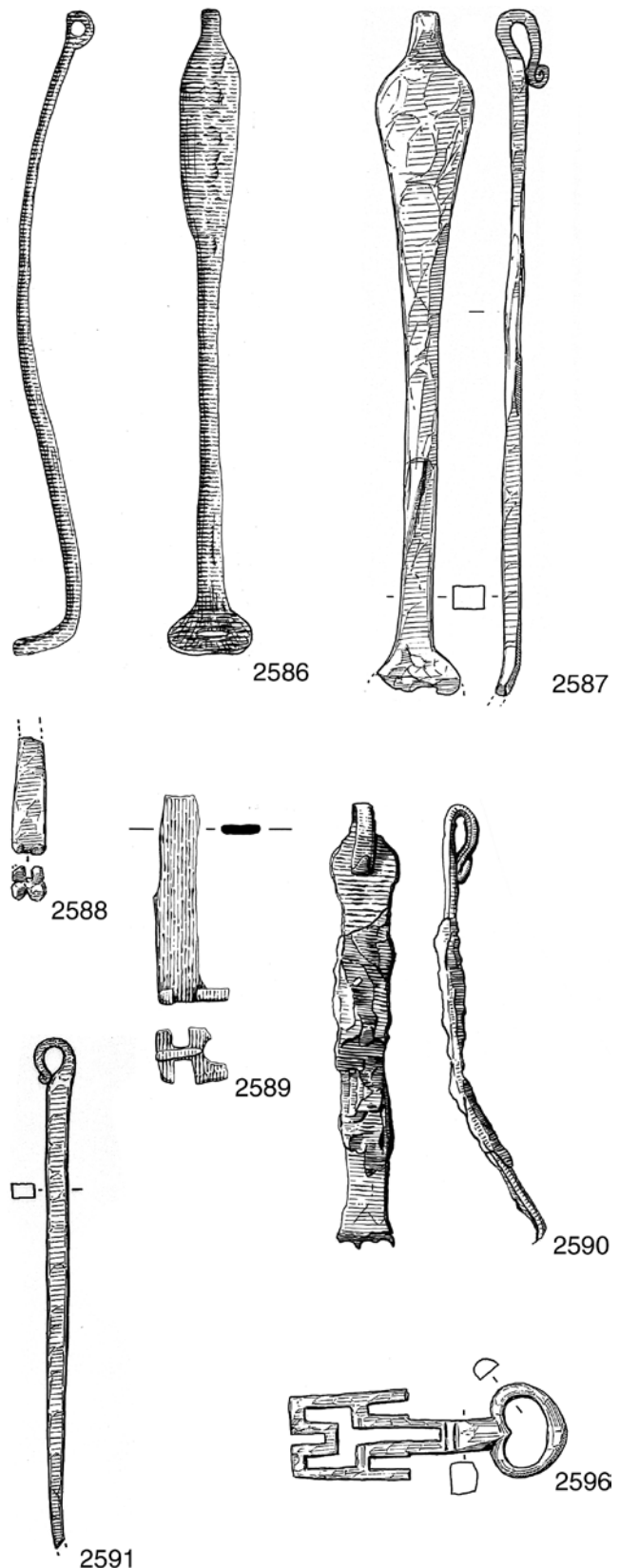


Figure 185 Padlock keys and latch lock key, nos 2586–91, 2596, scale 1:2

**2590** Fig 185 sf 10CS 97. The bit is largely missing. The sides of the stem are slightly concave, before it widens into an area with convex sides at the head where there is a looped terminal with a recurved tip. L 123, W 19mm. 13th- to 14th-century pit F7 (I, 132).



**2591** Fig 185 sf VR 3009. The stem has a looped terminal with recurved tip at the head and then tapers to the base where it is curved above the bit which is now missing. L 140mm, W 6mm, terminal W 11mm. 17th- to 18th-century pit F113 (X, 259).

*not illustrated*

**2592** sf CHR 114. An incomplete stem and fragment of bit which was at 45 degrees to the stem. L 110mm, W 18mm. Late Saxon pit F24 (I, 130).

**2593** sf SJS 459. Circular, pierced three times with rectangular holes. Plated. D 25mm. 12th- to 13th-century soil layer (I, 170).

**2594** sf VR 0. An incomplete oval bit. W 19mm. 14th- to 15th-century pit F131 (X, 381).

**2595** sf VR 0. Circular bit with three rectangular holes. Unstratified (V).

### Latch lock keys

**2596** is an iron key for a latch lock. It corresponds to Type 9 in the London Museum Medieval Catalogue (Ward Perkins 1940, 143) and may be dated to the 14th to 15th centuries. Comparable keys were also used in post-medieval times, however, and **2596** is similar to a specimen from a well dated mid-16th- to 17th-century context at Waltham Abbey, Essex (Musty 1978, 157, fig 21, 2). **2597** (13th- to 14th-century context) may be the incomplete bit of another example.

**2596** Fig 185 sf CHR 306. The bow is kidney-shaped. The stem is solid for a short stretch and then is divided to make a central channel and develops into an open-work bit. There are two grooves around the stem above the head of the channel Plated. L 78mm. 17th- to 18th-century soil layer (I, 19).

*not illustrated*

**2597** sf CT 88. Probably the incomplete bit of a latch lock key. Plated (copper). L 49mm, W 25mm. 13th- to 14th-century well F70 (VII, 257).

### Corner brackets

The most important objects to be included under this heading are four iron corner brackets from Grave 1 (V, 41) in the medieval Jewish cemetery (Keene 1985, 1034) at Crowder Terrace (see also above). They are quite substantial items with arm lengths of between 100 and 135mm and widths of c 20mm. Each arm is pierced twice and the nails still in situ are up to 57mm long. One nail is clenched over suggesting that the coffin was made with boards c 18mm thick. Examination of mineral-replaced wood remains on **2598** by Jacqui Watson showed that both of the sides of the coffin were made of ash (*fraxinus* sp.) boards with a radial surface.

These brackets of interest for a number of reasons. It is, first of all, very unusual to find iron coffin fittings

other than nails in medieval graves. None was, for example, found in the Cathedral Green cemetery at Winchester (Birthe Kjølbye-Biddle, pers comm). A group of fifteen graves containing evidence for at least 80 brackets was, however, found in the 12th- to 13th-century Jewish cemetery at York (Ottaway 1994). It has been suggested (*ibid*) that these coffins with brackets were an indication of high social rank for the deceased or his/her family and Grave 1 at Crowder Terrace may, perhaps, be interpreted in a similar fashion. The only other medieval grave containing a coffin with corner brackets that is known to the present writer (PJO) comes from St Augustine's Abbey at Canterbury and presumably belonged to a high ranking cleric (Sherlock and Woods 1988, 224, 226, fig 72). The brackets in this grave are similar to those from Crowder Terrace both in size and in having arms which are pierced twice.

All are of iron.

**2598** Fig 186 sf CT 9 (c). One nail is complete. Arms L 120 and 110mm, W 18mm, T 2mm, nail L 57mm.

*not illustrated*

**2599** sf CT 9. (a) Arms L 100 and 135mm, W 22mm, T 5mm. (b) One nail is complete, but bent at 90 degrees in centre. Arms L 120mm, T 5mm, W 18mm, nail L 48mm. (d) One arm is incomplete; one nail is complete. Arms L 118 and 60mm, W 20mm, T 5mm, nail L 54mm.

### Hooks

*not illustrated*

**2600** sf SJS 0. S-hook of iron. L 57, W 23mm. 17th- to 18th-century soil layer (I, 109).

**2601** sf VR 131. Iron. It consists of a hook at the base of a shank which widens towards the head where it is curved over at 90 degrees. L 83mm, W 44mm, T 2mm. Unstratified (V).

### Linch pin

This object is a sturdy linch pin, which would have been used to secure a gate or a door or, alternatively, a vehicle wheel. A very similar object (identified as a bell clapper) was found in a context dated 1561 to 1711 at Norwich (Goodall 1993, 140, fig 105, 951).

**2602** Fig 186 sf SBS 151. Iron. Shank of rounded cross-section with a pointed tip and loop at the head. L 142mm, T 10mm. 15th- to 16th-century pit F67 (I, 102).

### Clench bolts

All are of iron.

**2603** Fig 186 sf NR 27. Diamond-shaped rove only. L 27mm. Late Saxon pit F51 (II, 80).

**2604** Fig 186 sf NR 32. Diamond-shaped and roughly rounded head. L 83mm. Late Saxon pit F50 (II, 97).

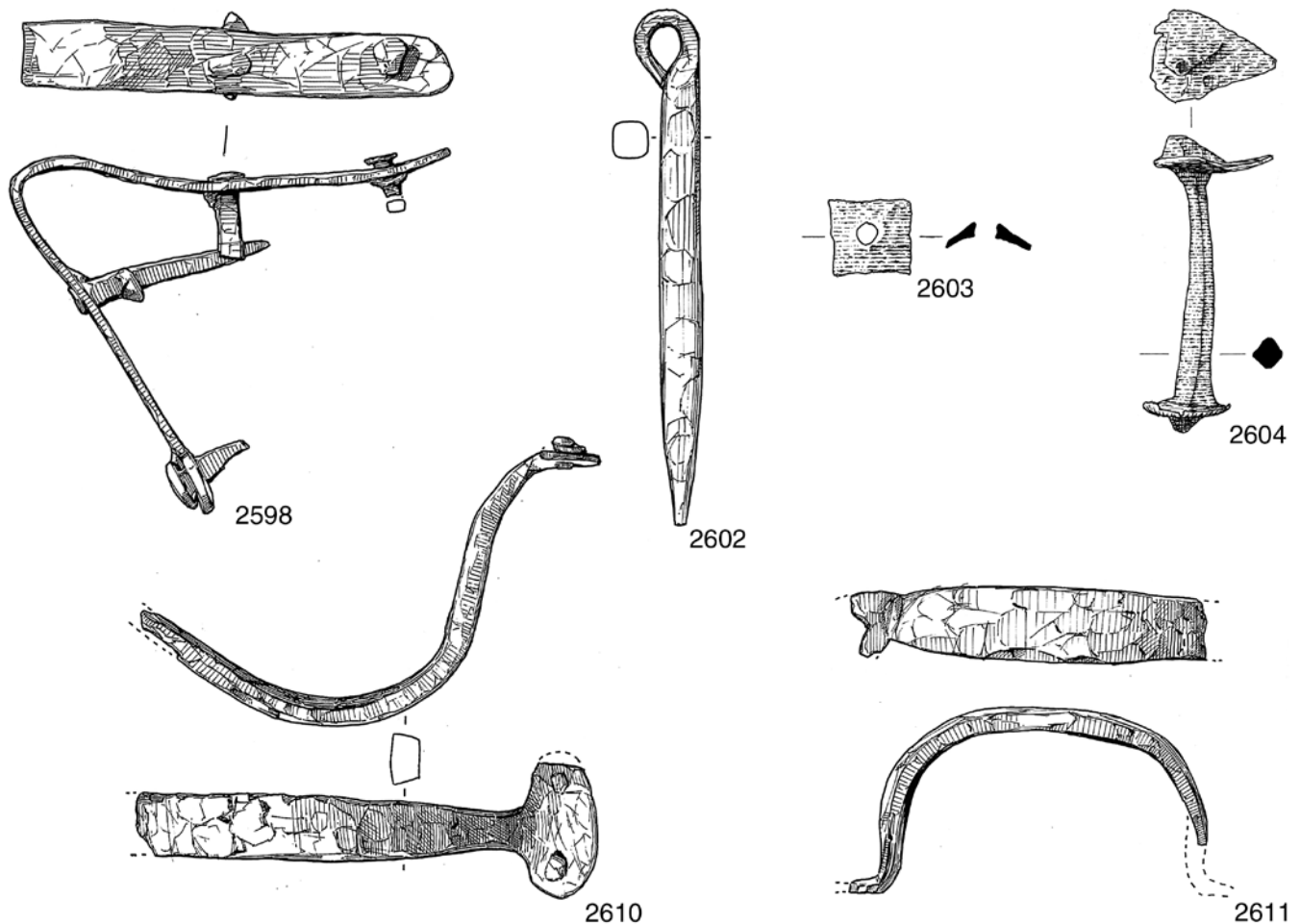


Figure 186 Corner bracket, linch pin, clench bolts and handles, nos 2598, 2602-04, 2610-11, scale 1:2

*not illustrated*

**2605** sf HAB 0. Head a solid dome shape, rove rectangular. L 85mm, head W 15mm, rove W 30mm. Occupation of building 740.1 (V, 192), 13th- to 15th-century date.

**2606** sf VR 0. Rove only. Diamond-shaped. L 32, W 32mm. Layer in 13th- to 15th-century Building 936.4 (XII, 2570).

**2607** sf SBS 0. L 25mm, rove W 39mm. 14th- to 15th-century quarry F70 (I/II, 71).

**2608** sf CT 27. Rectangular rove only. L 20mm, W 20mm. Unstratified.

**2609** sf HA 102. Rove only. Diamond-shaped. L 25mm, W 25mm. Context of uncertain type and date (VII, 27).

### Handles

These are fixed handles of iron which were riveted in place.

**2610** Fig 186 sf VR 2820. Incomplete, but was originally U-shaped. It has a rounded cross-section and an oval, pierced terminal, rivet in situ. Plated (tin-lead). L 137mm, T 7mm. 17th- to 18th-century pit F113 (X, 259).

**2611** Fig 186 sf SJS 0. Roughly D-shaped with a D-shaped cross-section, one pierced terminal survives. W between arms 90mm, W across 20mm, T 5mm. Demolition of 18th-century Building 961.6 (IV, 604).

*not illustrated*

**2612** sf VR 2822. Curved strip, rounded cross-section. Plated. L 130mm, T 7mm. Possibly part of the handle **2610**, above, and from the same context.

### Binding

*not illustrated*

**2613** sf VR 6. Copper alloy. U-shaped flat strip. Ends damaged or taper. Similar to a staple. L 33mm, W 3mm. Construction of 13th- to 15th-century Building 938.1 (IV, 22).

**2614** sf VR 95. Copper alloy. U-shaped flat strip with rivet hole at each end. L 24mm, W 6mm. 13th- to 15th-century soil layer (IV, 44).

**2615** sf CHR 281. Length of copper alloy binding of U-shaped section. Two near right-angle bends. L approximately 233mm, W 3mm. 19th- to 20th-century drain F1 (I, 9).

**2616** sf CHR 327. Length of copper alloy binding of U-shaped section. Each end is mitred. L 63mm, W 3mm. 19th- to 20th-century drain F4/10 (I, 23).

**2617** sf CHR 16. Length of copper alloy binding of U-shaped section. L 62mm, W 12mm. 17th- to 18th-century soil layer (I, 19).

**2618** sf CHR 0. Length of copper alloy binding. Three rivets in situ, one rectangular and one sub-rectangular hole. Partly opened with some iron corrosion inside. L (bent) approxi-

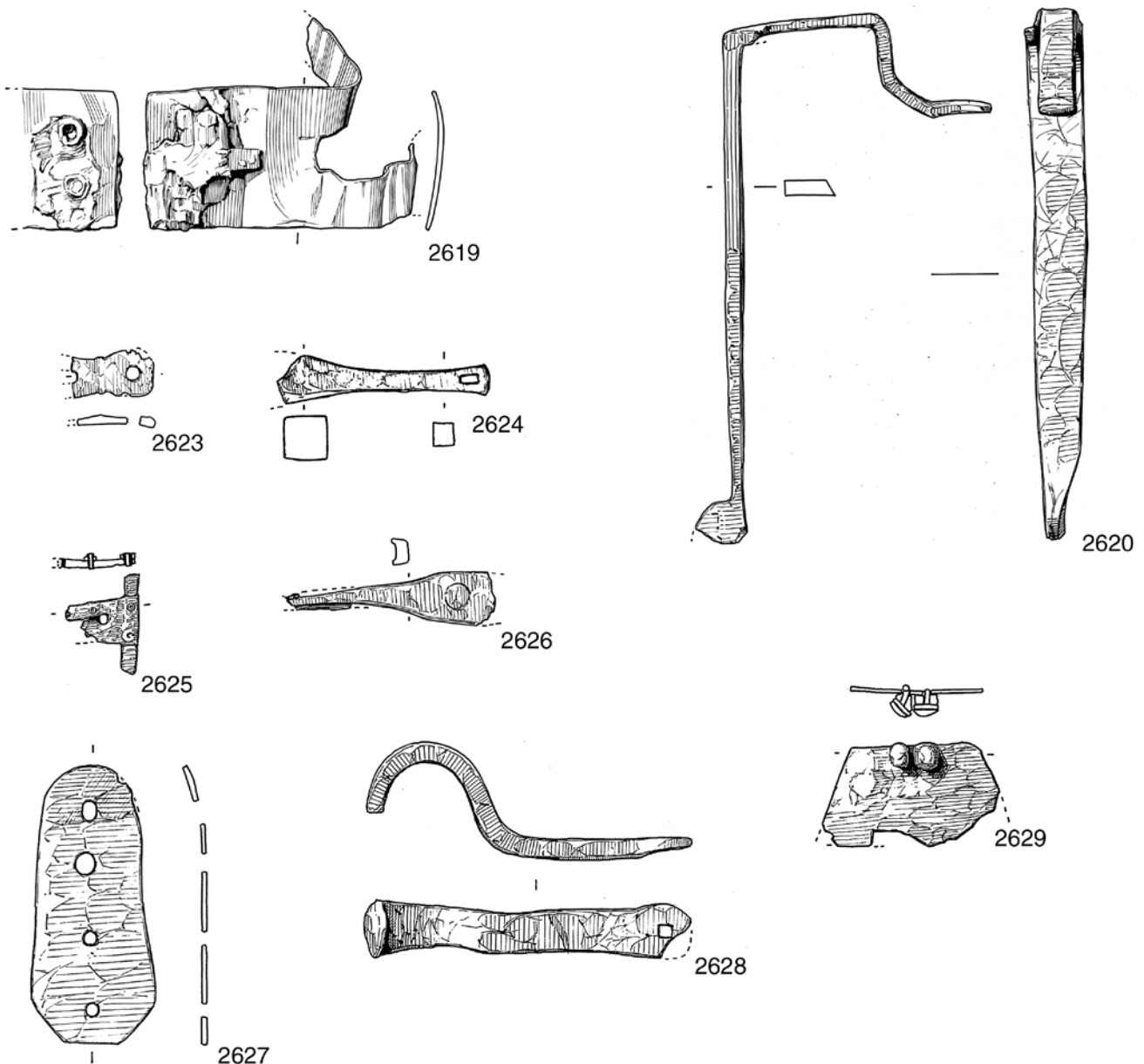


Figure 187 Miscellaneous metal fittings, no 2619, scale 1:1; nos 2620, 2623–9, scale 1:2

mately 77mm, W (closed) 7mm. 19th- to 20th-century soil layer (IV, 582).

### Miscellaneous fittings

**2619** Fig 187 sf VR 2174. Rectangle of copper alloy sheet, broken across a rectangular cut out at one end and bent. L (bent) 42mm, W 22mm. There are two iron rivets set in the other end, and fragments of mineralised wood are preserved on one side of the sheet in iron corrosion products from the rivets. Probably a protective fitting from a box or cupboard. 15th- to 16th-century pit F27 (X, 92).

**2620** Fig 187 sf VR 2582. Fitting made from a single strip of iron, 5 by 5mm. The first leg is 153mm long and is narrowed at one end where there is a triangular terminal projecting from one face, at the other end it is curved at 90 degrees into a second leg 83mm long which is crank-shaped and broken at the tip. 17th- to 18th-century pit F113 (X, 259).

*not illustrated*

**2621** sf SXS 607. Plain rectangular fitting of gilt sheet copper alloy, one corner now folded inwards. Slightly convex outer surface as if it had once been cylindrical. 20 by 12mm. 12th- to 13th-century ditch F401 (XVII, 942).

**2622** sf CT 199. Strip of lead, much distorted, with two holes pierced for attachment, one of which has a broken iron nail still in situ. One end is folded over the head of the nail but unbroken. The other end is broken. Maximum approximately 83 by 20mm. 13th- to 14th-century pit F65 (VII, 201).

### Pierced plates and strips

There are over 200 iron objects which exist as plates or strips which have been pierced at least once for attachment, presumably to wooden artefacts. The vast majority of these came from Victoria Road, although St

John's Street was also quite prolific (see Table 31). The ironwork would have served as bindings, strengthenings, supports, protective coverings etc, although it in no case is it possible to identify an exact function. This must, to some extent, however, be related to size and while the majority of objects are now incomplete, it is possible to see that originally there was great variation in this respect. The larger items were probably, for the most part, pieces of barrel, bucket, chest or door fittings. The smaller items would have been primarily fittings or mounts for boxes and caskets and those which can be recognised as such with reasonable certainty are catalogued in Category 4.

The majority of the items classified under this heading are simple in form with straight parallel sides, although some narrow from one end to the other. Where complete ends survive they are straight or occasionally rounded. **2627** (from a context of the 15th to 16th centuries) is a little unusual among the larger objects in that at its wider end it has two angled corners and at the narrow end it is rounded. **2632** (17th- to 18th-century context) is also distinctive; it exists as a plate, pierced with a rectangular hole, which narrows to become a tapering strip.

**2623** (15th- to 16th-century context) is a small tin-plated fitting which exists as two rounded, pierced terminals separated by a short collar. Twelve other items are plated, but are otherwise unremarkable.

Other unusual objects which presumably had some specialised function include **2625** (15th- to 16th-century context), a small plate the sides of which step in at one end to form a short stub while at the other end there is a projection from each corner. The object is pierced three times and there are non-ferrous rivets in situ. **2631** (also from a 15th to 16th century context) is made up of two very thin short strips joined at right angles by a non-ferrous pin; the first strip is pierced three times and has lead solder around the holes. A small number of other pierced plates and strips have non-ferrous rivets in situ. The rivets in plate **2629** are iron with leaded brass covers.

The more unusual objects are catalogued below, whilst the distribution of the entire assemblage is tabulated (Table 31). A full catalogue is retained in the archive. The information shown in Table 31 seems to reflect the general distribution of finds in the excavated areas, both in type of deposit and date. For example, pits are generally most prolific of finds, as in the case of these fittings; the relatively high numbers

of fittings of the 15th and 16th centuries, and of comparatively recent times from St John's Street reflects the general chronology of the excavated trenches (I and IV respectively).

For the general definition of strips and plates, see Category 18.

**2623** Fig 187 sf VR 0. Two rounded, pierced terminals- one incomplete- separated by a thin collar. Plated (tin). L 28mm, W 14mm. 15th- to 16th-century pit F27 (X, 849).

**2624** Fig 187 sf VR 0. Strip, pierced with a rectangular hole at one end, at the other it widens out, but is then broken. L 63mm, W 13mm. 15th- to 16th-century pit F776 (XIII, 3085).

**2625** Fig 187 sf VR 4156. A plate which consists of a central rectangular area which steps in at one end to a narrow stub; at the other end there is a sideways projection from each corner. It is pierced three times, two holes are arranged transversely above one, rivets with lead solder in situ. L 28mm, W 20mm. 15th- to 16th-century pit F751/757/759 (XIII, 3027).

**2626** Fig 187 sf VR 6060. It consists of a tapering strip with a flattened, roughly rectangular terminal pierced by large hole. L 61mm, W 15mm. 15th- to 16th-century pit F308 (X, 920).

**2627** Fig 187 sf SJS 774. Plate. It narrows to a rounded end and at the wider end has angled corners. Pierced four times. L 85, W 38mm. 15th- to 16th-century pit F305 (I, 319).

**2628** Fig 187 sf VR 62. It consists of strip one half of which is U-shaped and broken and the other straight. At the end of the latter half there is a flattened, rounded, pierced terminal. L 98mm, terminal W 16mm. Post-medieval feature F13 (IV, 45).

**2629** Fig 187 sf VR 4041. Plate with one straight side from which it widens and is broken. There are two rivets with leaded brass covers in situ on one edge (?piece of armour). L 50mm, W 29mm. 19th- to 20th-century soil layer (XIII, 3001).

#### *not illustrated*

**2630** sf SBS 0. (a) Plate, L-shaped, the longer arm is stepped and pierced near one end. The other arm is pierced twice near its outer edge. Arms L 65 and 55mm, W 28mm. (b) Broken at each end, pierced near the edge, there are traces of plating around the hole. L 50mm, W 24mm. 14th- to 15th-century quarry F70 (I/II, 71).

**2631** sf VR 0. A strip, pierced three times, lead solder metal around the holes. A second strip is attached at right angles, originally by means of a pin through a hole at one end of the first strip. L 24 and 19mm, W 4mm. 15th- to 16th-century pit F751/757/759 (XIII, 3027).

**2632** sf VR 0. A fitting consisting of a plate which narrows to become a tapering strip. It is pierced with a large square hole at the wider end. L 90mm, W 23mm. 17th- to 18th-century pit F1010 (XV, 3916).



## 12 Objects associated with agriculture, horticulture, and animal husbandry

This small group of items includes a curry comb, associated with the care of horses rather than the use of them for draught or riding. Rumbler bells may have been used on either horse harness or the halters of other domestic animals and so are also included here. Few tools are present and some may be residual Roman.

### Bells

The size of these rumbler bells, particularly **2634**, suggests that they were used on the halters or collars of large domestic animals. All derive from 19th- or 20th-century contexts, but the two from Victoria Road are of a type usually considered to be 18th-century. A small bell **1586** has been catalogued with dress acces-

sories (Category 1) and a large open bell **2682** with the objects associated with religious practices (Category 14).

**2633** Fig 188 sf VR 2048. Stout cast copper alloy rumbler bell. D 33mm. As with **2635**, there are two holes in the upper half. One side of the channel in the lower half is damaged, and the pea is missing. The lower half is ornamented with grooves running from the channel up to a moulding around the girth of the bell. The suspension loop is rectangular. Similar to examples from Colchester (Crummy 1988, fig 91, no 3250), and Norwich (Margeson 1993, fig 162, no 1760). Probably 18th-century, but from a 19th- or 20th-century soil layer (X, 6).

**2634** Fig 188 sf VR 8351. Most of a large cast copper alloy bell similar in form to **2633**. D 63mm. The decoration on the lower half consists of double-grooved 'tongues' running from a line around the base of the bell up to a moulding

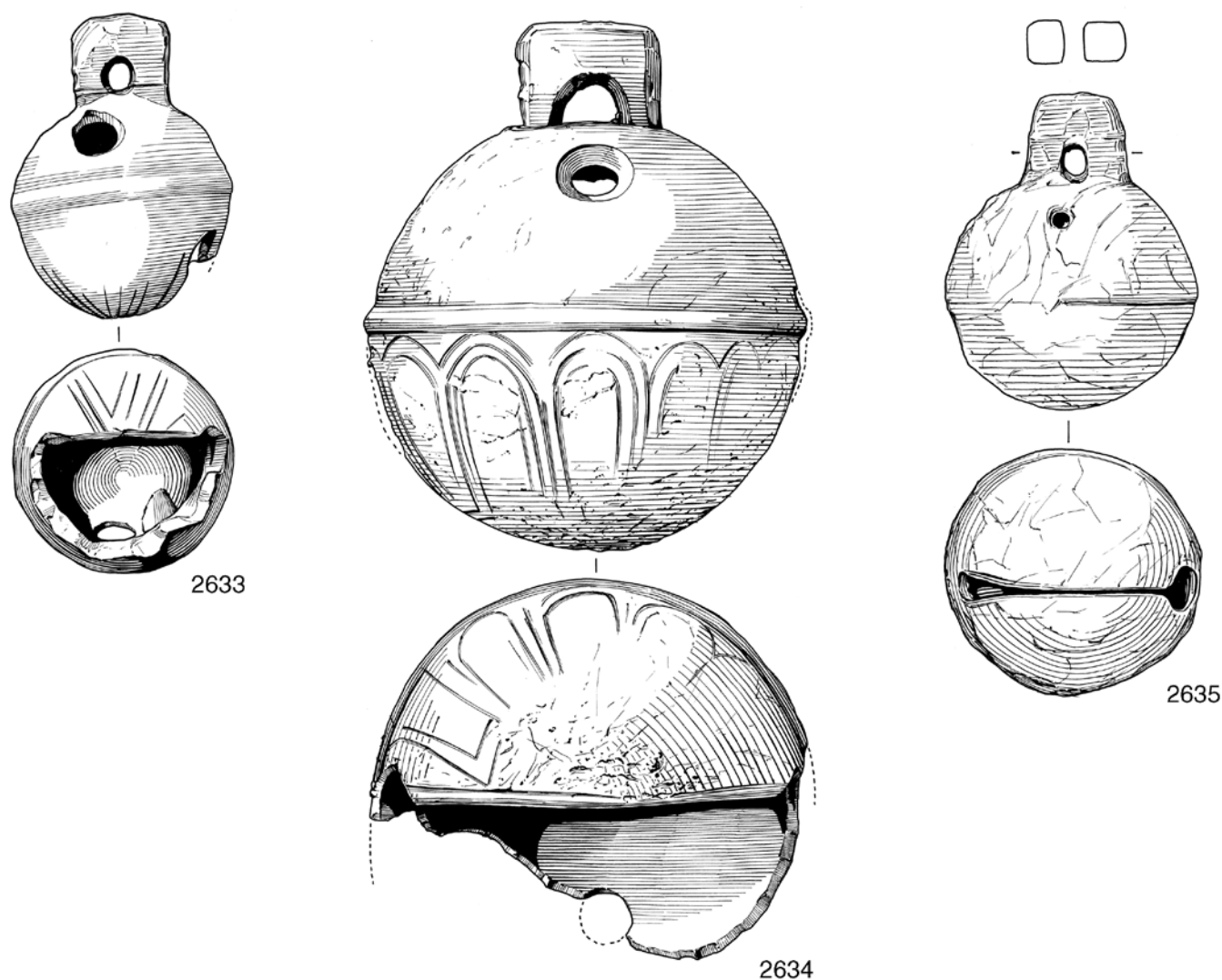


Figure 188 Bells, nos 2633-5, scale 1:1

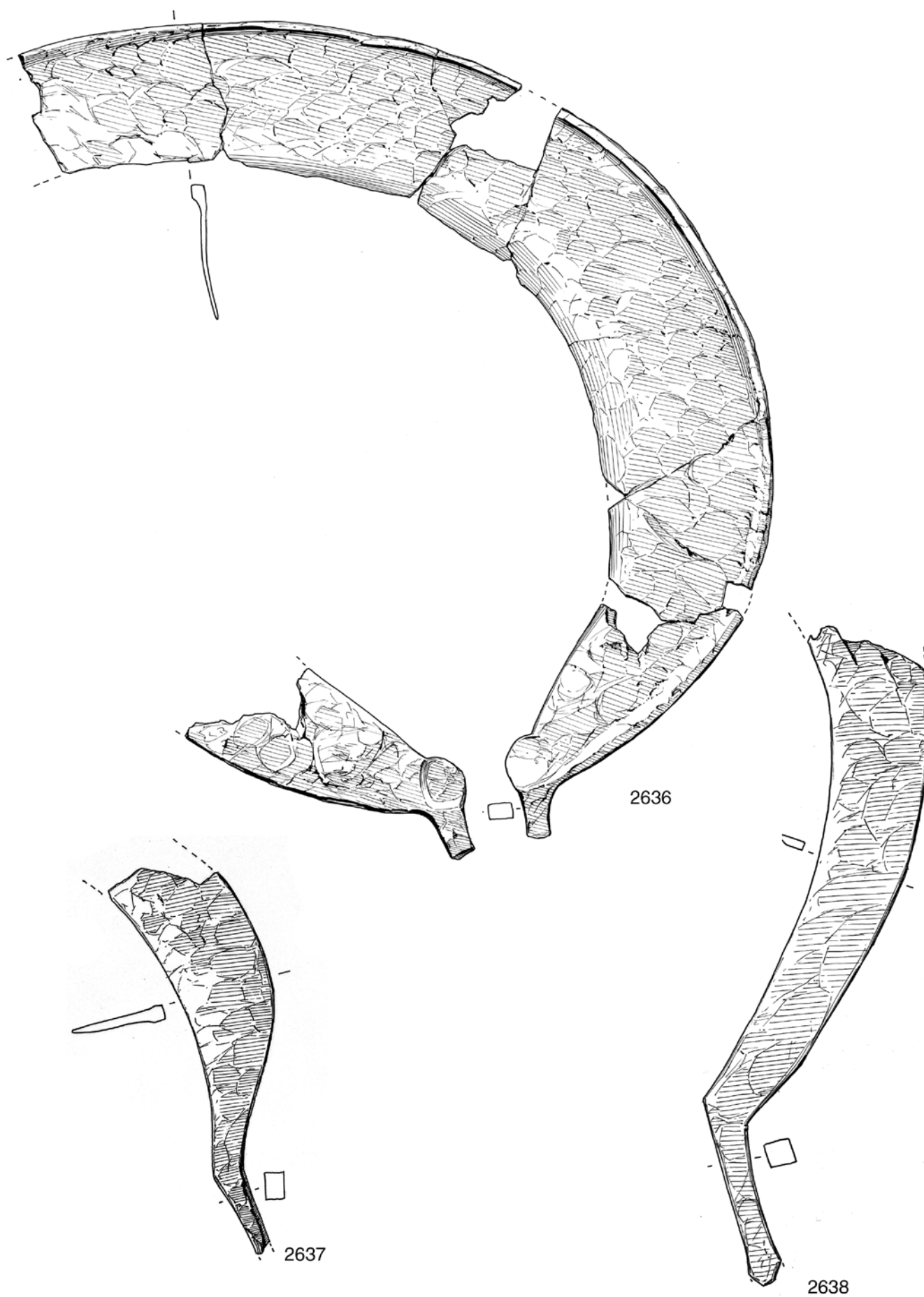


Figure 189 Sickles, nos 2636-8, scale 1:2

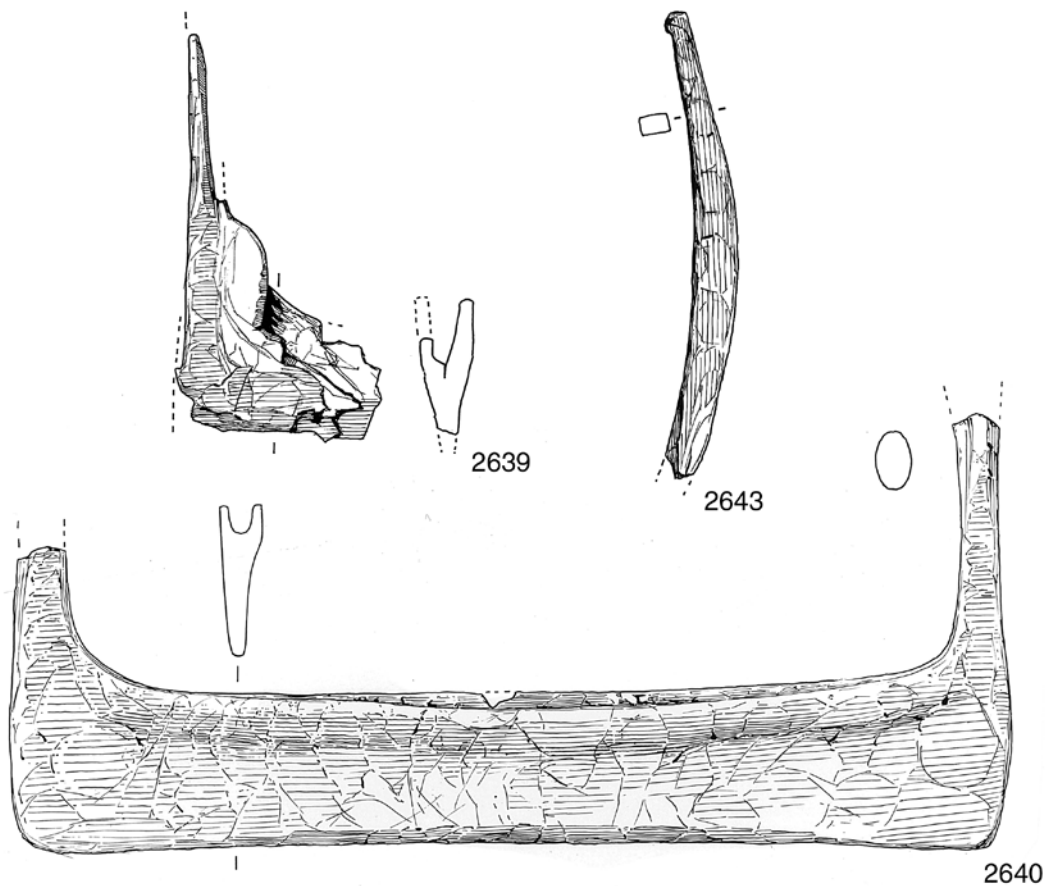


Figure 190 Spade shoes and rake tine, nos 2639–40, 2643, scale 1:2

around its girth. Probably 18th-century, but from a 19th- or 20th-century soil layer (XI, 1600).

