

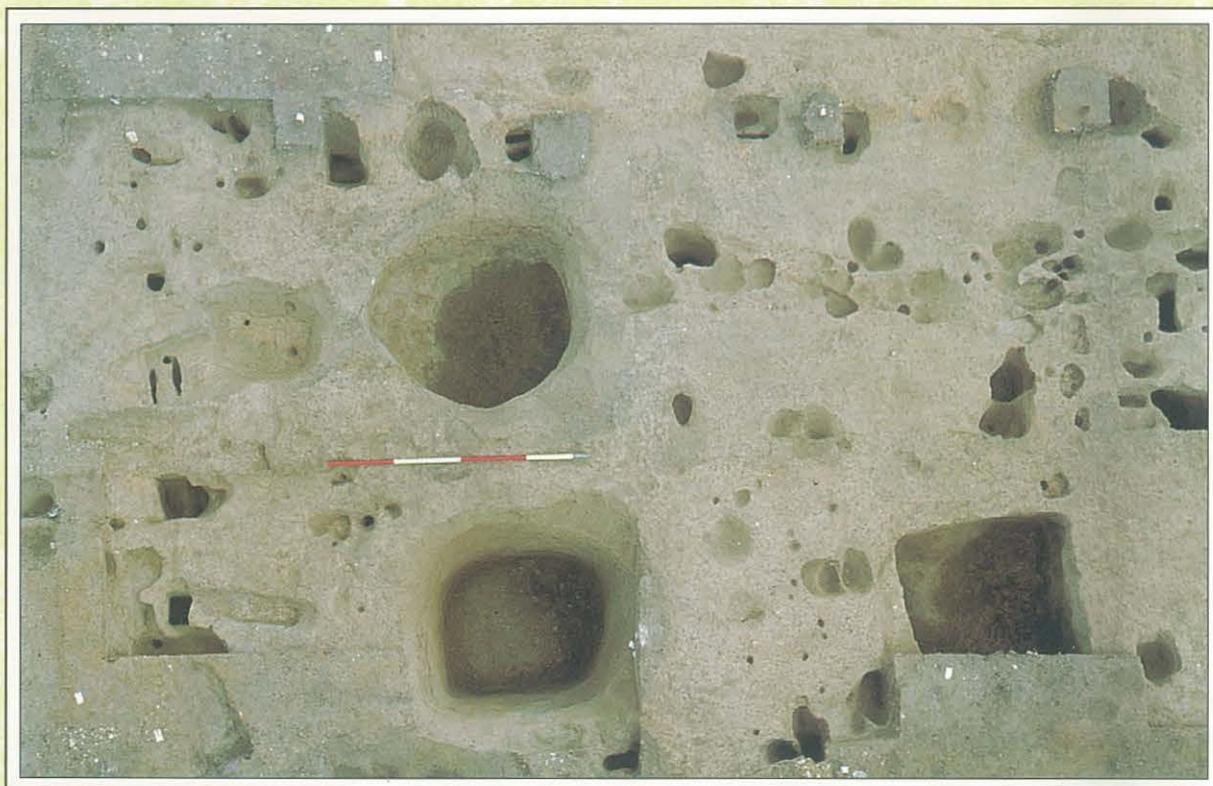
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EXCAVATIONS AT HAMWIC: Volume 2

Edited by P ANDREWS



**Excavations at Hamwic
Volume 2**



Excavations at Hamwic
Volume 2: excavations at Six Dials

by P Andrews

including contributions from J Bayley, B Biddle,
J Bourdillon, N Campling, R Darrah, J Hillam,
M Metcalf, S Pay, H Phillips, I Riddler, J Timby,
and J Winder

Southampton Archaeology Monographs 7

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Front Cover: Looking east to buildings on SOU 31 adjacent to the street

Rear Cover: Looking north from the modern road surface onto the excavations at SOU 31

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The Six Dials area became the focus for a planned large-scale excavation in the early 1970s, following the formation of Southampton Research Committee (SRC), subsequently SARC. Laurence Keen, the unit's first director, and his successor Philip Holdsworth, both worked towards this aim. They had the important and influential support of councillor John Barr who chaired both committees. Philip Holdsworth was director in 1977 when the initial, trial work was carried out at SOU 23, and remained so throughout the excavation of SOUs 24, 26, and 30. His resignation in 1980 marked the effective end of SARC, and in 1981 Southampton City Museums (SCM) became responsible for excavations at Six Dials and elsewhere in Southampton. Robert Thomson was the first director of this unit, until Mark Brisbane, who had been his assistant, took over the post in 1982. Fortunately this change in the organisation responsible for archaeological work in Southampton had no detrimental effect on the programme of work at Six Dials; work continued apace with further excavations at SOUs 31, 169, 258, 331, 332, and 412. The conception and completion of the Six Dials project is due in part to all of those mentioned above.

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done. I would like to make special mention of Betty Clift who, having discovered archaeology at Six Dials in her mid 60s, and demonstrated her stamina and pit-digging abilities, became a permanent feature of all subsequent excavations at the site. Others who worked at Six Dials included students from Weymouth College, Bradford University, Hill Lane Grammar School for Girls, and

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Preface

This is the seventh in a series of archaeological monographs, which was initiated by Southampton Archaeological Research Committee with the publication of a volume on a disparate group of sites and their finds from Hamwic (Holdsworth 1980), and a study of the pottery of Hamwic (Hodges 1981). The responsibility for maintaining an archaeological presence in Southampton passed to Southampton City Council, which has produced three other monographs: a report on the excavations at Southampton Castle (Oxley 1986), a fresh study of the coins and pottery from Hamwic (Andrews 1988), and a volume on 73 sites investigated in and around Hamwic between 1946 and 1983 (Morton 1992). A fourth monograph, on the non-ferrous metal objects from Hamwic, appeared last year (Hinton 1996).

The reports by Holdsworth (1980) and Morton (1992) together dealt with all known excavations and observations in and around Hamwic up to 1983, with the exception of the Six Dials sites. The volume by Morton contains a lengthy and important synthesis of the evidence, the first to appear since the beginning of large and long-term excavations in the Middle Saxon town.

This volume contains reports on the excavations conducted at Six Dials between 1977 and 1986, and also takes account of small-scale work carried out subsequently in the area in 1988 and 1989.

No further volumes of reports on excavations within Hamwic are currently envisaged. Excluding Six Dials, comparatively few excavations have been carried out since 1983, and reports on these will appear in appropriate publications elsewhere (for example, Garner 1994). Conclusions drawn from some of these excavations are considered here where relevant.

As in Morton's volume, information about the finds has largely been excluded from this publication. Several volumes, the first two of which have already been published, will deal in detail with the finds of Hamwic and the evidence relating to its environment and economy. However, summaries of the finds and environmental evidence are included here to provide both a flavour of the artefactual and ecofactual assemblages, and more importantly to relate this to the chronology and interpretation of both Six Dials and Hamwic more generally. This approach has allowed a lengthier excavation report on what comprises the largest single programme of excavations yet undertaken within Hamwic. Even so, the majority of information relating to the numerous pits and wells has had to be printed in microfiche.

A large part of the report comprises a description

and discussion of the structures, and their chronological and functional relationships with other features in the area, though these were not always clear. Therefore, in most cases all of the features in the vicinity are included on the structural plans, with those which were certainly contemporary with a particular structure highlighted by larger-sized numbering. The inexact nature of the dating has meant that often only broad date ranges could be assigned to the structures and other features. Sequences, where they existed, could be relatively dated, but it proved impossible to extend this across the entire site. The picture is further complicated by the apparent longevity in use of many of the pits. A series of phase plans cannot therefore be drawn, and only early and late contexts have been isolated from the larger number of mid-dated contexts.

Various other sections of the report are devoted to the boundary ditch, streets, pits, wells etc, often with a discussion as to their wider significance within Hamwic. There are also sections on more general aspects of chronology, layout, industries and so on based on the evidence from Six Dials, often again setting this into the overall picture that we have at present for Hamwic. A short conclusion is presented drawing this information together, but the synthesis of the evidence presented by Morton should be referred to for a more detailed and wide-ranging discussion.

The thematic approach which has been adopted to publication of Hamwic and medieval Southampton will eventually enable all the evidence relating to particular aspects of these settlements to be drawn together and presented in one place. Although this information may prove more difficult to compile than single-site reports, and may cause some difficulties for the reader in correlating site and finds data, it allows questions to be asked and interpretations to be attempted that are of wider interest and significance than can normally be drawn from the study of a single site. This is of particular importance for a settlement such as Hamwic, the most extensively excavated and perhaps best understood Middle Saxon *mercium* in Britain.

The original site records and archive, along with all of the finds are held by Southampton City Council. Researchers wishing to gain access to the documentary or material archive should apply in writing to The Heritage Arts and Entertainments Services Manager, Southampton City Council, Civic Centre, Southampton, England.

Résumé

Cette monographie est la sixième d'une série de monographies archéologiques lancée par le Comité de Recherches archéologiques de Southampton avec la publication d'un volume sur un groupe de sites disparates et sur ses découvertes à Hamwic (Holdsworth 1980) ainsi que d'une étude sur la céramique de Hamwic (Hodges 1981). La responsabilité pour le maintien d'une présence archéologique à Southampton passa au conseil municipal de Southampton, qui a publié trois autres monographies un rapport sur les fouilles au château de Southampton (Oxley 1986), une nouvelle étude sur la monnaie et la céramique découvertes à Hamwic (Andrews 1988) et un volume sur 73 sites examinés à Hamwic et aux alentours entre 1946 et 1983 (Morton 1992).

Dans leur ensemble, les rapports de Holdsworth (1980) et de Morton (1992) traitaient de toutes les observations et fouilles connues à Hamwic et aux alentours jusqu'à 1983, à l'exception du site des Six Dials. Le volume de Morton contient une longue et importante synthèse des indices, la première à apparaître depuis le commencement des grandes fouilles à long terme de la ville du milieu de la période saxonne.

Ce volume contient des rapports sur les fouilles effectuées à Six Dials entre 1977 et 1986 et prend également en compte les fouilles à petite échelle réalisées par la suite dans la région, en 1988 et 1989.

À l'heure actuelle, on n'envisage pas de publier d'autres volumes de rapports sur les fouilles à l'intérieur de Hamwic. Hormis Six Dials, on n'a réalisé que peu de fouilles depuis 1983 et les rapports concernant ces fouilles vont paraître ailleurs, dans des publications appropriées (par exemple, Garner 1993). On prend en compte ici les conclusions tirées de certaines de ces fouilles, lorsque c'est pertinent.

Comme dans le volume de Morton, la présente publication exclut en grande mesure les informations concernant les objets découverts. Plusieurs volumes, dont le premier a déjà été publié, traiteront en détail des découvertes de Hamwic et des indices relatifs à son environnement et à son économie. Des résumés concernant les découvertes et les indices liés à l'environnement sont néanmoins inclus afin à la fois de donner une idée des ensembles d'objets façonnés et d'indices liés à l'environnement et, plus important, de les rattacher à la chronologie et à l'interprétation de Six Dials et de Hamwic en général. Cette façon d'aborder les choses nous a permis de rédiger un plus long rapport sur les fouilles comprenant le plus important programme de fouilles jamais entrepris à l'intérieur de Hamwic. Malgré cela, il a fallu imprimer la majorité des informations relatives aux nombreux puits et fosses sous la forme de microfiches.

Une grande partie de ce rapport consiste en une description et une discussion des structures, ainsi que des rapports chronologiques et fonctionnels

entre ces structures et d'autres particularités de la région, bien que ces rapports ne fussent pas toujours clairs. Donc, dans la plupart des cas, toutes les particularités des alentours sont portées sur les plans structurels; les particularités qui étaient certainement de la même époque qu'une structure particulière sont mises en évidence par des chiffres en caractères plus larges. La nature inexacte de la datation veut dire qu'on ne pouvait souvent attribuer que des dates très générales aux structures et autres particularités. Les séquences, là où elles existaient, pouvaient être datées relativement, mais ceci se révéla impossible à faire pour tout le site. La longue durée d'utilisation apparente de nombreuses fosses complique encore plus cette image. On ne peut donc pas établir une série de plans de phases et seuls les contextes du début et de la fin de la période ont été extraits du plus grand nombre de contextes du milieu de la période.

Diverses autres sections du rapport se consacrent au fossé limite, aux rues, fosses, puits etc, souvent avec une discussion quand à leur sens plus général dans Hamwic. Il y a également des sections sur les aspects plus généraux de la chronologie, de l'aménagement, des industries et ainsi de suite, basées sur les indices de Six Dials et, une fois encore, les plaçant souvent dans le contexte de l'image générale que nous avons actuellement pour Hamwic. On trouvera aussi une brève conclusion qui regroupe ces informations, mais il faut se reporter à la synthèse des indices présentée par Morton pour une discussion plus détaillée et plus poussée.

La façon thématique d'aborder les choses qui a été adoptée pour la publication de Hamwic et de Southampton au moyen-âge permettra de réunir tous les indices relatifs aux aspects particuliers de ces peuplements et de les présenter dans un seul volume. Bien que ces informations puissent être plus difficiles à compiler que les rapports sur les sites séparés, et bien que cela puisse poser quelques problèmes au lecteur au niveau de la corrélation des données concernant les sites et les découvertes, ce système permet de poser des questions et d'essayer de faire des interprétations d'intérêt et de signification plus généraux que celles que l'on pourrait tirer de l'étude d'un seul site. C'est particulièrement important pour un peuplement comme Hamwic, un mercimonium du milieu de la période saxonne ayant fait l'objet des fouilles les plus poussées et peut-être le mieux compris de toute la Grande-Bretagne.

Le conseil municipal de Southampton garde les notes originales et archives du site, ainsi que toutes les découvertes. Les chercheurs qui veulent avoir accès aux archives matérielles ou documentaires doivent le demander par écrit à The Heritage Arts and Entertainments Services Manager, Southampton City Council, Civic Centre, Southampton, Angleterre.

Zusammenfassung: Neues Kapitel

Dieser Bericht ist der sechste einer Reihenfolge archäologischer Monographien, die durch das Archäologische Forschungskomitee Southampton (Southampton Archaeological Research Committee) mit der Veröffentlichung eines Buches über verschiedenartige Gruppen von Geländen und deren Funde von Hamwic (Holdsworth 1980) und einer Studie über die Keramik aus Hamwic (Hodges 1981) ins Leben gerufen wurde. Die Verantwortung für die Erhaltung von archäologischen Funden wurde der Stadtgemeinde Southampton übergeben, die wiederum drei andere Monographien hervorbrachte: einen Bericht über die Ausgrabungen bei der Burg von Southampton (Southampton Castle) ((Oxley 1986)), eine neue Studie über Münzen und Keramik aus Hamwic (Andrews 1988) und einen Bericht über 73 Gelände, die in und um Hamwic herum zwischen 1946 und 1983 (Morton 1982) erforscht wurden.

Die Berichte von Holdsworth (1980) und von Morton (1992) befassen sich mit allen bekannten Ausgrabungen und Beobachtungen in und um Hamwic herum bis zum Jahre 1983, mit der Ausnahme von den Geländen Six Dials. Der Band von Morton beinhaltet eine ziemlich lange und wichtige Synthese des Beweismaterials, der erste erschienene Band seit den umfangreichen und langfristigen Ausgrabungen in der mittelsächsischen Stadt.

Dieser Band enthält Berichte über Ausgrabungen, die bei den Six Dials zwischen 1977 und 1986 stattfanden, sowie auch Aufzeichnungen über kleinere Arbeiten, die anschließend in dieser Gegend 1988 und 1989 durchgeführt wurden.

Zur Zeit sind keine weiteren Bände über Berichte von Ausgrabungen innerhalb Hamwic vorgesehen. Mit Ausnahme von Six Dials sind seit 1983 verhältnismäßig wenig Ausgrabungen durchgeführt worden. Berichte über diese werden anderswo in geeigneten Veröffentlichungen erscheinen (z.B. Garner 1993). Schlußfolgerungen einiger dieser Ausgrabungen werden hier, wenn relevant in Betracht gezogen.

Wie im Band von Morton wurden in dieser Veröffentlichung die Informationen über Funde zum größten Teil ausgelassen. Eine Anzahl von Bänden – der erste ist schon erschienen – wird sich in Detail mit den Funden aus Hamwic und dem Beweismaterial im Zusammenhang mit der Umgebung und Ökonomie befassen. Trotzdem beinhaltet dieser Band Zusammenfassungen der Funde und des Beweismaterials der Umgebung, um gleichzeitig einen Vorgeschmack der Assamblagen aus Kunstgegenständen sowie der ökonomischen Funde zu bieten; noch wichtiger ist jedoch diese im Zusammenhang mit der Chronologie und Interpretation beider Gelände, Six Dials, und vielleicht genereller gefaßt, die des Geländes Hamwic zu sehen. Dieser Vorgang hat einen längeren Ausgrabungsbericht über ein Unternehmen, welches das größte einmalige Ausgrabungsprojekt beinhaltet, das bis

jetzt in Hamwic unternommen wurde, ermöglicht. Trotz alledem, mußte ein Großteil der Information im Zusammenhang mit zahlreichen Gruben und Brunnen auf Mikrofilme gedruckt werden.