**2635** Fig 188 sf SJS 656. Cast copper alloy rumbler bell with rectangular suspension loop. D 36mm. There are two holes in the upper half, as well as the usual two connected by a channel in the lower half. The pea survives. Post-medieval and from 19th- to 20th-century pit F301 (I, 308).

### Sickles

Although incomplete, **2636** and **2637** probably had much the same form, although **2636** was the larger. Both the blades have their backs curved up into a ridge for strengthening purposes. These objects may be compared with others from Winchester (WS7.2, 450–1, nos 904–5) which do not, however, have the ridge along the back. **2638** is another incomplete sickle.

**2636** Fig 189 sfs VR 7206–7. Iron, in seven pieces. It has a wide curving blade which is curved over to form a ridge along the back; the tang is incomplete. Maximum surviving L c 390mm, blade W 68mm. 13th- to 14th-century pit F509 (XI, 1531).

**2637** Fig 189 sf VR 3061. Incomplete curving iron blade and tang, the blade curved over to form a ridge along the back. L 150mm, blade L 117mm, W 35mm. 14th- to 15th-century pit F131 (X, 356).

**2638** Fig 189 sf SJS 821. Iron. The blade is curved and widens away from tang, the end is missing. L 245mm, blade L 190mm, W 38mm. Fill of 19th-century clay pipe kiln F62 (II, 527).

### Spade shoes

A spade shoe is an iron sheathing fitted to the base of a wooden spade blade to prevent damage through wear. **2640** is a complete spade shoe, which is probably dated to the 16th to 17th centuries, and is comparable, for example, to a spade shoe of the mid-17th century from Sandal Castle (Goodall 1983, 242, fig 5, no 53). **2639** is part of a similar object and **2641** may be another spade shoe fragment. The latter is from a soil layer which produced mostly late Roman finds but which may have continued to form in the late Saxon and early medieval periods, and it may therefore be Roman in date.

**2639** Fig 190 sf SJS 535. Incomplete. A straight blade edge and one arm survive. L of blade 103mm, L of arm 52mm. 15th- to 16th-century pit F214B (I, 267).

**2640** Fig 190 sf JCH 17. The blade is straight and at each end there are two short arms which become lugs, C-shaped in cross-section and which are pierced for attachment to the blade. L 265, blade W 45, T 15mm. 18th-century pit F4 (II, 17).

*not illustrated*

**2641** sf VR 321. Fragment of blade with incomplete socket at one end. L 107, W 25mm. Late 4th- to early 5th-century (?and later) soil layer (V, 61).



## Shovel

*not illustrated*

**2642** sf HA 31. The corroded remains of a large iron shovel blade. Largest piece L 180mm, W 165mm. 13th- to 14th-century soil layer (II, 13)

## Rake tine

This object could be earlier than its context and is not dissimilar to the Roman rake tines from the Victoria Road site (Part 2, Category 12)

**2643** Fig 190 sf VR 3941. Iron. It takes the form of a slightly curved strip which widens towards the centre; at the head there is an incomplete looped terminal. L 123mm, W 11mm. 19th- to 20th-century soil layer (XIII, 3001).

## Curry comb

Horse trappings and shoes are catalogued as objects associated with transport (Category 8). As explained above, the curry comb is included here because of its role in the care of horses.

*not illustrated*

**2644** sf VR 2150. Part of the head of an iron curry comb. It consists of an incomplete plate with an L-shaped cross-section which has teeth along one edge. L 65mm, W 30mm. 16th- to 17th-century pit F5 (X, 12).

## 13 Military equipment

Arrowheads form the major part of this group, all probably medieval or early post-medieval. Some come from longbows, but one is a crossbow bolt, and an antler crossbow nut is also present. A trigger guard from a hand gun and a piece of lead shot represent the technological shift to percussive weapons.

### Shield boss

**2645** is the iron boss from a buckler, a form of small shield. This remarkable object comes from the fill of a garderobe pit probably of 14th- to 15th-century date associated with Building 936.4 at Victoria Road on the Hyde Street frontage. The place of discovery should not necessarily be seen as surprising as bucklers were used not only in battle, but also by bodyguards or civilians to defend themselves against highwaymen (Blair 1958, 182).

Although surviving examples are usually mid-15th century or later (Laking 1920, 242–4), bucklers are known from illustrations to have been in use from the 13th century and a near complete 13th- to 14th-century example was found in London at the Custom House site (Dunning 1974). An illustration from the 14th-century Luttrell Psalter shows a buckler with a boss bordered by a zig-zag pattern and an early 14th-century illustration reproduced by Laking (1920, fig 611) shows a buckler with a boss surrounded by a flange which apparently has nailed projections. Both illustrations may have been inspired by bosses comparable to **2645**.

**2645** Fig 191 Plate 6 sf VR 5615. It consists of a central dome which has a hole in the centre where a spike or decorative knop would have been seated. Around the base of the dome there is a flange formed into c 24–5 radiating triangles, each of which is pierced for attachment. The

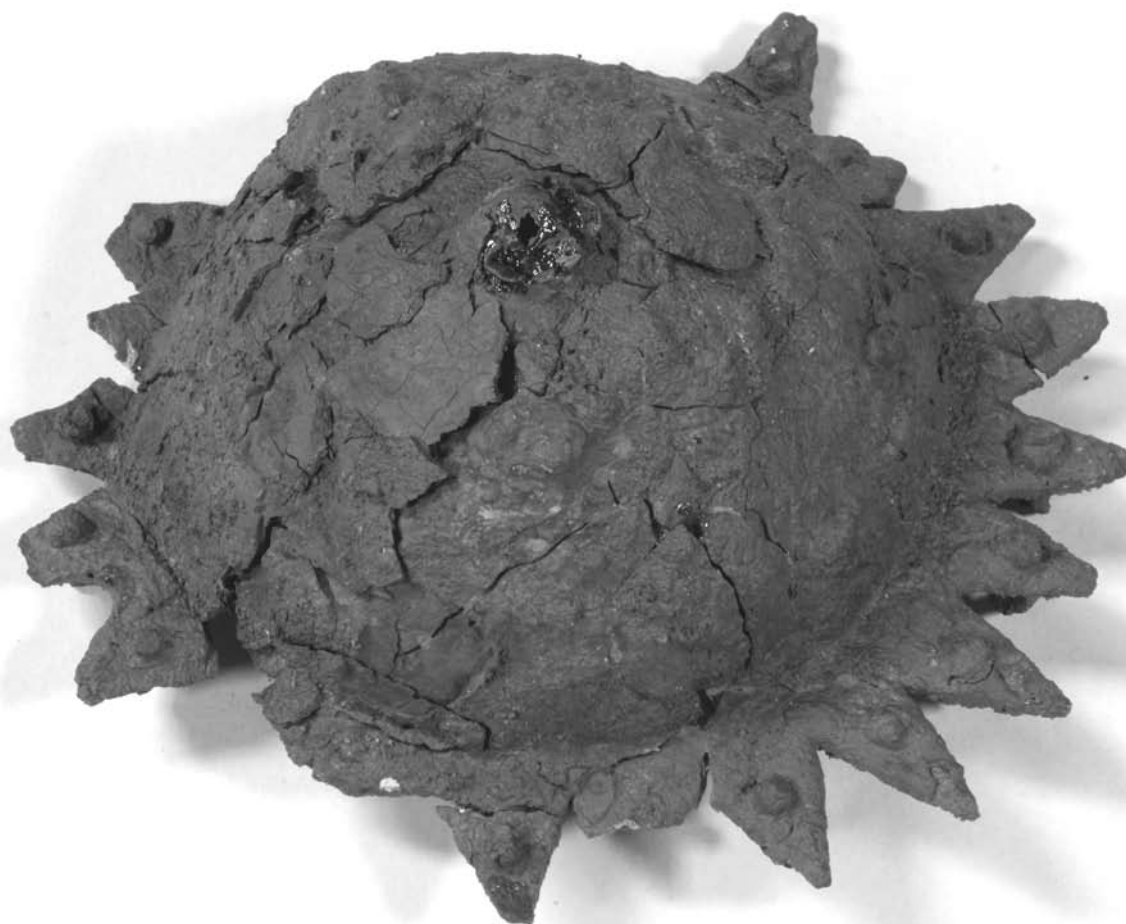


Plate 6 Shield boss from Victoria Road, no 2645, scale 1:1 (photo: John Crook)

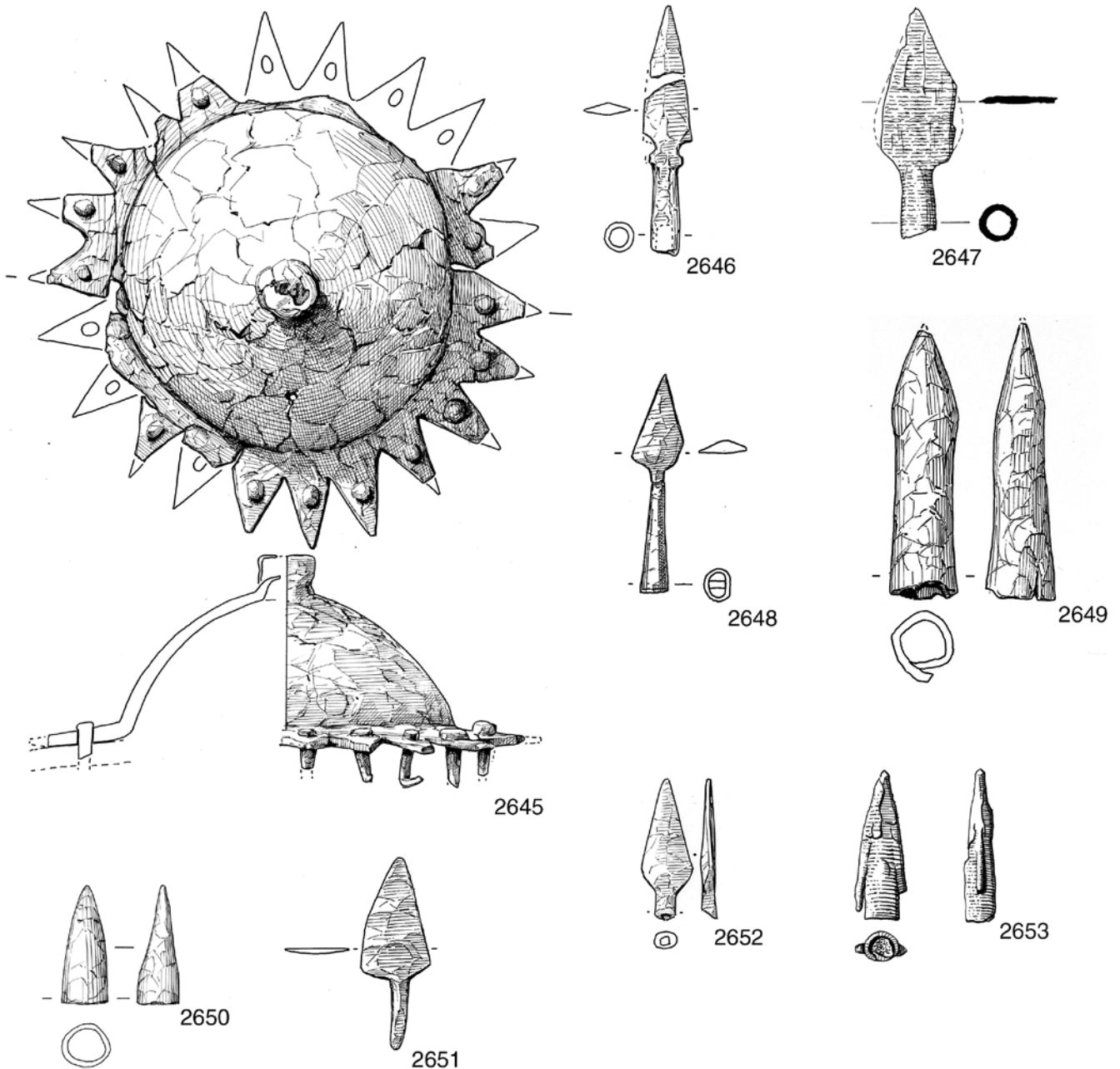


Figure 191 Military equipment, nos 2645-53, scale 1:2

object was plated with tin. Only leather remains around 1mm thick survive on the flange, but one of the nails used for attachment is clenched so as to suggest a thickness of wood of c 6mm. H 65mm, D (original over flange) 150mm, D (inner boss) 110mm. Layer in 13th- to 15th-century (probably 14th- to 15th-century) Building 936.4 (XII, 2523).

### Arrowheads

There are twenty-seven iron arrowheads. None has a characteristic pre-Conquest form and all are probably medieval or early post-medieval. The earliest by context date is **2646** which has a triangular blade and a socket at the head of which there is a moulding. **2647**, **2648**, and **2652** are similar, but without the moulding.

These arrowheads resemble others from Winchester (WS7.2, 1071, nos 3990-4) which came from late 11th- to 14th-century contexts.

Two arrowheads have tanged triangular blades **2651** and **2658**. The latter has a collar around the top of the tang. It comes from a late medieval context.

Ten arrowheads are barbed and, where complete, socketed. They resemble some from earlier excavations in Winchester (WS7.2, 1073, nos. 4010-4), which come from 11th- to 15th-century contexts on intra-mural sites.

There are nine bullet-shaped arrowheads with rounded tips which were probably used with longbows. Goodall (WS7.2, 1071) suggests that they were made in two parts, the cylinder being either welded or soldered to the tip. This would account for

the non-ferrous metal visible on the X-radiographs of **2650** and **2666**. These arrowheads seem to have been current in the late medieval and early post-medieval periods. The examples from suburban sites at Winchester come from 14th- to 17th-century contexts and those from intra-mural sites (WS7.2, 1074, 4017–20) come from late 15th- to 20th-century contexts.

**2655** is a short socketed arrowhead with a tapering blade. **2649** is a large socketed crossbow bolt 80mm long with a powerful head of oval cross-section. It comes from a 16th-century context, but this form of bolt has its origins in the 13th to 14th centuries (Ward Perkins 1940, 68).

**2646** Fig 191 sf VR 8526. Socketed, the blade is triangular with a moulding above the socket. L c 80mm, blade L c 45mm, W 15mm. Late Saxon pit F976 (XIV, 3817). ?Intrusive, or suggests a post-Conquest date for the upper fills of the pit.

**2647** Fig 191 sf CT 61. The blade is broken. It has upward sloping shoulders and convex sides as it tapers to tip. Socketed. L 72mm, W was c 25mm. 13th- to 14th-century pit F65 (VII, 203).

**2648** Fig 191 sf LIDO 117. Socketed. The blade is triangular with concave shoulders. L 70mm, blade L 32mm, W 15mm. 13th- to 15th-century ditch F4 (I, 10).

**2649** Fig 191 sf SJS 768. Socketed crossbow bolt. The head has an oval cross-section. L 80mm, D of socket 20mm. 15th- to 16th-century feature F307 (I, 312).

**2650** Fig 191 sf SJS 0. Bullet-shaped. Plated. L 33mm, W 12mm. 15th- to 16th-century pit F313 (I, 336).

**2651** Fig 191 sf CHR 517. Tanged. The blade is triangular. L 56mm, W 21mm. Post-medieval soil layer (III, 505).

**2652** Fig 191 sf CHR 1496. Socketed. The blade is triangular with rounded sloping shoulders. L 45mm, blade L 35mm, W 16mm. Post-medieval soil layer (III, 505).

**2653** Fig 191 sf JCH 299. Barbed. L 43, W 10mm. Construction of 17th- to 18th-century wall F21 (III, 86).

#### *not illustrated*

**2654** sf HA 15. Incomplete, barbed. L 28mm. 13th- to 14th-century soil layer (II, 13).

**2655** sf HAB 0. Socketed, tapering blade. L 55, D 11mm. 14th- to 15th-century demolition of Building 740.1 (V, 174).

**2656** sf VR 0. Socketed, the blade is largely missing, but was barbed. L 45mm, W 11mm. 14th- to 15th-century pit F98 (X, 226).

**2657** sf VR 0. Barbed and socketed. L 55mm, W 15mm. 14th- to 15th-century pit F117 (X, 815).

**2658** sf VR 0. Triangular blade with collar at the base, tang incomplete. L 45mm, blade L 24mm, W 20mm. 14th- to 15th-century pit F505 (XI, 1508).

**2659** sf VR 0. Incomplete, bullet-shaped. L 38mm, W 16mm. 14th- to 15th-century pit F505 (XI, 1526).

**2660** sf VR 0. Barbed and socketed. L 60mm, blade L 40mm, W 20mm. 14th- to 15th-century pit F1031 (XV, 3905).

**2661** sf VR 0. Barbed and socketed, blade incomplete. L 56mm, W 13mm. D socket 11mm. Fill of cellar in 13th- to 15th-century Building 938.1 (IV, 137).

**2662** sf VR 23. Blade only, barbed. L 40mm, W 28mm. Disuse of 13th- to 15th-century Building 938.1 (IV, 57).

**2663** sf VR 4213. The blade is incomplete, but was barbed and socketed. L 63mm, W 18mm. Demolition of 13th- to 15th-century buildings on tenements 935 and 936 (XIII, 3055).

**2664** sf HAB 0. Socketed. Plated. L 55mm, D 12mm. 15th- to 16th-century garden soil (V, 176).

**2665** sf SBS 0. Bullet-shaped. L 38, D 10mm. 15th- to 16th-century pit F67 (I, 66).

**2666** sf VR 0. Bullet-shaped. Plated. L 33mm, W 12mm. 15th- to 16th-century pit F44 (X, 99).

**2667** sf VR 0. Bullet-shaped. L 46mm, W 8mm. 15th- to 16th-century pit F27 (X, 106).

**2668** sf VR 5015. Barbed and socketed. L 54, W 15mm. 15th- to 16th-century pit F778 (XIII, 3179).

**2669** sf VR 6144. Barbed and socketed, the tip is missing. L 61mm. 15th- to 16th-century pit F313 (X, 952).

**2670** sf VR 0. Bullet-shaped. L 44mm, W 11mm. 15th- to 16th-century pit F643 (XII, 2415).

**2671** sf VR 0. Bullet-shaped. L 50mm, W 12mm. 15th- to 16th-century pit F764 (XIII, 3041).

**2672** sf SJS 0. Bullet-shaped. L 39mm, W 12mm. 15th- to 16th-century pit F305 (I, 317).

**2673** sf VR 0. Bullet-shaped. L 45mm, W 15mm. 16th- to 17th-century fill of earlier pit F117 (X, 271).

### Crossbow nut

The crossbow was probably brought to England at the Norman Conquest and was used for both hunting and warfare. A crossbowman is mentioned in Domesday Book, though the earliest record of a crossbow maker in the country does not appear until 1205 (Edge and Paddock 1988, 34–6). Throughout the 13th century technological improvements increased the power of the weapon, but its popularity waned in this country from the end of the century onwards when the Welsh longbow was adopted by the English army.

When the crossbow string was drawn back it was caught and held by a nut or winder-pin set in a slot in the stock. The arrow was placed in a notch in the nut and a trigger action made the nut spin in its setting, releasing string and arrow (Oakeshott 1994, 298–9). Nuts underwent considerable strain during this process, and red deer antler was no doubt preferred for their manufacture because of its ease of working (the nuts are invariably lathe-turned) and strength. They first appear in the archaeological record in the late 11th century (MacGregor 1987, 192), and examples with an iron reinforcement have been found at Urquhart Castle, Invernesshire, Sandal Castle, Yorkshire, and Winchester (Credland 1983, 265; WS7.2, 1074–6).

**2674** Fig 192 sf CHR 170. Crossbow nut of red deer antler. The upper edge of the string notch and the adjacent section of the nut have broken off, almost certainly typical damage from use. D 26mm, H 16mm. D of pivot hole 3.5mm. ?Late medieval fill of large feature (cellar, quarry or wellhead) F15 (I, 145).

### Trigger guard

The hand gun was introduced in the 16th century and rapidly became popular for both warfare and sport. Guards were introduced to prevent the trigger being caught and accidentally discharging the weapon. The simple curved loop around the trigger suggests that this guard is probably from a pistol of 17th century date, perhaps from the Civil War period. The decoration on this example is restrained but on some hand

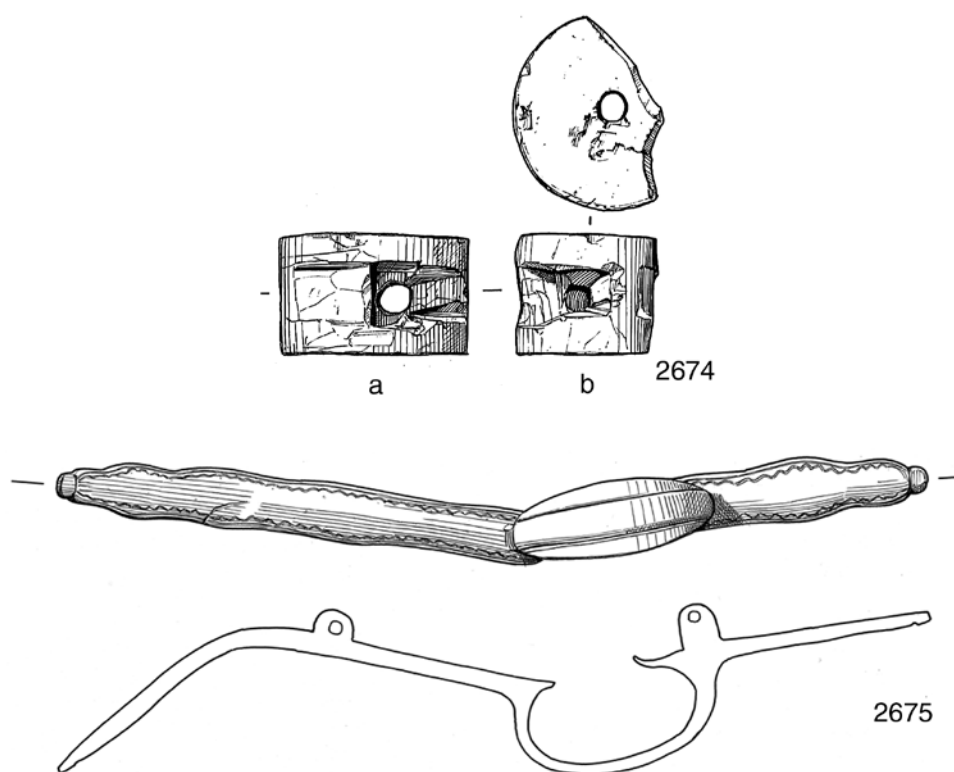


Figure 192 Military equipment, nos 2674-5, scale 1:1

guns could be highly ornamental (Edge and Paddock 1988, 152-3), no doubt depending on whether the weapon was as much for show as use.

**2675** Fig 192 sf VR 13029. Copper alloy trigger guard with two pierced lugs for fixing into the stock. L 115mm. The edges of each strap-plate are slightly scalloped and ornamented with a marginal wavy line. Each end has a knobbed terminal. The loop beneath the trigger has plain edges and a thickened central section. 19th- to 20th-century feature F1001 (XV, 3901).

#### Lead shot

*not illustrated*

**2676** sf VR 7564. One lead shot. D 18mm. Layer in 13th- to 15th-century Building 935.2 (XII, 2182).

## 14 Objects associated with religious beliefs and practices

Few items belong to this category, but nevertheless the range is representative of the medieval passion for pilgrimage and the veneration of relics.

A burse-reliquary of wood, to which were tacked thin gilt copper alloy sheets with embossed decoration was recovered from the fill of late Saxon pit F53 (VIII, 323) at Sussex Street. This remarkable object has been published elsewhere (Hinton *et al* 1981).

A papal *bulia*, of Lucius III, has been catalogued with objects associated with written communication (Category 7, 1987).

### Figurines

#### Reliquary figure

Casket reliquaries were made to hold items, including bones, associated with a particular saint or religious icon. In the 13th century, reliquaries from Limoges in France were highly decorative, embellished with gilding and enamel, and had copper alloy figures of the saints set on the base of the lid, usually three along each long side. Henig (1988, 177), in describing an example from St Augustine's Abbey, Canterbury (Kent) lists several examples from southern Britain, to which 2677 can now be added.

**2677** Fig 193 sf CHR 6. Enamelled gilt copper figure from the lid of a reliquary. H 53mm, W at base 27mm. The head is fully modelled with eyes of blue (probably from cobalt) enamel, but the torso consists of a curved plate. The long-fingered hands, shown emerging from the vestments and defined only by very fine incised lines, are all that indicate the arms. The front of the undergarment is decorated with panels of red and green (probably from copper) *champlevé* enamel. The figure was fitted to the reliquary by two copper rivets, one (missing) on the upper chest, the other (still present), just below the left hand. 17th- to 18th-century soil layer (I, 19).

#### Architectural figure

This piece, probably representing a saint, was recovered from the fill of a 15th- to 16th-century pit at Victoria Road. John Cherry (pers comm) suggests that it dates to the late 13th or early 14th century. A dowel hole has been cut in the back, which is plain, indicating that the piece was intended to be viewed from the front and both sides, while forming part of a larger item or group. The date of the pit suggests that the figure may have been removed from its setting at the Dissolution. It is similar to a Romanesque figurine, twice the size, but also with a plain back, from Bridlington Priory, Yorkshire.

**2678** Fig 193 sf VR 10235. A fragment of a limestone figure. H (maximum surviving) 79mm, W 44mm. The subject, a male, is wearing a long draped garment which is fully represented at the front, but only partly so at the back. There is a dowel-hole or fixing hole at the top of the back, set off centre. The front has been slightly damaged, both recently and in antiquity. The object held in the left hand may have been a book, but damage prevents positive identification, and the precise position of the right hand is now uncertain. 15th- to 16th-century pit F940 (XI, 1653).

### Pilgrim souvenirs

The reliquary figure (2677) probably came from a religious foundation, but the two lead/tin-alloy souvenirs were, in origin at least, personal items bought as proof of pilgrimage and possibly in hope of future miracles. The damaged rattle handle 2680 (not illustrated) is 14th-century in date and may have come from either Walsingham or Canterbury. Its noise may have been credited with some preventive value, perhaps to ward off disease or disaster, or it may simply have been a souvenir for a child (Spencer, 1998, 209). The ampulla for holy water 2679 is probably slightly later in date, and may also be a Walsingham product. While ampullae may have been kept by pilgrims for personal or family use, some were donated to parish churches (*ibid* 38).

#### Ampulla

**2679** Fig 194 sf VR 3442. Large lead or tin ampulla with angular loops for suspension. On the front is engraved a compass-drawn six-petalled flower within a circle, with a zig-zag line around the body, and on the back is a crowned W. Round the neck is a collar filled with slanting lines. L 52mm. This is a late form, dating to the late 14th or 15th century, and the crowned W suggests that this ampulla is from the shrine of Our Lady of Walsingham, but the attribution is not absolutely certain (Spencer 1998, 146). A example with similar decoration came from the Bull Wharf site in London (*ibid* 205). 15th- to 16th-century pit F770 (XIII, 3058).

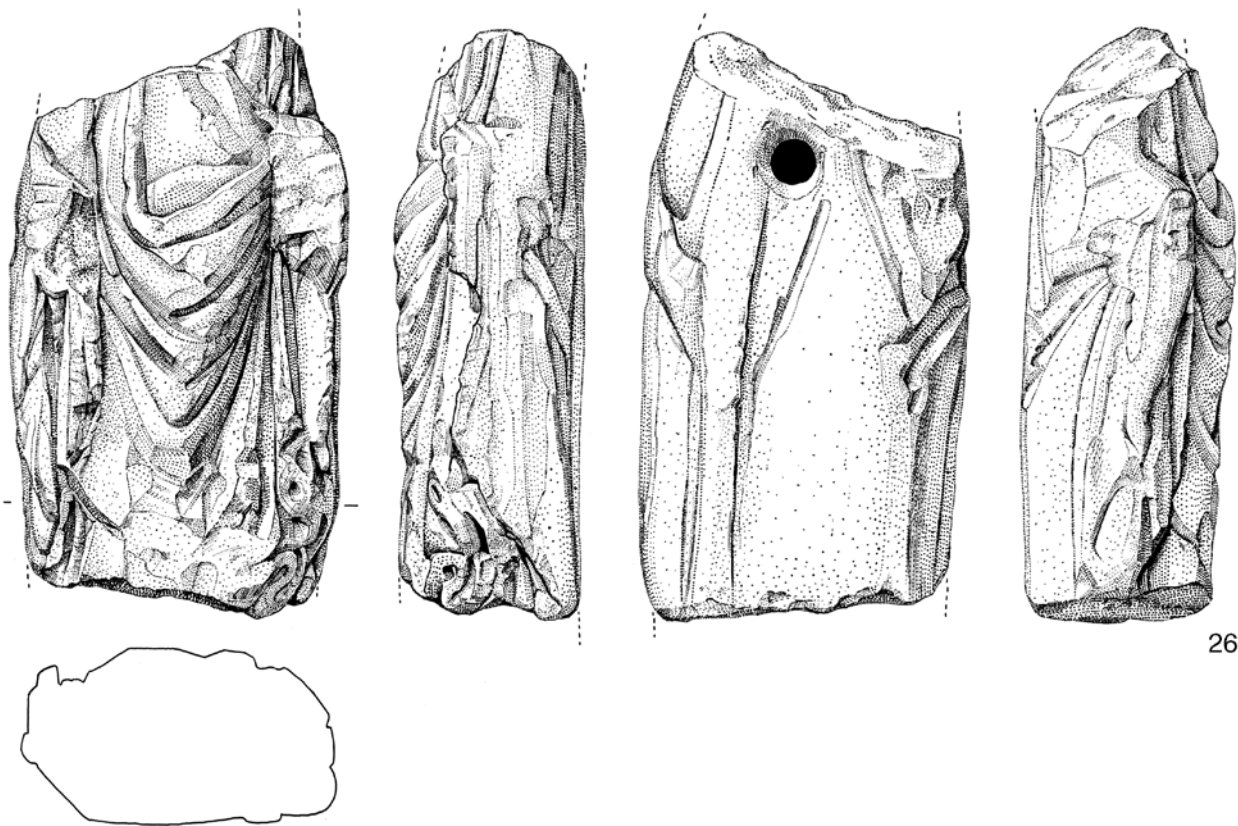
#### Rattle

*not illustrated*

**2680** sf VR 4205. A crushed and bent lead-alloy tubular object, almost certainly a pilgrim souvenir or part of one. The tube is made from rolled sheet. The mouth has a rounded rim, below which the body is decorated with raised diagonal hatching. Beneath this were at least four long rectangular cut-outs running down to a solid band of hatching. This arrangement was repeated, but beneath the lowest band the object is badly crushed. It is impossi-



2677



2678

Figure 193 Religious figurines, nos 2677–8, scale 1:1

ble to tell if the surviving projections of metal were joined together to form the bottom of the tube, or if the pattern was repeated a third time. This is the handle from an openwork spherical rattle, an unusual type of pilgrim souvenir of 14th-century date and English in origin. Many are known from both King's Lynn and London, suggesting that they should be attributed to either the shrine of Our Lady at Walsingham or that of Thomas Becket at Canterbury (*ibid* 209–10). ?Late fill of late Saxon pit F769 (XIII, 3031).

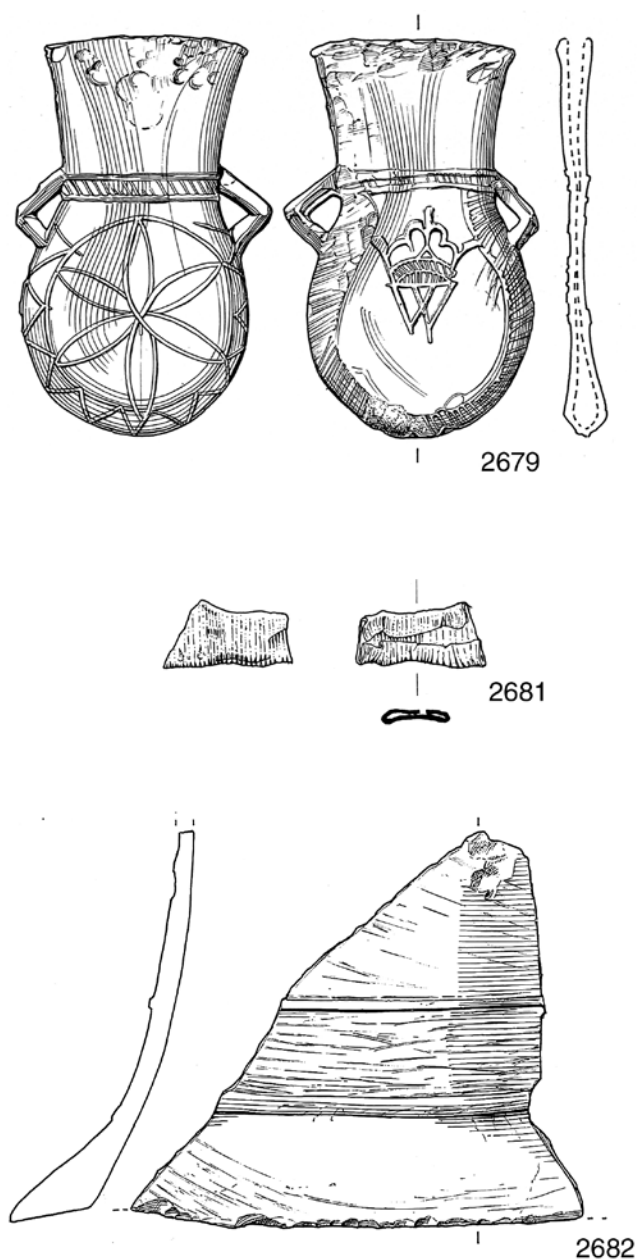
#### Copper alloy ring by D A Hinton

**2681** Fig 194 sf NR 11. Fragmentary gilt copper alloy ring, made by bending inwards a strip previously gilded on one side only. Extant L 13mm. The relatively thick gilding on this

strip is comparable to several fragments from the Cathedral Green site in Winchester, which are believed to have had some devotional purpose (WS7.2, 781). Late Saxon pit F27 (VIII, 44).

#### Bell

This fragment came from a small feature of medieval date associated with a yard surface outside the building on tenement 963. It is worth noting that the church of St John is located immediately to the south of this trench (I) at Chester Road, although the exact boundaries of the church precinct in medieval times are unknown.



**2682** Fig 194 sf CHR 22. Small fragment from the rim of a cast open bell. H 51mm. A slight moulding marks the point at which the rim flares outwards, and there is another 12mm higher up the wall. 13th- to 14th-century feature F12 (I, 40).

*Figure 194 Pilgrim souvenir, ring and bell, nos 2679, 2681-2 scale 1:1*



## 15 Objects and waste material associated with metalworking

There were few objects that could be classified as lead waste, which is probably a reflection of the kinds of buildings to be found in the suburbs (*cf* WS7.2, 87–93). Since melted or partially melted lead could result from its accidental inclusion in a fire, it has been catalogued with other objects of uncertain function (Category 18).

### Metalworking tools

#### Smithing punches

Three iron punches were recovered from 18th- and 19th-century contexts at St John's Street. **2684** is a short

punch, while **2683** is a larger and sturdier punch. **2685** is probably a punch also, although it has an unusual triangular cross-section.

**2683** Fig 195 sf SJS 0. The shaft tapers to a blunt point, head burred. L 135mm, W 25mm, T 12mm. Demolition of 18th-century Building 961.6 (IV, 604).

**2684** Fig 195 sf SJS 820. Short smithing punch of iron. The shaft tapers from a point c half way along its length to a pointed tip. Cross-section of upper half is rounded and of lower is rectangular. L 98mm, W 10mm. Fill of 19th-century clay pipe kiln F62 (II, 527).

**2685** Fig 195 sf SJS 0. Tapers slightly from the centre towards the head and tip, triangular cross-section, the head is slightly burred. L 150mm, W 11mm. Construction of Building 961.8 (IV, 589), 19th-century date.

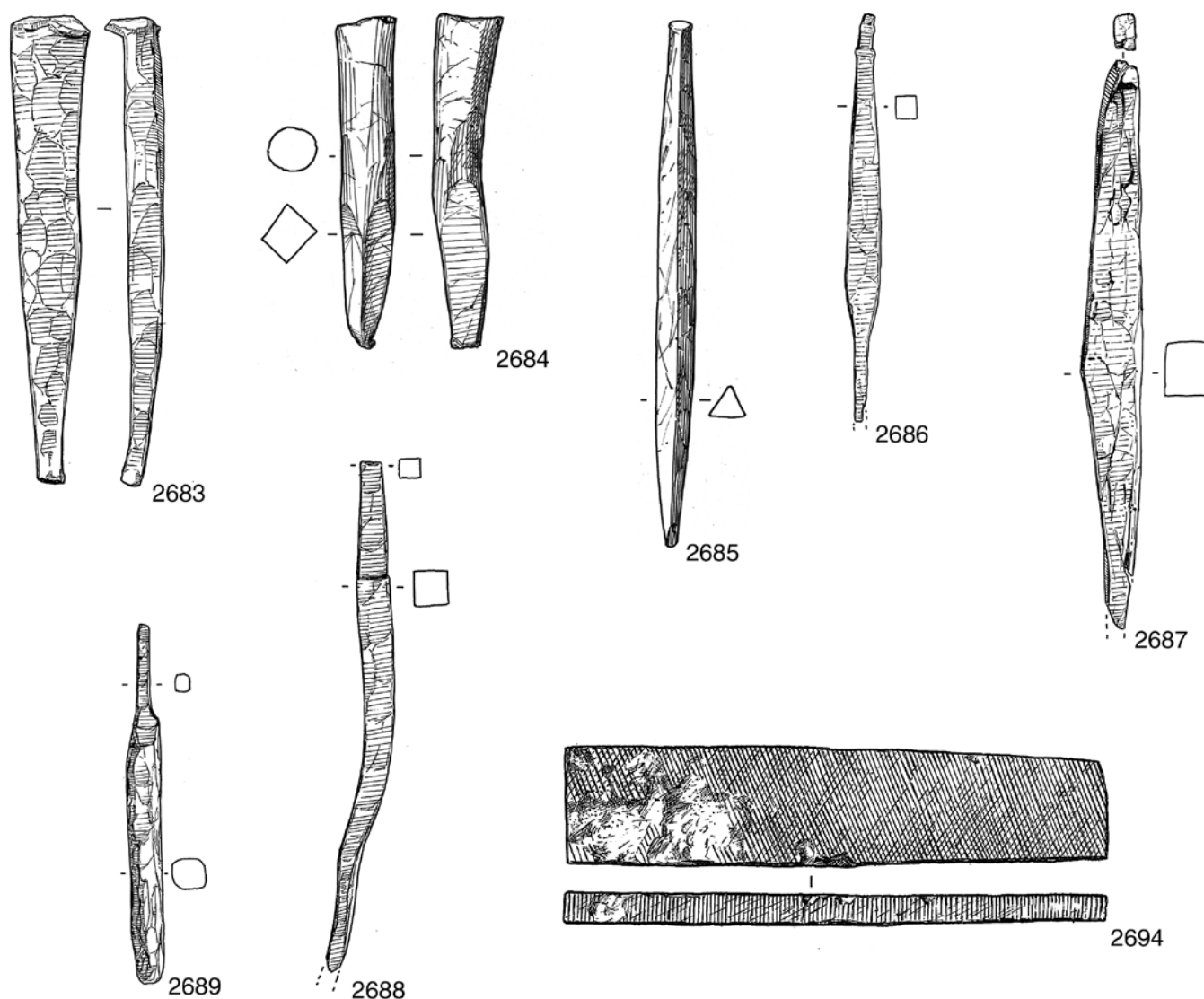


Figure 195 Metalworking tools, nos 2683–9, 2694, scale 1:2

**Tanged Punches**

There are six tanged punches of iron, all from Victoria Road, occurring predominantly in contexts of the 15th to 16th centuries. These objects are comparable to awls (Category 10), but are more robust. The tang, for a wooden handle, is usually relatively short compared to the working arm whereas awls usually have arms which are equal in length. Tanged punch **2687** has arms of equal length, but is classified as a punch on account of its size. There is a shoulder between tang and working arm on **2686** and **2688** to prevent the handle slipping down. Tanged punches were presumably used in a variety of crafts including metalworking. **2687** is, however, similar to objects from elsewhere in Winchester which have been identified as stonemason's or slater's picks (WS7.2, 302, nos. 418–20).

**2689** may also be a form of tanged punch. It has a short tapering arm which may have been a tang, but the longer arm does not taper and has a rounded cross-section for most of its length. It is possible that this latter was the handle and the tapering arm was employed for punching or scribing.

**2686** Fig 195 sf VR 3942. It has a short tang and the working arm has a wedge-shaped tip. Slight shoulder between the arms. L 118mm, W 10mm, working arm L c 90mm. 15th- to 16th-century pit F778 (XIII, 3090).

**2687** Fig 195 sf VR 6164. It has two tapering arms of equal length (?mason's pick). L 130mm, W 11mm, T 10mm. 15th- to 16th-century pit F313 (X, 978).

**2688** Fig 195 sf VR 2148. It has a short tang and a distinct shoulder divides it from the working arm, now bent, which has a rectangular cross-section. L 154mm, W 11mm. 16th- to 17th-century pit F5/6/7 (X, 11).

**2689** Fig 195 sf SJS 0. The longer arm has a rounded cross-section for much of its length, but a square cross-section above a slight step below which the second arm tapers to a point. L 105mm, L of longer arm 75mm, T 9mm. 17th- to 18th-century pit F311 (I, 328).

*not illustrated*

**2690** sf VR 0. One arm is incomplete, the other has a wedge-shaped tip. L 104mm, W 10mm. 15th- to 16th-century pit F751/757/759 (XIII, 3025).

**2691** sf VR 4160. It has a short tang, the tip of the working arm is missing. L 108mm, W 10mm, working arm L c 92mm. 15th- to 16th-century pit F751/757/759 (XIII, 3027).

**2692** sf VR 0. The tang has a burred head. L 92mm, W 7mm, working arm L 67mm. 19th- to 20th-century soil layer (XIII, 3001).

**2693** sf VR 0. It has a short tang and the working arm has a wedge-shaped tip. L 96mm, T 9mm. Unstratified (VII).

**File**

**2694**, from a 17th- to 18th-century context at St John's Street, is a piece of a metalworking file. Files are unusual discoveries in post-medieval contexts, but this may have been part of a substantial tool comparable to an example found in an 18th-century context in Amsterdam (Baart 1977, 486, no.948).

**2694** Fig 195 sf SJS 274. Iron. It narrows slightly from one end to the other, at each of which it is probably broken. The face has fine cross-cut teeth and the edges have fine teeth facing opposite directions. Although the teeth are very fine, they appear to be hand-cut rather than machine-made. L 163mm, W 34mm. 17th to 18th century soil layer (I, 209).

**Iron smithing****Slag**

Smithing slag, hearth bottoms, fuel ash slag, and hearth lining were recovered in reasonable quantities from eight sites in the suburbs and on the defences (Fig 196 and Table 32: the 'average' field is the weight

**Table 32 Quantification of slag by period**

area	site	9th to 12th C		13th to 15th C		16th to 20th C	
		wt (g)	average	wt (g)	average	wt (g)	average
northern suburb	Hyde Abbey	1166	146	1179	294	1166	117
	Victoria Road IV–VI	1379	197	1958	65	1302	144
	Victoria Road X–XVI	24147	208	67525	357	23836	331
western suburb	Crowder Terrace	1498	250	2605	96	101	16
	New Road	1482	106	740	62	362	40
	Sussex Street	1224	51	1120	80	218	73
eastern suburb	Chester Road	3075	192	1296	68	6194	563
	St John's Street I	1256	97	1006	72	1749	87
	St John's Street IV	4785	342	543	49	17004	1062
city defences	Henly's Garage	82050	2279	5149	1287	79	79

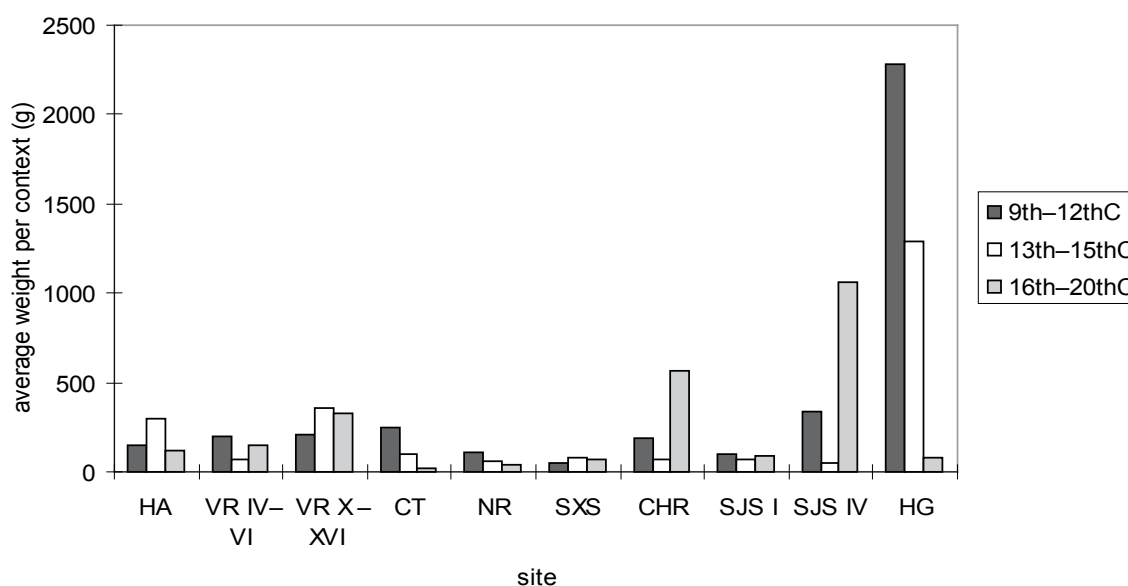


Figure 196 Distribution of slag

of material divided by the number of contexts which produced it, a rough-and-ready method of ameliorating differences caused by differential site size). As with Roman sites in this volume, no smelting slag was present, but, dissimilarly to the Roman sites, some structural evidence for iron smithing was recorded.

#### Late Saxon and early medieval

The most important late Saxon and early medieval assemblage was from the site at Henly's Garage, on the southern defences. There (in Trench III), a series of working surfaces and hearths were observed, but unfortunately these could only be recorded in section, due to pressure of time and lack of resources (P2). However the pits in this trench produced around 76.5kg of smithing waste. This comprised smithing slag (of which some pieces had flowed more freely than others and were therefore long and thin in shape), hearth bottoms (ranging in diameter from about 8 to about 17cm, but averaging about 12cm), hammerscale (in two soil samples, 47 and 49, from 11th- to 12th-century pits F170 and F179), fuel ash slag and hearth lining. History is silent as to the context in which this ironworking was carried out; this part of the city is noteworthy more for its goldsmiths in the 12th century and possibly earlier (Biddle 1976, 428, 439, fig 23a).

What seems to have been a smithing hearth was also found on Trench VIII at Sussex Street in the western suburb. This was in the top of a partially filled late Saxon pit (F8) and the hearth bottom was still in situ. Similar features of the same general period (although not identified as hearths with the same degree of certainty) were recorded in the western suburb at New Road (II, F1/41); in the northern at Victoria Road (XIII, F762); and in the eastern at St John's Street (IV, pits 736 and 791) (P7). It is uncertain whether partially filled pits were deliberately chosen to locate hearths: it may

be that what remains originally formed part of a larger working surface protected from later truncation and clearance by sinkage. In any event, Biddle (1976, 434, fig 23a) notes that in the 12th century, most smiths' properties were located in the suburbs, where they were well placed for shoeing horses at the beginning or end of a journey. The evidence from this group of sites suggests that this pattern may have begun a little earlier.

What is notable about the waste from late Saxon and early medieval deposits on the suburban sites is the smallness of its quantity, which may denote smithing on a much smaller scale than that encountered at Henly's Garage. The site at Crowder Terrace has a higher 'average' than three of the sites on which there was structural evidence for smithing, the material being mostly from a late Saxon to early medieval property boundary ditch (VII, F74). There it was associated with a number of crucibles (see below), suggesting that the ditch was used as a dump for industrial waste cleared from elsewhere.

#### High and late medieval

There were no medieval structures that could be linked with certainty to iron smithing. However, the buildings on tenement 935 at Victoria Road, particularly Building 935.2, seem, from the signs of burning to high temperatures and the remains of substantial hearths, to have served some industrial function (P7). These and associated pits produced c 12kg of smithing waste and a further c 4kg came from the demolition and disuse of Building 935.2. This was in contrast to pits and buildings on tenement 936, from which only c 3.5kg were recovered. Two of the bars catalogued below (2595 and 2596) were also from pits on tenement 935.

In general, the medieval 'averages' for all of the sites except Victoria Road (Trenches X-XVI), Henly's Garage and Hyde Abbey are very small. In the case of

Hyde Abbey, the slag was recovered from the foundations of a building (744.1), so may have been brought in to act as makeup, whilst the material from Henly's is likely to be residual.

It seems possible then, that smithing was carried out at some point during the medieval period on tenement 935 at Victoria Road, although as noted elsewhere (Ottaway, Part 4), it is unlikely to have been on a large scale. Evidence for medieval smithing on other sites is negligible.

### Post-medieval

From the 16th century onwards, the highest 'averages' are from sites in the eastern suburb, reflecting the decline of the other suburbs at that time. The slag from Chester Road is from various, mostly fairly recent contexts, but that from Trench IV at St John's Street was concentrated (around 13kg) in the 18th-century fill of a well constructed in the 17th century. Given that this site also produced two of the three punches and the file catalogued above (albeit from different trenches), it seems possible that smithing took place somewhere in the vicinity during the 17th or 18th centuries. The 'average' for Victoria Road is also quite high, but the material was scattered throughout diverse contexts of different dates and may be largely residual.

### Other smithing waste

There are three iron bars from medieval contexts which are likely to be smithing waste. **2695** and **2696** are essentially small blocks of iron. **2697** is cut diagonally at one end and has been worked at the other. **2698**, from a 15th- to 16th-century context, is an iron strip with a carefully formed rectangular plate at one end which may be an incomplete forging.

Bars and strips are straight with a rectangular cross-section unless stated.

*not illustrated*

**2695** sf VR 2738. L 40mm, W 20mm, T 20mm. 13th- to 14th-century pit F149 (X, 441).

**2696** sf VR 2908. A block. L 20mm, W 20mm, T 20mm. 13th- to 14th-century pit F181 (X, 542).

**2697** sf VR 2536. Cut diagonally at one end, widens from one side at the other. L 50mm, W 25mm, T 15mm. 14th- to 15th-century pit F112 (X, 251).

**2698** sf VR 6081. A tapering strip which develops into a small rectangular plate at the thicker end. L 85mm, plate 25 by 15mm, T 5mm. 15th- to 16th-century pit F308 (X, 920).

### Copper alloy and precious metals

Most of the evidence for the working or refining of copper alloy and silver comes from sites in the western suburb, particularly Crowder Terrace, a fact in keeping with the documentary evidence (WS7.2, 165–6).

However, there was a scatter of crucible sherds from Victoria Road, Chester Road, and Henly's Garage, and evidence for the manufacture of small copper alloy pins (finished examples are catalogued in Category 1) was recovered from Chester Road.

It is uncertain whether the material from Crowder Terrace was generated on the site itself. A hearth or small furnace stood on tenement 919/920 during the medieval period (Part 1; P7), but some of the material is from deposits of earlier date. History also records that property 920 was held by one Robert Dymand, citizen and baker in 1315–16 (Keene 1985, 1034), suggesting that the feature was used for baking.

### Pin manufacture

A fragment of copper alloy wire from Chester Road demonstrates a technique for the manufacture of small wire pins with a head of Type 1 (Category 1), where the head consists of a short length of wire wrapped once or more about the shaft. The method described by Biddle and Barclay (WS7.2, 564) points to manufacture of individual pin shafts before the head was attached. The Chester Road object, however, suggests that an alternative method might be used whereby several heads were attached to a length of wire, which was then cut immediately above the heads and the points filed. This method of manufacture was most appropriate for pins with heads of unshaped wire. The date of the Chester Road piece is uncertain, but it is unlikely to be earlier than the 13th century (Category 1; WS7.2, 563).

**2699** Fig 197 sf CHR 98. Curved length of copper alloy wire with slightly finer wire twisted round it in two places. L 76mm. One twist consists of two two turns around the main length, and has been annealed to attach it firmly in place. The other is almost two full turns, but the twist has not been annealed, nor has the length of wire used to make it been trimmed off. Erosion from the slopes above the site during Saxon (?and later) times (I, 121).

### Crucibles

#### Late Saxon and early medieval

Late Saxon deposits in the western suburb produced six crucible fragments, three from Sussex Street, one from New Road and two from Crowder Terrace. Analysis by XRF indicates that brass (copper-zinc alloy) and possibly copper were being melted and that some of the metal contained lead (analysis of a piece of hearth lining from Sussex Street produced similar results). The forms of the original crucibles were difficult to determine because of the small sherd size and their heavily vitrified condition, but where it could be measured, the wall thickness varied from around 40 to 80mm and internal diameters were between c 30 and 50mm. Both straight-sided and bag-shaped crucibles appear to have been used (*cf* WS7.2, figs 40a and b, 39H-N) and they all had a similar dark fabric,

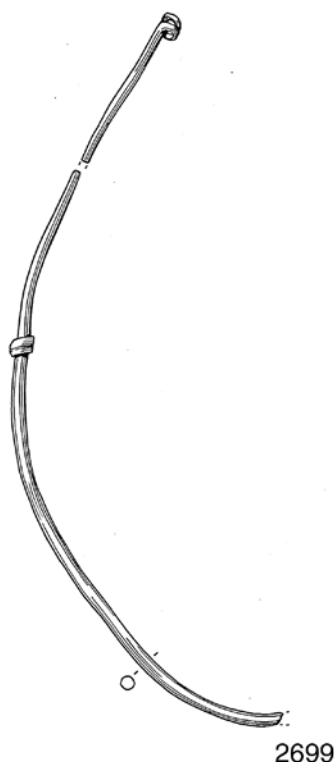


Figure 197 Metalworking waste, no 2699, scale 1:1

with some porosity, perhaps equivalent to Bayley and Barclay's 'organic' fabric (WS7.2, 177). One bore a two-layer structure with a heavily vitrified layer of less refractory clay.

Eleven crucible fragments were recovered from deposits of the 11th and 12th centuries in the western suburb, ten from property boundary ditch F74 (VII) at Crowder Terrace and one from New Road. The XRF results were similar to those for the late Saxon period. A crucible from a similarly dated deposit at Henly's Garage was used for melting copper alloys containing only very small amounts of zinc.

Three fabrics seem to have been used, one the same as that used in late Saxon times, one a lighter coloured coarser fabric with a high proportion of quartz, which was fairly refractory, and a fairly unrefractory fabric which was heavily vitrified. The last two may be equivalent to Bayley and Barclay's 'sandy' and 'gritted' fabrics respectively (*ibid*). The wall thicknesses of the crucibles in the first two fabrics were in the range 40

to 70mm, whilst the third fabric was used for thick walled (80 to 120mm) forms. The shapes could not be determined in most cases but both straight-sided and bag-shaped crucibles were probably present.

### High medieval

Crowder Terrace, in the western suburb, produced twenty crucibles from late 12th to 14th century contexts and one more was recovered from Sussex Street. Two further crucibles from medieval contexts, one from Victoria Road and one from Henly's Garage have also been analysed. All XRF results were similar to those for earlier periods, except that tin appeared for the first time on two fragments (CT VII, pit F65) indicating that bronze or gunmetal or both were melted, and one bore silver (CT VII, well F70). Fabrics were similar to those found in the 11th and 12th centuries, with wall thicknesses ranging from 40 to 90mm and mouth diameters from 40 to 70mm. A few sherds had a layer of unrefractory clay on the outside, which was heavily vitrified. The crucibles appear to have been mainly straight-sided but the crucible on which silver was detected was small, shallow and boat-shaped, with a pouring lip (*cf* WS7.2, fig 40b, 39P).

### Copper alloy scrap

*not illustrated*

**2700** sf CT 79. Rod-shaped piece of copper alloy slightly bubbled and pitted in fracture. Metalworking waste. 13th- to 14th-century well F70 (VII, 254).

**2701** sf CT 186. Bar-shaped fragment of copper alloy, bubbled and pitted in fracture. Metalworking waste. 13th- to 14th-century well F70 (VII, 188).

**2702** sf CT 226. Flat fragment of copper alloy slightly bubbled and pitted in fracture. Metalworking waste. 13th- to 14th-century pit F60 (VII, 216).

### Litharge cake

*not illustrated*

**2703** sf NR 198. Fragment of litharge cake. D approximately 120mm. 13th- to 14th-century property boundary ditch F391 (II, 460).

## 16 Objects and waste material associated with antler, horn, and bone working

While red deer antler was a favoured medium in the Saxon period, by the 12th century it was probably only rarely available. However, bone was always readily to hand, either free or very cheap. Both materials could be worked easily by anyone competent with a small range of common tools, even reasonably well by a complete beginner. Major workshop activity can only be inferred by substantial deposits of waste material from the various stages of manufacture. Like the material from sites within the walls (WS7.2, 255), there were no horn objects in this assemblage, although the use of handles and other fittings of horn for knives is shown by mineral replacement (Category 10). Horn working is also attested by deposits of horn cores in various contexts, usually pits.

In general, craft waste, from the various uses to which animal products may be put, was common in the animal bone assemblages studied as part of this publication programme. This, the wider context in which bone working specifically for the production of artefacts can be viewed, is discussed in more detail in another volume in this series (P10).

In the Saxon period, home production, the raw materials being supplied by butchered domestic animals, accounted for many small tools and plain items, such as cattle femur head spindlewhorls and pig fibula implements (Category 3). More complex items such as antler combs and decorated gaming pieces (Categories 2 and 5) were made by itinerant craftsmen, who reached the maximum number of customers by moving between settlements to attend markets and fairs (MacGregor 1985, 50).

Home production in the medieval period is demonstrated by the rough fashioning of objects such as skates made from horse metacarpals, and the simplicity of pens made of goose radii (Categories 5 and 7). Where bone objects required care and consistency in their manufacture, they often represented a comparatively simple subsidiary part of a more complex whole, such as casket mounts (Category 4) or tuning pegs for stringed instruments (Category 5). Unlike metalworking, the end product was often more important than the material. This explains the absence of bone worker's guilds in medieval Winchester (Keene 1985) and London (Unwin 1966, 88). However, a guild of comb makers is recorded in London in the early 17th century (Unwin 1966, 301–02), indicating a steady trade in a popular item. Most combs were made of horn at that time, and a guild of horners is also recorded in 1284 (Fisher 1990). In the 14th century, the horners bought a large quantity of horn (Unwin 1966, 354), presumably getting a better price for a bulk purchase than would individual horners. Derek Keene notes (Museum of London Archaeological Archive, site CUT78) that comb makers and horners worked in

close proximity in the Cutler Street area of early post-medieval London.

The medieval bead or button manufacturing waste from Victoria Road in the northern suburb is too small in quantity to represent the output of a workshop, and it was not associated with the remains of any other craft to which it might be a sideline. Such a small assemblage may be taken to indicate home or 'casual' production (Egan and Pritchard 1991, 314), but the compass-like tool used to cut the roundels is unlikely to have been a common household implement. The recovery of a similar piece from the Cathedral Green site within the city, and of equally small groups from other medieval market towns (Part 1), could be taken as indicative not of a local craftsman satisfying a short term small demand, but of on-site manufacture at a market or fair, thus continuing a long lived tradition of itinerant craftsmen.

### Antler offcuts or unfinished pieces

This small group of material consists of individual items from a range of dated contexts and is all probably home produced.

**2704** Fig 198 sf VR 13161. A section of red deer antler tine. L 70mm, D (maximum) 27mm. The broadest end is pierced by a drilled or cut tapering hole. The narrowest end has been roughly trimmed to a rectangular section. Possibly intended for use as a handle, possibly residual Roman. 5th- to 9th-century soil layer (XI, 1603).

**2705** Fig 198 sf VR 13166. A fragment of antler beam with the centre hollowed out. L 110mm, D (maximum) 31mm. The bevelled edges at the bottom end show that it was cut with a knife rather than sawn across. The upper end is broken. The rough surface of the piece has been cut away in some places, and the knife marks from this work are clearly visible. Late Saxon pit F508 (XIV, 3817).

**2706** Fig 198 sf CHR 160. Fragment of a red deer antler beam. L 47mm, D (maximum) 32mm. Both ends have been sawn across. Around the circumference of the upper end, flakes have been removed by rough chopping. The rough outer face of the beam has mostly been sliced off. There is a slight indentation in the cancellous core of the lower end, but it may post date excavation. Late Saxon pit F24 (I, 129).

**2707** Fig 198 sf VR 13028. The tip of a red deer antler tine. L 101mm, D (maximum) 23mm. A tapering hole has been drilled or cut into the tine at the broadest end, which shows saw marks at several angles. The very tip of the tine has been cut into and a chip broken off. Possibly intended for use as a handle. 12th- to 13th-century pit F796 (XIII, 3144).

**2708** Fig 198 sf VR 5638. A fragment cut from a red deer antler beam with a tine. H (maximum) 66mm. the beam has been cut lengthwise and the upper end trimmed and cut across. A straight-sided hole has been drilled through it and a second hole has been drilled halfway through the cut face. On the trimmed side, two depressions indicate attempts to finish the hole. One is set on a groove, possibly a guideline

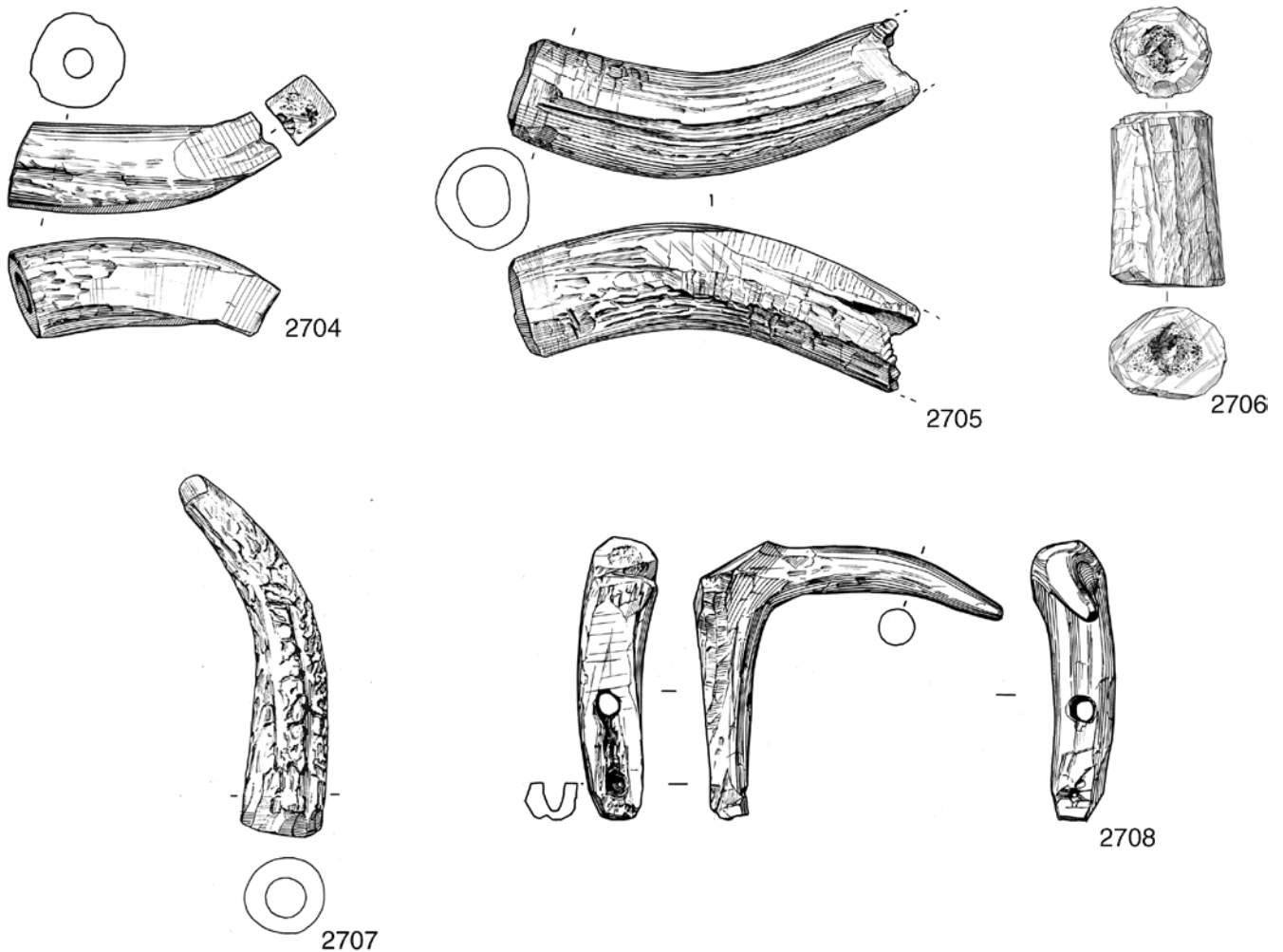


Figure 198 Antler offcuts, nos 2704–08, scale 1:2

for the hole's position, but if so, unnecessarily deep and long. This piece could either have been intended to be fixed to a flat surface, the tine thus serving as a hook, or to have had a flat tool attached to it, with the probably inverted tine then becoming a handle. 13th- to 15th-century Building 936.4 (XII, 2566).

### Bone offcuts or unfinished pieces

#### Bone mount manufacturing waste

A medieval well (F70) on the Crowder Terrace site in the western suburb contained several items which suggest that the manufacture of bone mounts, possibly utilising cattle scapulae, took place nearby. Thin bone mounts and plaques decorated with ring-and-dots were used in the 11th and 12th centuries (and also earlier, for example, the box 595 recovered from a late Roman grave at St Martin's Close) to ornament wooden boxes and caskets and could easily have been produced from the flat panels of bone provided by cattle scapulae.

The well also produced three mount fragments with ring-and-dot decoration which are catalogued with the other box mounts (1807–1809) as they are possibly

finished objects, although they show no sign of attachment. A fragment of a ?cattle scapula marked on one face with a ring-and-dot motif, and two fragments thin enough to have been produced from cattle scapulae or ribs, one with two roughly scratched double Vs on one face, the other with groups of diagonal scratches were also recovered from the well. While grouped line decoration was also used on bone box mounts (for example, Margeson 1982, fig 46, nos 17–22), and the underside of one these pieces is well finished, the grouped lines are badly placed and suggest that they were offcuts or trial pieces.

All are from the 13th- to 14th-century well F70 at Crowder Terrace

**2709** Fig 199 sf CT 782. Fragment of a ?cattle scapula with part of a ring-and-dot motif on one face. L 49mm, W 29mm (VII, 216).

**2710** Fig 199 sf CT 783. Fragment with two incised double Vs. L 50mm, W (maximum) 16mm. The underside is smooth and well finished, and the one surviving edge is slightly bevelled (VII, 245).

**2711** Fig 199 sf CT 790. A thin strip fragment with several faint diagonal scratches forming a rough V. At one end the piece has broken across more diagonal scratches. Surviving L 41mm, surviving W 12mm. (VII, 188).

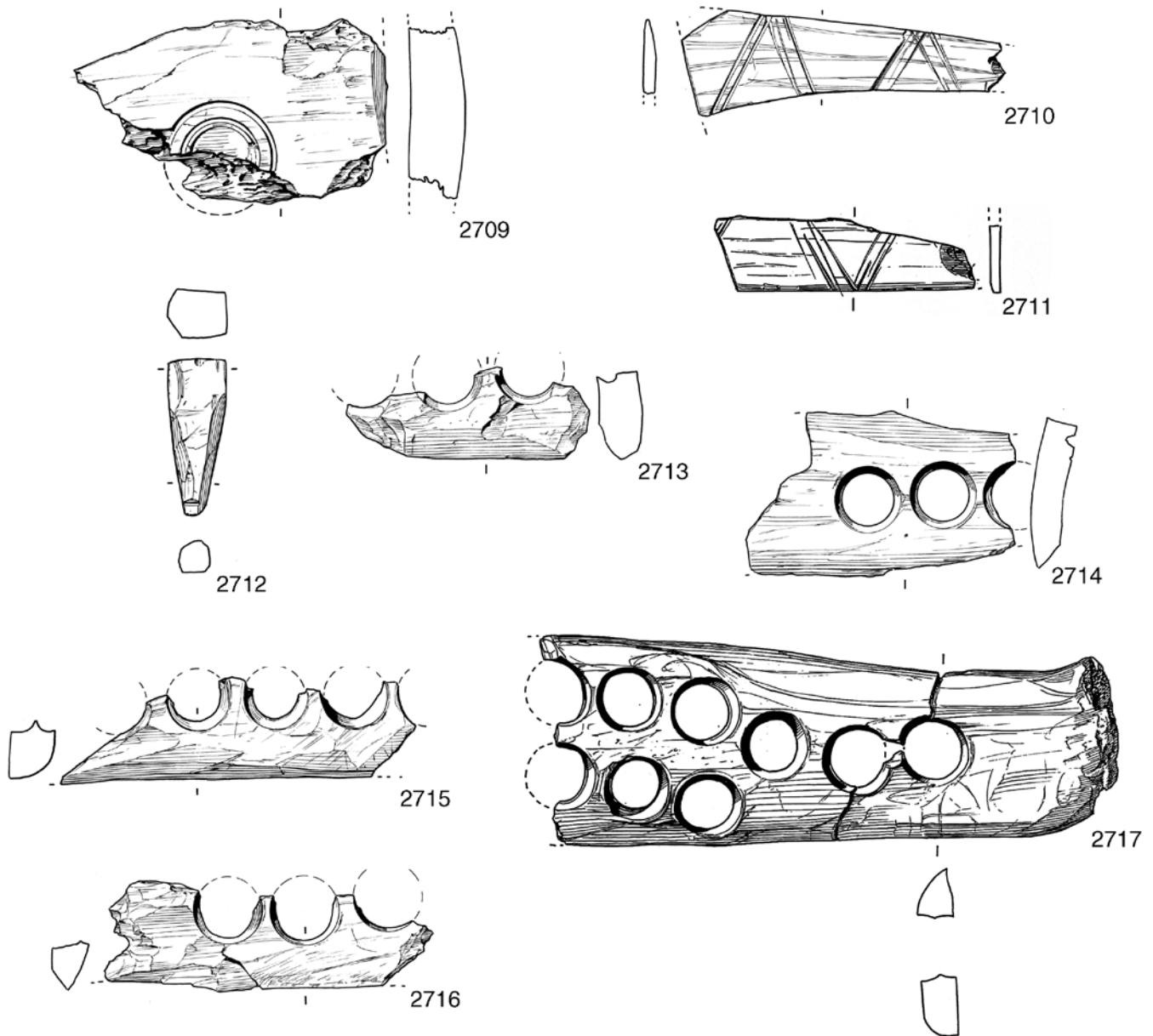


Figure 199 Waste from manufacture of bone mounts, pins, and beads or buttons, nos 2709–17, scale 1:1

#### **Pin manufacturing waste**

A single fragment may be a blundered piece from the manufacture of owl-headed pins (**1166** and **1167**). Of subrectangular section at the top, it tapers sharply to a subcircular section at the broken point. One broad side shows cancellous tissue. The top is similar in size to the heads of the 11th-century owl-headed pins from Sussex Street and the sharp change to a circular section also matches them. However, this object, like the fragments from the manufacture of bone casket mounts comes from the 13th- to 14th-century fill of a well (F70) at Crowder Terrace, and it seems unlikely that this item alone is residual from the 11th century.