Ein Großteil dieses Berichtes beinhaltet eine Beschreibung und eine Diskussion über die Konstruktionen und deren chronologisches und funktionelles Verhältnis mit anderen Merkmalen in dieser Gegend, obwohl diese nicht immer klar waren. Daher beinhalten in den meisten Fällen die Konstruktionspläne alle Merkmale der Umgebung und auch jene, die gewiß zeitgenössisch sind und mit einer besonderen Konstruktion in Verbindung gebracht werden können. Diese sind mit größer gedruckter Nummerierung hervorgehoben. Die ungenaue Datierung bedeutete, daß oft nur allgemeine Daten der Konstruktionen und Gegenständen übertragen werden konnten. Wo Reihenfolgen existierten, konnten sie relativ datiert werden, jedoch war es unmöglich, dies über das ganze Gelände anzuwenden. Das wurde weiter noch durch die scheinbare Langlebigkeit vieler Gruben kompliziert. Eine Reihenfolge, in Plänen aufgezeichnete Phasen, konnten deshalb nicht aufgezeichnet werden, nur frühe und späte Zusammenhänge sind von der größeren Anzahl von der Mitte datierten Zusammenhänge getrennt worden.

Andere Abschnitte dieses Berichtes sind dem Grenzgraben, den Straßen, Gruben, Brunnen etc. gewidmet, die auch oft im Zusammenhang mit ihrer vielfältigen Bedeutung innerhalb Hamwic diskutiert werden. Es gibt aber auch Abschnitte über allgemeinere Aspekte der Chronologie, Layout, Industrien und so weiter, die auf dem Beweismaterial aus Six Dials beruhen und die wiederum in das Allgemeinbild passen, das wir uns zur Zeit von Hamwic machen. Eine kurzer Abschluß wird dargeboten, der diese Informationen zusammenfaßt, jedoch die von Morton dargebotene Synthese über das Beweismaterial sollte in eine detailliertere und vielfältigere Diskussion übertragen werden.

Die thematische Methode, die bei der Publikation über Hamwic und dem mittelalterlichen Southampton angewendet wurde. Wird es schließlich ermöglichen, alle Beweise in Bezug auf besondere Aspekte dieser Niederlassungen zusammenzufassen und sie nur an einer Stelle darzubieten. Obwohl diese Informationen vielleicht schwieriger zusammenzufassen sind als die Berichte eines Einzelgeländes und dem Leser vielleicht einige Schwierigkeiten bereiten, das Gelände und die Daten der Funde zu korrelieren, so läßt es jedoch zu, daß Fragengestellt und Versuche gemacht werden können das Gelände und die Funde zu interpretieren, die wiederum zu einem vielfältigeren Interesse und Bedeutung führen könnten, als normalerweise von einer Studie über ein Einzelgelände zu erwarten ist. Dies ist besonders wichtig im Falle der Niederlassung von Hamwic, die am ausführlichsten ausgegraben und vielleicht die best verstandene mittelsächsische Mercimonium in Großbritannien ist.

Introduction

Background to the excavations

The area of Southampton known as Six Dials lies at Ordnance Survey grid reference SU 424122; some 0.75km north-east of the medieval Bargate (the north gate), within Nicholstown in St Mary's parish. Nicholstown and Chapel to the south cover most of the known area of Hamwic – the Middle Saxon town of Southampton, which occupied a flat, low-lying area of 42–52ha on the west bank of the River Itchen (Fig 1 and Pl 1). Six Dials lies in the north-west of Hamwic some 0.6km from the river, and at least 0.7km from the probable site of the Middle Saxon waterfront.

From the 1960s, Six Dials was the subject of a proposed major road-improvement scheme. An increasing volume of traffic to and from Southampton's docks had led to such congestion in the area that the existing roads were unable to cope with it. In order to deal with this problem, various road-improvement schemes were proposed, all of which involved extensive demolition, clearance, and rebuilding, with resulting damage to or destruction of the archaeological deposits. All of the proposed schemes covered a substantial part of the Middle Saxon town and would cut a wide swathe from east to west across the north of Hamwic.

During the excavations, the term Six Dials was generally taken to refer to the land enclosed by Trinity Road, St Mark's Road, and Brinton's Road, which together formed a large traffic roundabout. However, the completed road scheme covers a much larger area which makes up the Six Dials Road Improvement Scheme. To the east of the roundabout this includes much of the ground within the triangular area bounded by St Mark's Road, Brinton's Road and Northam Road, and adjacent areas at the southern end of Derby Road and Northumberland Road.

The exact layout of the Six Dials Road Improvement Scheme was not finalised until 1982, and the excavation strategy has to some extent reflected this. The overall area excavated at Six Dials was not the culmination of a grand plan designed at the outset to excavate that particular area. Rather, it reflects a flexible research design based partly on the order and size of land made available, the financial resources available, and in later years on the results of work in preceding seasons.

At the beginning of the excavations in 1977, the nature and extent of the destruction of the archaeological deposits posed by the proposed road scheme were unknown. The construction of pedestrian subways and the laying of services would

certainly cause damage, though the banking-up and consolidation of material for the new roads might have involved little damage to the underlying deposits. However, in 1985 it was agreed between the City Engineers and the contractors that the areas to be covered by the new roads would be consolidated by vibro-compaction. This method of compaction involves the drilling of a network of holes, filling them with a gravel aggregate, and using a heavy vibrating probe to consolidate the material. The combination of the holes being drilled and the subsequent vibration would destroy some of the archaeological deposits and very heavily disturb those in the vicinity. Most of SOUs 31, 169, and 258 have been subjected to this method of compaction. SOUs 24, 26, and 30, which were not covered by new roads, were scheduled for housing development, and have now been extensively disturbed by the laying of footings and services.

The total area encompassed by the Six Dials Road Improvement Scheme is just over 41,000m², of which only some 5000m² (approximately 12%) has been excavated. However, the whole of this area has never been available as one unit. The houses at the southern end of Derby Road and Northumberland Road were not demolished until the beginning of 1988, and substantial areas were covered by streets still in use. Furthermore, due to the need to maintain traffic flow while constructing a new road system, certain areas have never been made available for excavation.

The relatively small proportion excavated of the total available should therefore be seen in terms of the practical restraints imposed by the construction of a new road system to replace an existing one still in constant daily use. Though the proportion is small, it nevertheless represents a very substantial area within an urban environment. To have excavated more extensively on the available areas would have required a much larger financial input than was available. One hopes that the failure to take the opportunity to excavate on an even larger scale will be seen in the light of these restrictions, and that the areas excavated represent the best strategy that could have been adopted in the circumstances.

Geology

As far as is known, Middle Saxon occupation in Southampton was almost entirely confined to a drift deposit that is commonly known as brick-earth. Brickearth soils are generally regarded as fertile and capable of supporting woodland. The

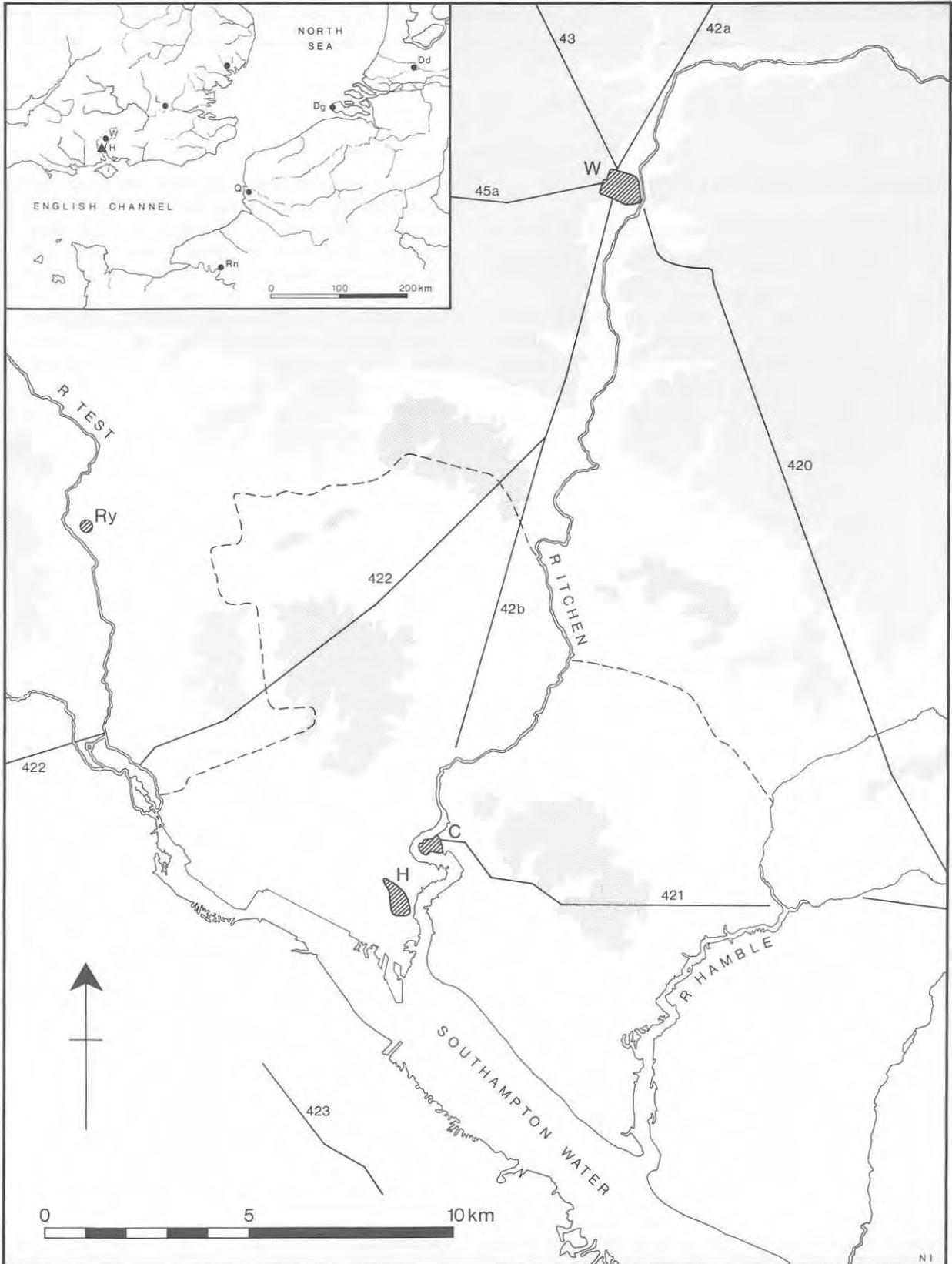


Figure 1 The location of Hamwic and other places mentioned in the text. Stippling represents land above 50m OD. Numbered lines are Roman roads (after Margary 1967). Broken lines approximate to the land boundary of the Mansbridge hundred. Key: BW Bishops Waltham, C Clausentum, Dd Dorestad, Dg Domburg, H Hamwic, I Ipswich, L London, Q Quentovic, Rn Rouen, R Romsey, W Winchester.



Plate 1 The St Mary's area of Southampton photographed from the south. Six Dials lies towards the top left, St Mary's Church towards the bottom centre, and the River Itchen immediately off the photograph to the right.

extent of the brickearth deposits on the Southampton peninsula have not been clearly defined, but the drift geology shown on the Ordnance Survey geological map of the area is certainly incorrect in detail, and the brickearth deposits are more extensive than indicated.

The brickearths are fine sandy silts, though the quantity and texture of the sand component varies. At Six Dials the texture of the brickearth is fairly uniform with an average fine sand content. Two groups of analyses of the brickearth from various locations have been carried out, and both would support the interpretation that it is redeposited loess (Shackley 1980; Mills 1992). Furthermore, one section observed at Six Dials clearly showed horizontal banding probably resulting from the redeposition of the material in water (Neil Campling pers comm).

The brickearth overlies valley gravels which in the upper levels are sometimes banded with layers of sand, though the contact with the overlying brickearth is quite clear. At Six Dials the brickearth is approximately 2m thick, but this depth decreases steadily to the south-east, and rather more rapidly to the north-west as the valley gravels slope upwards to outcrop at the surface approximately 150m from Six Dials. The surface of the

brickearth slopes from a height of 5.65m OD at Six Dials (SU 4254 1229) down to 1.5m OD at SOU 21 (SU 4291 1151) to the south-east, an average slope of less than 1°.

The surface of the brickearth varies in both consistency and colour, though everywhere it is fairly flat where it has survived undisturbed. In some areas the brickearth is quite hard, even compacted. This is considered to have resulted in most cases from the pressure of the walls and floors of 19th century buildings, but in some instances it has clearly developed beneath Middle Saxon gravelled streets.

The variations in colour of the brickearth are less easy to explain. It varies from brownish-yellow (10YR56), through yellowish-brown (10YR54), to grey (10YR51), with the yellowish-brown (10YR54) colour being most common. However, the brownish yellow colour (10YR56) seems to be characteristic of brickearth with a higher clay component. The grey variety was most often encountered beneath Middle Saxon streets and this may reflect partly anaerobic conditions which have developed on a compacted soil which has not been penetrated by roots or worms to any great degree. Periodic localised waterlogging has resulted in gleying which is characterised by bleached areas with

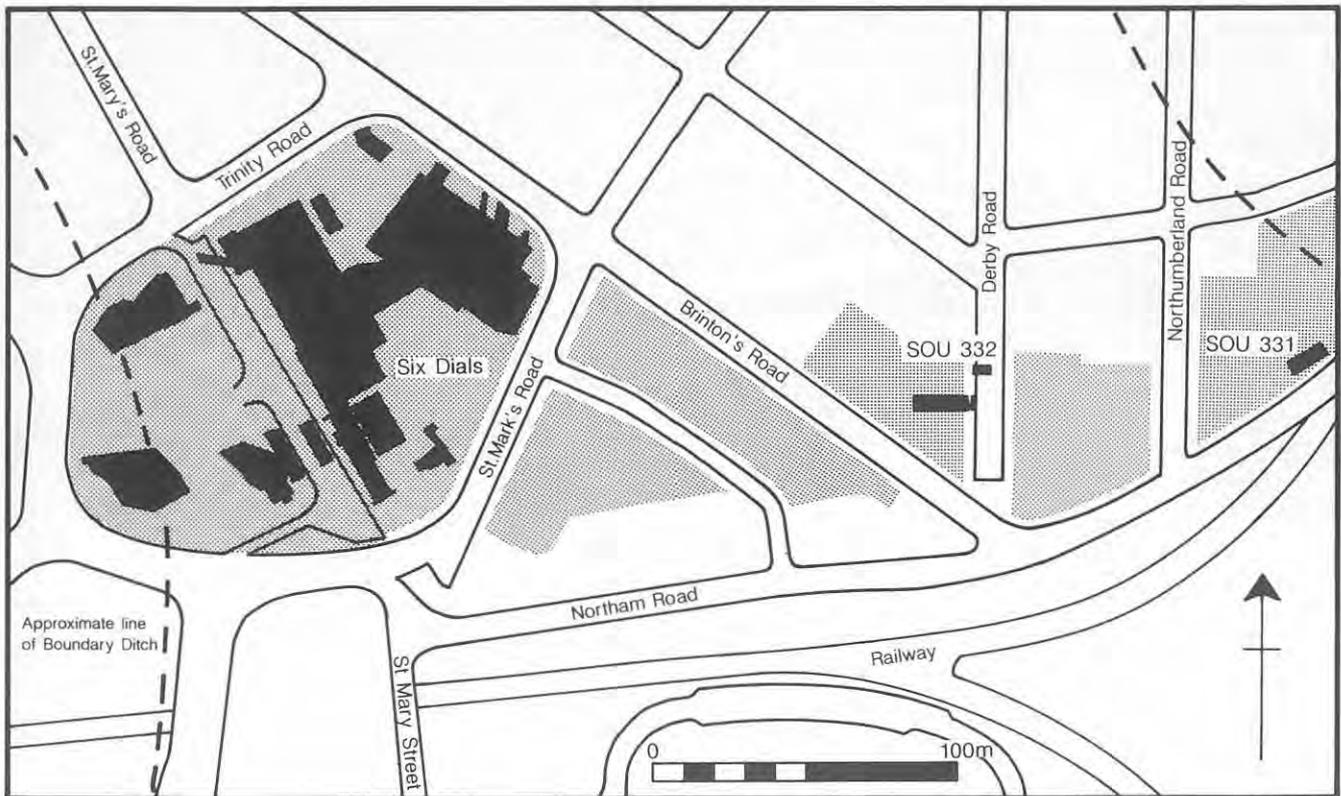


Figure 3 Six Dials: areas available for excavation during the Road Improvement Scheme are shown stippled. Areas excavated are shown in black. Scale 1:2500.

concentrations of ferric and manganese concretions. True anaerobic conditions seem to have developed only in isolated pockets within a few pits; in these instances the brickearth had turned a dull blue colour, usually with blotches of black.