**2712** Fig 199 sf CT 784. A roughly cut short peg of subrectangular section. L 24mm, top 9 by 7mm. 13th- to 14th-century well F70 (VII, 250).

#### **Bead or button manufacturing waste**

Five fragments of long bones from the site at Victoria Road in the northern suburb are waste left after the cutting of roundels to make beads or buttons. A fragment from within the city was found on the Cathedral Green site (WS7.2, 263, no 379). Similar waste pieces come from King's Lynn, Norfolk (Geddes and Clark 1977, fig 143, 25–8), Hull (Armstrong 1977, fig 29, 144), Exeter (Allan 1984, fig 195, 46–7), London (Egan and Pritchard 1991, figs 207–08), and Norwich (Margeson 1993, fig 193, 1508). Partly cut roundels remain in the fragment from Hull and in one of the London pieces, showing how a compass-like tool was used. The roundels are generally considered to have been used to make beads or buttons.

All of the Victoria Road roundels had a maximum diameter of slightly less than 10mm. As the bone



was cut from both sides, although they would have been about that diameter at top and bottom, they narrow towards the centre giving a potential maximum 'finished' diameter of 7.5mm. The average was about 5 to 6mm. If beads were being produced, their length, whichever way they were pierced, would therefore have been either 6 or 7.5mm, considerably shorter than both finished and unfinished bone beads from London (Egan and Pritchard 1991, 310–15), but similar to a late medieval or early post-medieval bead from St John's Street in the eastern suburb (Category 1). The Victoria Road waste pieces mostly come from the fill of a cellar on tenement 937 or from silting layers over it, and are probably of late medieval date.

**2713** Fig 199 sf VR 27. Fragment of a long bone used to produce three roundels with a maximum D of 10mm and a maximum T of 6.5mm. Disuse of 13th- to 15th-century Building 938.1 (IV, 58).

**2714** Fig 199 sf VR 47. Fragment of a long bone used to produce three roundels with a maximum D of 10mm and a maximum T of 5.5mm. Layer marking disuse of 13th- to 15th-century cellar or quarry F28 on tenement 937 (IV, 44).

**2715** Fig 199 sf VR 50. Fragment of a long bone used to produce five roundels with a maximum D of 10mm and a maximum T of 8mm. Layer marking disuse of 13th- to 15th-century cellar or quarry F28 on tenement 937 (IV, 44).

**2716** Fig 199 sf VR 94. Fragment of a long bone used to produce three roundels with a maximum D of 10mm and a maximum T of 7.5mm. Layer marking disuse of 13th- to 15th-century cellar or quarry F28 on tenement 937 (IV, 44).

**2717** Fig 199 sf VR 228. Fragment of a long bone used to produce nine roundels with a maximum D of 10mm and a maximum T of 7mm. 13th to 15th century cellar or quarry F28 (IV, 166) on tenement 937.

### Miscellaneous pieces

**2718** Fig 200 sf NR 424. A fragment of a long bone, fractured transversely near the midpoint of the bone's length. Some slight knife marks can be distinguished at the joint end. L 69mm. Late Saxon pit F51 (I, 80).

**2719** Fig 200 sf HG 1131. Cattle metacarpus with the distal end broken off. The mid point of the bone is scored with many irregular cuts, particularly on the left side running

to the front (dorsal view). L 121mm. The purpose of slashing the bone in this way is unknown, though it may have been used to test the sharpness of a blade. Late Saxon pit F104 (IV, 1001).

**2720** Fig 200 sf VR 4052. Fragment of a long bone with straight external sides and base and rounded internal channel. L 51mm, H (maximum) 13mm, W 17mm. There are clear saw marks on the base, but the sides appear to have been slightly smoothed. 15th- to 16th-century pit F752 (XIII, 3002).

**2721** Fig 200 sf CHR 412. A long bone trimmed and smoothed to produce a tapering object with a slightly thickened end. Near this end a groove has been cut into the bone with two other grooves crossing it at an angle. L 139mm. Cancellous tissue is exposed on the reverse. 19th- to 20th-century drain F1 (I, 9).

*not illustrated*

**2722** sf VR 4493. A small fragment of bone worn very smooth at the edges. The smoothness is the only indicator that the piece has been worked. Late Saxon soil layer (XII, 2423).

**2723** sf VR 61. A fragment from a hollow long bone with several cut marks on the outer surface. 26 by 20mm. Layer marking disuse of 13th- to 15th-century cellar or quarry F28 on tenement 937 (IV, 44).

### Horn working

Relatively large and well-preserved deposits of horn cores were found in all of the suburbs: Victoria Road in the northern, Sussex Street in the western and Chester Road and St John's Street in the eastern. A further group was found at Henly's Garage on the city defences. The vast majority of the assemblages were of late Saxon or early medieval date. Only Victoria Road produced deposits from contexts later than the 13th century. Tenement 936 (VR) was granted to one William le Hornere in 1362 (Keene 1985, 1039). However, William seems to have been engaged primarily in brewing and selling ale from 1370 (*ibid* 282, 1265). Further information concerning deposits of horn cores is given in another volume in this series (P10).

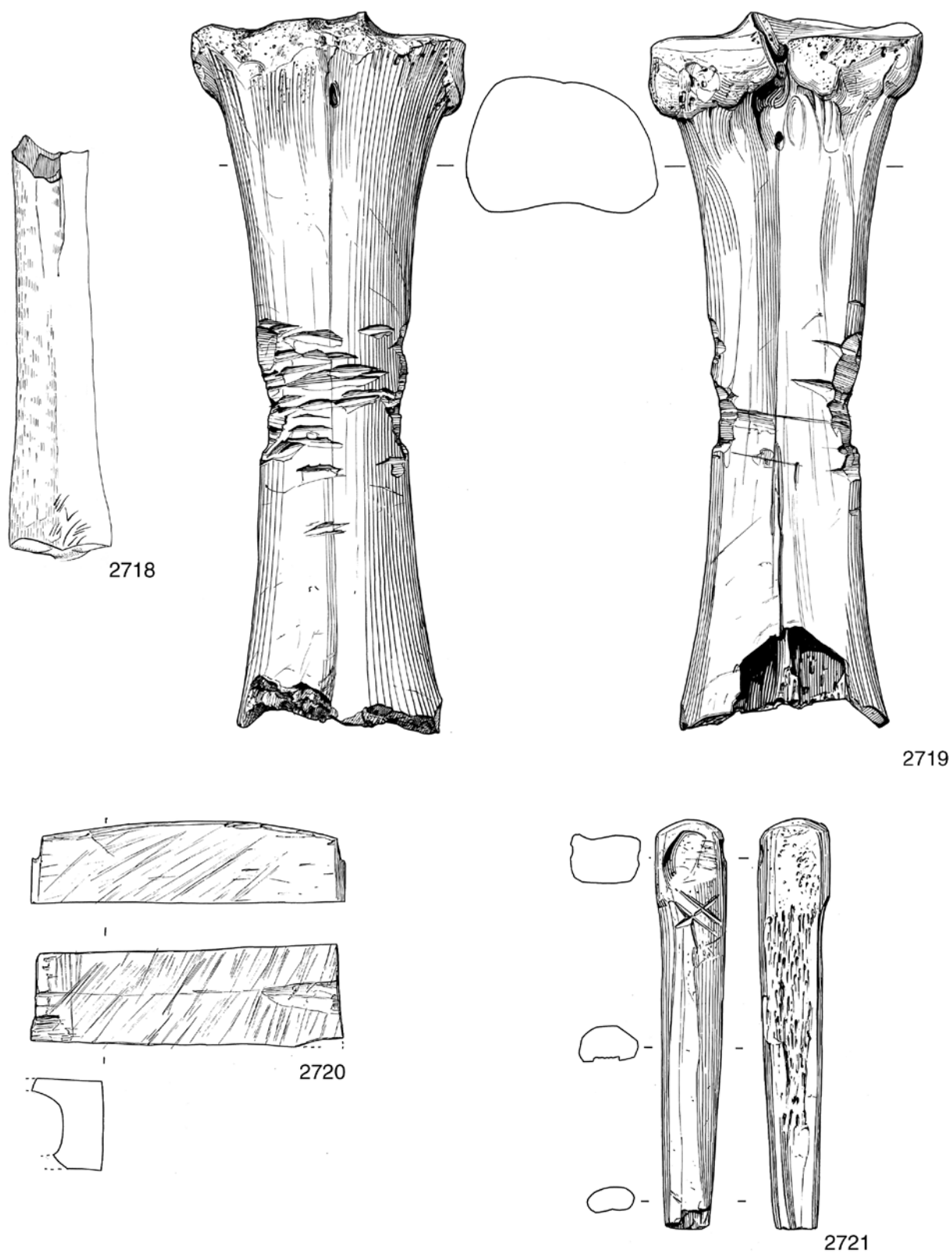


Figure 200 *Miscellaneous antler and bone working waste, nos 2718-21, scale 1:1*

## 17 Objects and waste material associated with the manufacture of pottery vessels or pipeclay objects

*Note: a 19th-century clay pipe kiln and its products which were excavated at St John's Street (II) is to be published separately (Parker and Piecey, in prep.).*

Although it is clear that Winchester was an important market for pottery makers in central and southern Hampshire, perhaps even their main *raison d'être* during the late Saxon period (P5), a stamp from Sussex Street is the sole positive evidence that pottery was produced locally. In fact, its presence is somewhat surprising, as there are no suitable, or at least, suitably extensive deposits of clay within the town itself, the nearest potential sources being about one mile to the south (Biddle and Barclay 1974, 151–2).

To judge from the variety and quantity of pottery available in the town from the 9th century onwards, there existed many production centres which are presently unknown; moreover the pottery itself is difficult to source as it generally contains inclusions

which are more or less universally available. A region-wide study of distribution backed up by extensive scientific analysis is needed, in order to clarify the pattern of pottery supply, and to place the Sussex Street stamp in its wider context. None of the pottery excavated at Sussex Street provided a match for the stamp, even taking account of shrinkage during firing (Matthews, P5).

William the Potter is recorded as a holder of property outside the the West Gate (therefore probably in what is now Sussex Street) c 1110. However, this is somewhat later than the date of the context from which the stamp came. Moreover, William seems more likely to have been involved in the manufacture and exchange of metal vessels rather than ceramic ones (Biddle 1976, 203, 429, 432; Keene 1985, 281).

2724 Fig 201 sf SXS 835. A stamp for pottery made from a piece cut from a roe deer antler at the top of the beam (L

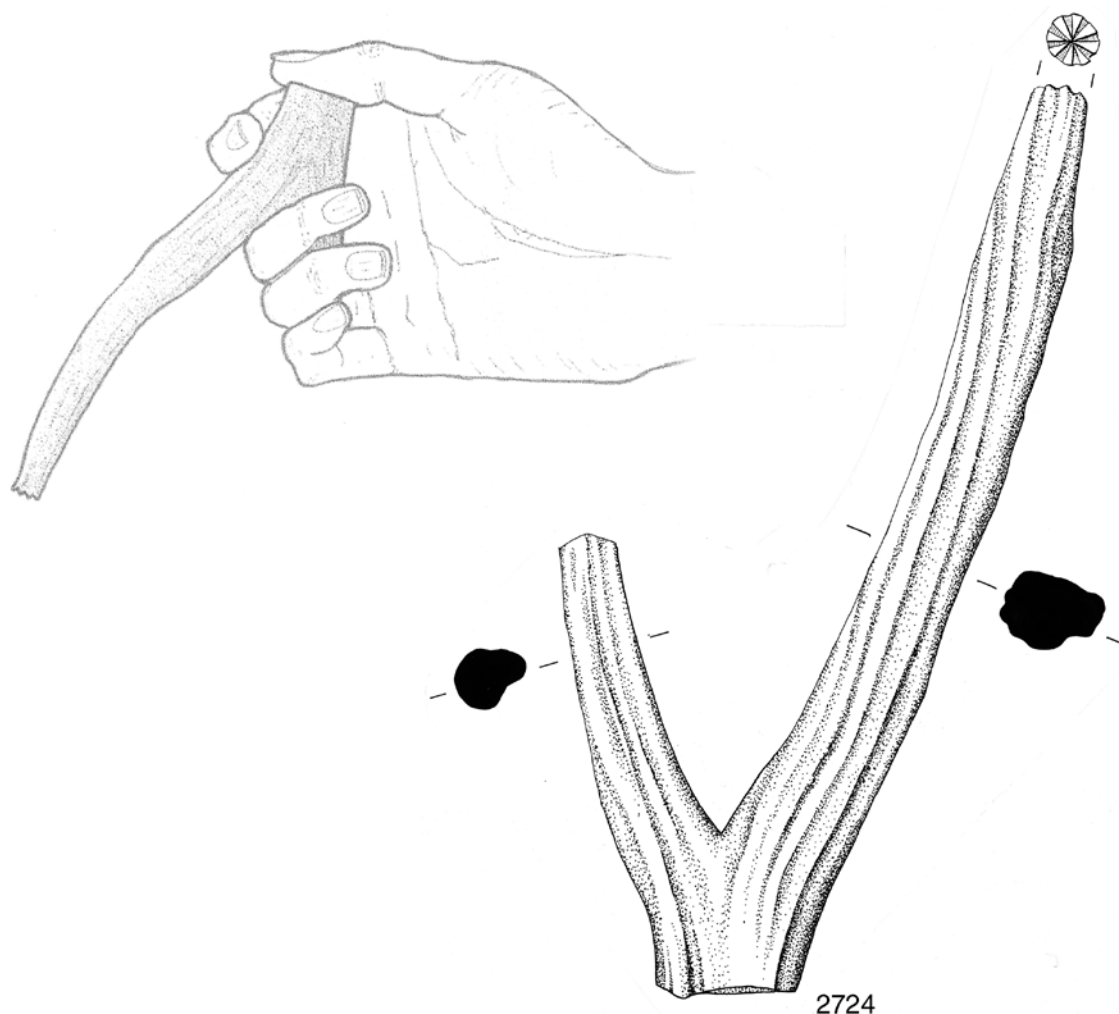


Figure 201 Stamp for pottery, no 2724, scale 1:1

125mm). The end of the upper tine has been cut off and the cut face trimmed to form a stamp of a positive upright cross with a diagonal cross which finishes in the corners of the upright arms (D 7mm). This is Type A 5ei in the Archive of Anglo-Saxon pottery stamps, and is less common than the more usual rosette and catwheel motifs. Most examples come from East Anglia and the Midlands, although there are some from Aylesbury, Buckinghamshire and the Abingdon area of Oxfordshire (Theresa Briscoe, pers comm).

The beam end shows saw marks and has three cuts on one side from the saw having been misplaced. The end of the lower tine has been partly cut, partly broken off. The

rough manufacture of the tool indicates that it was made by the potter requiring the stamp, not by an antler-working craftsman. However, as a tool it is very well designed. It was almost certainly held with the middle and ring fingers over the lower tine, which pointed downwards, and the forefinger over the bottom end of the upper tine. The thumb could then rest against the beam and apply easily controlled pressure when it was necessary to bring the stamp into contact with the pot. In this way, the hand could be held steady at a constant height by resting wrist, forearm or elbow on a work surface, and thumb pressure alone could push the stamp forward to mark the pot. Late Saxon pit F10 (VIII, 84).

## 18 Objects of unknown or uncertain function

### Chains

There are seventeen fragments from chains and chain links, thirteen of iron, and five of copper alloy.

**2725** Fig 202 sf CHR 33. Copper alloy loop-in-loop chain of fine wire. L approximately 178mm. The condition of the metal suggests that this is of post-medieval date. 13th- to 14th-century soil layer (I, 32), ?intrusive or suggests that the accumulation continued into the post-medieval period.

*not illustrated*

**2726** sf VR 3907. Iron. Incomplete, but was oval. L 28mm, W 21mm. Late Saxon soil layer (XII, 2284).

**2727** sf VR 11017. Copper alloy S-shaped chain link. L 22mm. Late Saxon or early medieval ditch F13 (VI, 17).

**2728** sf HG 341. Copper alloy ?terminal of chain links. Loop of metal attached to rivet. L 22mm. 11th- to 12th-century pit F170 (III, 852).

**2729** sf VR 0. Figure-of-eight-shaped. L 48, W 15mm. Unstratified in 13th- to 14th-century pit F790 (XIII).

**2730** sf VR 0. Iron. Figure-of-eight-shaped. L 32mm, W 12mm. 13th- to 15th-century soil layer (X, 61).

**2731** sf VR 21. Four links of copper alloy double loop-in-loop chain. 13th- to 15th-century soil layer (IV, 44).

**2732** sf VR 3064. Iron. It is oval and widens towards one end, rounded cross-section. L 157mm, W 32mm, T 9mm. 14th- to 15th-century pit F131 (X, 370).

**2733** sf VR 7175. Chain of copper alloy S-shaped links. L 233mm. 14th- to 15th-century pit F505 (XI, 1508).

**2734** sf SBS 0. Iron. Round links in a lump 40 by 25mm, D of links 6mm. 15th- to 16th-century pit F67 (II, 144).

**2735** sf VR 2221. Iron, with rounded ends and slightly concave sides. L 88mm, W 32mm, T 7mm. 15th- to 16th-century pit F27 (X, 94).

**2736** sf VR 2428. Iron and incomplete, figure-of-eight-shaped (possibly a hasp). L 90mm, W 35mm, T 7mm. 15th- to 16th-century pit F60 (X, 134).

**2737** sf VR 5068. Iron. Figure-of-eight-shaped, but the sides lie parallel in centre; an additional incomplete link

is attached at each end. L 75mm, W 17mm. 15th- to 16th-century pit F642 (XII, 2407).

**2738** sf VR 6019. Iron. Incomplete, but was oval. L 59mm, W 60mm, T 6mm. 15th- to 16th-century pit F308 (X, 903).

**2739** sf SJS 0. Iron. Very corroded. Figure-of-eight-shaped; the sides lie close together in the centre. L 51mm, W 20mm. 17th- to 18th-century pit F201 (I, 221).

**2740** sf VR 6079. Iron. Incomplete, but was oval. L 52mm, W 40mm, T 7mm. 17th- to 18th-century pit F302 (X, 920).

**2741** sf SBS 0. Iron. Figure-of-eight-shaped. L 55mm, W 15mm. 19th- to 20th-century soil layer (II, 23).

**2742** sf VR 0. Iron. Figure-of-eight-shaped. L 47mm, W 14mm. 19th- to 20th-century pit F1 (X, 4).

### Rings

There are 50 rings or parts of rings, some of which may have been chain links or small handles, and some which could have been finger rings. Eighteen were of iron and 32 of copper alloy. They were found at Victoria Road in the greatest numbers (31), as might be expected, and were distributed throughout deposits of diverse dates and types.

The copper alloy ring **2743** from Sussex Street could possibly be a finger ring. The iron ring **2744** is unusually large and has non-ferrous wire wrapped around it. This may, perhaps, be related to the ring's function, although in what way is not apparent.

A full catalogue exists in archive.

**2743** Fig 202 sf SXS 624. Copper alloy ring of oval section with overlapping unjoined ends. Internal D approximately 16mm, H 1.5mm, T 1mm. Possibly a finger ring. Late Saxon pit F500 (XVII, 1168).

*not illustrated*

**2744** sfs SJS 231 and 235. Five pieces of an iron ring. They have non-ferrous wire adhering to or wrapped around them. D c 120mm, T 6mm. 17th- to 18th-century ditch F203 (I, 501).

### Collar

This is a small iron collar which may have served as a binding on a wooden tool handle. It is similar to the collar associated with the awl **2196** (Category 10).

*not illustrated*

**2745** sf VR 3772. Iron. L 19mm, D 35mm. Disuse of 13th- to 15th-century Building 935.3 (XII, 2040).

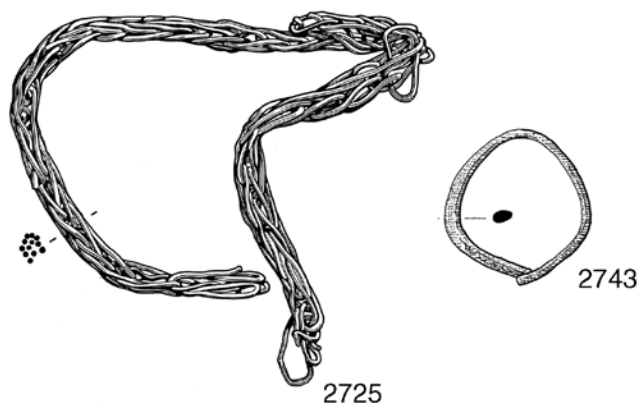


Figure 202 Objects of unknown function, nos 2725, 2743, scale 1:1

**Washers**

All are of iron.

*not illustrated*

- 2746** sf VR 542. D 26mm. Late Roman (?and later) soil layer (V, 61).  
**2747** sf SBS 94. Angular. D 26mm, T 5mm. 18th- to 19th-century soil layer (III, 30).  
**2748** sf CHR 44. D 28mm. Saxon (?and later) soil layer (I, 83).

**Tubes and ferrules**

There are eleven metal objects which have been classified as tubes or ferrules. Two, **2751** and **2756** are worthy of note, although their function is not apparent. Only one, **2758** from St Bartholomew's School, was of copper alloy, the rest being of iron.

*not illustrated*

- 2749** sf VR 0. Tapers. L 40mm, W 10mm. Late Saxon or early medieval ditch F13 (V, 141).  
**2750** sf VR 0. One end is broken; it widens slightly to the other which is closed off. There are wood remains within. L 85mm, D 20mm. 13th- to 14th-century pit F274 (X, 868).  
**2751** sf CHR 1482. Incomplete. It is conical with a spherical knop at the tip. It is encircled by a narrow relief band near the tip and a larger one near the base. Plated with copper alloy. L 74mm, D 22mm. 13th- to 14th-century soil layer (I, 47).  
**2752** sf VR 557. L 35, D 16mm. Construction of 13th- to 15th-century Building 938.1 (IV, 158).  
**2753** sf VR 3545. Fragment. L 35mm, D 15mm. 14th- to 15th-century fill of pit F117 (X, 815).  
**2754** sf VR 4047. Incomplete. L 113mm, D 19mm. 15th- to 16th-century pit F152 (XIII, 3002).  
**2755** sf VR 4096. Incomplete. L 40mm, D 13mm. 15th- to 16th-century pit F152 (XIII, 3002).  
**2756** sf SJS 0. Tapers and is broken at each end. Near the wider end a collar runs around it and to one side there appears to be a small attachment loop. Plated. L 105mm, D 18mm, collar D 35mm. Demolition of 18th-century Building 961.6 (IV, 604).  
**2757** sf VR 0. One end is broken, the other is closed off. L 102mm, W 27mm. Terracing F1000 (XV, 3900) for construction of 19th-century buildings on Hyde Street frontage.  
**2758** sf SBS 22. Copper alloy. Slightly damaged. L 37mm, D 20mm. 19th- to 20th-century pit F59 (III, 35).  
**2759** sf VR 2153. (Or collar). L 45mm, D 40mm. 19th- to 20th-century pit F10 (X, 24).

**Copper alloy wire**

There were 58 fragments from unidentified objects partially or wholly made of copper alloy wire, 31 from Victoria Road, 16 from St John's Street and a few from other sites. None warranted illustration, and a full catalogue is retained in archive.

**Copper alloy sheet**

There were 85 fragments of copper alloy sheet, of which 50 were from Victoria Road. Other northern suburb sites produced very few (HAB two, SBS one), whilst eastern suburb sites were slightly more prolific (SJS 11, CHR 7). Only five came from sites in the western suburb (two each from CT and NR, one from SXS). Eight were recovered from JCH and one from 10CS, on the city defences.

The bulk of the material comprised broken objects, surviving only as amorphous sheet and strips, some pierced. There were three thin discs, one pierced, all from Victoria Road. Possible offcuts were recovered from Victoria Road (two), Chester Road (one) and St John's Street (two). The Chester Road object was from a context of late medieval date (F15, I, 66) and thus might possibly have been associated with the production of the copper alloy pins discussed above (**2699**, Category 15). A few thicker offcuts are catalogued with the miscellaneous copper alloy objects, below. Three fragments may have come from vessels, and these are catalogued here along with decorated pieces. A full catalogue is retained in archive.

*not illustrated*

- 2760** sf VR 81. Strip with repoussé feather decoration. L 25mm, W 10mm. 13th- to 15th-century soil layer (IV, 44).  
**2761** sf VR 2384. Rectangular fragment of sheet with repoussé decoration and incised lines. L 29mm, W 19mm. 13th- to 15th-century soil layer (X, 61).  
**2762** sf VR 6087. Thick fragment of sheet. One finished edge, possibly rim of a vessel. L 140mm, maximum W 51mm. Construction of 15th- to 16th-century wall F307 (X, 918).  
**2763** sf SJS 43. Fragment of sheet with one finished edge. Possibly rim of a vessel. L 63mm, W 22mm. 15th - to 16th-century pit F305 (I, 319).  
**2764** sf CHR 1497. Fragment of sheet with three parallel incised lines running down the centre. L (bent) 17mm, W 18mm. 19th- to 20th-century soil layer (IV, 585).  
**2765** sf SJS 452. Fragment of sheet with one finished edge and rivet towards edge. Two parallel raised lines. ?Vessel. L 56mm, W 44mm. 19th- to 20th-century soil layer (I, 122).

**Iron bars, strips, and plates**

A substantial component of the post-Roman ironwork assemblage is made up of some 600 objects for which no specific function can be determined. They may for convenience be divided into bars, strips, and plates which may be defined as follows (after Ottaway 1992, 493–5, 501). Strips and bars have a maximum width to maximum thickness ratio of less than 4:1, and a relatively constant cross-section size and form for most of their length, although they may taper or narrow slightly. Bars are relatively robust pieces of iron which may be distinguished from strips by having a cross-section width multiplied by thickness of over c 300mm square. Plates usually have a maximum thickness of 5 to 6mm or less and a maximum width to maximum thickness ratio greater than 4:1.

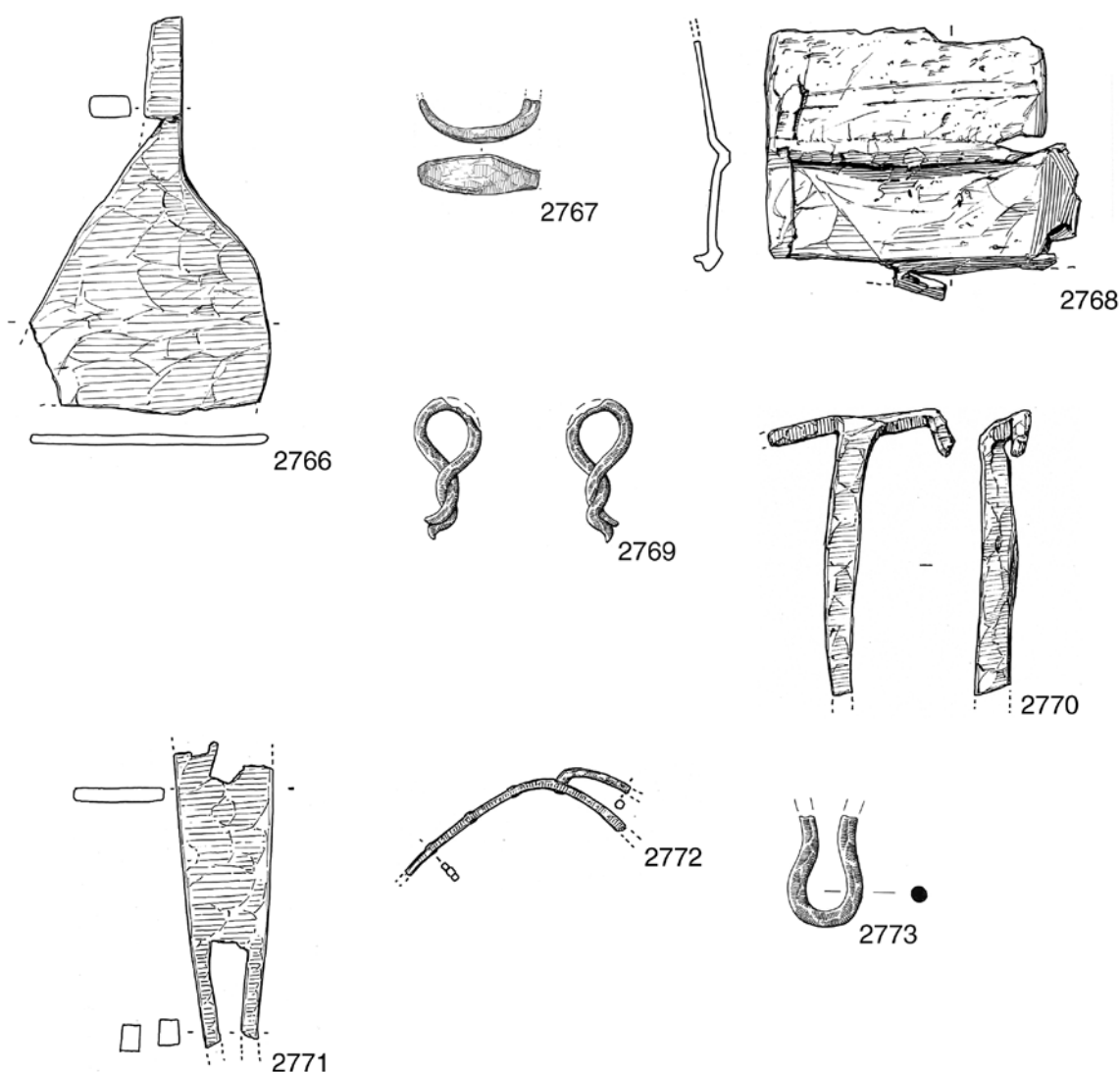


Figure 203 Bars, strips, and plates, nos 2766-73, scale 1:2

A division into bars, strips, and plates was developed in order to aid the discussion of material which derived from iron smithing at 16-22 Coppergate, York and similar criteria were also used for the smithing waste described in Part 2, Category 15. However, while some of the material in the post-Roman assemblage from the Winchester suburbs and defences sites may, like the slag, originally come from smithies (Category 15), the objects classified here as bars, strips, and plates are, in most cases, likely to be broken, fragmented, and corroded finished objects which are now unrecognisable.

Although they are for the most part of little interest, a few of the objects classified under this heading may be noted individually. **2766** and **2774** are probably incomplete tanged tools, although the former with a wide 'blade' could be a piece of sword. **2768** exists as two plates welded together which have been copper plated. None of the other features of this object suggest a function for the whole of which this is part, but copper plating is usually associated with bells or locks. **2772** may have been part of some small box or dress fitting. **2776** is probably part of a knife scale-tang. **2775** may

have been part of some ornamental edging for a casket or other object. Finally **2767** is a curious sub-oval plate which has a groove around the edge of one face inlaid with copper wire; no identification suggests itself.

These and illustrated examples are catalogued here, the remainder, in archive.

**2766** Fig 203 sf VR 3884. A plate which is broken at one end and then narrows by means of concave 'shoulders' into an incomplete strip or tang. Probably an incomplete tool. L 100mm, W 65mm, T 4mm. Late Saxon ditch F588 (XII, 2358).

**2767** Fig 203 sf SJS 1026. A curved plate which is broken at one end and then widens to a point a little before the centre before narrowing to a rounded tip. On the convex face there is a groove just inside the edge which is inlaid with copper wire. L 33mm, W 10mm, T 5mm. Late Saxon or early medieval soil layer (IV, 408).

**2768** Fig 203 sf VR 8599. Plate. It has a seam running lengthwise down the centre where two plates have been welded together. At one end both plates are a bit irregular, although there is one well-formed corner; at the other end both plates are thickened. Plated (brass). ?Part of a lock. L 83mm, W 67mm. 13th- to 14th-century pit F960 (XIV, 3886).

**2769** Fig 203 sf VR 73. A strip which is formed into a loop in

the centre and the two ends were then twisted together in a spiral. L 39mm, W 2mm, D loop 18mm. 13th- to 15th-century soil layer (IV, 107).

**2770** Fig 203 sf VR 1023b. T-shaped strip. The longer and wider arm curves over at one end; the shorter arm is bent over at one end (?part of a structural fitting). Arms L 70 and 50mm, W 9mm. 13th- to 15th-century soil layer (V, 14).

**2771** Fig 203 sf VR 6153. Corroded plate. Broken at one end; at the other there are two projections, both broken. Wood on surface L 85mm, W 30mm, T 9mm; projections L 25mm. 15th- to 16th-century pit F313 (X, 952).

**2772** Fig 203 sf VR 54. L-shaped strip. Five pairs of grooves at intervals along its length. Another short strip projects at the corner. Plated. L 16mm, W 2mm. Post-medieval soil layer (IV, 45).

**2773** Fig 203 sf VR 380. U-shaped loop, rounded cross-section (?shears bow). L 34mm, W across 20mm, T 2mm. Context of uncertain type and date (V, 89).

#### *not illustrated*

**2774** sf VR 3828. Plate, broken along one side and has a short projection from one corner. Probably a fragment of a tanged tool. L 35mm, W 21mm. Posthole F583 in late Saxon Building 935.1 (XII, 2122).

**2775** sf VR 3835. A short length of strip with another attached at right angles, which appears to have a spirally-twisted non-ferrous sheathing. Broken at each end. L 43mm, W 25mm. Late Saxon soil layer (XII, 2132).

**2776** sf VR 2383. Broken at each end. Plated (silver-tin, thickest in strips along each side). Probably a fragment of knife scale-tang. L 22, W 10mm. 14th- to 15th-century pit F64 (X, 153).

### **Lead sheet**

There were 37 pieces of lead sheet, some identifiable as strips and some pierced. Sixteen came from Victoria Road, from contexts of various types, but ten were from a single posthole F516 (XVII, 1076) in the medieval Building 714.2 at Sussex Street. There were very few fragments from contexts predating the 13th century, which perhaps reflects a change in methods of building at that time. The material is fully catalogued in archive.

### **Miscellaneous copper alloy objects**

*with a contribution by D A Hinton*

**2777** Fig 204 sf CHR 133. Small irregular disc, possibly a weight. D 13mm, T 4mm. Weight 3.5g. Saxon soil layer, erosion from the hill slope above the site (I, 121).

**2778** Fig 204 sf SXS 24. Thick wire of gilt formed to enclose a heart shape with one arm bisecting the heart. Rectangular section. Reminiscent of annular brooches and buckles, but both ends are broken and the object clearly never bore a pin. Possibly a makeshift buckle. L 19mm, H 2mm, T 1.5mm. Late Saxon soil build-up (VIII, 112).

**2779** Fig 204 sf SXS 49. A small sheet, basically rectangular in shape but with symmetrically placed square and triangular cut-outs on each long edge and a triangular cut-out on one short edge. One corner is broken. 26 by 16.5mm. Possibly a mount, but there appears to be no means of attachment. Late Saxon fill of pit F36 (VIII, 191).

**2780** Fig 204 sf VR 9528. Curved strip with apparently deco-

orative rather than functional perforations. L (bent) 45 mm, W 9mm. Broken across a row of three small holes at one end. The other end is slightly thinner than the rest of the strip and is lightly scored. The strip may be part of an originally annular object, soldered into a hoop. 11th- to 12th-century pit F1021 (XV, 3939).