One initially surprising phenomenon noted during excavations was the apparent lack of any soil which had developed prior to Middle Saxon occupation on the site. The absence of any buried soil sealed beneath Middle Saxon deposits has been noted elsewhere in Hamwic, but excavations at Six Dials provided the opportunity to investigate this in more detail over a wide area.

As on other sites, the gravel streets and yards were in most cases laid directly upon undisturbed brickearth, and there was no obvious evidence for any earlier soil sealed beneath them. However, several Late Iron Age/Early Roman ditches were sealed below Middle Saxon deposits on SOU 169 and SOU 258, and two of the ditches extended beneath streets. It is suggested below that these ditches formed part of a field system associated with an adjacent settlement. The upper brickearth in the vicinity of these features was a grey (10YR51) colour, and contained a few flints (some burnt), along with occasional flecks of charcoal, but no other finds. This layer, which was up to 0.3m thick, could not be clearly differentiated from the underlying brickearth, or from the fill of the ditches, which was of a very similar character; and it is possible that natural soil processes have

obscured the original stratigraphic relationships.

The easiest interpretation (which is put forward at other points in this volume) is that the layer was probably colluvium or hillwash which accumulated following the abandonment of the site in the Late Iron Age/Early Roman period, but prior to Middle Saxon occupation. However, it remains possible that the layer was a buried soil which had developed prior to or during Late Iron Age/Early Roman cultivation of the area; or which in fact developed during a slightly later phase of activity on the site, after the ditches had gone out of use and been infilled. Although no similar deposit was uncovered elsewhere at Six Dials, it may be relevant to note that a similar deposit was found overlying the brickearth on a Late Iron Age site at York Buildings (SOU 175) within the medieval town. The excavator considers that this deposit was a soil which developed during Iron Age cultivation of the area (Hilary Kavanagh pers comm). The characteristic grey colour might be attributed to soil ripening which took place after the land had been cleared for cultivation. Clearance for cultivation may have led to aeration, oxidation, weathering, and biological activity on the exposed ground. Subsequent leaching could have resulted in the brickearth acquiring a grey colour, and organic acids would have dispersed the clay fraction and led to its deposition down the soil profile. Organic material incorporated into this soil during cultivation may not have survived.

The western extent of excavations at Six Dials



Plate 2 The Six Dials roundabout photographed from the west in 1983 prior to the Improvement Scheme. SOU 169 T1-3 under excavation in the foreground.

lay approximately 0.6km from the nearest point on the River Itchen, and at least 0.7km from the probable site of the Middle Saxon waterfront. It is considered unlikely that the natural riverline has changed greatly, though there has been some expansion eastwards into the river during the last 100 years or so. There is no evidence for any major changes in river level since the Middle Saxon period, though the evidence from the wells perhaps indicates that the level of the water-table has been lowered by up to a metre (see below).

Earlier work in the area

There is no evidence that the area that is now Six Dials was used for anything other than agricultural purposes for almost 1000 years following the end of Middle Saxon occupation, though the line of St Mary's Road probably remained in continuous use as a route. The fields to the east were bookland in the Middle Ages, much of which comprised the glebelands of St Mary's early in the 19th century. A map of 1846 shows the area as market gardens bisected by Love Lane (St Mary's Road). By 1862 the ground to the west of St Mary's Road had been built over, though the land to the east, including the southern end of Derby Road, remained open.

The rapid expansion of Southampton in the mid 19th century led to pressure to develop suitable areas, and by 1866 Brinton's Road had been laid out and the adjacent area built up. Shortly after this, remaining areas were built on, and by around 1870 little undeveloped ground remained.

Extensive development of the area to the south of Six Dials had taken place from the first quarter of the 19th century, and the bricks used in many of the buildings erected were made from brickearth dug nearby. The precise extent of brickearth digging within the area of Hamwic is unknown, but it is likely that large quantities of Middle Saxon finds were recovered during this activity and that only a small fraction of the finds was recorded. By good fortune the period of housing development at Six Dials took place at a time when several antiquaries were interested in the archaeology of Southampton, and were bringing their findings to the attention of a wider audience. They are discussed at greater length in Crawford (1942, 40-3) and Morton (1992, 4-10); observations relevant to the Six Dials area are included here. In March 1856 Edmund Kell observed the construction of the Edinburgh Hotel which was built in the angle between St Mary's Road and St Andrew's Road. It may have been the first site in Hamwic to be observed by an antiquary, previous information or

finds all having been gained second-hand. An area of 15 yards by 10 yards (14m by 9m) was cleared, and nearly a ton of bones was recovered from pits that 'were rectangular, from six to eight feet long, from four to six feet broad, and from six to seven feet deep' (Kell 1857, 208). Part of this site was excavated on SOUs 169 T2 and 258 T2. Although a basement in the hotel had truncated some of the archaeological deposits, there was little evidence to suggest that many of the pits had been dug out earlier by workmen. A single example (pit 8559 on SOU 169) showed signs of having been dug into, and in this pit only the upper 0.5m or so had been disturbed. One must assume therefore that either most of the earlier finds came from pits further to the south, or that the figure of nearly a ton of bones was an exaggeration. In 1857 Kell carried out the earliest known archaeological investigation in Hamwic when he excavated one of two further pits found 'in the construction of the north wall of the yard, distant ninety yards from the house' – that is the Edinburgh Hotel (*ibid*). This would place it in the vicinity of SOU 169 T3.

Subsequently, further pits were found on two occasions during the digging of foundations north of the Edinburgh Hotel. From the descriptions it is assumed that these sites lay to the west of St Mary's Road and to the north of Six Dials (Kell 1860; Kell 1863, 3–4). These were the last pits recorded to the west of St Mary's Road, which had by now been fully built up. During building work on the east side of St Mary's Road quantities of bone and other finds were recovered. It is recorded that there was 'a slight intermixture of Romano-British relics' (Kell 1866, 455), though Crawford is cautious of this attribution. However, excavations at Six Dials did produce several late Iron Age or early Roman features containing pottery, as well as a number of Roman coins and other artefacts, so Kell may not have been incorrect in his interpretation of the earlier material. Kell died in 1874, by which time virtually all of the land in the vicinity of Six Dials had been developed. There are larger areas in the north of Hamwic where there are no records of any Middle Saxon pits or finds having been discovered, presumably because there were no antiquaries to witness the developments, or to contact the workmen involved.

The next recorded pit to be found at Six Dials, indeed anywhere else in Hamwic, was in August 1941, some 75 years later. O G S Crawford, a pioneer in his work on Hamwic, noted a pit 'in the middle of Trinity Road at the point where it comes into St. Mary's Road from the west, and right in line of the houses on the west side of St. Mary's Road'. (Crawford 1942, 43). This is immediately to the north of SOU 169 T3.

The hiatus in any recorded finds in this 75-year period probably reflects the completion of extensive development in the area, and the subsequent small-scale nature of any further work. If anything were found then, it is unlikely to have been brought to

the attention of any interested party even if there were someone to hand. The form of the archaeological features meant that most would probably have been overlooked, or that their significance would not have been recognised – a state of affairs that still persists to some extent today. This might explain the lack of recorded finds during the extensive digging of holes to accommodate air-raid shelters at the beginning of the Second World War, when there would have been little time for archaeological excursions.

The history of excavations in Hamwic since World War Two is well documented by Morton (1992, 10–15). It began with comparatively intense work in the first years of peace and in response to the clearance of some areas and their proposed redevelopment. The work of this period comprised the first controlled archaeological excavations within the Saxon town, but the momentum established then could not be maintained, and with a few exceptions, comparatively little further work was done until the establishment of the SRC (Southampton Research Committee, later SARC) in 1971. Most of the excavations prior to 1977 had taken place in the southern half of Hamwic, and this to a great extent reflected the extensive redevelopment occurring there. A feature of most of the sites excavated was their relatively small size. The largest excavated was at Melbourne Street where three contiguous sites (SOUs 4–6) amounted to an area of a little over 1000m². (At SOU 32, some 2500m² were cleared and planned, but circumstances allowed only a very small proportion of this to be excavated.) There was clearly a need to excavate a large site in order to try to gain a better understanding of the nature of the Middle Saxon occupation including its chronology, the layout of streets, the types of structures, the range and location of industrial activities, and so on. Such information cannot be easily gained from smaller excavations. Addyman and Hill (1968, 82) had emphasised this point in stating that

It is now imperative that the tentative conclusions should be tested by the excavation of another area, at least as large, under unhurried summer conditions which would allow the total evidence to be recovered; the various features to be excavated; and the sequence of features and structures to be established. If such a project is only a second priority in Saxon Southampton, it is nevertheless one of the major priorities in Middle Saxon archaeology. Again the task would be daunting and the cost considerable.

The site (Fig 4)

A small trial excavation (SOU 23) was carried out in April 1977 to assess the density and survival of Middle Saxon deposits at Six Dials. The trench was located within a vacant area surrounded by build-

ings which were in the process of demolition. It was not certain at that time in which order further demolition of buildings would take place and when other areas would be made available for excavation.

Subsequently, the first extensive areas to be cleared were on the eastern half of Six Dials, and following the encouraging results from the trial work it was decided to open up a large area immediately to the west of SOU 23, bordering on St Mary's Road. This site, SOU 24, was cleared in September 1977 and was excavated over two seasons from September 1977 to June 1978, and from September 1978 to July 1979. The area to the east, which was subsequently excavated as SOUs 26 and 30, was cleared in August 1979. SOU 26 was excavated from September 1979 until August 1980, and SOU 30 from September 1980 until March 1981. During 1981, large-scale clearance took place to the east of Six Dials within the triangular area bounded by St Mark's Road, Brinton's Road, and Northam Road. With the area adjacent to SOUs 24 and 26 also available for excavation, the decision was taken to concentrate further work within the roundabout, thereby expanding the areas previously investigated. Excavating as large a continuous area as possible was considered at the time to be the most appropriate strategy to adopt; and in retrospect, this approach was fully justified by the information gained. Between April and December 1981, SOU 31 T1-3 and T5 were excavated, thus linking and extending SOUs 24 and SOU 26. In September of that year an adjacent area on the St Mary's Road frontage was cleared, and this was excavated as SOU 31 T4 up to the end of December 1981.

At the beginning of 1982 no further excavation was planned at Six Dials, but a radical change to the proposed layout of the road scheme in the spring of 1982 necessitated a reappraisal of the excavation strategy. Areas which had not previously been threatened were now included within the Six Dials Road Improvement Scheme. The whole of the western half of the Six Dials roundabout, which was then in use as a car park, was to form the centre of a traffic interchange. Negotiation with the relevant bodies within Southampton City Council allowed access to the areas required for excavation, and maintained the rest of the car park in use. Three separate areas which comprised SOU 169 (T1-3) were excavated between October 1982 and August 1983. Their location was largely determined by the results of the earlier excavations on the east side of the roundabout, though their limits were partly restricted by services still in use. These services prevented linking T1 with T2, and excavating further to the west of T3. Following the completion of this work, a final season of excavation was planned for immediately prior to the commencement of the road scheme. This was timed to minimise disruption to vehicle and pedestrian traffic as the work involved the partial closure of a road. The final season of major excavation at Six Dials took place

between July and December 1986. SOU 258 comprised five areas (T1-5) which were located adjacent to previously excavated sites in order to investigate specific questions posed by the earlier work, and to look at areas which had not been accessible before – most importantly beneath St Mary's Road.

The completion of this programme of excavations was followed immediately by the commencement of the road scheme. During construction work the opportunity to cut several machine trenches arose; these trenches have enabled certain questions which relate particularly to the layout of Middle Saxon streets to be further investigated. In addition, small excavations were carried out in January 1987 at SOU 331 towards the eastern edge of Hamwic and at SOU 332 at the south end of Derby Road; and in January 1989 SOU 412 was excavated in the north of Six Dials. A watching brief was maintained on the site throughout the duration of construction work, though this produced comparatively little additional information. It is intended that the full results of all work at Six Dials from January 1987 onwards be included in a future article on excavations in Hamwic, though brief references to them are made below.

Excavation methods

All sites were cleared with the aid of machinery, normally a tracked excavator equipped with a toothless bucket. Most of the sites had been covered either by houses with fairly shallow foundations constructed in the late 19th century, or by associated backyards and gardens. All that had survived of these houses following demolition were some of the footings. As a preliminary to excavation, the topsoil was removed down to nearly the bottom level of 19th-century disturbance, though this was not always clearly defined, particularly in the areas that had been gardens. Here, the number of inclusions of brick, tile, pottery and other recognisably late material decreased with depth with no clear boundary between these levels and the undisturbed deposits below. In many areas this disturbance, which was presumably the result of cultivation, extended down to the natural brickearth so that no earlier stratified deposits had survived intact. Where they did survive, the earlier deposits could normally be recognised by the presence of animal bone and oyster shell. In a few areas on earlier sites (SOUs 23, 24, and 26), varying depths of disturbed deposits were selected for manual excavation in order to determine whether any Middle Saxon or later features could be detected within them. The extra time involved in excavating these deposits and the general failure to discover such evidence resulted in similar deposits being removed to a greater depth on subsequent sites. Stratified Middle Saxon deposits were best preserved beneath the houses, particularly along the St



Figure 4 Six Dials: Middle Saxon features. Hearths are shown in outline only. Sites are designated by site and trench numbers (eg 258/1 is SOU 258 T1).

Mary's Road frontage, though the construction of basements in some of them had led to the truncation or complete removal of these deposits.

Most of the topsoil was used in backfilling the excavated trenches, though several lorry-loads from SOU 31 T2 were taken to provide garden soil on a housing development at Bursledon (SU 490100). Any future recovery of insecurely stratified Middle Saxon material from this area should be treated with great caution as it is very likely to have derived from Hamwic. In order to replace the material removed from Six Dials, an equivalent volume of material was brought from a building site in Upper Bugle Street within medieval Southampton (SU 420114). Consequently, the future recovery of unstratified medieval and post-medieval material from Six Dials should also be treated with caution.

As much as possible of the modern disturbance was removed by machine, though most had to be at least partly excavated by hand. The most extensive of the 19th-century disturbances was a cellar at the east end of SOU 169 T3 which had totally destroyed the archaeological deposits in that area. A basement or cellar beneath the Edinburgh Hotel which had stood on parts of SOUs 169 T2 and 258 T2 had destroyed some of the archaeological deposits, but substantial portions remained intact. Two other cellars lay immediately outside the excavated areas: these were to the south-east of SOU 30, and immediately to the south of SOU 31 T4.

The houses either side of St Mary's Road on SOUs 24, 31, 169, and 258 had basements which in some areas had removed any archaeological deposits above the natural brickearth, but elsewhere were not deep enough to have caused much damage. Stratified Middle Saxon deposits survived best adjacent to and below St Mary's Road in the most southerly areas excavated – notably on SOU 31 T4, SOU 169 T2, and SOU 258 T2. It is considered that their survival may reflect several factors. First, there may originally have been a greater depth of deposits here than elsewhere on the site, the result of longer and perhaps denser Middle Saxon occupation in this area. Secondly, the proximity to a street which was a medieval and post-medieval route may have meant that the strips of land immediately adjacent were not cultivated and therefore escaped disturbance. Thirdly, the level of this part of St Mary's Road was raised during the 19th century by probably around a metre prior to the construction of houses. This seems to have been partly done by scraping material from further back from the road and dumping it over and adjacent to the road. This would have helped preserve the earlier levels; and the newly raised road level would have meant that the basements would not have had to be dug so deeply into the underlying undisturbed deposits. Fourthly, the ground below the houses would have been preserved from further damage, while the garden areas to the rear would have been further disturbed by cultivation.

Apart from basements and occasional cellars, the

greatest volume of damage was caused by service trenches. These were almost entirely sewer trenches which extended in some profusion across most of the excavated areas. However, though they had caused a certain amount of damage, this was nowhere great enough to pose any serious difficulties in interpreting the site. A number of houses had soakaways to their rear (irregularly shaped pits up to 2m in diameter and 1.5m deep), but these had caused comparatively little damage. More common were the pits dug for installing air-raid shelters during the World War Two: most houses in the area had Anderson shelters in their back gardens. They were placed in shallow, square pits measuring approximately 2m square and 0.5m deep. Although in most cases their construction had removed any deposits above the brickearth, relatively little damage had been done to deeper features.

Services still in use partly determined the extent of excavations on SOUs 169 and 258. A large baulk had to be left between SOU 169 T1 and T2, and excavation to the west of SOU 169 T3 was restricted by the presence of gas, water, and electricity services, as well as a major sewer following the original line of St Andrew's Road. A continuous trench could not be excavated across St Mary's Road between SOU 31 T4 and SOU 169 T2 because of the presence of water, electricity, street lighting, GPO, and Rediffusion services, as well as a major sewer. Two baulks were left in order to maintain these services intact, though a near-complete section was observed across St Mary's Road during the subsequent watching brief after several of the services had been disconnected.

Overall, the damage caused by modern disturbances to the archaeological deposits was not as great as might initially have been feared (PI 3). In some areas archaeological deposits were encountered no more than 0.4m below the ground surface, though elsewhere up to 2.2m of topsoil and demolition deposits had to be removed. (This was principally on the west side of the Six Dials on SOU 169 T1–3.) In very few areas had the Middle Saxon deposits been completely destroyed, or disturbed to any great extent. This was largely due to the area having become a green-field site following the end of Middle Saxon occupation, and probably remaining under cultivation until its relatively late development for housing in the 1860s. Nowhere on the areas excavated or observed at Six Dials was there any evidence of brickearth digging, such as has been found elsewhere to have extensively damaged the archaeological deposits.

The techniques of excavation at Six Dials were developed as work progressed. Earlier excavations carried out in Hamwic by SARC had come to involve the meticulous excavation and planning of a succession of 0.05m spits of soil. By this method it was hoped that it would be easier to detect the faint traces left in the soil by timber structures; the subsequent superimposition of plans might also reveal the existence of such ephemeral remains

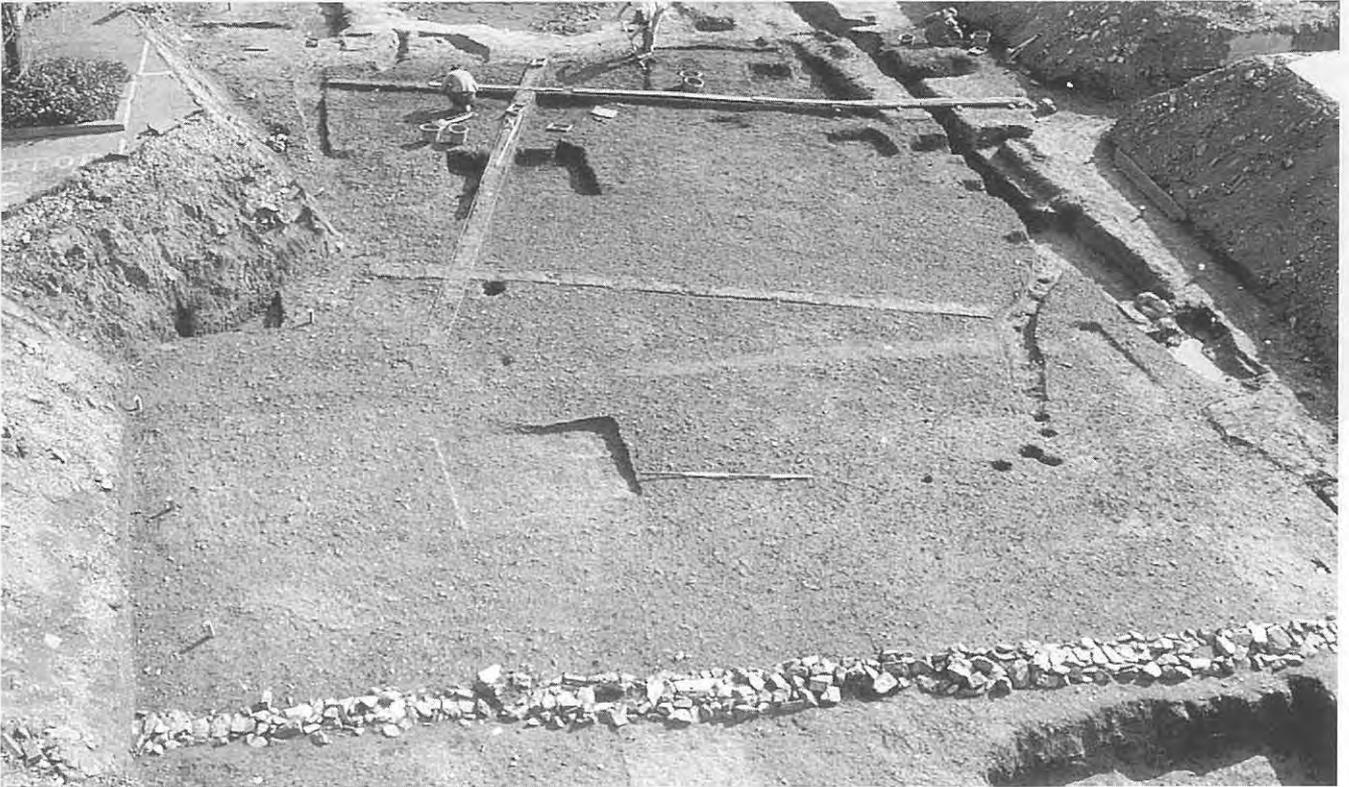


Plate 3 SOU 169 T3 after machining and removal of modern pipe trenches, footings and World War 2 Anderson shelters. A post-medieval stone-lined drain crosses the bottom of the photograph. Photographed from the west (scale in 0.5m units). Compare with Pl 6.



Plate 4 Polyspan tent of the type used on all of the pre-1981 excavations at Six Dials.

more clearly. These excavations were conducted under polyspan tents, most often during the autumn, winter, and spring when it was considered that the soil conditions were most appropriate for excavating on the brickearth. During the summer months, exposed brickearth dries, pales, and becomes extremely hard; coupled with the strong light, this makes it very difficult to recognise and investigate colour changes in the soil.

SOU 23, 24, 26, and 30 were excavated in a similar fashion to the earlier sites, though there were limited attempts to excavate during the summer months, and the relative ease with which structural features were detected made digging in spits a redundant technique. The apparently easier detection of structural features at Six Dials may to some extent reflect their better survival, but more probably is a result of the extensive areas excavated and reflects the improved skills of an experienced team in recognising and excavating such features.

Polyspan shelters have the advantage that they make it possible to excavate in nearly all weather conditions, and they protect the brickearth and any stratified deposits from rain and frost which can lead to them becoming badly disturbed should they be worked on in this condition. However, the use of such shelters does place considerable restraints on the excavation: some time is required to erect and maintain them; the necessary excavation of bedding trenches in which the plastic is held destroys some archaeological deposits; baulks which have to be left between trenches may remain unexcavated at the end of the excavation; and the shelters divide the site into a number of areas usually unrelated to the archaeology, thereby making it difficult to gain an overall impression of the site while excavation is in progress. In order to compromise between these advantages and disadvantages, on SOUs 24 and 26 selected shelters were removed once the weather had considerably improved; and the decision was taken in 1981, prior to the excavation of SOU 31, that only certain areas of forthcoming sites would be covered in this fashion. Any shelters would be erected in such a way as to cover archaeologically sensitive areas, while causing as little damage as possible to the deposits, and not obscuring any important relationships. Any shelter would not be viewed as permanent, but should be removed if necessary. Also in 1981, the decision was taken to excavate throughout the year. The result of adopting this more flexible approach has been fully justified by the results obtained from subsequent excavations.

One problem which presented itself at the beginning of work at Six Dials was the very large number of Middle Saxon pits which were likely to be encountered, and the vast quantities of finds – in particular faunal remains – which would be recovered from these pits. The dilemma was whether to excavate fully all pits on one smaller site, or whether to open up a much larger area in

order to obtain a more extensive plan of the layout of the settlement, but where all of the pits would not be fully excavated. As one of the major objectives at Six Dials was to recover evidence for structures and obtain more information about the topography of the town, the second approach seemed justified. In consultation with various archaeologists and faunal specialists it was decided only to half-section any pit which from its fill, shape, and size seemed to have been dug for the disposal of domestic refuse. Other pits would be fully excavated, as would pits which seemingly had been dug for the disposal of rubbish but which contained important or unusual morphological features, fills, or finds. In some areas, and in particular on SOU 26, individual pits or groups of pits were left unexcavated in order that scarce resources could be directed to recovering structural information. However, in general the strategy of half-excavating pits was adhered to throughout the excavations at Six Dials. Information has certainly been lost by not fully excavating all the pits, but the advantages of investigating a more extensive area justify this strategy.

Environmental sampling

The policy of incomplete excavation required the development of a sampling strategy. Standard 5dm³ soil samples were taken from most contexts on SOU 24 and were subsequently processed. It was clear from this early work that extremely few waterlogged deposits were liable to be encountered at Six Dials, and that a relatively small number of samples would contain reasonable quantities of mineralised material. SOU 26 was less intensively sampled and following the change of management to Southampton City Museums, the number of soil samples taken was reduced; at that time no provision had been made for the processing of those samples, and the likelihood of any processing work being done in the immediate future appeared remote. However SOU 30, though a small site, was intensively sampled in order to provide a comprehensive group of material which might cover any deficiencies resulting from the incomplete programme of excavation and sampling on SOU 26. Early in 1981 the prospect of any further resources being made available to work on soil samples was not encouraging, and there was no space to store a large number of unprocessed samples. Following consultation with faunal specialists it was decided to be extremely selective in the taking of soil samples on SOU 31. Samples were kept only from those contexts which appeared to be rich in mineralised remains, or were from industrial contexts associated with iron working or bone working, or were of particular interest for other reasons. The relatively small number of samples taken on SOU 31 were all processed in the following year by Sarah Colley at the Faunal Remains Unit as part of a much larger sieving and sorting programme associated with the

Pit Project (see further below). In 1982 preparations were made for the excavation of SOU 169, and because of a possibility of MSC funding partly supporting a sieving and sorting programme, the decision was made to implement a comprehensive sampling programme. A total of 1113 soil samples was taken which, along with those from SOU 30, were subsequently sieved and sorted the following year. On the basis of the results obtained from these samples, fewer were taken during the final season of large-scale excavations, in 1986 on SOU 258. The selection of contexts to be sampled was done in consultation with the environmental and faunal specialists with the aim of obtaining samples from contexts which are comparatively rare, such as floor levels, or from contexts which were likely to be rich in mineralised remains.

All samples with the exception of those from SOU 258 have now been processed, though a number from SOU 26 had to be discarded as they did not survive long-term storage.

The development of the sampling strategy partly reflected the availability of resources and was partly a response to the results of earlier work on the site. The strategy meant that, although not every context has been sampled, a full range of context types from all phases of occupation have been examined. The paucity of organic and mineralised plant and insect remains in most of the samples to some extent mitigates the extremely selective sampling policy adopted on particular sites as it is unlikely that much extra information would have been gained from more intensive sampling.

Dating

It is suggested below that Middle Saxon occupation at Six Dials spanned a period of perhaps 200 years, beginning around 700 and possibly continuing up to around 900 (the detailed evidence for the beginning and end dates is presented in the relevant sections below). It is difficult to be more precise about these dates, particularly towards the end of this range, and to attempt to do so would be misleading. Morton (1992) comes to different conclusions when he interprets similar dating evidence. The differences between the two methods are not very large, but they are sufficient to mislead the unwary reader. However, as a minimum one might safely state that there was continuous occupation on the site during

the majority of the 8th and 9th centuries. The few dates that have been obtained by scientific means (dendrochronology, radiocarbon, and thermoremanent magnetism) support this interpretation. With the exception of the radiocarbon determinations (Table 1) they are not detailed here, but are dealt with in the relevant sections below.

It is even more difficult to gauge accurately the intensity of occupation over this period, but one receives the impression of a fairly rapid increase in the density of occupation during the first half of the 8th century, followed by a period of stability, and then a more gradual decline spread over a longer period during the 9th century. This decline is particularly apparent in the abandonment of structures and the amalgamation of properties not fronting the north-south street, thought to have begun in the early 9th century (see below, p 48). The evidence is drawn from a number of sources which, taken individually, are not incontrovertible, but which, taken together, provide a more convincing picture. The sources are almost exclusively the finds (in particular the coins, the glass, and the pottery) coupled with the stratigraphic contexts in which they were found. Undoubtedly, there was a certain degree of residuality, which at present cannot be quantified, but this seems not to be a serious problem.

The large area excavated at Six Dials, the various areas of surviving stratigraphy, and the intercutting pits and structures have made it possible to elucidate sequences of activity in particular areas, but these can often only be dated in relative terms, and rarely could the sequences be linked over extensive areas. For this reason, it has proved impossible to approach the site as a whole in terms of phases of occupation, except to a very limited extent when dealing with the evidence for early and late occupation. One is dealing with a beginning and an end point, which are themselves not fixed in absolute terms, and one attempts as best as possible to fit the larger part of other occupation evidence in-between. In the absence of a good dendrochronological sequence, which is a forlorn hope in Hamwic, this is probably the best we can ever hope for – and is, in general terms, the same dating method as Morton adopts. (Because of the problems with phasing, each structure or localised sequence of structures is dealt with separately below, and wherever possible is discussed in relation to other surrounding features.)

Table 1 Radiocarbon determinations

Laboratory number	Radiocarbon age (BP)	Calibrated date range (cal AD)		Context
		68% confidence	95% confidence	
HAR-3291	1060±60	895–1020	880–1040	pit 13595
HAR-3390	1280±70	770–955	670–1000	pit 7765
HAR-5105	1300±70	655–780	620–890	well 3299
HAR-5106	1430±60	565–660	530–680	well 3295

Coins and glass are comparatively rare, but provide fairly clear evidence for occupation during the 8th and 9th centuries. The coins range in date from possibly the first decade of the 8th century until the 860s, and the datable glass may well have spanned a similar or slightly wider range. Both are discussed in more detail at appropriate places below.

Because of this rarity, pottery has to support the main brunt of providing dating evidence for the majority of features, many of which have provided only small quantities of material. Taking into account the composition of the ceramic assemblages, it has been possible to provide them with relative dates (Timby 1988, 111–16), and it is reassuring to note that there were virtually no instances where the ceramic dating contradicted the stratigraphic evidence.

Morton (1992, 27) accepts the relative chronology of the pottery, but tries to avoid absolute dates. However, the dates he adopts (for instance, 'early 8th-century' or 'some part of the 8th and 9th centuries'), although generalised, are still moderately precise. The question is then: what dates does one give to material that has a vague beginning and a vague end? Morton would suggest that it ranges from the first decades of the 8th century until roughly the midpoint of the 9th. Here, as has already been pointed out, much the same evidence is interpreted as ranging from around 700 to around 900.

Most of the features, principally the pits, contained assemblages of pottery that were not demonstrably early or late and which have therefore been assigned to what is termed in this volume the mid or middle period. When the other dating evidence is taken into account, the middle period can be dated from the mid 8th to the mid 9th century, sometimes referred to below as between *c* 750 and *c* 850. Occasionally, the ceramic assemblage or other finds may hint at an earlier or later date within this range, and it is suggested that one or the other century is the more likely.

Early features are those which are considered to date broadly to the first half of the 8th century, before *c* 750. Again, the finds, coupled with the stratigraphic evidence, may occasionally suggest a date in the earlier part of this range, possibly in the

first quarter of the 8th century.

Late features are those which have been assigned to the second half of the 9th century, after *c* 850.

The dating can be only approximate, and it is possible that (for example) the late period should be taken from as early as the beginning of the 9th century, or from the second or third decade of that century, when Hamwic's fortunes may have been rapidly declining, as Morton considers (1992, 77). Wherever chronological divisions are attempted there will be difficulties using the available evidence to define these in either relative or absolute terms, and in recognising them in the archaeological record. However, it has been considered important to attempt to make some divisions within the short continuum of occupation evidence, so as to allow the undertaking of both intra- and inter-site comparisons. The evidence from Six Dials provides our greatest opportunity to do this.

Summary

The work carried out at Six Dials represents the largest single programme of excavations yet undertaken within Middle Saxon Hamwic. The 5000m² or so excavated is about 1% of the area of the settlement, and a third of the total observed and excavated since 1946. It is perhaps unlikely that an equally large area with such a quantity and range of relatively undisturbed features and deposits will ever become available for excavation again. If it did, it is further unlikely that sufficient resources would be obtainable to excavate on such a scale.

Features including a boundary ditch, three streets, 68 structures, and some 530 pits and wells have been recorded, together comprising some 18,000 individual contexts. In addition, a large assemblage of finds has been recovered, more than doubling the quantity from earlier sites. This evidence has provided unparalleled information about the layout, chronology, and nature of this part of Hamwic, an area which in many ways appears to have been representative of much of the rest.

The following chapters describe different aspects of the archaeological evidence from Six Dials.