**2781** Fig 204 sf NR 103. Fragment of a cast object, W tapering from 22 to 18mm, and longitudinally wedge-shaped, apparently having a cutting edge at its narrower end. The object is broken at its thicker, wider end and has slightly raised edges, making both surfaces concave. Slight bubbling and pitting is visible in the break and the cutting edge (if such it be) is uneven, as if the casting had failed. Since there was limited middle Bronze Age activity on the site (Qualmann *et al* 2004), this object could just possibly be the broken end of a Bronze Age tool dispersed from a founder's hoard. It is published here rather than with the prehistoric finds from the site as the identification is so uncertain. Maximum T at edges 8mm, at centre 5mm. 13th- to 14th-century property boundary ditch F259 (II, 320).

**2782** Fig 204 sf SJS 63. Bent strip with two rivet holes at one end. A quarter circle has been cut from one corner of the other end. L (bent) 25mm, W 19mm. Construction (F40) of 13th to 14th century Building 1021.1 (I, 146).

**2783** Fig 204 sf VR 5501. Two tongue shaped plates fixed together by a rivet. L of each plate 15mm, W 6mm. Floor in 13th- to 15th-century Building 936.4 (XII, 2523).

**2784** Fig 204 sf VR 2079. Fragment of a tapering strip, L 26mm, W (maximum) 15mm. A scored line runs down the centre of the upper face, with areas of irregular walked scorper decoration on each side, and occasional diagonal lines. Probably a fragment of a belt-plate or strap-end plate. 14th- to 15th-century pit F35 (X, 84).

**2785** Discovered to be part of a vessel repair, see Category 4.

**2786** Fig 204 sf VR 4233. Crumpled strip of sheet copper alloy with two rows of raised dots along the length and an iron rivet set in the surviving original end. L (bent) 48mm, W 15mm. Soil over 13th- to 15th-century buildings on tenements 935 and 936 (XIII, 3055).

**2787** Discovered to be part of a vessel repair, see Category 4.

**2788** Fig 204 sf VR 2175. Fragment of a plate folded over at one end. The other end is broken. L 23mm, W 21mm. There are two iron rivets at the folded end, the corrosion products from which have preserved a scrap of woven one-over-one textile on the outer face of the plate. 15th- to 16th-century pit F27 (X, 92).

**2789** Fig 204 sf VR 2376. Square section ?terminal with slightly rounded top and central perforation. H 17mm, section 11.5 by 12mm. 15th- to 16th-century pit F60 (X, 141).

**2790** Fig 204 sf VR 2379. Part of a sheet disc with slight turned-down rim, probably a decorative cover for the lid of a small box. D 49mm. The edge has a border of irregularly applied stamped florets within pairs of concentric grooves, and there is a small circular motif, probably also stamped, of a winged stag against a stippled background. The disc was attached to a larger object by three small pins or rivets, the holes for which survive close to the edge. Probably of 16th-century date. 15th- to 16th-century pit F60 (X, 141).

**2791** Fig 204 sf VR 2699. Corroded and irregularly shaped strip, damaged at the centre, but probably curved on both axes. L 56mm, W (maximum) 20mm. There are incised ?chevrons on the out face, bordered by a groove. Three iron rivets are set within this decorated area. 15th- to 16th-century pit F153 (X, 408).

**2792** Fig 204 sf VR 2944. Part of a poorly preserved openwork roundel. D (maximum) 60mm. The outer from contains five smaller roundels, one in the centre, four around the edge. There are triangular projections on the outer frame where it meets inner roundel. There are small rivet holes in the



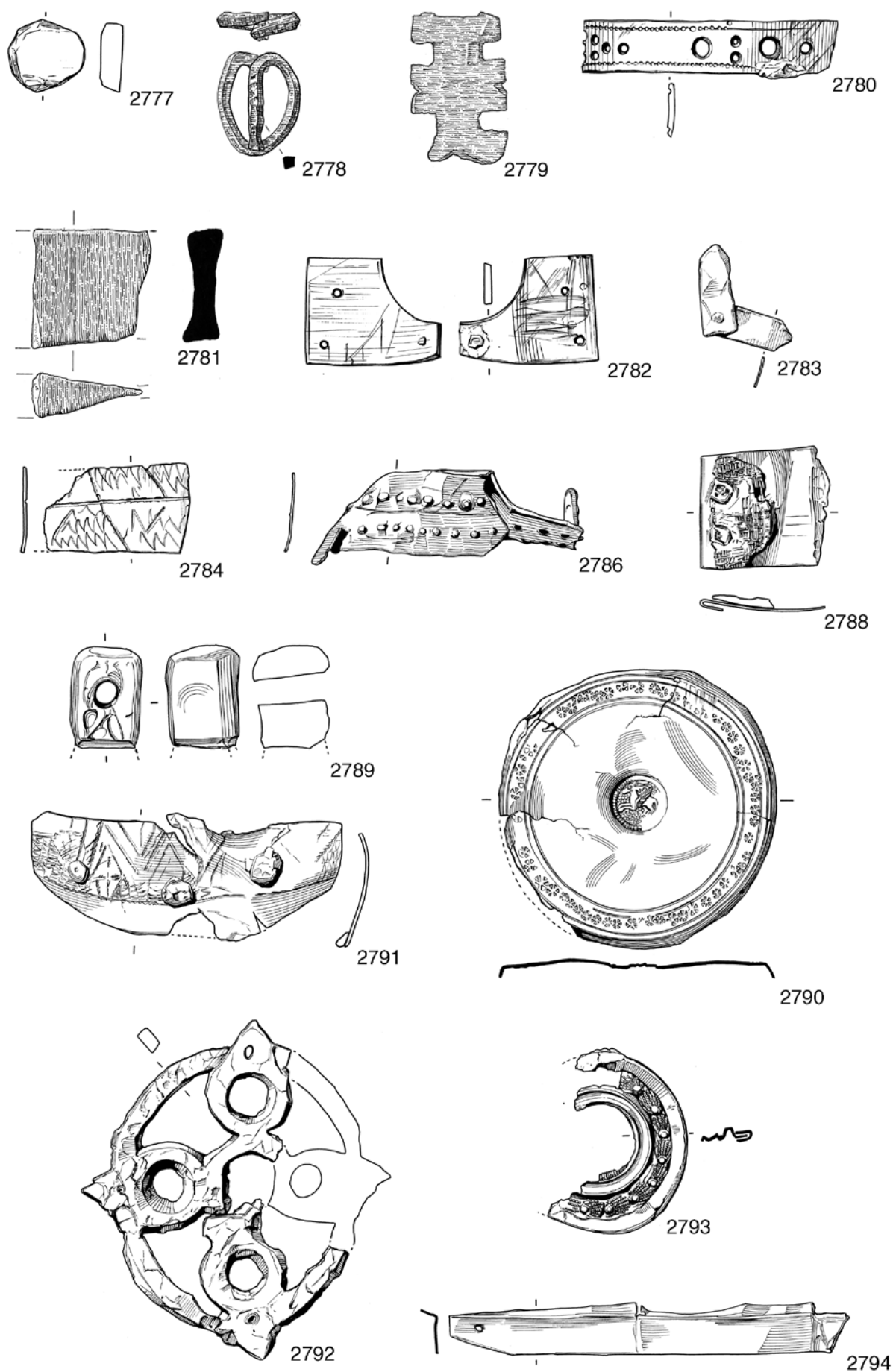


Figure 204 Miscellaneous copper alloy objects, nos 2777-84, 2786, 2788-94, scale 1:1

frame at two of these points. 17th- to 18th-century pit F227 (X, 630).

**2793** Fig 204 sf VR 4302. Fragment of a gilt disc, probably a mount, ornamented with concentric ridges and grooves, and scallop shell motifs. The rim is turned down and bent under. D 32mm. 17th- to 18th-century pit F781 (XIII, 3104).

**2794** Fig 204 sf VR 3003. Strip with a rivet hole at the surviving original end and bent along its long axis into an unequal-sided V section. There may be another rivet hole, now damaged, on the shorter side of the V near the middle of the strip. L 69mm, W 6mm. 19th- to 20th-century soil layer (X, 254).

*not illustrated*

### *Early contexts*

**2795** sf VR 280. Strip. L 27.5mm, maximum W 2.5mm. Saxon (?and later) soil layer (V, 61).

**2796** sf VR 282. Strip. L 13mm, W 7mm. Saxon (?and later) soil layer (V, 61).

**2797** sf VR 286. Bent strip. L 16mm, W 2.5mm. Saxon (?and later) soil layer (V, 61).

**2798** sf VR 9558. Fragment curved strip. L 41mm. Saxon (?and later) soil layer (XV, 4081).

**2799** sf CHR 138. Disc with off-centre square hole with burring on one side. Decoration of circles around circumference, two of which have been punched through. D 21mm. Saxon soil layer, erosion from the hill slopes above the site (I, 122).

**2800** sf VR 3657. Strip fragment, 20 by 5.5mm. Late Saxon pit F624 (XII, 2341).

**2801** sf SXS 3. Disc. Convex, plain surface. D 16mm. Late Saxon fill of pit F6 (VIII, 21). (DAH)

**2802** sf CHR 106. Two strips, 38.5 by 12mm and 29 by 12mm and two ?washers 16 by 13mm. Late Saxon pit F24 (I, 127).

**2803** sf HG 377. Two joining pieces of strip. L 32mm. Late Saxon pit F176 (III, 808).

### *13th – 15th centuries*

**2804** sf VR 2475. Folded rectangular strip. Rivet at each end. L (unfolded) about 38mm, maximum W 6mm. 13th- to 14th-century pit F141 (X, 366).

**2805** sf VR 2523. Rectangular strip. L 62mm, W 11mm. 13th- to 14th-century pit F43 (X, 96).

**2806** sf VR 3108. Strip, ?gilt on each side. Possibly tweezer blade fragment. L 29mm, W 5mm. 13th- to 14th-century pit F166 (X, 479).

**2807** sf VR 3127. Folded strip with one finished edge. L (folded) 71mm, W 26mm. 13th- to 14th-century pit F166 (X, 473).

**2808** sf VR 3162. Thin sheet, slightly bevelled. Pierced oval terminal. L 24.5mm, maximum W 9mm. Second fragment part of similar terminal. 13th- to 14th-century pit F179 (X, 500).

**2809** sf VR 5002. Triangular plate with rivet holes at each point. ?Scale plate. Each side approximately 38mm. 13th- to 14th-century pit F813 (XIII, 3194).

**2810** sf VR 9536. Three fragments of strips, bent and folded. One has small rivet hole. Largest measures approximately 38 by 4mm. 13th- to 14th-century pit F1018 (XV, 3984).

**2811** sf VR 9548. Rectangular strip. Rivet hole at one end. Two repoussé dots. L 36mm, W 15mm. 13th- to 14th-century pit F1065 (XV, 4046).

**2812** sf CT 80. Disc. Slightly convex, now bent. D 9mm. 13th- to 14th-century well F70 (VII, 254). (DAH)

**2813** sf CHR 348. Strip. D-shaped section, L 83mm. Possibly small penannular armlet. 13th- to 14th-century soil layer (I, 47).

**2814** sf SJS 351. Thick fragment of copper alloy and ?lead. 56 by 42mm. 13th- to 14th-century soil layer (I, 143).

**2815** sf 10CS 99. Part of a convex fitting with flattened lobate terminal. Rectangular at the other end, possibly hinged. L 48mm, maximum W 19mm. 13th- to 14th-century pit F7 (I, 132)

**2816** sf VR 70. Rod. D-shaped section. Slightly bent. 46 by 3mm. Construction of 13th- to 15th-century Building 938.1 (IV, 18).

**2817** sf VR 251. Strip. L 19mm, W 4mm. 13th- to 15th-century cellar or quarry F28 on tenement 937 (IV, 168).

**2818** sf VR 253. Strip. L 60mm, W 2.5mm. 13th- to 15th-century cellar or quarry F28 on tenement 937 (IV, 168).

**2819** sf VR 476. Strip, one end rounded. L 27mm, W 7mm. Construction of 13th- to 15th-century Building 938.1 (IV, 231).

**2820** sf VR 2051. Strip. Offcut. 13th- to 15th-century soil layer (X, 61).

**2821** sf VR 2507. Two fragments of sheet metal shaped into tubes of rectangular section. One partly encased in the other. L 44mm, W 15mm. 13th- to 15th-century soil layer (X, 191).

**2822** sf VR 3453. Three fragments of strips. Largest measures 22 by 8mm. 13th- to 15th-century soil layer (XII, 2073).

**2823** sf VR 3808. Roughly triangular ?offcut. L 59mm. 13th- to 15th-century Building 935.2 (XII, 2094).

**2824** sf VR 5846. Two joining fragments of ?tube, sealed at one end. Incised parallel diagonal lines around middle. L 22mm. Construction (F713) of 13th- to 15th-century Building 936.4 (XII, 2679).

**2825** sf VR 5879. Thick fragment of with one finished curved edge (D 200mm). Triangular in section. L 51mm, W 28mm. Cellar F742 in 13th- to 15th-century Building 936.2 (XII, 2695).

**2826** sf VR 2025. Small dished object with flat projection (broken). D 15mm. L 19mm. 14th- to 15th-century pit F8 (X, 42).

**2827** sf VR 2027. Strip with rectangular hole at one end. L 38.5mm, W 7mm. 14th- to 15th-century pit F8 (X, 42).

**2828** sf VR 2509. Tapering strip. Offcut L (bent) 54mm, maximum W 3mm. 14th- to 15th-century pit F64 (X, 153).

**2829** sf VR 2510. Tapering strip. Offcut. L 70mm, maximum W 4mm. 14th- to 15th-century pit F64 (X, 153).

**2830** sf VR 6103. Flat disc with central perforation. Possibly a stud head. D 35mm. 14th- to 15th-century pit F310 (X, 941).

**2831** sf CHR 31. Fragment of rod. L 19mm. ?Late medieval fill of large feature (cellar, quarry or wellhead) F15 (I, 15).

**2832** sf 10CS 39. Rectangular fitting. Rivet at one end, rivet hole at the other. L 17mm, W 3.5mm. Floor in room F24, Building 521.1 (I, 59), 14th- to 15th-century date.

**2833** sf VR 3754. Complete disc. D 25mm. Demolition of 13th- to 15th-century Building 935.2 (XII, 2027).

**2834** sf VR 3759. Fragment of tube. L 15mm, maximum D 6mm. Demolition (F566) of 13th- to 15th-century buildings on tenements 935 and 936 (XII, 2032).

**2835** sf VR 3760. Strip. L 43mm, W 10mm. Demolition (F566) of 13th- to 15th-century buildings on tenements 935 and 936 (XII, 2032).

**2836** sf VR 3761. Triangular fragment. Possibly an offcut. L 24mm. Demolition (F566) of 13th- to 15th-century buildings on tenements 935 and 936 (XII, 2032).

**2837** sf VR 3762. Triangular fragment of. Possibly an offcut. L 22mm. Demolition (F566) of 13th- to 15th-century buildings on tenements 935 and 936 (XII, 2032).

**2838** sf VR 7442. Rectangular strip with two rivet holes. L 51mm, W 18mm. Disuse of 13th- to 15th-century Building 935.2 (X, 1651).

## 15th – 16th centuries

- 2839** sf SBS 48. Three short lengths of wire coiled to make a triangular shape plus several separate pieces of wire forming all or part of triangle. Pit F7 (I, 14).  
**2840** sf SBS 73. Rolled-up piece. One end shaped into crude point. L 78mm. Soil layer (I, 49).  
**2841** sf VR 2173. Narrow strip. L 27mm. Pit F27/ 38 (X, 92).  
**2842** sf VR 2288. Strip, bent. L 31mm, W 5mm. Pit F44 (X, 99).  
**2843** sf VR 2512. Lump, crushed. One flat surface. L 33mm, W 17mm. Pit F76 (X, 184).  
**2844** sf VR 2440. Bar, roughly square in section. L 73mm, W 3mm. Pit F27/ 38 (X, 94).  
**2845** sf VR 3476. Strip. L (bent) 91mm, W 18mm. Pit F771 (XIII, 3068).  
**2846** sf VR 3477. Rectangular strip of with central ?rivet hole. L 78mm, W 22mm. Pit F776 (XIII, 3108).  
**2847** sf VR 4119. Fragment ?offcut. L 27mm. Pit F771 (XIII, 3006).  
**2848** sf VR 6067. Strip. L 45mm, W 11mm. Pit F315 (X, 925).  
**2849** sf VR 6071. Strip. L (bent) 45mm, W 27mm. Pit F308 (X, 920).  
**2850** sf VR 6098. Bar, rectangular in section. L 69mm, W 7mm, T 2mm. Pit F312 (X, 927).  
**2851** sf VR 6116. Bent and folded strip of with burred ?rivet hole. Possibly an offcut. L 71mm, W 23mm. Pit F312 (X, 921).  
**2852** sf SJS 15. Strip. Square, burred hole at one end. L (bent) 127mm, W 26mm. Pit F305 (I, 319).  
**2853** sf SJS 18. Offcut. 122 by 46mm. Yard surface (I, 219).  
**2854** sf SJS 24. Fragment, thick, ?offcut. Right-angled fragment. L 31mm, W 29mm. Yard surface (I, 219).  
**2855** sf SJS 52. Fitting. Flat plate with square and rectangular cut-outs. L 53mm, W 36mm. Pit F305 (I, 330).  
**2856** sf SJS 697. Bar. D-shaped in section. L 98mm, W 29mm. Pit F305 (I, 330).  
**2857** sf SJS 735. Strip with two burred rivet holes. L 57mm, W 27mm. Pit F313 (I, 336).  
**2858** sf 10CS 18. Thick fragment. 26 by 15 by 7mm. Soil layer (I, 36).

## 17th – 18th centuries

- 2859** sf VR 9507. A disc, gilded on one face, probably a backing plate. There is no visible method of attachment, but the edge is quite rough, suggesting that it was hidden within a flange. D 34mm, T 1mm. Pit F1016 (XV, 3924).  
**2860** sf CHR 7. Strip with tapering, pointed ends. Possibly a staple. L (folded) approx. 88mm, maximum W 8mm. Soil layer (I, 19).  
**2861** sf CHR 15. Pierced strip. Burring of hole. L 40mm, W 20mm. Soil layer (I, 19).  
**2862** sf CHR 17. Lump with one flat surface. L 63mm, W 17mm. Soil layer (I, 19).  
**2863** sf CHR 297. Sheet with one finished edge. Iron rivet. L 87mm, W 20mm. Soil layer (I, 19).  
**2864** sf SJS 14. Disc. D 29mm. Pit F303 (I, 315).  
**2865** sf SJS 220. Two strips. L 63 and 54mm, W 11mm. Pit F224 (I, 501).  
**2866** sf SJS 229. Three strips. L 18, 13, and 9mm, W 3 to 5mm. Pit F224 (I, 501).  
**2867** sf SJS 243. Strip. L 44mm, W 6mm. Pit F224 (I, 501).  
**2868** sf SJS 621. Strip. L 41mm, W 8mm. Soil layer (I, 306).  
**2869** sf SJS 682. Strip. L 15mm, W 16mm. Pit F303 (I, 318).  
**2870** sf SJS 693. Strip. L 28mm, W 18mm. Pit F311 (I, 328).  
**2871** sf JCH 2. Strip bent into a crude hook. L 53mm, W 11mm. Well F17 (III, 56).  
**2872** sf SJS 959. Strip. L 51mm, W 9mm. Demolition of 18th-century Building 961.6 (IV, 604).

## 19th – 20th centuries

- 2873** sf SBS 190. Strip, ?possibly rim. L 60mm, W 20mm. 19th- to 20th-century soil layer (II, 16).  
**2874** sf VR 2121. Strip, broken over rivet hole at each end. L 55mm, W 22mm. 19th- to 20th-century soil layer (X, 7).  
**2875** sf VR 2123. Strip, possibly an offcut. ?Rivet hole at one end. L 117mm, maximum W 29mm. 19th- to 20th-century soil layer (X, 6).  
**2876** sf VR 2557. Offcut. L 56mm. 19th- to 20th-century soil layer (X, 257).  
**2877** sf VR 3013. Disc with possible repoussé punching. D (bent) 23mm. 19th- to 20th-century soil layer (X, 254).  
**2878** sf VR 3588. Crushed tube. L 58mm. 19th- to 20th-century drain F553 (XII, 2003).  
**2879** sf VR 4184. Crushed tube. L 38mm. 19th- to 20th-century pit F773 (XIII, 3067).  
**2880** sf SJS 311. Two fragments of tube, sealed at one end. L 15mm, D 6mm. 19th- to 20th-century pit F26 (I, 100).  
**2881** sf CHR 488. Three strips, possibly rim of a vessel. L 92, 63 and 27mm, W 11mm. 19th- to 20th-century drain F4/ 10 (I, 16).  
**2882** sf SJS 312. Fragment of ?disc folded over at rim, encasing iron corrosion. D 50mm. 19th- to 20th-century pit F26 (I, 100).  
**2883** sf NHW 68. Two lengths of tube. One, 75mm in L, D 6mm; second oval in section, L (bent) 64mm. 19th- to 20th-century soil layer (I, 3).  
**2884** sf CHR 1486. Strip, slightly bent. L 35mm, W 10mm. Modern soil layer (I, 8).

## Uncertain context and unstratified

- 2885** sf VR 382. Disc with central perforation. D 14mm. Context of uncertain type and date (V, 89).  
**2886** sf SBS 180. Two strips riveted together. L 31mm. Unstratified (II).  
**2887** sf SJS 279. Rod. L (bent) 73mm. Unstratified (I).  
**2888** sf SJS 282. Strip with five parallel incised lines running the length of the strip. L 36mm, W 12mm. Unstratified (I).  
**2889** sf SJS 284. Tube. L 35mm. Unstratified (I).  
**2890** sf SJS 287. Strip, possibly an offcut. L 38mm, maximum W 6mm. Unstratified (I).  
**2891** sf SJS 297. Two strips riveted together with two rivets. L (folded in half) 28mm, W 12mm. Unstratified (I).  
**2892** sf SJS 526. Disc. D 14mm. Unstratified (I).

## Miscellaneous iron objects

Among the objects from St John's Street Trench II were three large rods, which do not appear to have had a specific function in the clay pipe kiln (Alan Piecey, pers comm.) – see Category 17.

## Large rods of rounded cross-section from SJS F62 (II, 527).

- 2893** Fig 205 sf SJS 815. At one end there is a rounded, pierced terminal. L 260mm, T 13mm.  
**2894** Fig 205 sf SJS 816. It is slightly curved and at one end there is a short projection with a screw thread. L 280mm, T 13mm.

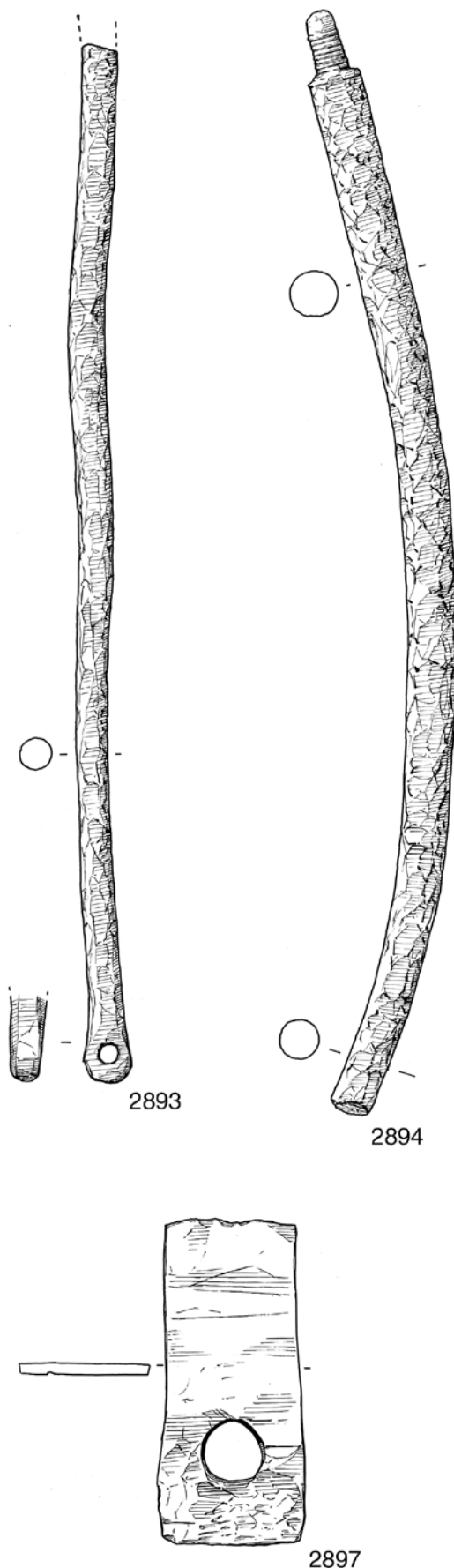


Figure 205 Miscellaneous iron and lead objects, nos 2893–4, scale 1:2; no 2897, scale 1:1

*not illustrated*

2895 sf SJS 817 L c 200mm, T 8mm.

### Miscellaneous lead objects

2896 Discovered to be a vessel repair, see Category 4.

2897 Fig 205 sf CHR 21. Slightly tapering strip pierced by a large hole at the wider end. L 48mm, W (maximum) 22mm, T 2mm. 13th to 14th century feature F12 (I, 40).

*not illustrated*

2898 sf VR 285. Disc. One cut from edge to centre. D 37mm. Saxon (?and later) soil layer (V, 61).

2899 sf VR 8259. Fragments of droplets. Late Saxon pit F762 (XIII, 3100).

2900 sf VR 8848. ?Droplet. 48 by 28mm. 13th- to 14th-century pit F960 (XIV, 3886).

2901 sf VR 9557. Fragment, possibly waste. L 60mm, maximum W 16mm. 13th- to 14th-century pit F1076 (XV, 4065).

2902 sf VR 2508. Droplet. 65 by 55mm. 13th- to 15th-century soil layer (X, 191).

2903 sf VR 3842. Strip with projecting rods at each end. Possibly a ?fitting. L 62mm, W 8mm. Construction of 13th- to 15th-century Building 935.3 (XII, 2156).

2904 sf VR 5844. Fragment of rod. L 76mm. Construction (wall F706) of 13th- to 15th-century Building 936.4 (XII, 2636).

2905 sf VR 5920. Fragments of droplets. Layer in 13th- to 15th-century Building 936.2 (XII, 2653).

2906 sf VR 208. Disc. Maximum D 26mm. 13th- to 15th-century cellar or quarry F28 on tenement 937 (IV, 137).

2907 sf VR 3484. Square fragment with one corner damaged. Central burred hole. (31 by 31mm). 14th- to 15th-century pit F789 (XIII, 3084).

2908 sf 10CS 53. Plate, almost square with corners cut away. Central hole with burring on one side. 39 by 36mm. D of hole 10mm. Floor of room F23 in Building 521.1 (I, 71), 14th- to 15th-century date.

2909 sf CHR 23. Droplet. Silting over large feature medieval feature (quarry, cellar, or wellhead) F15 (I, 47).

2910 sf VR 5121. Fragment of rod. L 38mm, D 6mm. 15th- to 16th-century pit F643 (XII, 2415).

2911 sf SJS 20. Strip of pewter, ?square in section. Possibly shaft of spoon. L 76mm. 15th- to 16th-century pit F305 (I, 319).

2912 sf VR 4816. Disc. Maximum D 25mm. 17th- to 18th-century pit F080 (XII, 3181).

2913 sf VR 4101. T-shaped object, broken. Both 'arms' of T are triangular in section. L 69mm, W 51mm. 19th- to 20th-century soil layer (XIII, 3006).

2914 sf VR 4250. 'Droplet'. L 38mm. 19th- to 20th-century soil layer (XIII, 3060).

2915 sf SJS 370. Disc. D 52mm. 19th- to 20th-century feature F200 (I, 170).

2916 sf NHW 13. Fragment of a disc. D 110mm. 19th- to 20th-century garden soil (I, 6).

2917 sf VR 12905. Lump, possibly waste. Unstratified (XIII).

2918 sf VR 8841. Fragment. L 72mm, maximum W 25mm. Unstratified (XIV).

2919 sf SJS 105. Disc. D 18mm. Unstratified (I).

2920 sf VR 0. Three fragments of droplets. Largest measures 72 by 32mm. Context of uncertain type and date (V, 89).

2921 sf VR 13159. Fragment, ?moulded. 24 by 18mm. Context of uncertain type and date (XV, 3963).

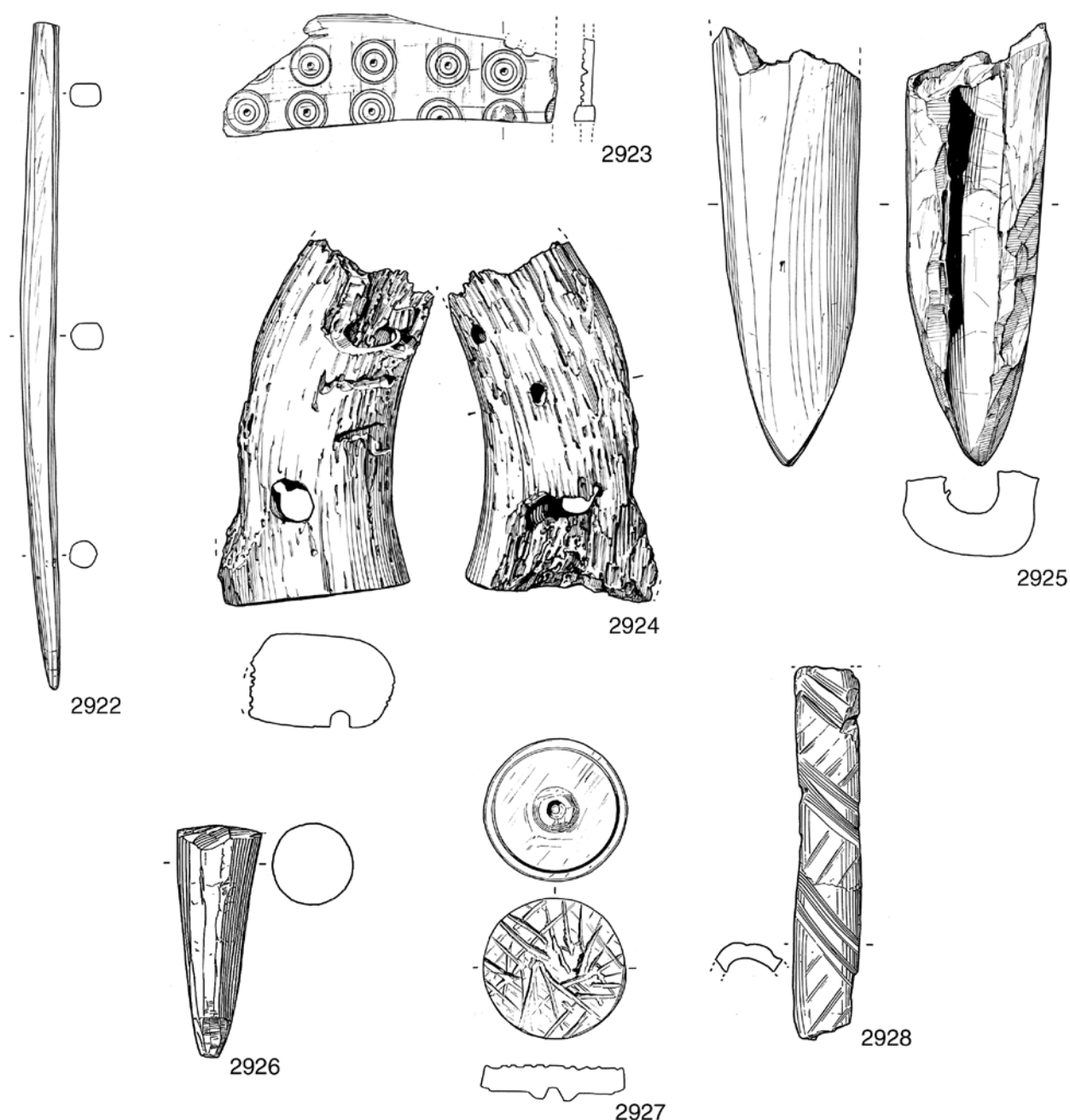


Figure 206 Miscellaneous bone, antler, and horn objects, nos 2922-8, scale 1:1

### Miscellaneous objects of bone, antler, and horn

**2922** Fig 206 sf VR 3392. Narrow bone point with a flat top. L 104mm, maximum W 5mm. Possibly a pin or an awl. 13th- to 14th-century pit F1073 (XV, 4358).

**2923** Fig 206 sf VR 13150. Fragment of an antler plate decorated with double ring-and-dot motifs. L 51mm, W 17mm. Only short lengths of the original edges remain. An iron rivet remains set in the centre of one motif. 13th- to 14th-century pit F1067 (XV, 4368).

**2924** Fig 206 sf VR 6674. Section cut from a cattle horn core. L 55mm. The lower end has been sawn across, the upper is broken. One ?straight-sided hole has been drilled through the piece near the lower end, and another, of tapering form, near the upper end. The latter is set at an angle so that it exits near the edge on the flatter, back side of the piece. A third hole has been started between the two on the flatter side. 15th- to 16th-century pit F309 (X, 962).

**2925** Fig 206 sf VR 10083. Fragment of a section of long bone split lengthwise, trimmed to a point and polished. The upper end is broken. L 69mm, maximum W 22mm. Possibly an awl. 15th- to 16th-century pit F751/757/759 (XIII, 3025).

**2926** Fig 206 sf 10CS 11. Tip cut from an antler tine with a concave hollow drilled into the base. The point has been trimmed slightly. 15th- to 16th-century pit F15 (I, 34).

**2927** Fig 206 sf VR 3008. Bone disc with rebated edge and central raised ridge around a large lathe centre indentation. D 21.5mm, T between edge and centre 4mm. The underside is scored with deep random lines, possibly keying. This may be inlay, keyed for gluing. 19th- to 20th-century soil layer (X, 257).

**2928** Fig 206 sf VR 12944. Fragment (in two pieces) of a bone convex strip with well finished grooved decoration. L 57mm, W 10mm. No edge is original. Probably from a handle and possibly residual Roman. 19th- to 20th-century soil layer (XIII, 3006).

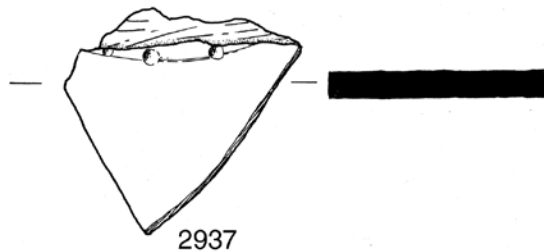


Figure 207 Stone object, no 2937, scale 1:2

*not illustrated*

**2929** sf NR 419. A point of thin subrectangular section broken from an antler object. It is too wide (and indeed appears to increase in width above the break) to be a comb tooth. L 19mm, maximum W 5mm. Late Saxon pit F50 (II, 79).

**2930** sf VR 2769. Rectangular fragment of bone with evidence of cut mark. L 10mm, W 7mm. 13th- to 14th-century pit F206 (X, 583).

**2931** sf SJS 496. Fragment of bone with perforation. L 42mm, W 11mm. 12th- to 13th-century pit F214a (I, 290).

**2932** sf VR 3446. Strip of bone in two pieces. Convex section, perforated 8mm from one end. L 32mm, maximum W 9mm. 15th- to 16th-century pit F771 (XIII, 3059).

**2933** sf JCH 25. Two joining pieces of bone worked to a point. L 100mm, maximum W 12mm. 17th- to 18th-century soil layer (III, 88).

**2934** sf VR 2122. Half of bone disc, broken across small central perforation. D 30mm. 19th- to 20th-century soil layer (X, 6).

**2935** sf VR 2138. Bone disc with central perforation. D 15mm. 19th- to 20th-century soil layer (X, 6).

### Glass object

*not illustrated*

**2936** sf VR 2137. Conical green ?glass setting for a ring or brooch. Grooves running down from the top and faceted around the base. 19th- to 20th-century soil layer (X, 6).