Prehistoric and Roman evidence

Introduction

Evidence of prehistoric activity has been found on a number of sites in Southampton, though little is known of the prehistoric settlement of this part of the Hampshire Basin. Mesolithic and Neolithic flints, as well as Bronze Age pottery and metalwork, have been recovered as chance finds as well as from archaeological excavations. However, no features which are earlier than the Iron Age have yet been identified on any site observed or excavated within the city. Several sites have provided evidence for Iron Age occupation, though the nature of this settlement remains unclear. A single site, SOU 189, has produced early Iron Age features (Cottrell 1986). Two sites, SOUs 20 and 29, had middle to late Iron Age features (Smith *et al* 1984, 35–45). The remaining sites are thought to have been late Iron Age, and include several small forts and stock enclosures. A gazetteer of these sites and other recorded findspots has been published by Cooper (in Smith *et al* 1984, 45–7). More recently, part of a late Iron Age settlement has been excavated at York Buildings, SOU 175, which lies some 400m to the south-west of Hamwic (Kavanagh forthcoming).

Prior to the beginning of excavation at Six Dials only a single site with evidence for Iron Age occupation was known to lie within the area of Hamwic. This site, SOU 20, had a small, irregularly shaped pit, approximately 0.5m deep, which contained an almost complete saucepan pot. This was the only feature on the site which could be dated to the Iron Age. When he came to reconsider the evidence from the earlier excavations at Hamwic, Morton (1992, 25) identified the remains of what may have been an Iron Age field enclosure at SOU 8, in the south-eastern corner of Hamwic. SOU 3, a late Iron Age site which lies immediately to the north-west of Hamwic, will be discussed further below.

The Roman site at Bitterne Manor, sometimes referred to as Clausentum (see Fig 1), is well known and several excavations have been carried out there, though there has been no opportunity for systematic work during the last quarter of a century (Cotton and Gathercole 1958). Occupation of this site spanned at least three centuries from the late 1st to the late 4th century. Outside the enclosed area virtually no Roman features have been recognised, with the exception of the Roman road which linked Clausentum with *Noviomagus* (Chichester). There are 19th-century references to two sites, almost certainly cemeteries, near Swaythling and Portswood, but their exact location and

date have not yet been established (Crawford 1942, 37). Both lie well to the north of Hamwic.

Hamwic lies approximately 1.4km to the south-west of Clausentum on the opposite side of the River Itchen. There is no certain evidence for any Roman occupation on the site of Hamwic, though it is possible that the late Iron Age settlement immediately to the north-west (SOU 3) may have continued to be occupied after the establishment of Clausentum. A thin scatter of Roman pottery, and occasionally other finds, have been found on most sites excavated within Hamwic, but it is not certain whether these derived from occupation in the area or from the manuring of fields, or whether they were items which were collected by inhabitants of the Saxon town who visited that or another Roman site. Roman brick and tile were reused on a small scale in Hamwic, most often in the construction of hearths, and it is likely that this material along with much of the unfeatured limestone came from Clausentum. It would not be surprising if pottery, coins, and other items were collected during the various foraging expeditions to the old Roman town – also for reuse or perhaps as souvenirs.

Prehistoric and Roman activity at Six Dials

The earliest evidence for human activity at or in the vicinity of Six Dials was a thin scatter of worked flints across the site. Several concentrations were noted, but one should be cautious in attaching too much significance to these as it is quite likely that their retrieval reflects the vigilance of individual excavators. The 97 pieces of worked flint from the excavations at Six Dials were almost certainly residual, and came mainly from the surface of the brickearth and from Middle Saxon pits; a layer of probable hillwash at the southern end of SOU 169 T2 (described above) produced twelve worked flints from the small area that was excavated (approximately 0.5m³). Finished tools are rare, but include a tranchet axe and several scrapers of varying type. The majority of items recovered were flakes or blades, with occasional cores.

Dating even the finished tools can be difficult; those that have been identified are Mesolithic (Matt Garner pers comm). It is possible that some of the other flints may be of Bronze Age date. An Iron Age date is considered improbable, and it is equally unlikely that any were manufactured during Middle Saxon occupation of the site.

The earliest datable features at Six Dials were several ditches. Provisional dating of the pottery

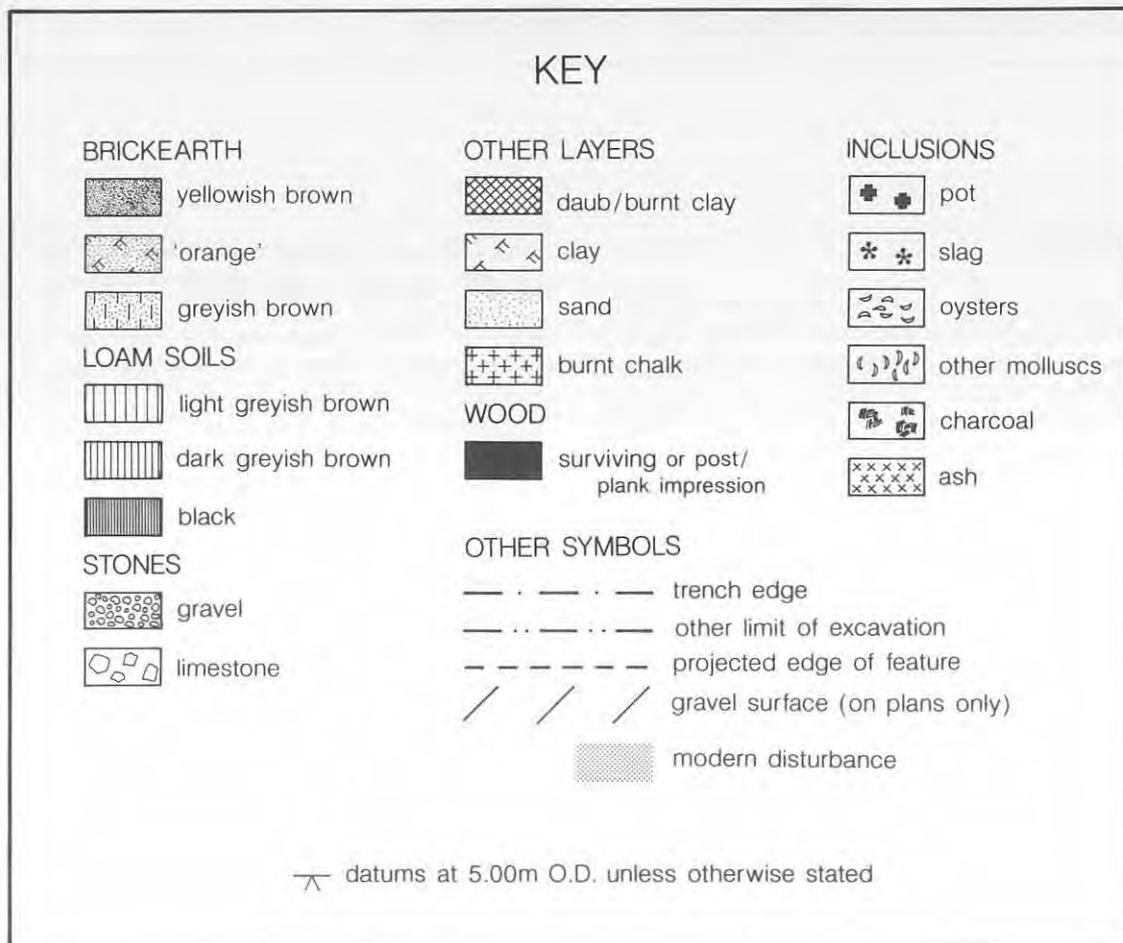


Figure 5 Key to plans and sections.

from these would suggest that they were late Iron Age or early Roman (Roberta Tomber pers comm). They were confined entirely to SOU 169 and SOU 258 T2, on the west side of Six Dials (Figs 5 and 6). They were extremely difficult to identify in plan, and in some areas were probably obscured by an overlying deposit of hillwash. It is possible that some features may have remained undiscovered, since several were only recognised in sections exposed in the sides of later pits and pipe trenches. However, given the density of pits and pipe trenches across the site, it is unlikely that much has been missed. A careful search revealed no features which might be interpreted as structural elements.

More than one phase of activity may be represented by these features, though there is no stratigraphic relationship between the two suggested phases. A possible earlier group comprising ditches 9922, 13129, and 13368 and linear feature 1251 can be distinguished from a possible later ditch, 13146. The distinction is not made on stratigraphic grounds, nor does it reflect morphological differences between the features. It is made mainly on the basis of the finds assemblages they contained. The earlier group contained far greater

quantities of burnt flint and relatively little pottery compared with the later ditch. Ditch 13146 also contained colour-coated wares not present in the other features, though the ceramic assemblages as a whole were not distinctive enough to demonstrate a clear chronological difference between the two suggested phases.

Ditch 9922 was approximately 1.5m wide and 0.7m deep, and aligned east-west (Fig 7). It had a V-shaped profile, though the north side was stepped suggesting that it had been recut at least once. However, no evidence of this was apparent within the fill. It was traced for a length of almost 25m on SOU 169 T2 and SOU 258 T2 and T3, curving slightly southwards on SOU 258. It did not extend as far west as SOU 169 T1. At 90° to the south of 9922 was a smaller ditch, 13368. This was recognised only in section, and was 0.8m wide and 0.4m deep. Its relationship with ditch 9922 was unclear as the junction between the two had been cut away by a Middle Saxon pit, 12209. On SOU 169 T1, a shallow and flat-bottomed linear feature, 12151, approximately 0.5m wide and up to 0.15m deep extended north-south across the whole site, a distance of 25m. It did not extend as far north as SOU 169 T3, unless 13129 was a continuation of it,

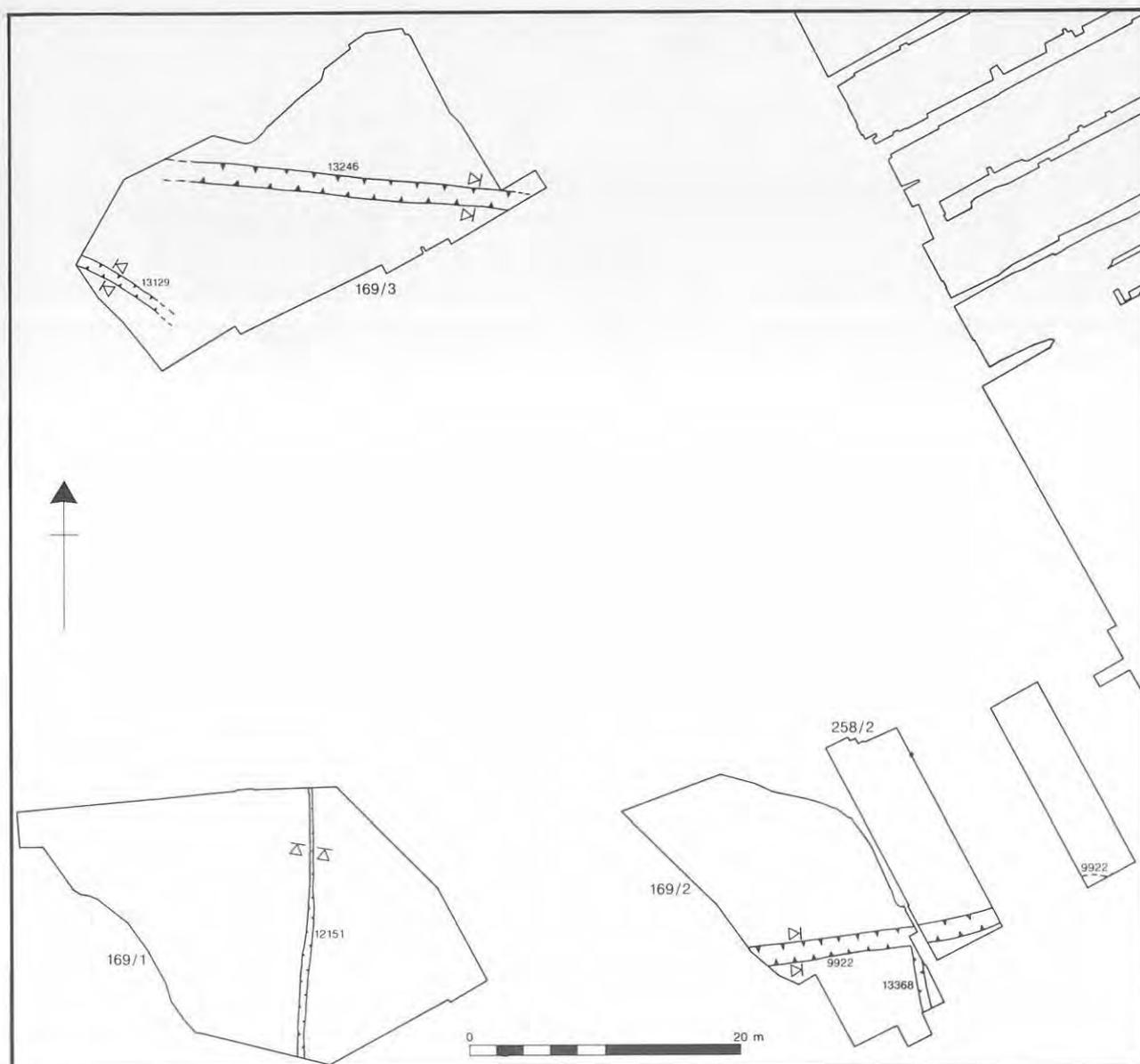


Figure 6 Six Dials: Romano-British features. Scale 1:500.

in which case it is possible that it was the truncated remains of a once deeper ditch. The final feature identified as belonging to this phase of activity was ditch 13129 on SOU 169 T3. Aligned north-west-south-east, it was approximately 0.8m wide and 0.5m deep, and curved slightly to the west. It had a V-shaped profile, and there was no evidence for any recutting.

All of these features, except gulley 12151, contained pottery, with most coming from ditch 13129. All contained quantities of burnt flint, with again most coming from 13129. They were generally filled with a uniform light grey (10YR71) silty clay within which layers could rarely be differentiated. Most of the finds were concentrated towards the bottom of these features, and it is considered that the fills were the result of natural silting. These light grey fills appear to be characteristic of Iron Age features

cut into brickearth (see above).

Only one feature, ditch 12159, might be attributed to a later phase of activity. It was approximately 1.5m wide and 0.7m deep, and aligned east-west. A shallow flat-bottomed channel, approximately 0.2m wide and 0.1m deep, along the bottom of the ditch might be interpreted as evidence for a recut. A 24m length of this ditch was planned and partially excavated on SOU 169 T3, though its extent to the east and west remains unknown; it was not however found on SOU 24 to the east. The fill was a fairly uniform brown to brownish-yellow silty clay, except at the bottom where it was noticeably yellower. Pottery was more prolific in this ditch than in the others, but natural silting again seems likely.

Ditches 9992, 13129, and 13368 and linear feature 12151 are all considered to have been part

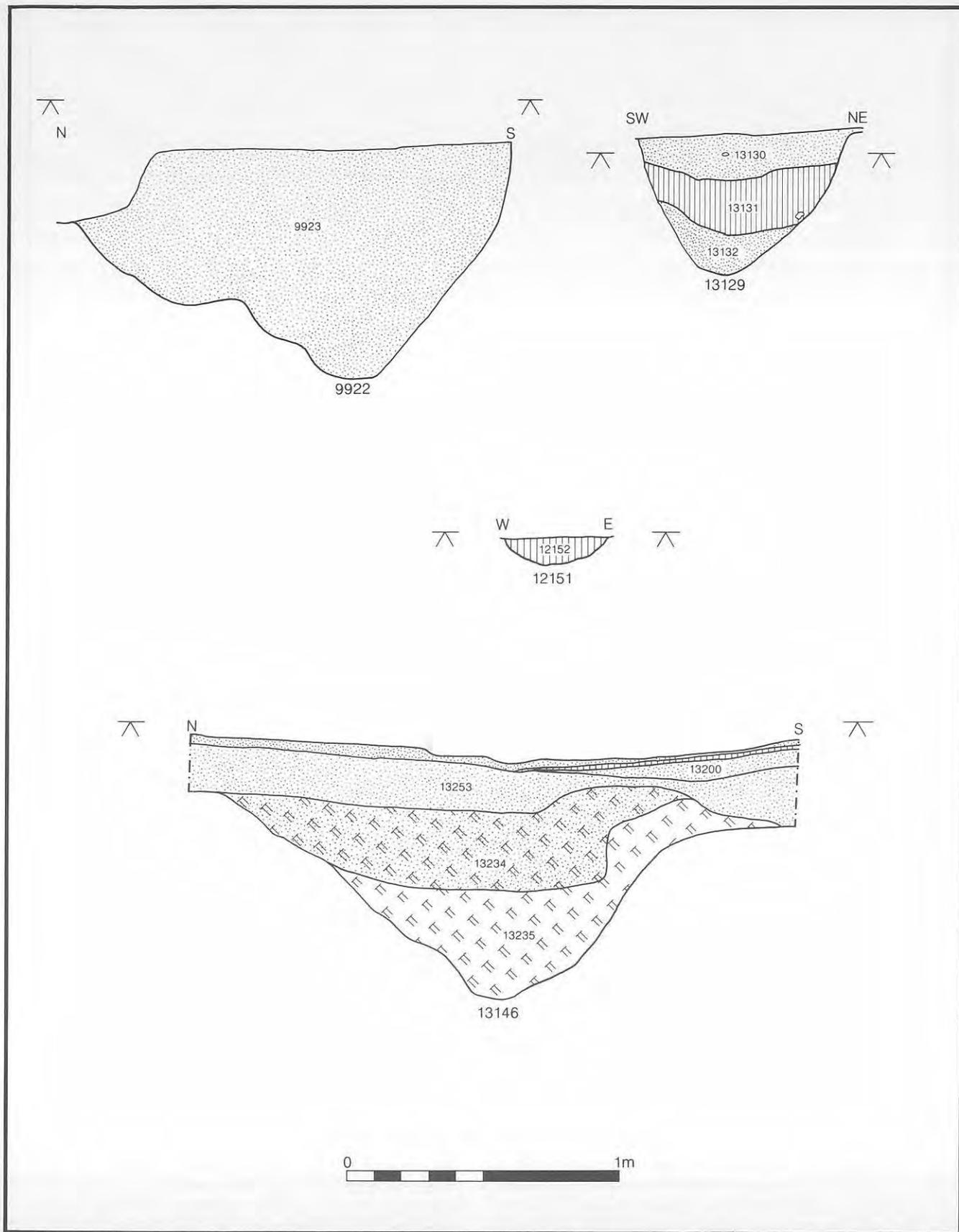


Figure 7 Romano-British features 9922, 12151, 13129 and 13146. For locations of sections see Fig 6. Scale 1:20.

of one or more field systems broadly contemporary with a settlement to the north-west. Limited excavation at SOU 3 in 1971, some 150m to the north-west of SOU 169 T3, uncovered a series of shallow pits, post-holes, and gulleys which were assigned a late Iron Age date (Hughes 1972). They appear to have been part of a late Iron Age settlement established on the valley gravels sloping down to the south-east. The limits of this settlement have not yet been established, and a small trial excavation in 1982 (SOU 97) uncovered possible structural features of late Iron Age date some 100m to the east of SOU 3 and 200m to the north-west of Six Dials. The settlement appears to have been restricted to the valley gravels, and it was only the associated field system which was impinged upon by Middle Saxon occupation, apparently confined to the brickearth. A possible later phase of activity represented by ditch 13146 may have been associated with continued occupation of the site into the early Roman period.

A thin scatter of Roman finds, mostly pottery, brick, and tile as well as some twenty late Roman coins, have been found, but not in quantities or concentrations sufficient to suggest Roman occupation. The significance of the coins in terms of Middle Saxon monetary circulation is discussed below; the reuse of Roman brick, tile, and possibly

stone, particularly in hearths, is noted below. Many of the pottery sherds are quite abraded, consistent with them having been derived from the manuring of fields. A few sherds may have been collected as souvenirs, and among these are two joining sherds of colour-coated ware found in the bottom of adjacent post-holes in Structure 16 on SOU 31 T3.

Just before or soon after occupation of the late Iron Age settlement had ceased and the associated field system had gone out of use, a layer of hillwash probably began to accumulate at the bottom of the gravel slope to the north-west of Six Dials. The earlier features gradually silted up and it is likely that finds were carried downslope with this material; the greater concentration of finds both in and outside features towards the north-west of Six Dials presumably reflects their proximity to the main area of Iron Age occupation. The probable hillwash was thickest on SOU 169 T2 and T3, and on SOU 258 T2, where it was some 0.3m deep. In part this might reflect the better survival of the deposit, as it is quite likely that some may have been lost to later agricultural activity, most notably on SOU 169 T1.

There was no evidence for any activity or occupation on or in the vicinity of Six Dials between the abandonment of the site probably early in the 1st century AD, and its reoccupation in the Middle Saxon period around 700.

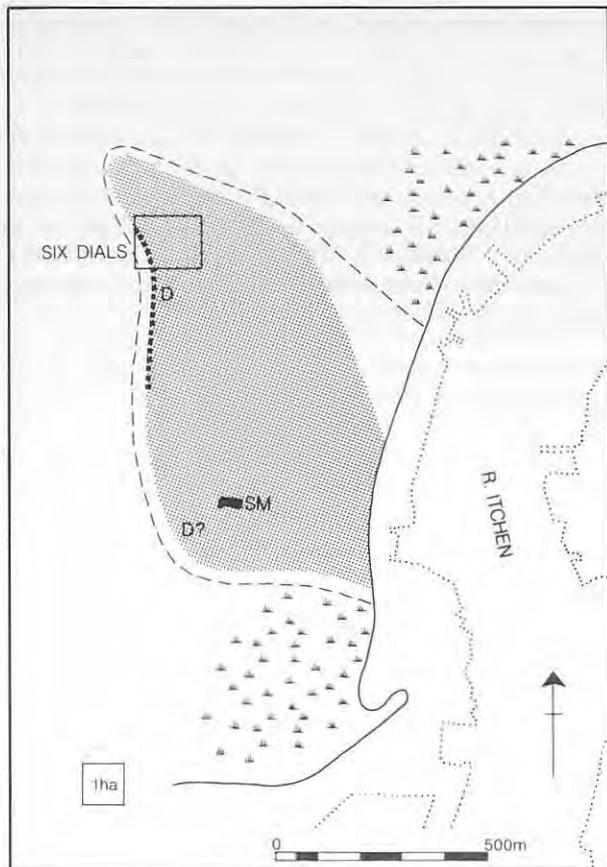


Figure 8 *Extent of Hamwic. Stippling indicates the probable minimum extent, and a dashed line the probable maximum. The dotted line shows the present shoreline. Key: D the ditch from SOU 89 to SOU 169, D? the ditch at SOU 254, SM St Mary's Church. The main area of excavations at Six Dials is shown by a rectangle.*

U-shaped ditch of similar dimensions was observed approximately 250m to the south on SOU 89 (Morton 1992, MF2:A3-7); a resistivity and proton magnetometer survey in Hoglands Park (SOU 186) immediately to the south of SOU 89 produced some evidence of a western boundary perhaps marked by a ditch (Gieve and Grimley 1992); and recent excavations at Cook Street (SOU 254) and the Deanery (SOU 184) have investigated further lengths of a much less substantial Middle Saxon ditch in the south-west of the town, 500m to the south of Six Dials (Garner 1990, 28 and 30-3). Although it is not certain that all of these sections of ditch were part of the same circuit, and although it is possible that the non-excavated sections were field ditches dug later, during the medieval period, the likeliest interpretation remains that at least one ditch was dug on the west side of Hamwic. A group of pits lay outside the ditch at Six Dials, but no evidence for buildings or dense occupation has been found there or anywhere else to the west of the ditch. It is suggested below that the ditch was dug as a boundary, perhaps largely symbolic, at

about 700, but that it partly silted up and was subsequently backfilled during the first decades of the 8th century. At Six Dials a number of pits had been dug through the infilled ditch, but two gulleys, one of which was certainly later than the ditch, may have marked fence or hedge lines which maintained the line of the earlier boundary. Why the ditch there was not kept clear or recut remains unknown.

To the east, the boundary of Hamwic was presumably the River Itchen, the line of which has probably changed little since the Middle Saxon period, except for some reclamation during the last 150 years or so. The southern limit to the town has not been precisely established, but it is likely that it was partly determined by marsh, or else marginal ground that was liable to periodic flooding. The northern and north-eastern limits of the town are the least certain, though recent observations and excavations would suggest that the occupation petered out in this direction and was not constrained by a ditch. Marsh may have restricted settlement to the north-east.

Although the area of Hamwic cannot at present be precisely determined, observations and excavations would suggest an area of at least 42ha and perhaps as much as 52ha (Morton 1992, 29) – probably about 46ha.

The boundary ditch

Two lengths of a ditch totalling 32m were excavated at Six Dials on SOU 169 T1 and T3 (Fig 9).

The longest section was on T1 where approximately 18m was fully excavated (PI 5). The ditch at this point was aligned approximately north-south at an angle of 341° (taking OS grid north as 0°), and was on a converging line with the north-south street which was aligned at 331°. It was less simple to ascertain the alignment of the northerly section of ditch on T3 (which was excavated in quadrants) for part of the 14m excavated had been partly cut away by an air-raid shelter (PI 6). However, an alignment of about 336° is indicated. The difference between T1 and T3 would suggest that there was a deliberate change in the alignment of the ditch at Six Dials, either gradual or sudden. This may have been prompted by the need to avoid an intersection between the ditch and the north-south street at some point to the north of Six Dials. On T1 the ditch was some 40m west of the north-south street; on T3 this distance had been reduced to an estimated 28m. The change in alignment would have resulted in the ditch and the north-south street running approximately parallel to each other to the north of Six Dials, and thereby avoiding further convergence. Such a layout assumes the ditch to have been no earlier than the north-south street. This is discussed further below.

The location and the alignment of a major feature such as this ditch are likely to have been determined prior to its digging rather than as work progressed.

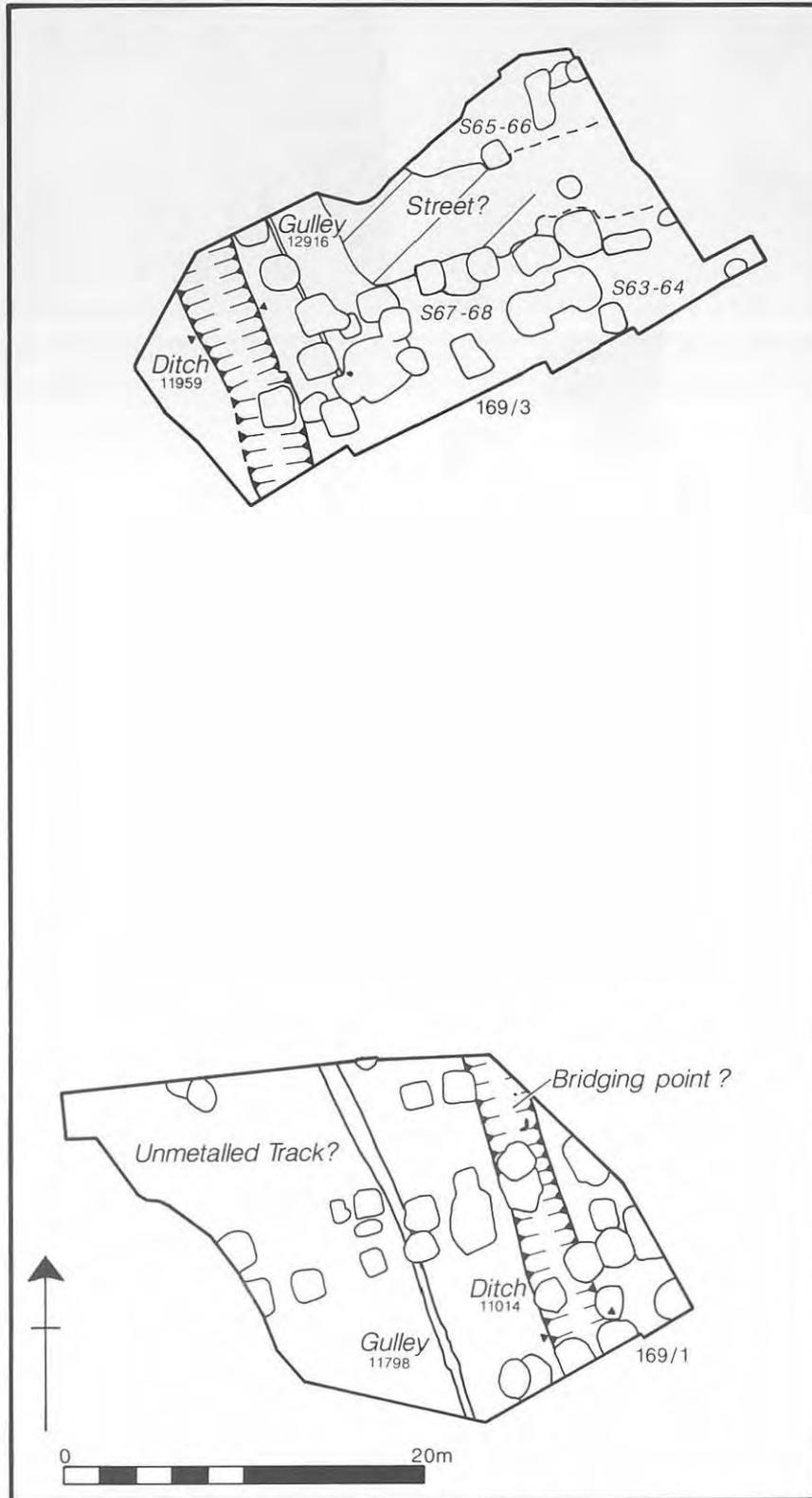


Figure 9 Plan of boundary ditch on SOUs 169 T1 and T3. Pits are shown in outline only. S numbers are Structure numbers. Scale 1:400.



Plate 5 The boundary ditch on SOU 169 T1 photographed from the north.

A line of stakes could have been used to mark the proposed line; or shallow gully 11798 may have been dug as the marker. The gully was 0.15m deep and generally about 0.5m in width, though towards the north it was up to 1m wide. At the south end of the trench it ran parallel to the ditch about 5m to the east, but at the north end it diverged slightly further to the west. This might be interpreted as indicating an alignment that the ditch should follow so as to prevent too close a convergence with the north-south street. In fact, the ditch's change in alignment took place further to the north. The gully was cut by pits 8646 and 12132, which may have been dug about the middle of the 8th century. The few pottery sherds recovered from the fill of the gully provide no conclusive evidence about its chronological relationship with the ditch. Although it may have predated the ditch, it may also have been the later feature with its alignment following that of the ditch. In that case, it should perhaps be interpreted as a field or boundary marker established during the first half of the 8th century.

There is a possibility that the ditch was dug in a series of lengths which were subsequently joined up, rather than as one single continuous operation. On T3 there was a marked discontinuity along the eastern edge of the ditch (the western edge had

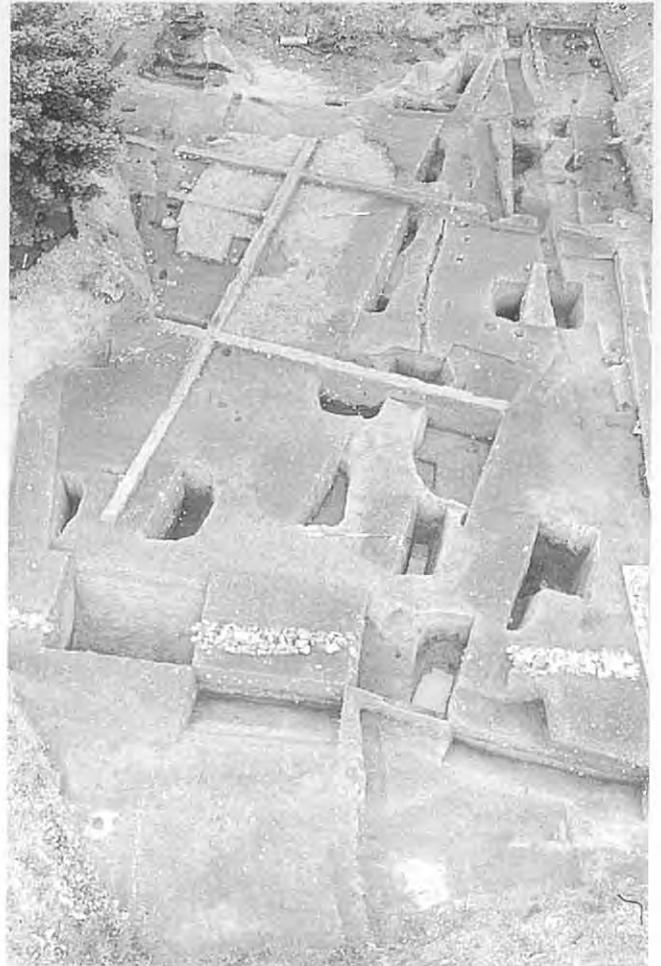


Plate 6 SOU 169 T3 photographed from the west. The boundary ditch (excavated in quadrants) crosses the bottom of the photograph (scale in 0.5m units). Compare with Pl 3.

been cut by an air-raid shelter), and there was also an apparent slight change in alignment at this point. The discontinuity marked by an offset of approximately 0.3m in the eastern edge of the ditch may have resulted from the joining of two individual sections of ditch. Differences between the profiles of the ditch at the north end on T3, and to the south on T1 might also be explained if they had been dug in separate sections, possibly concurrently by different teams of people.