### Miscellaneous stone objects with a contribution by C Matthews

**2937** Fig 207 sf CT 781. Fragment of slate bearing incised decoration of a circular line with three points at intervals along it. T 7mm. 13th- to 14th-century pit F65 (VII, 219). (CM)

*not illustrated*

**2938** sf VR 3946. Fragment of slate possibly worked into a rough disc. In two pieces. D 64mm. Late Saxon pit F569 (XII, 2118).

**2939** sf VR 2390. Fragment of worked stone, subrectangular in section. Perforated at one end. L 48mm, W 13mm tapering to 9mm. 13th- to 15th-century chalk and flint rubble F69 (X, 164).

**2940** sf VR 3451. Fragment of worked stone with many

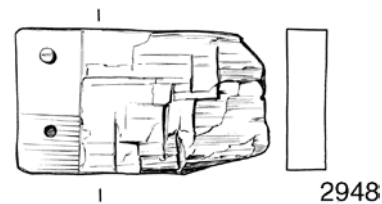


Figure 208 Wooden object, no 2948, scale 1:1

tool marks. Sub-rectangular in section. L 101mm, W 11mm tapering to 6mm. Disuse of 13th- to 15th-century Building 935.2 (XII, 2053).

### Miscellaneous leather

*not illustrated*

**2941** sf CT 346. Small scraps. 13th- to 14th-century pit F60 (VII, 221).

**2942** sf CT 347. Strip torn off at both ends. 60 by 11mm. Late 17th-century pit F9 (V, 94).

### Textile

All of these fragments except for **2947** were from soil samples.

*not illustrated*

**2943** sf HG 1465. Tiny fragments of mineralised cloth. Late Saxon pit F104 (IV, 1298).

**2944** sf SJS 1012. Many tiny fragments of mineralised cloth. Late Saxon or early medieval pit 736 (IV, 747).

**2945** sf VR 3562. One fragment of woven cloth. 13th- to 14th-century pit F274 (X, 864).

**2946** sf VR 7546. Several small fragments of woven cloth. 13th- to 15th-century soil layer (X, 472).

**2947** sf SJS 812. Six fragments of woven cloth. 15th- to 16th-century pit F319 (I, 353).

### Miscellaneous wooden objects

**2948** Fig 208 sf VR 2938. Fragment of a wooden strip. L 33mm, W 19mm. The surviving end is rebated, and the rebate stained by a copper alloy fitting, now missing, but originally fixed by the two copper alloy rivets that remain in position. 17th- to 18th-century pit F227 (X, 630).

*not illustrated*

**2949** sf 10CS 489. Five fragments of bark. Floor in 13th- to 14th-century Building 516.1 (I, 64).

**2950** sf CHR 686. Piece of cylindrical wood around which copper alloy has been wrapped, now in four fragments. Iron rivet in wood. L 22mm, D 17mm. 19th- to 20th-century soil layer (IV, 587).

## **PART 4: Synthesis and discussion**





## Introduction

The suggested chronology of the sites in this sample is set out schematically in Part 1 and is not repeated in any detail here. However, it should be emphasised that a smaller proportion of the Roman finds come from contexts of the mid-1st to mid-2nd centuries than from the later years of the Roman occupation, and that this is mostly grave goods provided for the cremation cemetery at Victoria Road.

The majority of the sites with post-Roman occupation were used in some way from the 9th century to the present day; nonetheless, the chronological emphasis in the western suburb is from the 9th to 13th centuries, in the northern, from the 13th to 19th centuries and in the eastern, from the 15th to 19th centuries. The Hyde Abbey area produced more finds of the post-medieval period than the medieval, whereas city defences sites were diverse in their character and chronology.

Roman finds from city centre sites excavated in the 1960s (WS3.1) have not yet been published, but some attempt has been made to compare this assemblage from the periphery of the town with that from The Brooks site within the walls (Zant 1993; Mounsey, forthcoming). It has been possible throughout to make comparisons with post-Roman finds from city centre sites published in WS7.2, but it should be borne in mind that pre-Conquest deposits formed a higher proportion of the excavated archaeology there, and the most effective comparisons are therefore with the western suburb.

Given that the finds are mostly very diverse in function, date and distribution, it should be stressed that the interpretations offered in this section are merely a few amongst the many it would be possible to make. This diversity also means that consideration within material type would mostly add little to the information presented in Parts 2 and 3. However a quantified synthesis has been ventured by Patrick Ottaway (below) for the large amount of post-Roman ironwork recovered from the suburban sites. The evidence from pottery and animal bone is also considered here where relevant, but for details, the reader is referred to other volumes in this series (P4, P5 and P10).

## Quantification

Presence or absence of different elements in material culture between contemporary sites may provide clues as to varying ways of life in the past. Such contrasts may also be intimidated by quantitative balance – not only ‘what is it?’ but also ‘are there many?’ and ‘are there more or fewer than found on similar sites?’ – The usual limitations on meaningful quantification are found amongst the material presented here. The definition of what is contemporary may be less than ideal. Variations in site size, intensity of occupation, and also in methods of recovery make absolute numbers suspect, and some method of expressing quantity as a proportion needs to be found.

In addition, and more specific to small finds, there is the problem of what to count as ‘one’: a brooch may be one, but a nail will originally have been part of a larger object (or building). This is also affected by differential survival. A box is one, but it will be found whole (if decayed) in some situations and scattered as a number of disparate (and not necessarily closely identifiable) fittings in others. Hence some kinds of objects cannot be compared safely as like quantities with others, and sometimes the *same* kinds of objects cannot be compared.

Lastly, this particular sample is dominated numerically by the material from Victoria Road and is likely to be biased by the individual history of that site. The cross section of objects reported here may not represent finds usage in the Roman, Saxon, and medieval town as a whole, or even just in the suburbs and on the defences. Moreover, contrasts between Victoria Road and other sites may be random in samples of varying sizes.

Despite these caveats, the quite large quantities of material presented here seem to call for some kind of statistical treatment. The rough and ready method adopted has been to compare the numbers of a particular type of object with the total number of finds in categories which are mostly represented by whole objects (that is, 1–3, 5–8, 10 and 12–14) for each site. This assumes that there was no particular variation in the recovery of different types of object under the same circumstances of excavation; it does ameliorate differences in those circumstances between sites. The resulting figures have mostly not been tabulated or presented graphically as this would give a spurious air of accuracy to what, at best, represents very general trends and, at worst, accidental irregularities in small samples.

Comparing this assemblage with others (for example Crummy 1983, 1988; Shoesmith 1985; WS7.2) there are aspects of the quantitative balance between functional categories which are nearly universal in towns. Personal ornaments (Category 1) are very common and tools (Category 10) quite common, throughout the Roman, Saxon, and medieval periods. Other categories are relatively rare, as are post-Roman coins; but Roman coins, especially late ones, were lost or deliberately deposited relatively frequently. Finds that represent a larger whole, such as nails and other fittings in Categories 4, 9 and 11 are to be expected in quantity where there are buildings (as pointed out below) and graves.

## The Roman finds

### *Site function and assemblage formation*

Only grave goods from suburban sites at Victoria Road, Hyde Street, New Road, 45 Romsey Road, Chester Road, and St Martin’s Close are certainly from contexts in which they were originally placed in antiquity. This means that although aspects of normal finds usage in the town as a whole may be represented, the best strat-

ified evidence for activities specific to particular sites places more emphasis on ritual and provision for the dead than on everyday life. An assessment of residuality from the evidence of coins and a brief outline of the types of contexts from which finds were recovered is given in Part 1. This section is perhaps the place for a more focused discussion of the effect of such factors on the interpretation of the finds.

### Unusual deposits

Structured, or special deposits have been noted as foundations in diverse parts of the town. At The Brooks, two infants and a dog were buried when Insula VIII was occupied for the first time (Zant 1993, 33–4). At both Victoria Road and Hyde Abbey, butchered and burnt partial skeletons of sheep were deliberately placed in postholes marking the establishment of new buildings, presumably after some ceremony involving feasting (P4).

Special deposits also occur where new boundaries needed to be defined. This is particularly noticeable on the city defences. Encroachment of the defensive ramparts on properties within the walls in the later 2nd century were marked by two further deposits of partial skeletons of sheep, and a human cremation burial, on the northern defences at the Crown Hotel-Jewry Street site. Henly's Garage on the southern defences produced another sheep from a posthole defining a new boundary following the widening of the rampart, and a whole pot buried under the rampart before it was widened.

In addition, some features produced quite large assemblages which were unusual in their composition, and it seems possible that those from Victoria Road and New Road are special deposits. An unusual assemblage from Henly's Garage was probably more prosaic in origin and might be related to specific events on this site, rather than general clearance of debris from domestic occupation.

#### *Structured or special deposits in pits, shafts and wells at Victoria Road*

In addition to material discussed in this volume, three deep later Roman features at Victoria Road, F814, F1093, and F1096 each produced a large number of dog skeletons. F1096 also had four hens; F1093, more than half of the carcase of a horse; and F814, the humerus of a white-tailed eagle and the skeleton of a raven (identified by Mark Maltby, P4). All three features (and some of the other pits, shafts, and wells on the site) produced some complete or near-complete pottery vessels and F814 had a near-complete glass vessel (478); moreover, there was an imbalance in the large pottery assemblage from F814 in favour of beakers (Kim Holmes, Alex Turner, and Helen Rees in P5).

The deposit of a late 4th-century zoomorphic buckle (938) and a shale spindlewhorl (361) in the well F1093, which also contained a coin hoard with an end date

of AD 364, is intriguingly paralleled by material from two wells at Turner's Hall Farm, Hertfordshire, one of which contained a zoomorphic late Roman buckle and strap-plate, and the other a shale spindlewhorl (Nina Crummy, pers comm).

Simon Esmonde Cleary (2000, 138–9) has noted the occurrence, in association with human remains, of animal skeletons, whole vessels and coins in shafts and wells, and points out links between such finds and grave goods. He also notes the presence of architectural fragments – not normally counted as grave goods, although this is arguable at Winchester in the case of the St Martin's Close cemetery in the eastern suburb (Part 2, Category 9). Building materials have not been catalogued in full here, but the (MAP2) assessment (archive) notes quantities of stone roofing tiles and some building blocks from F814 and F1093, and a large lump of painted plaster from F1093.

One difficulty in the interpretation of the assemblages from the VR pits, shafts, and wells as special deposits is, obviously, the absence of human remains – except from another pit, F168 (Trench X), in which an infant burial was associated with a number of well-preserved pots amongst an otherwise unexceptional group of animal bones (P4) and objects – two pins, one of bone (117), one of copper alloy (139); a stone counter (610); an iron knife (669); copper alloy nails (719, 720), pierced plates/ straps (840, 865), an iron bar (952); and a bone peg (1085). In addition, the groups of associated bones from F814, F1093, and F1096 may represent accidental casualties and disposal of old or unwanted animals (there were three puppies from F1096 possibly from the same litter). It is clear, also that these features were not just the site of special deposits but acted as dumps for craft waste (see also below). For example, F814 also produced primary butchery waste – the heads and feet of cattle perhaps initially exploited for leather and horn (P4), and litharge. Moreover, the building materials from F814 and F1093 were mostly in quite fragmentary condition and may also have been merely dumped. Judgement as to whether these were special deposits is therefore reserved, but the possibility should be noted.

#### *Structured or special deposits in the Oram's Arbour ditch at New Road*

The use of the western part of the Oram's Arbour enclosure (Figs 1, 2 and 7) as a cemetery suggests that it formed a significant boundary in the Roman period (cf Esmonde Cleary 2000, 128–9, 137–8); conversely, the absence of burials within the enclosure and outside the city wall may indicate that the area enclosed was considered to be part of the urban space, although it does not appear to have been built-up (see Part 1).

From the silting over the cemetery at New Road, there were a number of coins and a late Roman strap-fitting in good condition, amongst abraded and probably residual material. Carfax, a site quite close to New Road, to the east but outside the city wall, (as latecomers to the MAP 2 assessment, the finds have

not been fully reported here) also produced a medium-sized assemblage of coins of a similar date and in a similar stratigraphic position. It has been suggested that the coins from New Road and Carfax represent a dispersed hoard, but their location, close to the city defences and the inhabited area of the town, may indicate that they were deposited in the ditch singly or in small groups as people passed by. Whether this was the result of casual loss or a deliberate action is uncertain; the material was not directly associated with the cemetery, being from the silting above (but see below).

#### *Deposits associated with the defences at Henly's Garage*

Assemblages from a latrine pit and a well at Henly's Garage (F102 and F113) are quite unusual, but probably had a different source. Reported in this volume is a concentration of late 3rd-century barbarous radiates. These were associated in F102 (F113 was not fully excavated) with a large well-preserved group of late 3rd- to early 4th-century pottery, and a wide range of faunal species including the major domesticates with dog, domestic fowl, goose, raven, jackdaw, red deer, and roe deer (P4). There was also a relatively well-preserved (mineralised) group of botanical remains, including fig, plum or, more likely, cherry, blackberry, cereal bran, and hay-like material, the latter being interpreted by Francis J Green as the Roman equivalent of lavatory paper (P4). The features were cut into the back of the rampart quite close to the South Gate, and separated from the intra-mural properties to the north by a stout fence (Part 1; P2); it is possible, then, that this assemblage gives a snapshot of the diet and habits of those manning the defences in the late 3rd or early 4th centuries, rather than painting a general picture of the typical inhabitants of the town.

### **Dumps**

One kind of dump appears as a concentration of occupation debris or craft waste on a site which was otherwise not built-up. This should probably be linked with the wider programmes of land reclamation, which culminated in the wetter parts of the town within the walls being built on for the first time in the later second century (Part 1). Other concentrations may be more closely related to the functions of particular buildings or sites, but this is difficult to ascertain from what survives in the archaeological record. The potential for assemblages to lack a strong connection with the sites from which they came affects the interpretation of the finds from Victoria Road in particular.

One other 'dump' should perhaps also be mentioned: the few finds from the defensive rampart at Henly's Garage, Crown Hotel-Jewry Street and Magdalene Almshouses may have been redeposited on the same sites in the upheaval caused by the construction or widening of the rampart (see Part 1), although poten-

tially they could have come from anywhere in the town.

#### *Dumps on unoccupied sites*

At Victoria Road up to the end of the first half of the 2nd century, only the early cemetery and the road to Cirencester were in existence. At Crowder Terrace, too, the landscape was a rural one in the 2nd century, and Nina Crummy has argued above (Part 2, Category 16) that the bone working waste recovered in quantity from both sites had been moved some distance from its place(s) of production. Cattle bones showing evidence of specialist butchery also appear to have been dumped in the suburbs, especially at Victoria Road (P4).

Another deposit from Victoria Road probably originated off-site. The earlier Cirencester-roadside ditch (V, F85) was also filled before suburban occupation had begun to develop to the north of the town. The fill produced large quantities of finds, this time, general occupation debris, which must have derived from elsewhere in the city or the suburb. If dumping took place at Victoria Road, and even as far out from the town walls as Crowder Terrace (see Fig 3), this may also have happened at Hyde Abbey, although there is no particular evidence either in the stratigraphic or the finds record.

#### *Dumps on occupied sites*

A different kind of dump, dating to the early 4th century, was found in Trench XII at Victoria Road. Here was a concentration of iron scrap and a number of copper alloy objects, some of which appeared to be damaged or blundered (see Part 2, Category 15). Given that buildings were by that time numerous on the site, it is possible that one was the establishment of a smith, and that such material was brought regularly, to be repaired or reworked. However, the deposit also contained a wide range of other paraphernalia, such as non-metal small finds, pottery, animal bone, and degraded organic debris. Amongst the animal bone was a high proportion of split and splintered bones derived from intensive and specialist butchery of cattle (P4), and, probably, the use of the bones for glue-boiling or artefact manufacture. All this suggests that the source of the deposit may have been quite distant and quite mixed. Here, then, is further evidence of activity that may not have taken place at Victoria Road itself, although the pottery suggests that the deposit accumulated over a relatively short period of time, at least, being a reasonably cohesive assemblage of the late 3rd to early 4th centuries (P5).

#### *The range of finds in the Victoria Road dumps*

The full range of artefact types that were dumped at Victoria Road and not used on the site can never be known. However, there are some that occur in large

or at least reasonable quantities in late 1st- to mid-2nd-century non-funerary contexts (when the site was unoccupied, except by the early cemetery and the road to Cirencester) which are very rare in, or totally absent from graves. As has already been pointed out (Part 2, Category 1, 58–98), types of the 1st and 2nd centuries predominate markedly amongst the assemblage of bone pins from Victoria Road, yet only three were deposited as grave furniture. Amongst finds in Category 2 (toilet, surgical, and pharmaceutical instruments), mirrors are mostly confined to early graves and combs to late ones. Small toilet instruments such as tweezers, nail-cleaners, and spoons have quite a different distribution, all being from non-funerary contexts. Twelve of the twenty were from deposits of the 1st and 2nd centuries, and three were found in the dump of scrap deposited in Trench XII (above). Although it is possible that some of this material was disturbed from graves and redeposited, a large sample of graves (just over 200) survived to be recorded. It is likely then that most of the early pins, and the small toilet implements were neither grave goods nor used by the occupants of the buildings on the site, but dumped along with other occupation debris and craft waste.

### Redeposited grave goods

There was no evidence of occupation at Chester Road and St Martin's Close in the eastern suburb, and Hyde Street in the northern, all three sites being reserved for late Roman cemeteries. The site at Chester Road was subject to substantial natural erosion, which may have totally destroyed some graves in the eastern half of Trench III, whilst St Martin's Close was partly excavated by machine and untrained personnel in advance of salvage recording by staff of Winchester Archaeology Office. At Hyde Street, too, excavation had to be carried out very rapidly (Part 1, Appendix 1, P1). Here, then, finds not certainly from graves are likely to be mostly grave goods redeposited either in antiquity or in recent times.

It is more difficult to judge what could have been redeposited at Victoria Road, as a wider range of activities was carried out on the site. The late Roman cemetery to the west of the Cirencester road (Trenches I–VI) was not too badly disturbed by later activity. However, apart from those types discussed above, many of the finds from contemporary soil layers and later contexts to the east of the road (Trenches X–XV) are potentially redeposited from the early cemetery.

### Site specific occupation debris?

The objects eventually recovered, once in or on the ground, were potentially shifted around on some scale as part of town-wide earth-moving, as well as being carried from place to place during use. Further, deep features may have been host to special deposits, in addition to craft waste and, probably, occupation

debris. These phenomena are particularly marked at Victoria Road; the range of material actually used by the occupiers of the buildings on the site may have been quite limited, but it is hard to reconstruct these limits in the present day. There are fewer qualifications to express about other sites on which buildings stood (Hyde Abbey, the Jewry Street sites and Henly's Garage), and much of the material discussed here was potentially used by the occupants of those buildings.

## The economy

### Sources of supply

Demand for goods to sustain a centre of population such as *Venta Belgarum*, and for materials to build and maintain its fabric would have been on a massive scale compared to what had gone before.

### Local resources

Local building materials were used where possible, many town houses being made from alternating courses of flint and chalk, with imported stone or ceramic tile only at the corners (for example, Zant 1993). The city wall was built in flint (P2), and plaster, mortar and, sometimes, tesserae were also made from the local chalk (Part 2, Category 9).

There is, of course, evidence of Romanised culinary tastes in the form of olive oil, wine and fish sauce amphorae, and if the paucity of objects in Category 12 is anything to go by, residents of the town and the suburbs did not grow food for their own consumption on any scale at any period. Nonetheless, the bulk of the food eaten in *Venta Belgarum* need not have come from very far away in the rural hinterland. Animal products other than food, such as bone artefacts, could also have been made locally.

However, ready access to raw materials for the manufacture of other artefacts and building materials was limited. Clay for potting and tiling, stone other than flint and chalk, and mineral resources were all lacking, and even local timber was possibly in short supply (see, for example, Allen 1989, 140).

### Sources of supply for pottery, tile, and stone

It is possible to comment quite extensively on the range of sources that kept the town supplied with pottery, tile and stone (both artefacts and building stone) either because the production sites are known or because geology identifies them, or both.

The vast bulk of material came from not too far away. So, grey wares came in quantity from the Alice Holt/Farnham kilns, particularly in the 1st to 3rd centuries, and in smaller amounts, perhaps from the area around Botley in south eastern Hampshire during the early Roman period. The New Forest kilns were the main suppliers of colour coated and grey wares, with

some mortaria in the later Roman period. Greensand deposits on the edge of the chalk downlands were a source for building stone (Part 2, Category 9). More detailed study of the ceramic building materials from The Brooks site in the centre of Roman Winchester (Foot, forthcoming) has shown that the area around Bishop's Waltham (quite close to Botley) was an important source of supply early on, as was, later, the Farnham area.

Another important but more distant source of production throughout the Roman period, for shale, Black Burnished ware and later Roman roofing tiles, is the Wareham / Poole Harbour area of Dorset and the Isle of Purbeck to the south. Materials transported over similar kinds of distances were building stone from the Isle of Wight (Part 2, Category 9) and the Lodsworth querns (Part 2, Category 4, 514–30). Amongst even more distant sources are Oxfordshire (late Roman colour coated wares and mortaria), western Britain (querns possibly from the Forest of Dean, Bath stone, sandstone roofing tile) and the continent (earlier colour coated wares and mortaria, later, lava querns). Imports identifiably from outside north western Europe are few and far between, but include amphorae, or more importantly, their contents.

#### *Sources of supply for other material types*

The nearest sources of raw materials for the manufacture of metal objects were western Britain for copper and tin, the Mendips for silver and lead and the Weald for iron (Tylecote 1986). An iron smelting site, which perhaps is best regarded as a Wealden outlier, is known at West Walk, Wickham, quite close to Botley and Bishop's Waltham (Winchester Museums archive, site WW 74), although it is not certainly of Roman date. However, extraction of mineral resources and manufacture of artefacts need not have taken place on the same sites, and the potential for recycling manufactured objects was ever-present. This is true not only of the objects of metal, but also for glass (see, for example, Cool and Price 1995, 224–7). In addition, although objects of bone are potentially locally manufactured, this need not always have been the case. Given that these material types do not readily betray their sources in their observable characteristics, origins can be identified for only a small proportion of the finds itemised in this volume.

Early continental imports include several beads and almost certainly the elaborate bone inlay from VR grave 621 (556–85). Some of the early brooches are also continental, such as the Hod Hills. British centres of production from this time are not well known, but the commonly occurring Colchesters will have come from somewhere in southern England. The dragonesque brooches are of native British manufacture, but from a quite distant source in the north of England. Later, in the 2nd and 3rd centuries, pipeclay figurines (941–3) and luxury items such as the ivory armlet and cowrie shells (189 and 210) are also clearly imported, but the majority of unsourced small finds of 2nd century and

later date were probably British-made versions of widespread Roman forms, typified by the axe- and enamelled disc brooches.

Study of the distribution of glass vessel types throughout Britain and the wider empire, and of the distribution of known glass-working sites (for example, Cool and Price 1995, 225–7) has led to the conclusion that sources south of the Alps were important in the pre-Flavian period, but that north western Europe began to develop its own industries in the mid to late first century, as the frontier moved north. Manufacture of glass vessels in Britain is attested from the early Flavian period onwards, known production sites being located mostly in the east of the province and the Midlands. Sources supplying Winchester are likely, then, to have been many and varied, and to have changed through time. The pillar moulded bowls from Victoria Road should probably be numbered amongst early imports, whilst the snake thread vessels and the Frontinus bottle(s) may be examples of vessels made in north-western Europe in the 2nd to 4th centuries. By contrast, a few late types known only from Winchester could have been made relatively locally (Part 2, Category 4).

#### *Overview*

With Winchester placed at the centre, these sources of supply can be viewed as located in an ever-widening series of radii, beginning with the town and its local hinterland, expanding to the immediate region, then to the province and finally to other provinces. All of the regional sources are located at the boundaries of the Hampshire chalklands, where variation in the surface geology made the raw materials for building stone and for pottery and tile manufacture more easily obtainable. On the whole, less pottery (and ceramic tile) came from the wider province or the continent (even the ubiquitous samian ware rarely forms more than 5–7% of any early Roman pottery assemblage), although sources outside the region but within Britain were important suppliers of stone. It is much harder to provenance the other finds; some metal objects and glass vessels can be identified as continental imports, but many sources within Britain are also possible. Sources outside north western Europe are very occasionally represented, in amphorae, early glass vessels and luxury items such as ivory and cowrie shells.

#### **Markets and distribution**

##### *Gift exchange in the early post-Conquest period?*

Trade in brooches from both across the channel and within Britain was well established before the Conquest, although there are very few from Winchester itself (ref to P11), while items such as the melon beads are signs of a continental market taking hold in the new province. The responsibility for setting up new networks of continental supply at this time has

been laid at the door of the army of Conquest (Fulford 1989, 179–80).

However, the rite of cremation burial with large numbers of pottery vessels, some imported (for example, Biddle 1967; Collis 1978, 149–55; Jones 1978) has been interpreted as representative of a local elite who lived both in the countryside and in the town (Millett 1986, 80; P1). This might corroborate the suggestion that there was only limited access to such goods amongst the civilian population, and circulation was by means of personal contacts and exchange amongst the wealthier members of society (Fulford 1989, 182). The association of the dragonesque brooches (49–50) with one such pottery assemblage (from Victoria Road, grave 566 – see Appendix to Part 2) could imply that these items also reached Winchester in this way, rather than as objects of regular trade.

### *Regional exchange*

*Ad hoc* arrangements like gift exchange would clearly have been insufficient for the construction of the new town, and its supply once fully established. By the end of the 1st century, more normal redistributive networks (see, for example, Peacock and Williams 1986, 55–63) must have been set in motion, some quite likely with official encouragement (for example, Greene 1986, 155; Todd 1989, 87). From then, Winchester would have been a vital market for producers on the periphery of the Hampshire chalklands, perhaps, at times, the main reason for their existence. The production sites are mainly to the south and to the east of the town, and their location makes it likely that such goods were brought directly by road through the South and East Gates.

### *Provincial exchange*

If pottery supply is anything to judge by, products from outside the region were the subject of wider and more specialised distributive networks, (see, for example, Fulford 1989, 185–6; Peacock 1982), in which *Venta Belgarum* would have participated. It may be noted that the glass vessels itemised here can mainly be paralleled widely (Part 2, Category 4), suggesting that much of the material was obtained in the same way as the less common pottery fabrics. Further, in the case of the copper alloy, even the most utilitarian items such as needles (359 and 360) are similar to ones found in quite distant places, possibly indicating that they were distributed in larger than region-wide networks (although, of course, it may also have been the functional nature of the object that constrained its form).

However, we have seen (above) that copper alloy and iron objects could be reworked in Winchester, and perhaps it was sometimes the specialist metalworker who travelled over wide areas rather than the finished product. This might also be the context in which the possible glass waste was generated; Cool and Price (1995, 226) have pointed out that glass working tends to be associated with other high temperature indus-

tries. The limitations of the local fuel supply suggest, though, that such activities would have been quite small in scale. The itinerant bone worker would have suffered from no such restriction: local raw materials were in plentiful supply and high temperatures were not required. This may be the reason why both bone and antler objects can also be easily paralleled.

### *Redistribution to Winchester*

Analysis of lead pigs from Hampshire and Sussex has suggested that Bitterne near Southampton (possibly the *Claesentum* of the Antonine Itinerary) was the shipping port for lead pigs coming from several mining areas, whilst some Mendip pigs were carried directly eastwards (Tylecote 1986, 66–7), presumably by road. This brings into focus the potential role of the coastal ports in the redistribution of goods. For example, other goods from the west might have been shipped in the same cargoes as lead pigs, and brought to Winchester either *via* Bitterne and the River Itchen, or directly by road, or both. Sites like Bitterne and Portchester need not have been the only centres of redistribution affecting Winchester, for example the presence of querns possibly from the Forest of Dean might indicate that iron also came from that source.

Some evidence for redistribution is found in the lower overall proportion of (South-East Dorset) Black Burnished ware Category 1 (BB1) from later Roman Winchester compared with Portchester (Fulford 1975b; P5), although there was a surge in the supply to Winchester and other inland *civitas* capitals in southern England in the late 3rd century (Lyne 1994 and forthcoming). Allen and Fulford (1996, 257) have suggested the existence of a sea-route from Poole Harbour through the Solent towards Chichester, taking in Portchester and, presumably, Bitterne (although this has yet to be verified in print through quantification). Their scenario (*ibid*, 256, fig 13) also stresses the importance of overland routes between the Bristol Channel and the Dorset coast. They argue in addition that the means of dispersal of BB1 from its production site was not as other pots (*ibid*, 264), but that it may be representative of the dispersal of other goods (*ibid*, 271). Subjectively, limestone roofing tiles from the same general area seem more important in Winchester than does BB1, although any attempt to demonstrate this quantitatively would probably be extremely difficult. With the New Forest potteries on the doorstep, it may be that it was the lack of building stone that was more keenly felt here, and that BB1 was merely a small component of a larger cargo.

### *Redistribution from Winchester*

So far, Roman Winchester has been discussed in terms of its consumption: the question of its role as a market town is not an easy one to address. In theory, the town could have supplied the surrounding countryside with a wide range of goods and services, but identifying

the patterns in the archaeological record that would corroborate such an assertion is difficult. It has been suggested that the little BB1 that reached rural sites in the late 3rd and early 4th centuries may have been distributed *via* the civitas capital (Lyne 1994 and forthcoming) and this may also be true of other types of pottery. A similar pattern is observable in the evidence for bone working on a more than homemade scale in Hampshire. This is confined to particular kinds of site, like Portchester, a port and sometime military establishment (Webster 1975a, 216), Neatham, a small town (Millett and Graham 1986, 157), Spes Bona, a villa (Ford 1998), and Winchester. The range of objects being made varies from site to site, but all include pins of the same quite standardised forms. It may be, then, that finished bone artefacts were obtained from the larger settlements and the town, but that each of these was visited periodically by itinerant craftsmen, rather than having its own. More prosaically, the lack of evidence for bone working from other sites might just reflect a smaller sample size.

Study of the animal bone from the sites in this sample has provided a context for the substantial amount of bone working waste found in Winchester, in identifying a number of contrasts in the use of animals between the town and contemporary rural settlements. Most notably, the waste from specialist butchery of cattle is present in quantity in Winchester (and in other Romano-British towns in the south of England) but largely absent from the rural hinterland (P4). Mark Maltby has demonstrated that cattle were brought to town in large numbers for slaughter, and butchered systematically, all of the animal being used, including sometimes splitting and splintering substantial accumulations of limb bones for marrow and grease. It is likely that there was a more sophisticated market in Winchester itself for such products, but this also raises the question of whether they were also marked for export outside the region. There is no known evidence from Winchester for smoking, salting, or pickling meats (and indeed, the sites of the butchers' establishments are also unknown), but the import and export of preserved animal products may be difficult to trace in the archaeological record. However, finds of garum and similar fish sauces have now been recovered in several Roman towns. There is also evidence from a few late Iron Age and Roman sites to suggest that pigs were sometimes the subject of specialist processing, that probably including preserving the meat by salting. The salt pork and bacon could then have been transported substantial distances (Maltby 2006). It may be that Winchester was more likely to have been the recipient of such produce but the possibility that similar processing took place in the town cannot be ruled out.

Unfortunately, the much debated grain surplus (see, for example, Fulford 1989, 196; Jones 1989) is invisible in this archaeological record. Perhaps, too, export of grain and other vegetable foodstuffs both to the town and the wider province was organised directly from the villas for which the Winchester area is noted (see for example, Millett 1982, 423).

The quite large numbers of spindlewhorls (and one weaving tablet) found in graves in the 4th-century

cemetery at Lankhills has been linked to the possible operation of an imperial fulling mill (*gynaeceum*) at Winchester (Clarke 1979, 369). In this sample, spinning and weaving equipment is quite rare. This could suggest that textile production was indeed largely a specialised rather than a domestic concern and confined to particular (as yet unknown) sites. If so, the sex of the skeletons from Lankhills indicates that it was still a task that was carried out by women (cf Peacock 1982, 8–9ff).

It may be observed that the most convincing case for export of Winchester goods to the wider province and empire is amongst natural commodities rather than manufactured artefacts; cattle reared in the rural hinterland were brought to the town to be processed. Wool, too, with or without the sheep, may have been brought to be turned into cloth. As in the medieval period (see below), Winchester's contribution to the wider economy may have been largely based in its local resources of food and animal products. However, as these kinds of goods are mostly perishable, the archaeological record cannot show for certain that they were exported, rather than being used solely in Winchester itself. It is just as likely that the town gave only social and political stability in return for consumer goods.

### Economic decline

Clarke (1979, 345–6) has pointed out the evidence for economic change towards the end of the Roman period amongst the grave goods from the Lankhills cemetery. This appears to be paralleled amongst grave goods in this sample, although the pattern is not as clear, as far fewer graves were furnished than at Lankhills (P1). There was a trend away from mass-produced materials towards fewer but more lavish items, such as the box (595) and comb-set (315) from St Martin's Close and the hare-and-hound knife from Victoria Road (661) or objects in unusual or expensive materials, such as the silver pin from St Martin's Close (147).

Other authorities have seen a general economic decline beginning in the second half of the 4th century (Fulford 1989, 198–201). In Winchester, for example, there were no new town houses built after around AD 350 (Scobie 1994, 1995, see also Part 1). The appearance of building materials as grave linings in the late 4th and 5th centuries especially at St Martin's Close (Part 2, Category 9) leads to the suspicion that town houses standing empty at this time were robbed for the construction of new graves (P1). Perhaps it was also then that the itinerant craftsman came most to the fore: the complex arrangements needed to build a town house were in disarray, but expertise, goods and raw materials could still be transported in small quantities by means of two (or four) feet.

### Roman houses

As is the case with all of the Roman finds, the site distribution of household items is dominated by Victoria

Road. However, if known and potential special deposits and dumps are excluded, the numbers become more evenly balanced between the various sites in the sample. Given the relative size of the site at Victoria Road, the impression is that the VR buildings were, in fact, rather poorly furnished.

## **Building construction**

### *Houses in situ*

Within the walls, the earliest buildings were of timber. From the mid- to late 2nd century, there is evidence from The Brooks and from Henly's Garage for the construction of larger masonry town houses, occupying more than one of the original properties (Zant 1993; Scobie 1995; P2 and see Part 1). By contrast, the buildings in the northern suburb that have been excavated so far were of post- or beam-in-trench construction throughout the Roman period, although one (Building 1.19) had chalk footings and a floor of reused tesserae with chalk and flint pebbles. There is also less evidence from the northern suburb that development was planned or strictly controlled, as the properties are of varied shapes and sizes, and encroached on the space originally reserved for features associated with the road to Cirencester. These buildings have been interpreted as sites of small scale industry and commerce positioned to take advantage of traffic in and out of the North Gate (P3).

### *Loose building materials*

Consideration of the loose building materials may help to elucidate the appearance of the suburban buildings, although it must be stressed again that a proportion of these were dumped on the site at Victoria Road, rather than used there. They suggest that by and large, the walls were infilled with wattle and daub. The range of other building materials is similar to those from within the town but much smaller in quantity. This could simply mean that buildings were efficiently demolished and any reusable materials carted away. However, the recovery of, for example, ceramic roofing tiles from construction deposits, along with artefacts such as quernstones and sherds from amphorae and storage jars suggests that more durable materials than timber, wattle and daub were reused to strengthen particular points within structures. Whether any of the roofs were tiled is uncertain: it is equally likely that they were thatched.

### *Fixtures and fittings*

In this sample, as in many others, it is uncertain whether iron fittings such as staples, joiner's dogs, hinge pivots and straps in Category 11 came originally from coffins or other boxes in graves (unless they were found in situ), from buildings or from wooden

furniture. Nevertheless, there were relatively fewer such fittings from sites that were reserved exclusively for cemeteries (Hyde Street, Chester Road and St Martin's Close) than from sites with buildings and no graves (Hyde Abbey, Henly's Garage and the Jewry Street sites). At the Brooks (Mounsey, forthcoming) the figure is relatively low, but this may be because the vast majority of buildings were of masonry rather than timber construction, or because they were more thoroughly demolished (for discussion also of whether masonry buildings at The Brooks could have had partly timbered superstructures, see Zant 1993, 80, 126–7).

Although Victoria Road produced the highest number of iron fittings, if the presence of graves and the possibility of dumping from elsewhere is taken into account, the relative figure is also quite low. Again, this suggests efficient demolition, but it is just possible that the superstructures of the buildings at Victoria Road were more ramshackle or more simply constructed than those on the other sites. It is also worth noting that all but three of the twelve locks and keys in this sample were recovered from VR, mostly in contexts not necessarily dumped or representing special deposits (805–16 and see above). On The Brooks, a site of comparable, if not larger size than VR (Zant 1993, 8–10), only four were lost or discarded (Mounsey, forthcoming). Whatever the functions of the VR buildings were, on the face of it, a higher degree of security was required than on other sites.

### *Glazing*

Amongst the 44 fragments of window glass, some were from sites without buildings (two fragments from Chester Road and one from Sussex Street), some from deposits predating the earliest buildings on the site (one fragment from Jewry Street-Crown Hotel and nine from Victoria Road) and some from deposits in which it was potentially dumped from elsewhere (one fragment from 27 Jewry Street, one from Henly's Garage and six from Victoria Road). Excluding four fragments found residually in post-Roman contexts, this leaves only nineteen fragments possibly from buildings at Victoria Road (14 fragments), Hyde Abbey (four fragments) and Henly's Garage (one fragment). It is uncertain, therefore, whether the material represents glazed buildings on any of the sites. Nevertheless, as there were only 29 fragments from The Brooks (Cool, forthcoming), the small quantities may still indicate that some of the buildings in this sample had glazed windows. As window glass is easily melted down for reuse, the quantities found on any site are liable to be small.

## **Furnishing**

Is it possible to form a mental picture of how Roman houses in Winchester were furnished? Amongst the vessel assemblage in this archaeological record, as in most others, pottery is most common, followed



by glass, and shale and metal are quite rare (Part 2, Category 4). Shale will have survived less well than pottery, and glass and metal were apt to be recycled, whilst organic materials used to make vessels would have perished in a dry burial environment. Even so, it is likely that glass, shale and metal would have been less easily available and therefore more expensive than pottery. Moreover, the wide range of forms obtainable in both pottery and glass might obviate the need for wooden vessels to some extent, although probably not for wooden barrels and buckets (see, for example, Crone 1992 and 506). Perhaps, then, the balance is not so far from a true one as it might appear at first sight.

The objects recovered from four early Roman cremation graves (422, 466, 515 and 621) at Victoria Road and one probably very late grave (36) at St Martin's Close show the range of boxes, chests, or furniture that might be seen in a Roman house in Winchester (Part 2, Category 4). The box from VR grave 466 was fairly simple, having sheathing at the corners and a drop handle, whilst those from VR grave 515 and SMCW grave 36 were complex in their construction and more ornately decorated. The bone fittings from VR grave 621 must have come from a very fancy item indeed, although it is uncertain quite what, as it had been burnt on the funeral pyre and the pieces were not in situ in the grave. It is unfortunate that the same thing had happened to the deposit in VR grave 422, as several items of furniture were possibly represented.

The paucity of lighting equipment is not at all unusual (here, and at The Brooks, two sherds in a stratified sample of around 33,000 (Holmes, forthcoming)). Oil lamps and candlesticks tend to be found on sites associated with military, administrative or religious activities (Nina Crummy, pers comm), and, as domestic activities were unlikely to have been confined to daylight hours, another means of lighting that left no archaeological trace can be supposed (*cf* WS7.2, 983–4). Spinning and weaving equipment is quite rare here, although it is slightly more common at The Brooks (Mounsey, forthcoming). It is uncertain therefore whether textile production was normally a domestic activity (see above).

### Food and eating

The range of implements used for preparing, serving, and eating food (Part 2, Category 4), although it presumably included knives (Part 2, Category 10), is limited both here and at The Brooks (Mounsey, forthcoming). Again, implements of wood might not have survived, and metal could have been recycled, but bone is quite enduring. Specialised vessels such as mortaria and 'fish dishes' show that much attention could be paid to the preparation and cooking of food, but, possibly, eating was usually a relatively simple affair.

Quernstones are quite common in this sample: it is likely that many Winchester households were furnished with the means to grind grain. It is impossible to judge whether the querns were actually used on

the sites discussed here, as most if not all were reused as building material (15 out of the 30 quernstones from Victoria Road and 27 Jewry Street were found in construction or demolition layers, and only one was from an occupation deposit).

### Craft, industry, and commerce

Apart from the dump of bone working debris found at Crowder Terrace, craft waste was largely confined to the site at Victoria Road. The tally of crafts represented includes horn and leatherworking (P4, 655), spinning and weaving (361–363), bone working, smithing, copper alloy and silver refining and possibly glass working (Part 2, Categories 15 and 16) but only bone working waste, smithing slag and scrap iron were found in any great quantity. As outlined above, it is uncertain how far these crafts were practised on the site itself: it is likely that bone working was a subsidiary industry of the specialist market for cattle, and the evidence both of the butchery process and the manufacture of artefacts had been dumped from elsewhere in the town or the suburbs (P4).

Because of the possibility of dumping from distant sources, it is difficult to suggest dating for these different activities. The waste from bone working recovered at Victoria Road is probably of 1st- and 2nd-century date, (and probably of 2nd-century date at Crowder Terrace), its stratigraphic distribution seeming to show increasing residuality thereafter. Smithing slag was recovered in small quantities from 2nd-century deposits as well as one piece of possible glass waste, but all of the other debris was of the 3rd and 4th centuries. The best evidence for leatherworking, 655, and spinning and weaving (361 and 363) in this sample came from VR F1093, the main finds-producing fill of which, from the coin evidence (Part 2, Category 6), had been deposited in AD 364 or later.

If the South and East Gates were mainly involved with the importation of goods from within the region (above), perhaps the area around the North Gate witnessed the operation of some of the wider contacts needed to keep the town supplied with other goods. The character of the structures on the site at Victoria Road suggests this interpretation (above, and P3). The question here is, do the finds support the theory?

Although it may be random in a large sample, the relatively large number of coins of the higher denominations found at Victoria Road has been noted (Part 2, Category 6). In addition, almost all of the weighing equipment and five out of the six styli came from the site (617–20, 621–6). On the other hand, the more specialised craft tools (645–55) were recovered from a variety of sites in the northern suburb and on the defences. This is what might be expected if VR had been a site somewhat of industry but more of commerce and exchange. We could also cite as (admittedly more slender) evidence the fact that VR produced all but three of the eighteen objects associated with transport (627–44).

## People and population

### Demography and site function

Little is known from the cemeteries around *Venta Belgarum* about the composition of the earlier Roman population, as cremation was the preferred rite until the mid- to late 3rd century. Examination of the skeletal remains from inhumations has revealed that the late Roman population was composed as might be expected. The mortality rate amongst infants and children was high, dropping markedly amongst adolescents. Of those who reached adulthood, males outnumbered females by some margin, forming 57% of the skeletons which could be sexed (P1).

In this sample, babies, children, and adolescents are virtually invisible. It is also difficult to identify items exclusive to male use, apart from military equipment (see below) but there are a number of types which seem to belong particularly to women, notably beads, hairpins, armlets, mirrors, and spinning and weaving equipment (P1; Clarke 1979). At The Brooks site in central Winchester (Mounsey, forthcoming), the ratio of objects appropriate to women against other whole objects (excluding coins) in Categories 1–3, 5–8, 10, and 12–14 is about equal, but at sites in our sample with reasonably-sized assemblages (Hyde Abbey, Henly's Garage and Victoria Road), the figure is nearer 1:3. Moreover, if finds from the early cremation cemetery are excluded from the sample, together with the 1st- and 2nd-century bone pins from Victoria Road (as likely to have been dumped, see above), the number for that site is close to 1:5. The Brooks assemblage could be biased by a lack of other types, rather than positively in favour of objects used or worn by women. In spite of this, the figures may indicate that there were fewer women living at sites on the periphery than within the walls. Further, perhaps they corroborate the suggestion that the later Roman buildings at Victoria Road were not solely domestic in character (see above).

### Foreign elements

In theory it is possible to identify foreign elements in the population by the presence of unusual or foreign objects. A number of the finds from the early Roman cemetery at Victoria Road might fall into this category, along with the pin from a grave at St Martin's Close (147) and the openwork knife handles from Victoria Road and Hyde Abbey (661 and 662). In practice, though, such objects could have been acquired through exchange, or from itinerant craftsmen, as has been suggested above.

Unusual burial practices, sometimes involving objects discussed in this volume might also betray the presence of foreigners. Such considerations have allowed Clarke (1979, 377–403) to propose the presence of a number of foreign graves in the cemetery at Lankhills. However, such questions are properly

the preserve of another volume in this series (P1), and moreover are best addressed through osteoarchaeology: new analytical techniques, particularly on isotopes and DNA have greater potential to provide a definitive answer to the question of origins and ethnicity.

### Military presence

The lack of evidence for a military base of the Conquest period in Winchester has been much remarked upon (Wacher 1995, 291; Collis 1978, 6; Zant 1993, 5). Nevertheless, some of the early finds, particularly the cavalry pendant (940), the irregular coins of Agrippa and Claudius (Part 2, Category 6) and the Hod Hill brooches (27–30) from Victoria Road are best interpreted as brought to Winchester by members of the army of invasion and their followers.

There are other early finds that might have been the personal possessions of soldiers, or, alternatively, signs of increasing Romanisation amongst the native civilian population (see above). Most of the early brooches, for example, would fall into this category, and here there is also evidence of curation beyond the normal span of use of the objects (Part 2, Category 1). The status of a group of nine Lyon ware cups from a non-funerary context at St George's Street (Cunliffe 1964, 58) is also equivocal; its presence may be one indication that this was the site of whatever early military base was thought necessary in Winchester (for example, Maxfield 1989, 23–5; Zant 1993, 50), as Lyon ware tended to be used more in military life than civilian society (Greene 1979).

There is no evidence in this sample for military activity of the 2nd century, but there was some 3rd-century equipment from Victoria Road (934, 937 and 939). In addition, the late 3rd-century barbarous radiates from features cutting the defensive rampart at Henly's Garage might have a military connection (Part 2, Category 6, and above). It is tempting to link the presence of this material with the upheavals caused by Carausius and Allectus in the later 3rd century, but, of course, archaeology and history cannot be married in this way with any degree of confidence.

4th-century gear came from Victoria Road and New Road (in the western suburb), as well as from graves at Lankhills (Clarke 1979, 289–91). However, there is no evidence from burial practice at Victoria Road and New Road that any of the excavated graves were those of soldiers. Perhaps, then, Victoria Road was a place in which the military were to be found in life during the 3rd and 4th centuries, at least occasionally.

The high quality of the 3rd- and 4th-century material from Victoria Road and New Road has been remarked upon (Part 2, Category 13). These objects perhaps represent the higher ranks of the Roman army, or even important civilian officials, in a situation where an administrative role was to the fore (see, for example, Clarke 1979, 388–9, 452).

## Ceremony, religion, and afterlife belief

### Individual objects

The small tally of objects relating directly to religion (Part 2, Category 14) represents the sort of blend of classical and native beliefs that might be expected amongst pagans in a town such as *Venta* (for example, Green 1976; MacDonald 1979, 404–24). The horse goddess Epona was apparently particularly important here, for she manifests not only in this sample, as a figurine and as horse burials in both the earlier and later cemeteries at Victoria Road (P1), but as a wooden statuette from a well at Lower Brook Street, within the walls (Ross 1975).

For the most part, though, it is the archaeological context and associations of a seemingly ordinary object that may indicate its socio-religious significance (although what this might be is harder to ascertain). In this sample, mirrors and armlets of iron are confined to early graves, or to contexts in which they were probably residual from graves, and combs to late ones. It is likely in the case of the combs that this is a matter of materials and their survival. Mirrors and iron armlets, even so, do seem to be rare in non-funerary contexts (for example, Clarke 1979, 311), and the possibility that combs had an exclusively ritual use has already been pointed out (Part 2, Category 2, but see alternatives, and also Crummy 2001, for a more complex interpretation).

The ornament on two of the decorated combs, one from Hyde Street (northern cemetery) and one from St Martin's Close (eastern cemetery), is of stylised horses, and at first glance, implies another connection with Epona. Despite this, consideration of other burial practices in these different cemetery areas suggests that St Martin's Close was a Christian burial ground, whilst Hyde Street was reserved for pagans (P1). Combs, then, may have been selected for burial

both by pagans and by Christians (see, for example, Philpott 1991, 240), making the selection of these items a social rather than religious act.

### Special deposits

We have seen (above) that some of the assemblages from late Roman features at Victoria Road were unusual in their composition. The most obvious reason for these special deposits, if such they be, is the proximity of the cemetery: perhaps some of the finds from these features were placed as part of a ritual for the dead, either during burial or afterwards (see, for example, MacDonald 1979, 404). On a site that was used both as a cemetery and for suburban occupation, this interpretation must be regarded as tentative (see above) but such deposits are not totally unknown elsewhere (Pierpoint 1986, 81, 85). This may also provide a context for the functional bias in glass vessels towards jugs and bottles at late Roman Victoria Road compared with the intra-mural Brooks site (Part 2, Category 4). Amongst pottery vessels found in funerary contexts, an inclination towards forms connected with the consumption and dispensation of drinks, that is, beakers and flagons has been demonstrated (P5). Although none was found in the later graves at VR, glass vessels of a similar kind may have played a part in rites associated with the cemetery.

Table 33 shows the ratio of whole objects in Categories 1–3, 5–8, 10, and 12–14 to coins on a site-by-site basis. It should be remembered that these 'statistics' merely represent a rough and ready method of comparing the recovery of coins with that of other objects; even so, they show that there were at least twice as many coins deposited at sites which were used most intensively in the late 3rd and 4th centuries (Chester Road, New Road) as at sites that were used earlier, or throughout the Roman period (Victoria Road, the Jewry Street

**Table 33 Ratio of whole objects to coins**

site	coins	date	site type
SMCW	0	late 4th to 5th C	Christian (?) cemetery
VR	0.8	1st to 4th C +	occupation, pagan and Christian (?) cemetery
27JS/JCH	0.9	1st to 3rd C	occupation, defences
HYS	1	mid-4th to 5th C	pagan (?) cemetery
MA	1	1st to 3rd C	defences
HA	1.3	1st to 4th C +	occupation
CHR	2.7	late 3rd to 4th C	pagan (?) cemetery
NR	3.6	late 3rd to 4th C	pagan (?) cemetery, silting in the Iron Age enclosure ditch
HG	4.4	1st to 4th C +	occupation, defences
CT	4.8	1st to 4th C	occupation, rural
SJS	5	Roman	cemetery (?)
SXS	5.5	Roman	little activity within the Iron Age enclosure
The Brooks	1	1st to 4th C	occupation town centre

sites, Hyde Abbey, and The Brooks), because there was more coin in general circulation after AD 259 than hitherto (for example, Reece 1980, 118), and the size of late Roman coinage makes recovery of accidentally dropped coins more difficult.

We have also suggested (above) that the coins found in the Oram's Arbour ditch at Carfax and New Road may have been deposited as a deliberate action rather than through casual loss. Although it may merely be random in a small sample, the coin ratios are rather high overall for sites in the western suburb considering the paucity of occupation there. MacDonald (1979, 408) has suggested that coins found in graves at Lankhills not only represented Charon's fee, but offerings to Celtic gods. He cites as evidence numbers of coins found at some religious sites, in non-funerary contexts. There is some structural evidence that the area encompassed by the Iron Age enclosure on the western side of the town had a religious function, in that a masonry building associated with cult objects (seemingly of Hercules, but now lost) was recorded during construction of a railway cutting to the south of Romsey Road in 1838 (see Part 1). Our sample hardly comprises the vast quantities referred to by MacDonald. Moreover Reece (1980) warns against over-credulous use of such evidence. Nevertheless, it is at least possible that these coins were votive offerings. If so, perhaps the military strap-fitting (see above) was deposited for the same reason.

The hoard of AD 364 or later from Victoria Road was recovered from a well, F1093, which may have contained other special deposits (see above). Again by analogy with religious sites, it could be suggested that these coins were buried less for their own security and more as an offering against the insecurity of the times (*cf* MacDonald 1979, 413).

### **Wealth, status, and society**

None of the finds reported here epitomise the very highest echelons of Romano-British society. This may be due to the location of our sample of sites on the periphery of the town. On the other hand, the population within the walls is presumably represented in the cemeteries, and perhaps the picture conveyed, of solid prosperity rather than great wealth and status, is true for the town as a whole.

### **Grave goods**

It is a moot point whether the degree to which graves were furnished is indicative of status. If ever, this is more likely in the earlier Roman period, when furniture was commonly provided. Amongst the graves in the cremation cemetery on the eastern side of the Cirencester road at Victoria Road, there are a few (G405, G408, G409, G424, G466 and G566 – see Appendix 2) with quantities of grave goods, including some reported in this volume, which may mark the burials of individuals of high rank. It is as much the prominent location

of these graves in relation to topographical features that hints at such social stratification, though (P1, and see above).

In the late Roman period, the presence of high quality grave goods could be an indication of elevated status, although their absence does not necessarily mean the converse. The calibre of the horse combs from St Martin's Close and Hyde Street and of the owl comb from Victoria Road has already been noted (Part 2, Category 2, 312, 313 and 315). To these could be added the silver pin from St Martin's Close (147), the box in which the St Martin's Close comb was found (595), the openwork knife handle from the cemetery to the west of the Cirencester road at Victoria Road (661) and the gold threads from St Martin's Close (949–51). The fine knife from HYS grave 27 (671) may point in the same direction. Although here the association with the burial is uncertain, the object should probably be associated with that part of the northern cemetery.

Late Roman grave goods of high quality are found, then, both in the northern and the eastern cemeteries and their absence from the western cemeteries may not be significant, as insufficient has been excavated there. Examination of other burial practices, such as the location of the graves, the degree of care taken in their construction and the frequency of intercutting graves does suggest some differences in status between burial areas (P1), but this is not noticeably reflected in the quality of the grave goods.

### **Non-funerary objects**

The question of status amongst the living is a difficult one to address. The far lower number of bone hairpins from The Brooks site (Mounsey, forthcoming) than from Victoria Road is noteworthy (1:14, rather than 1:4 of the total number of finds in Category 1), but the figures may be biased by the dumping of material from elsewhere at VR (see above). However, about one third of the objects in Category 1 from Hyde Abbey were bone hairpins and although this sample is too small for certainty, it may indeed suggest the use of cheaper personal items in the northern suburb than in the town centre.

The range of materials used to make just over 300 Category 1 objects found at The Brooks (Mounsey, forthcoming) is similar to that in around 70 objects from the cremation cemetery at Victoria Road. This includes in addition to copper alloy, iron, bone, frit, glass and shale, substances that were presumably sought after, such as silver, ivory, coral, amber and cowrie shell. By contrast, of nearly 200 Category 1 objects from non-funerary contexts at VR, only the more run of the mill materials were represented. This may indicate that the occupants of the suburb were less wealthy than their counterparts within the walls, a possibility which is in keeping with the structural evidence (see above). Nonetheless, the silver spoon (368) and the openwork knife handle from Hyde Abbey (662) suggest that prosperous individuals were sometimes to be found in the northern suburb.

## **The end of Roman Winchester**

The demise of town life in Roman Winchester with the collapse of the street system, the onset of the deposition of dark earth, the stagnation of development in the town centre and the failure to maintain the arterial road system close to the town has been briefly discussed here. The implication is that depopulation began during the third quarter of the 4th century, eroding the consumer base. This, in turn, would have contributed to the gradual failure of the communications infrastructure in southern Britain, and weakened the redistributive networks for manufactured goods.

It is dimly possible to perceive some of these changes from the finds reported here: the late grave goods from Lankhills – as Clarke (1979, 346) has observed – and also Victoria Road, Hyde Street, and St Martin's Close suggest that mass production was a thing of the past by the late 4th century, and that only a limited proportion of the population had access to goods of high quality.

Although it appears that the notion of the northern suburb as the town's industrial area is too simplistic to bear close scrutiny, it is worth noting that industrial waste is so far almost completely lacking from the town within the walls, even as dumped material, and is rare amongst the rest of the sample discussed here. This might suggest that the source of the northern suburb dumps was confined to a particular zone, even if its location is unknown. This pattern could have changed at the end of the Roman period.

Smithing was carried out on a small scale at The Brooks in the 3rd and 4th centuries, but more substantial activity is only encountered in the very late 4th or 5th centuries, amidst the ruins of a town house on Insula VIII (Zant 1993, 149, 154). A late Roman building of possibly industrial function has also been excavated at Lower Brook Street (Biddle 1975, 300–1). During the later 4th century, this building was used for a process requiring hearths and ovens, but no metalworking debris was found. However, evidence of bronze working was recovered from a later phase of the building.

This might suggest that the collapse of trade and communications required a return to household production for a geographically limited market. Alternatively, or in addition, travelling craftsmen were perhaps invited to site their activities and markets in new places. The deposition of the hoard at Victoria Road in AD 364 or later (Part 2, Category 6) suggests that these were times of upheaval for individuals. Just how interesting they were remains to be further illuminated by new discoveries.

## **The post-Roman finds**

### ***The ironwork from the Saxon and later suburbs***

*by P J Ottaway*

#### **Introduction**

The largest site assemblage, consisting of around 700 identifiable objects (excluding nails, bars, strips and

plates) comes from Victoria Road (VR) in the northern suburb. Objects also come from four other smaller sites in the northern suburb: St Bartholomew's School (SBS), Hyde Abbey (HA), Hyde Abbey Barn (HAB), and The Lido (LIDO). The second largest assemblage, of approximately 180 identifiable objects (excluding nails, bars, strips and plates), comes from Trench I at St John's Street (SJS) in the eastern suburb. Small numbers of objects also come from Trench II (a post-medieval clay pipe kiln) and Trench IV in St John's Street. The Chester Road (CHR) site, also in the eastern suburb, produced 58 identifiable objects (other than nails etc.). In the western suburb the Crowder Terrace (CT) and New Road (NR) sites, and two adjacent trenches (VIII and XVII) on Sussex Street (SXS) produced 134 identifiable objects (other than nails etc.).

There are objects in the assemblage from contexts of all dates from the late 9th century to the 20th century. The largest number of 11th century or earlier objects comes from the western suburb and approximately 40% of those identifiable were found in contexts of late Saxon to early medieval date. In the other areas very few objects can be unequivocally dated to before the Norman Conquest on either stylistic or stratigraphic grounds. Another 35% of the identifiable objects from the western suburb came from contexts of the late 12th to 14th centuries, while on the other major sites no more than around 5% of objects come from contexts datable to before the late 13th century. Few objects from contexts dated later than the 14th century come from the western suburb, but in the other suburbs late medieval (late 13th to 15th centuries) contexts account for about 25% of the assemblages, and by far the largest number of objects, approximately 65%, came from contexts of the post-medieval period (late 15th and 16th century onwards).

#### **Chronological distribution**

The majority of the late Saxon objects from sites in the Winchester suburbs, then, come from sites to the west of the town walls. Other archaeological evidence confirms that this was the first suburb to be occupied to any great degree. In the northern and eastern suburbs, by contrast, there are considerably more iron objects from contexts of the later post-Roman periods than from those of the earlier. The chronological distribution data from Victoria Road may be considered in more detail as there are a sufficiently large number of objects to allow some useful conclusions to be made about the relationship of the objects to the history of the site itself.

The post-Roman phases at Victoria Road may be broken up into the following period groups and in some cases they are further subdivided according to location.

- 1 Late Saxon to late 13th century: strata pre-dating the substantial buildings on the Hyde Street frontage (tenements 935 and 936).

- 2 Late 13th century: strata associated with the earliest substantial buildings (936.2 and 3).
- 3 Late 13th to 14th centuries:
  - (a) Strata associated with the southern stone building (936.4) in Trench XII.
  - (b) Strata associated with the northern stone building (935.2) in Trench XII.
  - (c) Pits and other strata contemporary with the stone buildings.
- 4 Late 14th to 15th centuries:
  - (a) Additions to Building 935.2.
  - (b) Additions to Building 936.4.
  - (c) Pits.
- 5 Late 15th to 18th centuries: pits and other strata.
- 6 18th to 19th centuries: pits and other strata.

It will be clear from Table 34 (which excludes bars, strips, plates, nails, and recognisable residual Roman items) that there are relatively few objects from contexts pre-dating the erection of the first medieval buildings on the site in the late 13th century (Periods 1 and 2). The occupation of the buildings until the mid- to late 15th century (Periods 3 and 4) contributed approximately 25% of the objects from the site. The vast majority of the objects from contexts of Periods 3 and 4 come from pits, 3(c), but there were very few from the buildings themselves which were presumably kept tidy. 65.5% of the objects come from contexts of the post-medieval period (Periods 5 and 6).

A similar distribution is apparent in the assemblage from Trench I at St John's Street, although the data are not so suitable for analysis as the total number of artefacts is considerably less than at Victoria Road and the medieval deposits on the site were not fully excavated. Nonetheless, it may be noted that only approximately 8% of identifiable objects came from contexts dated before the 15th century while 15th- to 17th-/ 18th-century contexts accounted for around 55% and 18th- to 20th-century contexts for around 37%.

If it is accepted that there is some fairly direct relationship between the number of iron objects discarded on a site and the extent to which it was the scene of human activity, then these data can be used to throw some light on the history of Winchester's suburbs. Before making any further comment on this subject, however, two factors which may affect the nature of the relationship of artefacts to activity should be noted. Firstly, the redeposition of objects originally discarded in contexts of one period into contexts of later periods is a fairly constant process on any site, such as Victoria Road, where extensive pit digging took place. A number of distinctively Roman objects were found in post-Roman contexts at Victoria Road and the other suburban sites. Many of the post-Roman objects, especially in the later periods, may themselves be residual, although they are only recognisable in a few instances. Secondly, the extent to which iron objects were discarded when no longer required by their owners may vary over time in ways which are not readily predictable. The availability and cost of iron may, for example, have a considerable effect on the extent to

**Table 34 Quantities of identifiable iron objects from Victoria Road**

Period	no	% of total
1	44	7.5
2	7	1
3a	2	<1
3b	4	<1
3c	69	12
4a	16	3
4b	8	1
4c	51	9
5	185	31.5
6	200	34
total	586	

which iron objects are repaired and otherwise cared for. Even if an object becomes useless, moreover, the material itself may be assiduously recycled.

With these caveats in mind, it may, nonetheless, be noted that before the late 13th century, when there were no substantial buildings on the Victoria Road site, the number of iron objects would seem to confirm that relatively little human activity took place there. The increased number of objects from the late 13th – 15th centuries reflects the construction and occupation of buildings on the site as part of the development of the northern suburb of medieval Winchester. It is of some interest in this context to compare the Victoria Road data with those published from the intra-mural sites. Biddle (WS7.2, 58; table 12) shows that nearly 60% of the iron objects from intra-mural sites came from contexts dated up to the end of the 13th century. If this is compared with the percentage of objects from Victoria Road from contexts dated before the late 13th century, then the occurrence of iron objects from archaeological sites in Winchester as a whole appears to illustrate in a most graphic manner the expansion of settlement into the suburbs in the late 13th century, a phenomenon which is, of course, well-known from other archaeological and documentary material.

The relatively large number of objects from the early post-medieval, as opposed to medieval period, at Victoria Road and St John's Street may, in the first instance, reflect rising prosperity and the relative cheapness of iron in Winchester. The much larger proportion (65.5%) of the post-Roman iron assemblage from 16th century and later contexts (Periods 5 and 6) at Victoria Road (and St John's Street) than on the intra-mural sites may reflect a changed balance in the intensity of occupation between the suburbs, which continued to flourish, and the intra-mural area at a time when some parts, notably Lower Brook Street, were unoccupied (WS7.2, 44–5). Before too much is made of the statistics in the last sentence, however, it should be noted that since post-medieval deposits are often considered of less interest than those of earlier

date, comparison between archaeological sites of the numbers of objects of the period may be distorted by different approaches to mechanical clearance and excavation.

### The character of occupation

In an attempt to detect changes in the character of occupation on the Victoria Road site during the post-Roman period an analysis of the components of the ironwork assemblage was made on the basis of the period groups listed in Table 34. This failed, however, to reveal anything dramatic; each of the period assemblages being made up in much the same way as the others. Any differences between the medieval and post-medieval assemblages were probably due to technological and other forms of innovation rather than changing functions of the site. For the purposes of discussing the significance of the ironwork for the character of occupation on the site the medieval and post-medieval periods may, therefore, be considered together.

As already noted, some of the large number of objects classified as 'bars, strips, and plates' may be waste from blacksmithing, but there is no evidence that this took place at Victoria Road or at any of the other suburban sites on more than a quite small scale (Part 3, Category 15). As far as tools are concerned, Victoria Road and the other suburban sites produced very few except for knives of which there are nearly 200 (Part 3, Category 10). Equally, few tools were found on intra-mural sites, and this must reflect the fact that these objects were carefully repaired when broken or recycled when useless, rather than casually discarded. The only striking contrast between the intra- and extra-mural assemblages in respect of tools is provided by the large number of tenter hooks which came principally from the clothworking areas at Lower Brook Street (WS7.2, 234-9). With this exception, the virtual absence of even small tools, such as awls or comb teeth which are easily lost, would seem to indicate that crafts only took place on a small scale in the post-Roman suburbs.

The most numerically substantial category of objects from the extra-mural sites is structural ironwork and fittings. Nails are, of course, preponderant and were presumably used in a wide range of contexts in the buildings, their furniture and other items. In addition, there are numerous fittings, including hinges and hasps, from wooden objects such as doors, windows, and chests which had themselves decayed or been dismantled leaving the ironwork as the only trace. Keys for doors, chests and other containers were numerous as is usual on medieval and post-medieval urban sites where security was presumably an ever-present concern.

Iron dress fittings and riding equipment make up a very small percentage of the assemblage. This is, to some extent, because many types of object in this category were usually, or more often, made of non-ferrous metal rather than because they were little used by the site residents. Types which do occur in

iron are largely confined to buckles and spurs, which make their first appearance in late 14th to 15th century contexts, and boot-plates which make an appearance in post-medieval contexts. Objects in the weapons and armaments category were confined to arrow-heads, principally if not exclusively for hunting, and the shield boss. The latter presents another side of the residents' concern for security which is also manifested by the locks and keys.

### Conclusions

The ironwork assemblage from the suburban sites, especially Victoria Road, is probably of a sufficient size to provide a very good impression of the range of objects which was usually discarded on a post-Roman urban extra-mural site. The assemblage also illustrates the growth of extra-mural activity and occupation at Winchester with an early start in the western suburb, followed by expansion in the late medieval period to the north and east of the city walls. For the post-medieval period, the ironwork suggests that the northern and eastern suburbs retained their vigour, but that the western suburb may have experienced a period of decline until the modern era. The ironwork also suggests that throughout the post-Roman period activity in the suburbs was primarily of a residential nature.

It should be noted, finally, that although the size, variety and date range of the ironwork discussed in this volume makes it of considerable interest in its own right, it assumes an even greater importance because it is directly comparable in all three respects with the material from the intra-mural sites published in *Winchester Studies* 7.2. At present it may be fairly claimed that Winchester offers published archaeological evidence of the highest quality for the development of the blacksmith's craft and the use of iron over some eleven centuries which cannot be matched by any other city in Britain, except perhaps for York for which a large body of medieval material was published since this report was completed (Ottaway and Rogers 2002).

### The post-Roman finds considered together

#### The 5th to 9th centuries

Developments of the 5th to 9th centuries are represented by few finds in the present sample. A scatter of 'chaff' tempered pottery, never stratified, is found in all of the suburbs, and includes two stamped sherds believed to be of the 6th century or later from Chester Road in the east (P5). The east is also represented in this volume by a harness fitting dating to around AD 600 from St John's Street (1995). The recovery of further sherds of pottery (P5), loomweights, and weaving implements (1643, 1651, 1684, and 1685) possibly predating the 9th century from Henly's Garage may represent a settlement associated with the burials and the modifications

to the defences at the South Gate nearby (see Part 1). Unfortunately the HG site was badly truncated and only negative features of later date survived.

The reliquary (Part 3, Category 14), which was not new when it was discarded in a latrine pit that was still in use, and whose manufacture may predate the earliest occupation on the site at Sussex Street, tells a story from Winchester's heyday as an early ecclesiastical settlement. The precise details of this story remain mysterious, but dark deeds, such as theft, may be suspected (Hinton *et al* 1981, 50).

### Late Saxon and medieval houses

#### *Construction and function*

What can be gleaned about the construction of buildings from archaeology is limited both by deliberate demolition, and by subsequent truncation of what originally survived as archaeological deposits. In addition, in this sample, the sizes of trench areas were dictated by the conditions of rescue archaeology, and in many cases these were too small to reveal the full plan of particular structures. It is not easy, therefore, to relate structures in the archaeological record to buildings of definable type still standing in the present day.

What is certain is that late Saxon or Saxo-Norman vernacular buildings such as those recorded at Victoria Road and 27 Jewry Street were invariably of timber, and sometimes so slightly built, as at Sussex Street, New Road, and St John's Street, that very little trace survived. By contrast, the presence of deeper negative features, such as property boundary ditches and pits suggests occupation where structures are apparently lacking or ephemeral. Late Saxon and Saxo-Norman pits employed, for example, as latrines or wells, were in particular often packed with all kinds of domestic refuse and craft waste after they had gone out of use (here at Victoria Road, Sussex Street, New Road, Chester Road, St John's Street, 27 Jewry Street, and Henly's Garage).

Medieval buildings were usually more substantial than those of earlier centuries and often at least partly of masonry construction (P7). Of the other two components that represent the medieval property in the archaeological record (pits and boundary features), pits are largely absent from known ecclesiastical sites (here, Hyde Abbey); differing systems of sewage and water management were employed on such sites and domestic refuse was discarded on the periphery of the precinct, or outside its walls (P8).

It is sometimes possible, from the quality of the building materials found in situ, and from internal or associated features, to suggest the function or status of particular medieval buildings or parts of buildings. The presence of cellars or undercrofts in earlier medieval Buildings 795.1 (LIDO) and 714.1/2 (SXS) and in later medieval Buildings 937.1 (VR) and 961.1 (SJS) suggests the need for bulk storage, and hence, perhaps that the buildings were used or owned by people of some wealth. The general quality of the

construction of Building 714.1/2 perhaps corroborates this, and this factor also suggests that Buildings 936.4 (VR) and 963.1 (CHR) were structures of some pretension. The building on tenement 963 at Chester Road may have been associated with St John's Church (P7).

Amongst loose building materials and internal furnishings from these sites, painted medieval window glass came from Victoria Road, St John's Street, and, more surprisingly, Crowder Terrace, whilst evidence for the use of building lead in medieval times was confined to Victoria Road and Sussex Street (2135–7 and Part 3, Category 18). Trench I at Chester Road, the site of tenement 963, produced a fragment of a church bell and the Limoges reliquary figure (2677 and 2682). In addition, high status (faunal) food remains were recovered from a very large cut feature (F15) in the same trench, and from the demolition of Building 714.1/2 at Sussex Street (P10). Although not conclusive, these distributions tend to confirm the stratigraphic interpretation of the structures. By contrast, almost all of the sites in the sample, even those on which no buildings were recorded, produced building ironwork, fundamental to the erection of timber framed structures (Ottaway, above and 2149–91).

Stratigraphic evidence for craft and industry associated with buildings is sometimes found, for example in the intensive use of hearths found in Building 935.2 at Victoria Road (Part 2, Category 15), and in the deep rectangular features with sterile fills (possibly pits for storing liquids) associated with the timber building on tenement 938 (VR) and with tenement 521 at 10 Colebrook Street (P2 and P7). Few sites appear to have been used exclusively for industrial purposes, however; the mixture of (animal) craft waste and food remains recovered from the pits reminds us that craft workshops were probably usually intermingled with domestic structures on any single property (P10, and see below).