The ditch was of very similar dimensions on T1 and T3, though there were some differences in the profile (Fig 10). It was approximately 3m in width and 1.5m deep, and had a shallow V-shaped profile with the sides sloping at 45°. In the northern part of T3 the slope was less regular.

The earliest fill along much of the length of the ditch comprised several thin layers of brickearth (11006) which were not confined to the bottom of the ditch but extended up the sides. These layers probably developed immediately after the ditch had been dug, and were probably derived from brick-earth which had been weathered and partially

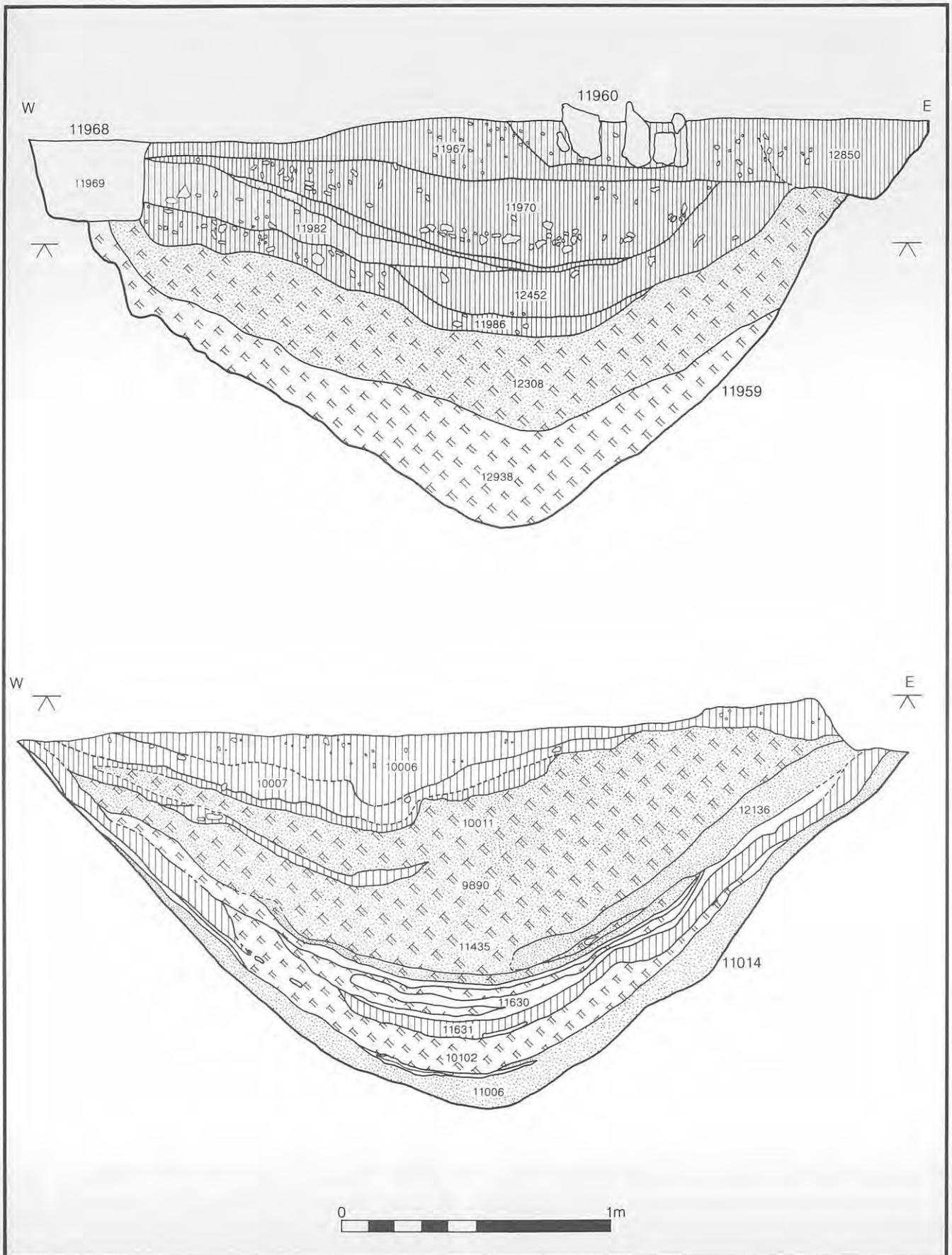


Figure 10 Boundary ditch 11014/11959. See Fig 9 for locations of sections. Scale 1:20.



Plate 7 A virtually complete cattle skull in the lower fill (10102/12938) of the ditch on SOU 169 T1. The overlying redeposited brickearth probably derives from a levelled bank. Photographed from the north (scale in 0.1m units).

eroded upon exposure. They were essentially sterile, though occasional small fragments of charcoal and oyster shell were found.

Above these layers was a characteristic grey clay (10102/12938) which extended along the bottom of the entire length of the ditch on both T1 and T3. The layer was up to 0.4m thick at the centre of the ditch, but it did extend some distance up the sides. This was probably the result of the weight of overlying layers, particularly a substantial quantity of redeposited brickearth, squeezing the damp or semi-liquid clay up the sides of the ditch. In some places the clay could be differentiated into more than one layer, but it was not made up of a series of thin laminations. This might support the idea that it accumulated gradually during periodic flooding of the ditch, and that the water drained slowly rather than flowed away. The layers which could be differentiated probably represent separate periods of deposition, perhaps after a particularly dry period. It is unlikely that the ditch ever held standing water on a permanent or semi-permanent basis, though it probably remained almost constantly damp.

The layers of grey clay did contain a limited amount of domestic rubbish including some pottery and animal bone, generally large sherds or fragments.

Of particular interest were the sherds of a distinctive type of imported pottery vessel which were spread along the whole of the 18m length of excavated ditch on T1. They were all found within the layers of grey clay, and the fact that all were apparently from a single vessel would suggest that, in this area at least, disposal was not restricted by property boundaries such as later developed, marked by the various pit alignments which extended across the ditch on T1.

The relatively small amount of animal bone and pottery recovered would indicate that some disposal of household refuse took place in the ditch soon after it had been dug, but that it was generally kept fairly clear of rubbish. There was, however, no evidence for the ditch ever having been cleaned out or recut.

Above the lowest grey clays were a series of similar layers up to 0.4m thick which differed slightly from them in that they had a slightly sandier texture. They often contained more domestic refuse, and there was a substantial dump of iron-smithing slag in T1. All of these layers reflect a continuing silting of the ditch along with increased amounts of rubbish deposition.

The lower layers in the ditch, comprising

deposits which had accumulated mainly through natural silting, were sealed by a substantial quantity of redeposited brickearth (9890 etc and 12308). It is argued below that this brickearth was probably derived from an eastern bank associated with the ditch that subsequently had been levelled and used as a backfill of the ditch. The increasing quantity of domestic rubbish being disposed of in the ditch, and its subsequent partial backfilling may reflect both a lack of maintenance and an increased pressure on the land. Areas which may have previously been open ground or not available, such as in the immediate vicinity of the ditch, may have subsequently been built over or been subject to increased pit digging, and the partly infilled ditch would have provided a convenient place to dispose of refuse. The layers of redeposited brickearth extended the entire length of the excavated ditch; vertical distinctions could be made within the redeposited brickearth (ie 9890/10011/11435), but it was not possible to identify clearly any horizontal breaks within the layers. They varied in thickness, from 0.7m at the south end down to 0.3m towards the north.

No *in situ* evidence for a bank associated with the ditch was found in either trench. The excavation of a ditch 3m in width and 1.5m deep would have produced a volume of brickearth at least half as great again, and although some of this could have been taken to use in daub a considerable quantity would have been left either to dispose of on the surrounding area, or to heap into a bank. There is some reason to suppose that an inner bank had been a feature of the boundary. The brickearth was thickest as an infilling on the east side of the ditch, and tailed off to the west. It therefore seems that it had been deposited from the east side. The quantity and extent of redeposited brickearth would suggest that it was derived from a bank rather than the digging of a series of pits, and that backfilling took place essentially as a single operation rather than in a piecemeal fashion as individual properties were extended across the line of the ditch. It is possible that the shallow gully 12850 on T3 marked the limit of a bank on the inside, though it may have been some form of ditch or boundary marker. Pits had been dug adjacent to the ditch on both trenches, and there was no area of lower pit density on the inside of the ditch which might have been expected if there had been a bank there. However, most of the pits in the immediate vicinity of the bank, with the exception of 10220 and possibly 8855, are likely to have been dug in the latter half of the 8th century, or later; almost certainly after the ditch and any associated bank had gone out of use and been infilled or cleared away. The high density of pits immediately to the east of the ditch does not therefore preclude the possibility of a bank having existed there at an early date.

The deliberate backfilling of the ditch marked the end of its function as a major boundary, and subsequently it was infilled with quantities of domestic rubbish. At the southern end of T1 the

ditch had been almost completely backfilled with brickearth, but at the northern end of T3 the upper 0.65m comprised domestic rubbish. Several lines of pits were also dug through and beyond it to the west. The earliest of the pits were 8435 and 10350, both large, unlined rubbish pits. These were subsequently and respectively cut by pits 8855 and 8429, which represented later development of the pit lines. Perhaps at this time or slightly later, pits 8431 and 8888 were dug, forming part of a separate line midway between. Pit 8431 was particularly interesting as, although it had been cut through the almost completely infilled ditch, the clay layers (10102, 10460, and 11430) and overlying redeposited brickearth in the ditch had slumped, or been squeezed under pressure, into the pit to the extent that they partly sealed the earliest layers in the pit (Fig 11).

There were no causeways along the relatively short length of ditch excavated, though both SOU 169 T1 and T3 were located on the projected lines of east-west streets II and I respectively. However, it is argued below that east-west street II may at one time have extended beyond the settlement as an unmetalled track, though one which was not always maintained as an open thoroughfare. In that case the paired-pit alignment to the south and the pits along the extreme northern edge of SOU 169 T1 would have lain either side of it.

It is possible that this postulated unmetalled track predated the digging of the ditch – if so, the pit alignments postdating the ditch would suggest that it continued in use after the ditch was dug. A means of crossing the ditch would then have been needed, and there was some slight evidence for a bridge at this point. Two features had been cut into the east side of the ditch north of the paired-pit alignment on SOU 169 T1. (No similar features were found elsewhere in the ditch.) Feature 11611 was a circular post-hole 0.15m in diameter and approximately 0.3m deep. It had a pointed profile and was inclined slightly towards the east. It cut the thin layers of brickearth which probably accumulated soon after the ditch had been dug, but an irregular void above in the grey clay which formed part of the main primary fill of the ditch indicated either that the post was driven through this layer or that the layer accumulated around it. No evidence was found for a post cutting or having been butted by any of the overlying layers. Feature 12870 lay 2m to the south of 11611. It comprised two adjoining slots at 90°, each about 0.5m in length and 0.2m wide. The east-west slot was approximately 0.3m deep, and the north-south slot 0.15m deep. These were slightly later than post-hole 11611, and did not penetrate the natural brickearth. It is possible that 11611 and 12870 were broadly contemporary. Both could have held upright timbers which supported some form of bridge over the ditch.

There was little in the ditch fills at this point to indicate that there had been any traffic across it.

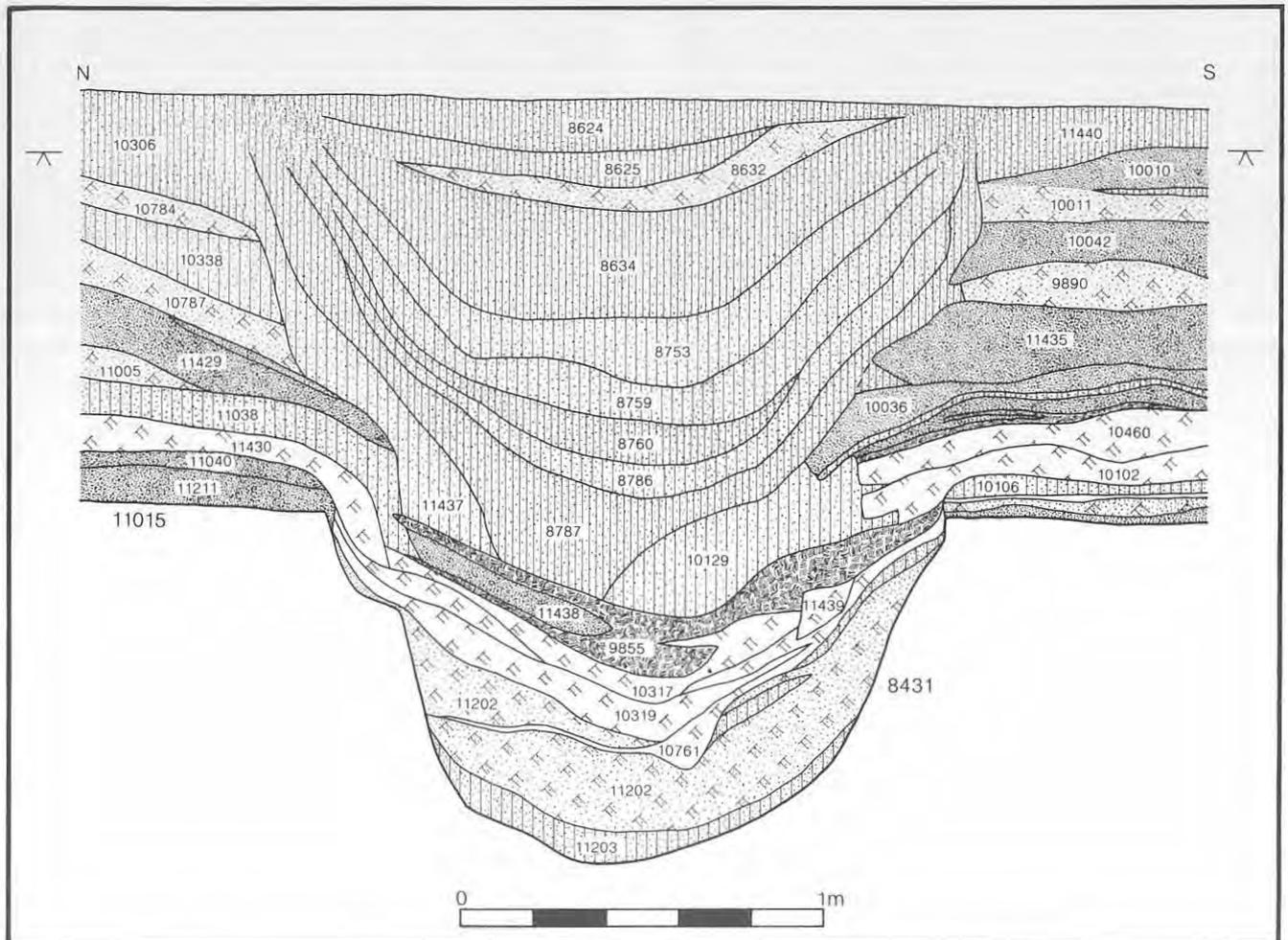


Figure 11 Pit 8431 cutting boundary ditch 11015 (SOU 169 T1). Note the interdigitating of layers between the two features. Scale 1:20.

There were no layers of gravel for example which one might expect to have been laid down to provide a firmer base or causeway. To the south of this area, however, there was a linear gravel spread up to 2.5m wide, which extended as far as the pit alignment comprising 8431, 8881, 8882, and 8888; to the west it extended to about the middle of the ditch. It is probably best interpreted as a yard surface within a property, rather than as part of a metalling on a track leading out of the settlement.

A similar but more substantial spread of gravel had survived in the ditch on T3, and in pit 12484 which cut the ditch. This layer, approximately 5m wide and up to 0.18m thick, lay almost 9m to the south of the projected line of east-west street I. It was a fairly late layer in the sequence, and may have afforded a way across the remains of the ditch, though again it is perhaps more likely to have been a yard surface.

After the ditch went out of use and was at least partly backfilled, it may have been replaced by some other form of boundary marker; as has been noted above, there was no evidence for the ditch having been recut, and possibly this was because

properties had been extended beyond it to the west making it impractical to maintain, and impossible to re-establish on the same alignment. Gulley 11798 to the west was dug no later than the first half of the 8th century. It has already been discussed as a feature that may have predated the ditch. If in fact it postdated the ditch, it may have been an early replacement boundary marker. In the area of the postulated east-west route, the gulley was less well defined than elsewhere, and this might be explained by it having been disturbed by traffic. It may have held some form of fence or a hedge, though a fence would seem less likely since no post-impressions or post-ghosts were recorded. Perhaps it should simply be seen as a field boundary, marking the extent to the east of fields which in themselves acted as an established barrier to the expansion of settlement. The fact that it was cut by pits 8646 and 12132, probably about the middle of the 8th century, suggests that it, too, subsequently fell into disuse.