#### *Medieval households*

To turn to the evidence for internal furnishings (Part 3, Category 4), the most common surviving household item is, of course, the ceramic pot. The range of late Saxon and medieval forms is restricted mainly to pitchers, jugs, and cooking pots, and only approaches the variety found in the Roman period from the 15th century onwards (P5). This suggests a greater role for other materials as vessels in earlier times. Metal vessels are present in this sample from the late Saxon period, although their scarcity reflects their value and potential for recycling (see, for example, Goodall 1981, 65; Part 3, Category 4). A variety of wooden bowls has been recovered from those contexts within the walls in which organic materials might be expected to survive, but there is a surprising paucity of coopered vessels (see, for example WS7.2, 959–66).

Presumably the recovery of non-durable medieval glass would have been affected by poor survival, so the quantities found may not represent the quantities used. The medieval glass assemblage overlaps func-



tionally with the ceramic one in that jugs are probably present from the 13th century onwards. Glass accounts for almost all of the bottles in the medieval sample; ceramic costrels were present but very uncommon (P5). Leather bottles are surprisingly absent throughout the city and the suburbs, being represented, ironically, solely by a pottery skeuomorph in Winchester ware (WS7.2, 245). Glass urinals, used more for medical purposes than as chamber pots (Foy and Sennequier 1989, pl XXIX.374), were recovered from medieval contexts, but seem to have been most popular in the 15th and 16th centuries. At this time drinking vessels (wine and ale glasses) in durable glass became more readily available.

Only one fragment of durable medieval vessel glass was recovered, in association with Building 936.3 at Victoria Road. A jug or tankard in poor and fragmentary condition from St Bartholomew's School might once have been rather fancy (1763). This could have been used late in the life of Hyde Abbey, or associated with the high status property that occupied the site after the Dissolution (see below).

Amongst implements used for the preparation, serving, and consumption of food, only one spoon and one ladle (both from Victoria Road) are likely to be of medieval date; most of the spoons and the more specialised utensils (for example, skimmers, corers and a skewer) were recovered from contexts of the 15th century or later. Medieval spoons are, in fact, quite rare finds in Winchester (see, for example, Collis and Kjøbye-Biddle 1979) and on other sites (MacGregor *et al* 1999, no 1973). Apparently, most medieval people relied on knives in the kitchen and at the table; wooden spoons could have perished in the dry burial environments found on this sample of sites, but bone spoons would have survived if they had been extensively used.

To judge from the numbers of hand querns recovered from sites excavated in the 1960s, the tally here has been artificially depressed by difficulty in distinguishing residual Roman from early medieval in small fragments (Part 3, Category 4). It cannot be assumed, then, that querns were uncommon household items in the suburbs and on the defences in the 11th and early 12th centuries, only that occupation as a whole was less intensive than within the walls (WS7.2, 44–5, figs 4 and 5).

Mortars are found in numbers within the walls from the 13th century onwards, while hand querns are less frequently recovered. This may have been a result of bans imposed by those keen to protect a monopoly on the use of powered mills (WS7.2, 882–3). History records that such prohibitions were widespread and could become the cause of considerable social friction (see for example, Rahtz 1981, 2–3). The paucity of mortars in this sample may suggest that any ban hit harder in the suburbs than within the walls. However, closer examination of the figures shows that it is not so much the suburban and defensive sites that stand out in having few mortars, but that Lower Brook Street is notable for its many. This is odd, as, in being an 'urban domestic' site (WS7.2, 42–73), Lower Brook

Street is more similar in character to these sites on the periphery of the city than to the minsters, palace and castle.

Surviving evidence for medieval domestic lighting takes the form of lamps in both pottery and stone. Pottery was the most common medium for the manufacture of lamps in the 11th to 13th centuries, but hollowed blocks of chalk were also used from late Saxon times onwards. Lamps of imported Caen stone appear in the record in the late medieval period, but only at Victoria Road. More specialised items, such as candlesticks and snuffers are confined to post-medieval contexts.

The variety of iron fittings (Part 3, Categories 4 and 11) bespeaks a wide range of furniture and boxes. Boxes could also be fitted with strips of bone, as in the Roman period (for example, 595). Box fittings of copper alloy are less common, being confined to the western suburb (Sussex Street and Crowder Terrace). It is likely that a few of the finer boxes would have functioned as reliquaries like those discussed by David Hinton (WS7.2, 762–3; cf 2681). Two examples of locks for boxes were found, and an overall need for security is expressed in ample evidence for both padlocks and fixed locks found from late Saxon times onwards.

Last, but not least, the evidence from the animal bone suggests that back yard menageries, kept for meat, milk, and eggs, and perhaps for horns, skins, and hides, were to be found in many late Saxon or early medieval households. This is possibly less true of the high and late medieval periods, for which there is more evidence of specialisation in the use of the animal resource (P10). Nevertheless, the impression given from history is that a wide range of animals was to be seen (and heard) in the streets and back yards of Saxon and medieval Winchester (cf Keene 1985, 153–5).

## Personal possessions

### *Dress fittings and personal ornaments*

The range of dress fittings and jewellery lost undeniably in late Saxon times on this sample of sites is limited to hooked tags, a bead and an iron strap-end (a brooch and a bead from Chester Road are equally likely to be residual Roman). This is in contrast to material from the city centre excavated in the 1960s, which includes superior quality fittings from high status sites such as the relief decorated strap-ends discussed by Hinton (WS7.2, 494–500). Even amongst the hooked tags only copper alloy and iron examples are found here, whilst precious metals are represented within the walls. Nevertheless, like the city centre finds, the iron strap-end 1522 from Sussex Street does have Anglo-Scandinavian parallels, hinting at an early link between the western suburb and wealthy sites in the town. The reliquary (above) and a few of the other finds (below) could be interpreted as part of the same pattern.

The bone objects from Sussex Street 1166 and 1167, decorated at the head with stylised owls are here identified as dress pins or hairpins. This type is not

represented amongst material from the 1960s excavations in the city, although there was one example from The Brooks. On the other hand, spoons bearing very similar decoration and probably from the same workshop have been recovered from a number of Winchester sites (Collis and Kjølbye-Biddle 1979), and pins of similar date with zoomorphic decoration of various forms have been found at, for example, York and London (MacGregor *et al* 1999, fig 907, no 6811; Pritchard 1991, fig 3.84). Perhaps this is an example of the moderately well-to-do imitating the lifestyles of the very wealthy, whilst using the cheaper materials that were available to them.

From the 12th century onwards, the range of dress- and personal ornaments available on the periphery of the town increased. Overall, the functional balance of the post-Roman assemblage in Category 1 is similar to that of the city centre sites, except that rings and buttons are relatively fewer and small copper alloy pins relatively more common. In the latter case, chronological factors are probably the explanation, as some of the sites in the eastern suburb, particularly St John's Street, and those on the former site of Hyde Abbey, did not suffer the drastic decline witnessed in the city centre during the 16th to 18th centuries (see Part 1).

However, only one object, a brooch from Victoria Road, was of silver, whereas precious stones and metals, although not common, are better represented within the walls. Again, the implication is that those living on the periphery of the town (and many of those living in the city) were largely unable to afford expensive jewellery and dress fittings, or were even prohibited from doing so (see, for example Egan and Pritchard 1991, 21). Similar objects in cheaper materials could be purchased once these had become more readily obtainable through increased production, and eventually mass production (see, for example, Margeson 1993, 233–4). There is only a little evidence, both in archaeology and history (see below; Keene 1985, 281), of the location of such workshops in Winchester; it may be that many of these ornaments and fastenings were made elsewhere and brought to the town by chapmen and pedlars (Dyer 1994, 276).

Coatings, where they survive and have been recognised, are usually of tin, but there was one gilded brooch, one gilded buckle and two mounts that had been mercury-silvered all from Victoria Road. This further evidence of imitation of precious metals on the part of those to whom the real thing was inaccessible (for example, Margeson 1993, 233) is offset by the fact that mercury-silvering, is quite an unusual technique (Justine Bayley, pers comm). In the medieval period, it was used to finish coin forgeries, trinkets, and harness or belt fittings (as here), and rich men's playthings such as the mechanical celestial globe made for William IV, Landgrave of Hess by Wolff Meyer of Nuremberg in 1575 (La Niece 1990, 109).

Two copper alloy objects in Category 1 stand out as unusual and exceptionally well crafted – a fitting and a pin, both from St Bartholomew's School (1305 and 1587). The site was located in the Hyde Abbey area, which, after the Dissolution in 1539 passed into the

hands of the powerful Bethel family (Hyde Abbey 1905, 61; Pennell 1909, 19–21). It is possible that the fitting, of 13th-century date, was once the possession of someone wealthy either living at the abbey or visiting it. The pin could perhaps be linked with the continuing high status of the area in the early post-medieval period (see also, above).

### *Toilet articles*

The distribution of combs throughout the city and its suburbs seems to reflect that of the dress fittings and jewellery, in that few come from late Saxon contexts on the periphery (1611–15) compared to the same period within the walls (WS7.2, 665–78). By medieval times, these objects became more universally available, along with other toilet and pharmaceutical articles such as tweezers (compare the context dating of WS7.2, 690–692, nos 2189L–2189S with 1629 and 1630) and urinals (above). The occurrence of a mirror in 13th- to 14th-century pit fill at Victoria Road is worth noting, as only one other was found amongst the much larger sample of objects excavated in the 1960s (WS7.2, 654–6). The bone brushes (including toothbrushes) from more modern contexts remind us of the increasing attention paid to personal hygiene in the often overcrowded and disease-ridden towns of the 19th century, and also how recent has been the use of plastic to mass-produce such items.

### *Needlework*

Evidence for working textiles (rather than textile manufacture) is found amongst the needles and bodkins of bone, copper alloy and iron. These are not particularly common in this sample, having a thin overall distribution in time and space (compare WS7.2, 804–17). The same is true of the thimbles, the earliest of which, by context date, is of the 15th to 16th centuries.

### *Recreation*

The evidence of recreational activities (Part 3, Category 5) from this group of sites is all of the 12th century and later, and overall provides further contrasts with similar material from the city. The virtual absence of dice (only two were recovered, both in contexts of the late 15th century or later, although the one from Victoria Road may just possibly be medieval in date) and the paucity of gaming counters in this sample is at first sight puzzling, but perhaps the reason is expressed in the bans of 1388 and 1409: dice-playing amongst the lower classes was judged (by royal statute) to interfere with archery practice, and in any case constituted a nuisance if carried out in the streets or other public places (Keene 1985, 393–4). The bone counter from Sussex Street (Trench XVII) is like many found within the walls, and suggests that such prohibitions were

not in force in the western suburb in the 12th to 13th centuries.

A relatively good sample of bone fittings from stringed musical instruments was recovered from Victoria Road, two associated with Building 936.4 and there was a medieval Jew's harp from a pit on tenement 935. This suggests that a degree of sophistication in home entertainment prevailed on the site in the later medieval period, although, of course such objects are generally not at all uncommon in the archaeological record.

### *Literacy*

The site at Victoria Road produced the most evidence of basic literacy in medieval times (Part 3, Category 7), in the form of parchment prickers, a pen, and a seal of William Star, who, unfortunately, is not otherwise named in history (Keene 1985). The pen, made from the radius of a goose, is the most finished of a group of similar finds from the same pit and others on the site, which are discussed in another volume in this series (P10). The manufacture of implements from goose wing bones at VR was a craft activity and does not necessarily imply that many occupying tenements 935 and 936 were literate.

The papal *bull* is an unusual find for a domestic site, especially as it comes from a time (the late 12th century) when the site at Victoria Road saw a decline in use; perhaps the real connection is with Hyde Abbey, although the precinct walls were on the opposite side of Hyde Street and somewhat to the north (Part 1). The style of decoration on the fine stylus (if such it be) from New Road is paralleled in the 12th-century pin or needle from Wolvesey Palace referred to above and in a book clasp of the same date found residual at the BS site within the walls (WS7.2, 755). This reinforces the impression of wealthy connections between the western suburb and the town at that time. At the other end of the timescale, there was a late medieval book marker or page holder from Victoria Road, but other evidence for books is not manifested in this sample until the 15th century or later, and the distribution is wider. By this time literacy would have been more widespread, as is shown also by the pocket sundial recovered unstratified at Victoria Road (*cf* Margeson 1993, 234).

### *Horse equipment*

Horse equipment (Part 3, Category 8) in the form of bits, bridles and harness pendants is uncommon in this sample throughout the post-Roman period. Evidence for the use of spurs in late Saxon and early medieval contexts is similarly rare, increasing slightly throughout the medieval period to reach its *floruit* in the 15th to 16th centuries. Examination of the faunal sample, mainly of the late Saxon to late medieval periods from this group of sites (P10), reveals largely the remains of small horses in everyday use amongst the middle

classes and the richer peasantry as wagon and pack animals; some of these even ended their lives on the table, despite prohibitions. In only two instances were the bones demonstrably from horses of fourteen hands or over. The earlier find, from a late Saxon context at Chester Road, could be connected with the recovery of the bridle link and spur fitting from the same group of pits (2007 and 2009). The later, in a late medieval pit at Victoria Road, suggests that fine horses may occasionally have been found in the medieval northern suburb, but here there was no specific link between the context and those represented by horse equipment in this volume.

### *Tools and weapons*

The large numbers of knives (Part 3, Category 10) recovered both here and in the city (WS7.2, 835–60) is presumably a reflection of their versatility as all-purpose tools (see also above). The late Saxon inlaid knife 2238 may have been the product of a special workshop. Keene (1985, 280) notes that in the later Middle Ages, knives may have been brought to Winchester rather than made there. Perhaps this is reflected in the two earlier medieval brass and horn handled knives from Victoria Road (2244) and Crowder Terrace (2273) which are paralleled as far away as Norway. Late medieval Victoria Road too produced a few rather fine knives with silver inlay.

Hones are most numerous both here and in the city before the 15th century, when perhaps it became a more universal practice for blacksmiths to sharpen tools (Keene 1985, 279) or for steels to be used. Craft tools are as uncommon (relatively) in this sample as in that from the city, as pointed out above. Tools associated with agriculture and animal husbandry (Part 3, Category 12) are also universally uncommon, although history records that areas of the town that were not built up could be used as gardens or even farmed (Keene 1985, 151–2).

Evidence that weapons were kept in the suburbs is mostly confined to arrowheads and is rare before the 14th century. Amongst intra-mural sites a wider range was recovered. This included swords and armour, ownership of which would presumably have been more likely amongst those of high status, and obvious detritus of warfare, such as the stone projectile balls from the castle (WS7.2, 1068–70). Nonetheless, the shield boss from later medieval Building 936.4 at Victoria Road is remarkable, not only for its presence on such a site, but also for its survival in the archaeological record. Perhaps an increased need for security on tenement 936 is indicated; the wealthier members of society are known to have kept stocks of weapons in their houses for this purpose (Keene 1985, 280).

### *Religion*

It has been suggested (above) that like the bell from the same site, the Limoges reliquary figure was part of

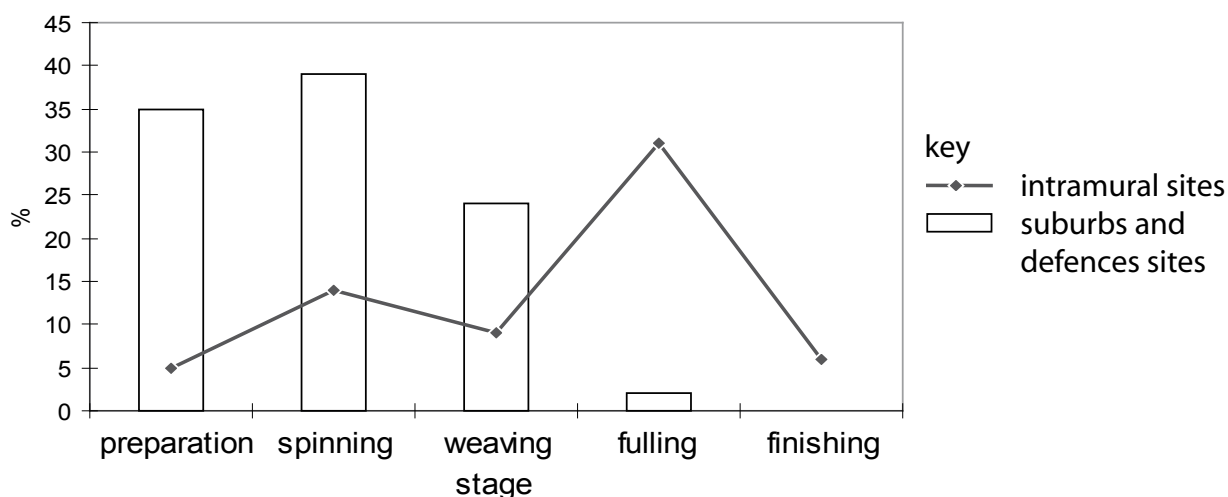


Figure 209 *Textile production in medieval Winchester*

the trappings of a religious building. This is also likely in the case of the architectural figure from Victoria Road (2678), for which Hyde Abbey presents itself as the most obvious source. There are, then, few objects identifiable as religious in function, which are likely to have been personal possessions, although some of the box fittings could have been from caskets and reliquaries rather than more utilitarian containers (see above). However, there were two late medieval pilgrim souvenirs from Victoria Road.

### **Craft and industry**

Overall, the relative quantity of craft tools in this sample is similar to that found from 1960s sites within the walls. Here, textile manufacture (Part 3, Category 3), woodworking and leatherworking (Part 3, Category 10) are well represented, iron smithing less so (Part 3, Category 15). Stoneworking tools, however, are only present in the city centre (WS7.2, 299–302), a reflection of the kinds of buildings to be found there. Tools for the working of copper alloys (WS7.2, 130 198–9) are also absent here. By contrast, the device associated with pottery manufacture from Sussex Street is a most unusual find and, so far, unique in Winchester.

### *Textiles*

The ubiquity of implements associated with textile manufacture indicates that this was a common domestic activity throughout the late Saxon and medieval periods. In late Saxon times, tools used for the preparation of raw wool, spinning and weaving are found throughout the city and suburbs, suggesting that many households produced textiles for the use of their own members. Such tools are also found everywhere in contexts of the 12th century onwards. However, retrieval in quantity of implements for fulling and finishing, such as tenter hooks, harbicks, and slick stones was limited to the excavations at

Lower Brook Street (WS7.2, 209–12) and there are very few from this sample on the periphery of the town (Fig 209). This is consistent with the documentary evidence that in medieval times activities associated with the initial stages of textile manufacture were widely dispersed, but finishing and marketing of cloth was organised through the offices of merchants and entrepreneurs based in The Brooks area of the city (WS7.2, 208–12). It may be no coincidence that this evidence for specialisation in cloth production at Winchester in the 12th and 13th centuries is accompanied by an increase in the use of imported stone spindlewhorls, apparently at the expense of homemade ones of bone (Part 3, Category 3, WS7.2, 217, fig 45f).

### *Leather and similar animal products*

Amongst the assemblage of finds presented here, evidence of leatherworking is confined to Victoria Road, Sussex Street, Henly's Garage and Crown Hotel-Jewry Street. Data concerning the related crafts of tanning, horning, and skinning impinge upon another volume in this series (P10) and it is in any case often difficult to ascertain precisely which craft is represented by the material evidence. In the late Saxon to early medieval periods, deposits of horn cores are associated with leatherworking tools at Victoria Road, Sussex Street, and Henly's Garage, suggesting that at least leatherworking and horning were common small scale activities at this time. Evidence of horning, but none of leatherworking, was also recovered from the late Saxon and early medieval eastern suburb at Chester Road and St John's Street.

Signs of the use of the animal resource for the collection of hides, skins, and fur are first encountered in late Saxon to early medieval deposits from Henly's Garage and become quite common over the entire sample from medieval times. At the time that the skinner's and tawyer's craft came the fore, horning apparently went into decline on the periphery of the town, and only one deposit, from Victoria Road, was

later than the 13th century (P10). The attempt to link this evidence with the holder of tenement 936 in the late 14th century, one William le Hornere, is frustrated by the record of his occupation in the victualling trade. It is possible, though, that he, or a member of his family, took an entrepreneurial interest in the craft (see below).

In the 11th century, there was probably a tannery at Lower Brook Street, but it is uncertain whether this represents large-scale industry in a quarter of the town given over to tanning at that time, as the original street name, *Tannerestret*, implies (WS7.2, 245). In this sample, the kinds of pits needed for tanning (P2 and P7) are perhaps found at late medieval Victoria Road (on tenement 938 rather than 935 or 936) and in medieval phases at 10, Colebrook Street (see above). In both cases, ready access to a supply of water would have been the crucial factor in the siting of a tannery (at Victoria Road, the Fulflood stream and at 10, Colebrook Street, the River Itchen).

However, the pits are insufficiently distinctive in type for the association with tanning to be certain. At Victoria Road, too, there is stratigraphic evidence for the cultivation of a heavily rooted crop on tenement 938 (P7). If this were a dye crop, as suggested by the documentary record (Keene 1985, 152, 304), the connection could be with the cloth industry. Similarly, a small group of dyers is recorded as working from Colebrook Street in the 14th century (Keene 1985, 304).

### *Bone working*

Throughout the late Saxon and medieval periods, bone, and less frequently over time, antler was worked by those who intended to use the finished implement. The antler stamp for pottery (2724) and the unfinished cattle femur head spindlewhorls (1660–2), both from Sussex Street, are examples. Alongside this household production, more complex items were made by travelling craftsmen, although settled workshops became generally more common in the medieval period.

It has been suggested here that the waste from bead or button manufacture found at late medieval Victoria Road was the product of a travelling craftsman (Part 3, Category 16). This, and the material from making mounts for boxes and possibly owl pins found in the backfill of a medieval well at Crowder Terrace may be linked with the documentary record. Markets for animals were held outside the West Gate from Michaelmas to December, and there was a concentration of butchers' plots in the northern and western suburbs in the later Middle Ages (Keene 1985, 256). It is easy to envisage the attraction of bone workers to such ready sources of both raw materials and customers.

### *Iron smithing*

In the late Saxon and early medieval periods, it appears from the recovery of hearth bottoms in situ in pits which had not been completely backfilled, that

iron smithing was carried out in all three suburbs. As nearly-filled pits were a feature of most ordinary late Saxon and early medieval properties, they would have been as readily usable as a portable bowl hearth (Tylecote 1981, 42–3) and might mark the activities of itinerant smiths, rather than residents of the suburbs. A more prosaic interpretation, however, is that in situ evidence of iron smithing was preserved intermittently by sinkage (Part 3, Category 15). In any event, the level of metalworking expertise represented by these features is perhaps quite basic, involving the shoeing of horses, for which there is ample evidence in the archaeological record (Part 3, Category 8), and repair of everyday items (*cf* Keene 1985, 279).

Late Saxon or early medieval smithing on a larger and more intensive scale is evidenced by the waste material and working surfaces found at Henly's Garage. By the 12th century, this area of the town was notable in history for its goldsmiths (Part 3, Category 15) and perhaps such records embody a long tradition of workshop production here, some of which is only found in archaeology. Alternatively, what remained at Henly's Garage could represent a specific episode, such as the construction or modification of one of Saxon Winchester's great ecclesiastical buildings, rather than industrial zoning within the later town.

None of the ironworking waste from medieval contexts is associated with structures that are unequivocally smithing hearths, and it is probable that most of it was found at some remove from its place of origin. The waste from tenement 935 (VR), however, may have been generated in one or more of the numerous hearths found both inside and outside the buildings there. Keene (1985, 278) notes a concentration of victuallers and smiths in the northern suburb in the later Middle Ages. Again, this industry, if such it was, is likely to have been small in scale (Part 3, Category 15, and see above) which fits the general pattern found also in the city centre (WS7.2, 138).

### *Copper alloys and precious metals*

Evidence for the working of copper alloys (and precious metals) is uncommon in Winchester throughout late Saxon and medieval times and it is largely confined to specific areas of the town (WS7.2, 99). The special workshop of Richard the founder, in which metal vessels and perhaps other artefacts requiring a high level of expertise were made, was located in the western suburb in the 12th century (Keene 1985, 281–2). Perhaps this, or at least a tradition of copper- and silver working in the western suburb, is dimly reflected in the waste material found in medieval features at Crowder Terrace (Part 3, Category 15). The circuit of the Oram's Arbour enclosure, which may have formed the western suburban boundary up to the 12th century, excluded this site. Moreover, it lay only just inside the area enclosed by the new ditch in the 12th century (see Part 1). It is likely, then, that this and other waste, from bone working (see above) and smithing (Part 3, Category 15), was carried from

the heart of the western suburb, to be dumped on the periphery, rather than generated on the site itself.

Another distinguished manufacturer of vessels in the western suburb of the early 12th century was William the potter. Although it is tempting to link his record with the recovery of the potter's stamp from Sussex Street, it is more likely that, like Richard the founder, he was involved in making much more highly-prized pots of metal (Keene 1985, 281–2).

### *Pottery*

This brings into focus the question of the pottery supply to Winchester in the late Saxon and early medieval periods, however. Assemblages of this date (P5) consist largely of apparently mass-produced handmade chalk-tempered cooking pots, together with smaller quantities of sandy wheelthrown wares, which, in the absence of evidence for their source of manufacture have been dubbed Late Saxon Sandy Ware (Biddle and Collis 1978, 133–5), Michelmersh-type ware (probably not from the kilns described in Addyman *et al* 1972) and Winchester ware (Biddle and Barclay 1974). Although cooking pots are found in some of these wheelthrown fabrics, they occur frequently as spouted pitchers. One Winchester ware vessel in the assemblage from this sample of sites (SXS again) was possibly a trial piece. These fabrics are rarely found outside Winchester, although it is possible that this is due to a lack of excavated deposits of contemporary date. Stamped spouted pitchers are occasionally found in chalk tempered fabrics too, for example, the excavations at St George's Street in the late 1950s produced one (Dunning 1960, 134–6; Cunliffe 1964, 106–07).

The overall impression is that these vessels were quite prestigious items: Winchester ware was glazed and bore a variety of types of decoration, whilst even the chalk tempered spouted pitcher would have required considerable proficiency to make, due to its size (see, for example, McCarthy and Brooks 1988, 55). Charlotte Matthews (P5) has also argued that the use of the potters' wheel at this time represents a new and rather difficult technique rather than the mass production of the Roman period. It is unlikely that men such as William the potter would have made both ceramic and metal vessels, as too diverse a range of skills would have been needed. One explanation for the material evidence, and the lack of extensive natural resources for pottery production, though, is that such vessels were produced in workshops whose output would have been similarly small in scale (McCarthy and Brooks 1988, 63). If so, the material evidence would be compatible with the location of at least one of these in Winchester's western suburb. Later, from the 11th or 12th centuries onwards, Winchester began to participate more in regional supply networks (P5), and perhaps, the references to pottery in history (Keene 1985, 284–5) indicate pottery dealers as much as pottery manufacturers.

### **Commerce and wealth**

The distribution of coins of the 9th to 13th centuries in Winchester (1943–85) clearly shows the gradually changing perception of money over time, at first as 'treasure' and then, more as a medium of exchange. In late Saxon times, hardly any coin is found outside high status sites, whereas by the end of the 13th century, the distribution is much wider. The occurrence of scales and scale pans in this sample favours the early medieval period, a time when the use of coin was rare but gradually increasing. The recovery of three coins predating the turn of the 11th century from Victoria Road is contrary to the general trend, and prompts questions as to the nature of the late Saxon and early medieval settlement on this site. However, these may have been lost in passing, as Hyde Street, the main access to the city via the North Gate had come into being by the time the earliest of the three was minted (see Part 1).

The site at Victoria Road accounts for almost all of the numismatic finds of the late 13th to mid-15th centuries, and it has been suggested that in the later medieval period, its users may have been engaged in some kind of commercial activity (Part 3, Category 6). Keene (1985, 278) notes that the northern suburb had in effect become a trading enclave of its own by the later Middle Ages, although this was not strictly legal. This, together with such evidence of wealth and refinement as the Caen lamp, the silver brooch, the mirror, and the shield boss (above) suggests that the site was inhabited by members of the entrepreneurial middle class at this time. Although tenants of tenement 936 seem to have been quite prosperous throughout the 14th century, particularly good candidates from history might be found amongst the family of William le Hornere, innkeeper, brewer, tapster, and citizen, who was granted the tenement in 1362 and who held other property in the northern suburb and within the walls (Keene 1985, 282, 1039, 1265).

Overall, occupiers of Hyde Street were poorer than many of their neighbours within the walls in the later Middle Ages, but segregation of poor from middle class neighbourhoods and middle class from wealthy ones is a relatively modern concept. In the medieval city lay people from almost all walks of life would have lived cheek-by-jowl (Keene 1985, 419). By the mid-15th century, the Hyde Street area had suffered the same decline in wealth as affected the city, and, like areas on the outskirts of other medieval cities such as The Tything (Worcester) and Southwark (Dyer 1994, 251), had become notorious for vice (Keene 1985, 392). Although, at this time the buildings on tenements 935 and 936 were, or were about to be, demolished and not replaced, it is worth noting that this decline is not noticeably reflected in the character of the late 15th-, 16th-, and 17th-century finds assemblages from Victoria Road. Perhaps these derelict plots were used for the dumping of rubbish from elsewhere from the 16th century onwards.

Goods for grand medieval households were obtained from a geographically wide range of sources, often

cutting out entrepreneurs and middlemen and bypassing the redistributive networks based on market towns. However, the great fairs, such as the one on St Giles' Hill to the east of the city walls, were also significant providers (Dyer 1994, 263). Perhaps this kind of exchange is represented by the the weight bearing the arms of England recovered from a 13th- to 15th-century context on tenement 961 at St John's Street (1937). By the 16th century, the palm of commercial activity and wealth passed to some extent to the eastern suburb (Part 1). This may be reflected by the increased quantities of coinage from there (Part 3, Category 6), and in the wide range of goods of reliable quality found in the 15th- to 16th-century pits at St John's Street.

## Overview

We have seen that late Saxon and early medieval households in the suburbs and on the periphery of the defended area were self-sufficient in the production of a range of goods. They also had ready access to basic skills in the controlled use of fire, such as those of the blacksmith and of the potters who mass-produced chalk tempered cooking wares. In the earliest workshops, for iron objects near the South Gate (HG), for items of copper alloy and precious metals, and perhaps for fine pottery, outside the West Gate, raw materials that were foreign to the town were employed (see above, for discussion of natural resources). This restricted distribution of early workshops is matched in the town centre (WS7.2, 99).

The contribution of spontaneous growth to the economy of towns suggested by Dyer (1994, 241–55) can perhaps be seen in the first two elements in this pattern, whereas the intervention of a higher authority in the establishment and siting of workshops is implied by the documentary evidence. Such direction from above must also have been to the fore in the procurement of glass, lead, iron, stone, and ceramic building materials, and the importation of the skills needed to work them, for the construction of the great buildings such as the New Minster, St Mary's Abbey, Hyde Abbey, and the castle.

For the later Middle Ages, Keene (1985, 249–365) has collected a vast body of historical data concerning trades and marketing in Winchester. The economy was mainly based in the natural plant and animal resources found in the town and its hinterland. The production and supply of food and drink, candles, skins and furs, leather, parchment, wool, and cloth were major preoccupations of the citizens, and the craft of woodworking, especially in building construction, is also well-represented. This was not a 'free market', but hedged both by law and the guilds to protect the townspeople from such hazards as environmental pollution and substandard craftsmanship (see for example, J Harvey 1975, 43–57; Keene 1985, 258).

The historical record has very much less to tell us about the types of material itemised in this volume. The near-absence of workers in bone and antler may be because this was, on the one hand, a rudimentary

craft rooted in home production, and on the other a specialist skill carried out by itinerants. Medieval pottery seems to have been obtained via region-wide networks of exchange, and perhaps manufacture was based in the countryside, where it had less chance of impinging on records specific to the town (see, for example, Hinton 1977, 236; Vince 1981, 218; McCarthy and Brooks 1988, 55). The occupation of smith is well-recorded, but higher quality ironwork may have been mostly imported (Keene 1985, 278–81). Documentary evidence for the working of, and trade in copper alloys is confined to a pattern of special commission found in the late Saxon and early medieval periods (Keene 1985, 281–2), and it has been suggested (above) that many of the items recorded here in these materials were acquired from elsewhere.

Keene's (1985, 324–36) book also charts the rise of the entrepreneurial middle class, members of which were prominent not only in importing the more exotic foodstuffs such as wine and spices, and a wide range of other goods (including iron and 'points' presumably of copper alloy), but who also organised the production of Winchester goods for a wider market. The activities of entrepreneurs and merchants appear in the archaeological record in Winchester as a kind of dispersed manufactory (*cf* Peacock 1982, 9–10ff); evidence of the preliminary stages of cloth manufacture, the most important of medieval Winchester's industries, is found all over the city and in the suburbs, but implements employed for fulling and finishing are confined to particular sites. It is salutary to reflect how wide a range of excavations was needed in order to reveal such a clear pattern.

The finds reported in this volume show some contrasts in the status of the differing suburban areas. Thus, in the late Saxon and early medieval periods, the best-crafted objects are found in the western suburb. By later medieval times, the inhabitants of the northern suburb had, to some extent, caught up with their wealthier counterparts within the walls, whilst the western suburb was in decline. In the 15th to 17th centuries a wide range of well made objects is found in the eastern suburb. The whole sample, including finds from the smaller sites on the city defences, and from Hyde Abbey, also illustrates, however, the ever-broadening availability of goods over time.

A good example is furnished by the pottery. Vessels imported from the continent are rare in Winchester until the late 15th century, despite being in common use at Hamwic and Southampton, only around ten miles away (see, for example, Hinton 1977, 226; Hodges 1981; Allen 1983, 195; P5). A fair range of pottery imports of the late 15th and 16th centuries is found in the pits in Trench I at St John's Street, but we should not see this as a sign that the early post-medieval occupants of the eastern suburb were wealthier than all of those that had gone before. Rather, the conclusion must be that such vessels were acquired through personal and social contacts until the end of the medieval period (for more detail, see for example, Moorhouse 1983, 108–14; McCarthy and Brooks 1988, 81–96), and only became more widely available through regular trade later.

This volume has itemised the detritus of everyday life in Winchester through more than a millennium following the end of Roman rule. In some cases we have even been able to suggest the names of the people who used the objects, although history and archaeology do not always share common ground in the way

that we would like. With the completion of this work, and the publication of WS7.2, the 'sample has been balanced' (see Part 1), at least in respect of this part of the archaeological record, and Winchester can take its place as a contributor to regional and national frameworks of research.



# Bibliography

## Abbreviations

Antiq J: *The Antiquaries Journal*  
 BAR: British Archaeological Report  
 Barnard: in Barnard 1916  
 BMC: in Keary and Grueber 1887–93  
 BNJ: *British Numismatic Journal*  
 CBA Res Rep: Council for British Archaeology Research Report  
 CK: in Carson and Kent 1960  
 Duplessy: in Duplessy 1989  
 Elmer: in Elmer 1941  
 HBME: Historic Buildings and Monuments Commission for England  
 HFC: Hampshire Field Club and Archaeological Society  
 Isings Form: in Isings 1957  
 Lawrence Type: in Lawrence 1915  
 North: in North 1963, 1975  
 PHFC: *Proceedings of the Hampshire Field Club and Archaeological Society*  
 RCHM: Royal Commission on Historical Monuments  
 RIC: *Roman Imperial Coinage*  
 Robertson: in Robertson 1971  
 RRCSAL: Report of the Research Committee of the Society of Antiquaries of London  
 SAL: The Society of Antiquaries of London  
 VCH: Victoria County History  
 P: Winchester publication, as listed in Table 1  
 WS3.1: in Biddle, forthcoming (a)  
 WS4.1: in Biddle, forthcoming (b)  
 WS7.2: in Biddle 1990  
 WS8: in Biddle, forthcoming (c)

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