There is evidence for the maintenance of a boundary in this area on T1 after both the ditch and gulley had become infilled. An irregular U-shaped,

flat-bottomed slot, 11417 (not illustrated), up to 0.5m wide and 0.3m deep, had been cut through the upper ditch fills along the west side of the ditch. Only about 8m of its length could be clearly traced. It cut pit 8431, but was sealed by the top fills in pit 8435 which in their turn were cut by pit 8855. It contained no post-impressions or post-ghosts, though the profile suggests that it may have been dug to hold some form of fence. It is possible that it may have formed a boundary marker; if it were a property boundary of some sort, it post-dated the pit alignment comprising 8431, 8881, 8882, and 8888.

It was not possible to extend the excavation far enough to the west on SOU 169 T3 to ascertain whether gully 11790 extended this far north. However, a gully or slot, 12850, had been dug parallel to the ditch along the eastern edge. It was U-shaped in profile, flat-bottomed, 0.6m wide, and 0.3m deep. Its relationship to pit 12484 which cut the ditch is uncertain. Its regular profile and alignment differentiated it from 11417, though chronologically it was broadly contemporary and probably dug during the first half of the 9th century.

The ditch was the earliest feature within the limited areas where stratigraphic relationships survived on both SOU 169 T1 and T3, but it was probably not the earliest feature on the site as a whole. It is suggested here that the slight change in alignment of the ditch at Six Dials reflected the line of the north-south street, which was therefore the earlier feature, or certainly not a later feature. Since defence seems not to have been a function of the ditch (see below) there is no reason for it to have been an initial undertaking prior to the laying out of all or part of the street system at Six Dials. The north-south street was probably a major land route out of Hamwic. As one of the earliest features, it may have been established *c* 700, with the ditch (though later) being more or less contemporary with it, probably set out before the extensive laying out of properties and construction of buildings.

The clay layers representing initial silting of the ditch contained an early assemblage of pottery which comprised a relatively high percentage of organic-tempered wares, as well as a number of sherds from a distinctive form of imported vessel. Parallels for this vessel have been found in several Belgian cemeteries which have been dated to no later than 7th century (Timby 1988, 112). This vessel is crucial to the dating of the ditch, and taken together with the rest of the ceramic evidence would suggest a date of probably sometime early in the first quarter of the 8th century for the initial silting of the ditch. It is difficult to estimate how long it took before the deliberate and rapid backfilling occurred, but it should perhaps be thought of in terms of years rather than decades. One of the layers above the redeposited brickearth in the ditch contained a Merovingian coin (Metcalf 1988: coin 126) which may have been minted in the second decade of the 8th century. These layers were characterised by a ceramic assemblage which was

more typical of a broad range over the first half of the 8th century, rather than the very earliest decades of that century.

The pits which cut the earliest fills and redeposited brickearth layers in the ditch were probably all infilled between *c* 750 and *c* 850; this dating is based on the finds from their upper fills. Some of these pits may have been dug before the middle of the 8th century, but there is little chance to check this since the earliest layers in many of them contained little pottery and few other datable finds. The upper fills in two of the pits which cut the ditch contained three *BMC* Type 49 sceattas (coins 36 and 81 from pit 8429, and coin 78 from pit 8435), and one of the upper ditch fills (10230) also produced a sceat (coin 58) of this type. Type 49 sceattas were almost certainly minted in Hamwic, and have provisionally been ascribed to the reign of Cynwulf (757-86) by Andrews and Metcalf (1984). If Type 49 sceattas were minted earlier than the mid 8th century and had a short circulation period, and if these examples were not redeposited, the sequence of events would need to be compressed into an improbably shorter time period than is allowed for here.

It is therefore likely that, having been dug *c* 700, by the middle of the 8th century the infilled ditch had been cut by several pits belonging to alignments which extended across and beyond it. By that time, it may have survived as nothing more than a shallow, linear hollow.

Several additional lengths of a ditch have subsequently been excavated at SOUs 184 and 254 in the south-west of the town, and these were also stratigraphically early and contained assemblages of early pottery (Garner 1994, 82-4 and 121-2). It is not certain that all of the sections of ditch so far excavated formed part of the same feature, and if so, whether it was all dug in a single operation. It may have been begun in the north, a suggested early nucleus of occupation, and extended periodically as the settlement expanded. Alternatively, if the entire length of the north-south street beneath St Mary Street and St Mary's Road was occupied more or less at the same time at a date early in the 8th century, the ditch may have been dug as a single co-ordinated operation, along the west side of the town at least.

At present there is no evidence to suggest that a ditch extended along either the northern or southern limits of Hamwic, and although marshy ground lay to the north-east and south, other areas were not apparently bounded by either natural or man-made features. It would seem therefore that the ditch may only have extended along the west side of Hamwic, and did not form a complete circuit of the town. This alone might suggest that the ditch is unlikely to have had a defensive function; a conclusion which is supported by its size. At Six Dials the maximum dimensions of the ditch were approximately 3m in width and 1.5m in depth, with a postulated bank of larger size. This shallow V-profiled ditch is unlikely to have been of sufficient

size to deter attackers. The ditches excavated on SOUs 184 and 254 to the south were much smaller and would have provided even less of a deterrent.

The ditch could have been dug for drainage, though it is unlikely that surface water or run-off would have been a regular problem.

A boundary feature remains the most plausible explanation for the ditch. If, as is suggested above, it slightly postdated the initial laying-out of the street system, it might be seen as a boundary which was laid out in order to prevent the indiscriminate spread of occupation to the west beyond the extent of the established street system. The presence of a boundary ditch might also have served to prevent the construction of buildings and the digging of pits on land which is likely to have been under cultivation. That some of the area to the south and west of the ditch was in agricultural use later is attested by field boundaries dating from at least as early as the 13th century on several sites, particularly SOUs 184 and 254 (Matt Garner pers comm). The maintenance of cultivated land immediately adjacent to Hamwic may have been an important factor as it could have provided a continual and ready source of foodstuffs for the settlement, and this may to some extent have affected the layout and growth

of the town.

As a boundary, the ditch may also have served a symbolic function emphasising Hamwic's status (Morton 1992, 31). It may not have been a coincidence that the ditch appears to have been largest in the vicinity of Six Dials; that there it lay parallel and close to a north-south street which is considered to have been the major land route into the town and was impressively wide at Six Dials; and finally that this area in the north of the town may have been an early focus of settlement. It would be interesting to know whether there was a point north of Six Dials where the lines of the street and the ditch crossed, and if so whether there was any formal entrance there.

Why the ditch at Six Dials was not maintained and was subsequently backfilled at an early date is unknown (elsewhere it appears to have silted naturally). Perhaps the ditch and bank came to be regarded as larger than necessary and not worth retaining, and were replaced by a fence: there was some evidence for the survival of a boundary at Six Dials at least, though apparently in a much less substantial form, and the available evidence is that later expansion of the settlement westwards took the form of a limited amount of pit digging.

The street system at Six Dials

Excavations at Six Dials have added a great deal to our knowledge of the layout and chronology of the street system in Hamwic. They have also served to help differentiate between streets, which were primary features, and alleys, which were secondary features.

Streets were apparently established early, and appear to have predated the buildings which fronted them. They were laid out in straight stretches over distances of possibly up to several hundred metres. Individual streets were of a consistent width, and usually about 5m wide; in some areas they were bounded by fence lines. There are no examples of buildings or pits sealed beneath the streets, though some small post-holes and stake-holes have been found. Initially the streets may have been unmetalled, and the stake-holes and post-holes may perhaps have marked fence lines delineating these unmetalled streets. The absence of any wheel ruts or signs of wear in the natural brickearth suggests that if this were so, they were metalled very soon after they had been established. Individual metallings were of gravel usually of a fairly consistent size, though there were variations between metallings which to some extent may reflect different sources of the gravel. Large quantities of gravel would have been required for street metalling; quantities which would not have been available from the excavation of domestic pits and wells. Valley gravels outcrop at various places around Hamwic, particularly to the north-west and south-east, and it is perhaps most likely that these were the sources of gravel. No evidence for Middle Saxon gravel extraction has yet been found, though little work has been carried out in these peripheral areas. The metallings were not apparently augmented with the addition of animal bone, shell, or slag; deposits of such are rarely found in association with the streets, and where they do occur probably represent isolated spreads of domestic or industrial refuse. All the streets excavated had been re-metalled several times. In general they had been well maintained, with only occasional deposits of rubbish spread on the surfaces, and only very rarely had pits encroached upon them. All streets seem to have been long-lived, and may have continued in use throughout most of the 8th and 9th centuries, and in some cases considerably longer.

Alleys were secondary features. They were usually constructed over fairly short lengths, were of variable width, and sometimes dog-legged around buildings. They seem to have been laid down to link buildings to streets, where the buildings did not front directly onto streets, or were set back behind

other buildings and so had no direct access to streets. Alleys also linked yard areas with streets. Unmetalled alleyways existed, though in several examples it seems that there had been metallings, but these had been lost to later disturbance – probably ploughing. Alleys were sometimes re-metalled, though not consistently and often with a mixture of fine gravel along with larger cobbles. Sometimes they were laid over earlier infilled pits, and sometimes they were cut through by later pits or covered with spreads of domestic and industrial refuse. There are no examples where alleys were established at an early date and survived intact throughout the period of Middle Saxon occupation.

Three streets have been found at Six Dials (streets 1, 4, and 5 on Fig 12), in addition to three others excavated earlier at SOUs 4, 10, 13 and 32 (streets 7, 10, 7/10, and 6 respectively on Fig 12). Probable streets have also been observed during watching briefs at SOUs 86 and 92 (streets 2 and 9 respectively). A further six or eight streets are recorded as having been exposed at SOU 47 during

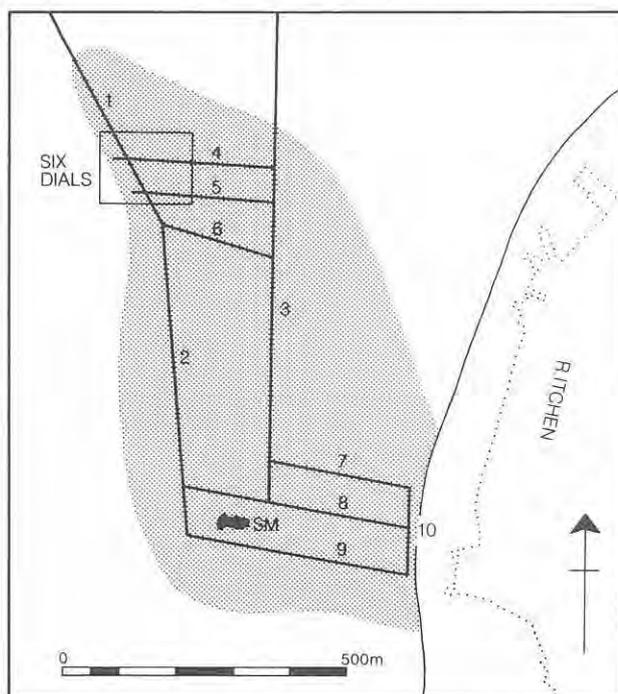


Figure 12 Suggested reconstruction of much of the street pattern in Hamwic. Street numbers 1–10 are those assigned by Morton (1992). Stippling indicates the extent of the town, and the dotted line shows the present shoreline. Key: SM St Mary's Church. The main area of excavations at Six Dials is shown by a rectangle.

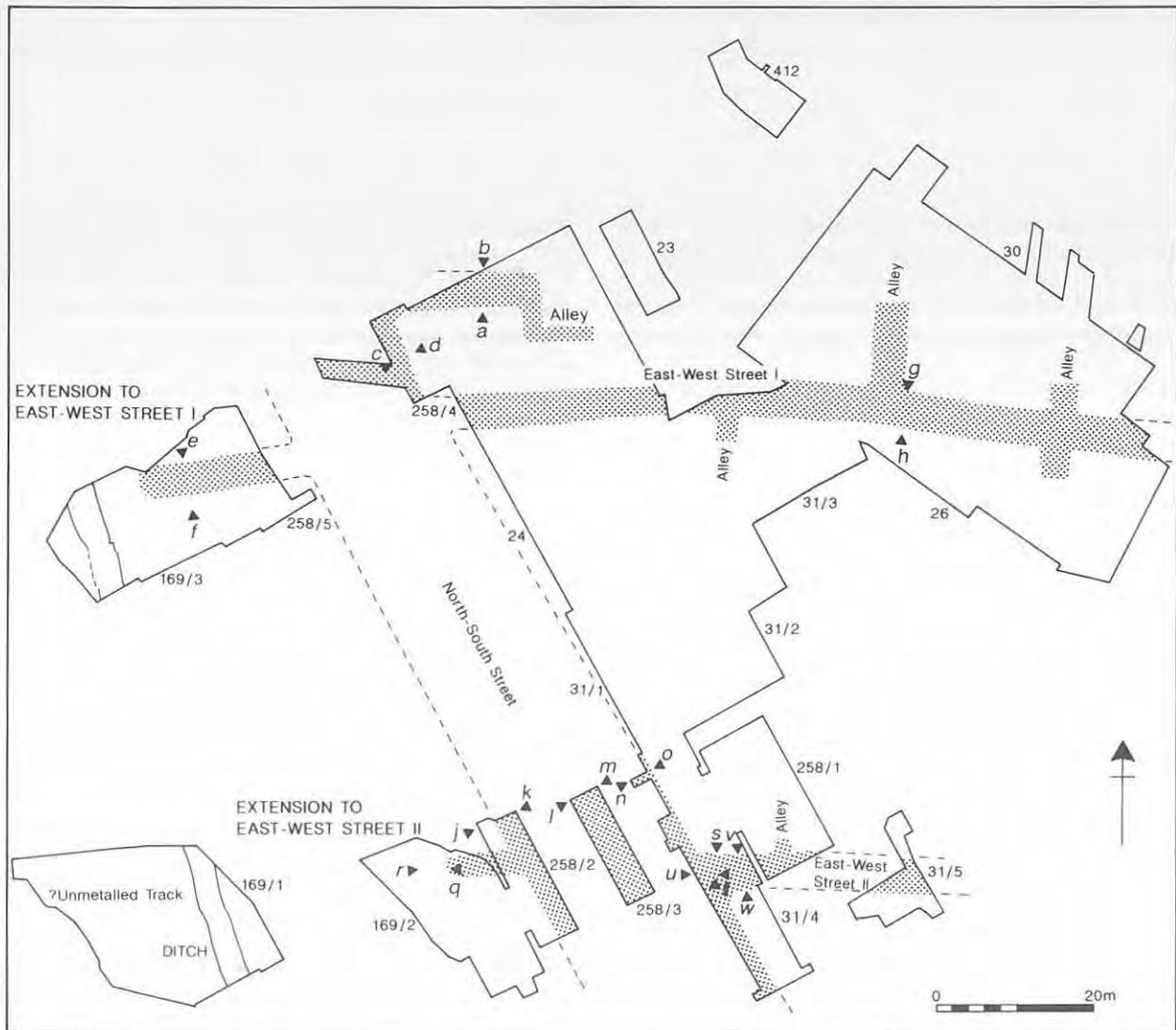


Figure 13 Six Dials: streets and alleyways (shown stippled where metallings survived). Letters indicate the locations of sections illustrated in Figs 14, 15, 17 and 19. Scale 1:900.

brickearth digging during the 19th century (Kell 1864, 69). It is not clear how this total was calculated, and whether or not all the gravel surfaces were streets, but it is likely that at least one street was exposed on this site. A full discussion of the streets and alleys other than at Six Dials is presented in Morton (1992, 32–40), and his suggested reconstruction of much of the street pattern, with minor additions, is reproduced here as Fig 12.

The three streets at Six Dials comprised one north–south street, and two east–west streets – these are referred to below as east–west street I and east–west street II. Although referred to in this volume as a north–south street, that street was in fact aligned north–north–west–south–south–east (at 331°). Both east–west streets were aligned closely east–west at approximately 94°.

The north–south street at Six Dials was atypical in several ways when compared with the other streets. Although a complete section could not be

excavated across it, both edges were located, giving a maximum width of 20m. The eastern limit was well defined, but the limits of the metallings to the west were much less clear. However, the building frontages on this side followed a consistent line, and probably accurately reflected the western edge of the street (Pl 8). It is argued below that the complete width of the street may not have been in use as a thoroughfare, and that the western edge may have had various activities taking place along it, as well as being subject to occasional encroachment of pit digging and rubbish dumping. Furthermore, the metallings on the western side were of a more irregular nature; they were often localised, and of varying grades of gravel perhaps indicating individual maintenance by particular households. On at least two occasions, metalled paths up to 2m in width were laid down rather than more extensive metallings. Timber buildings were aligned along either side of the street, though there was at least

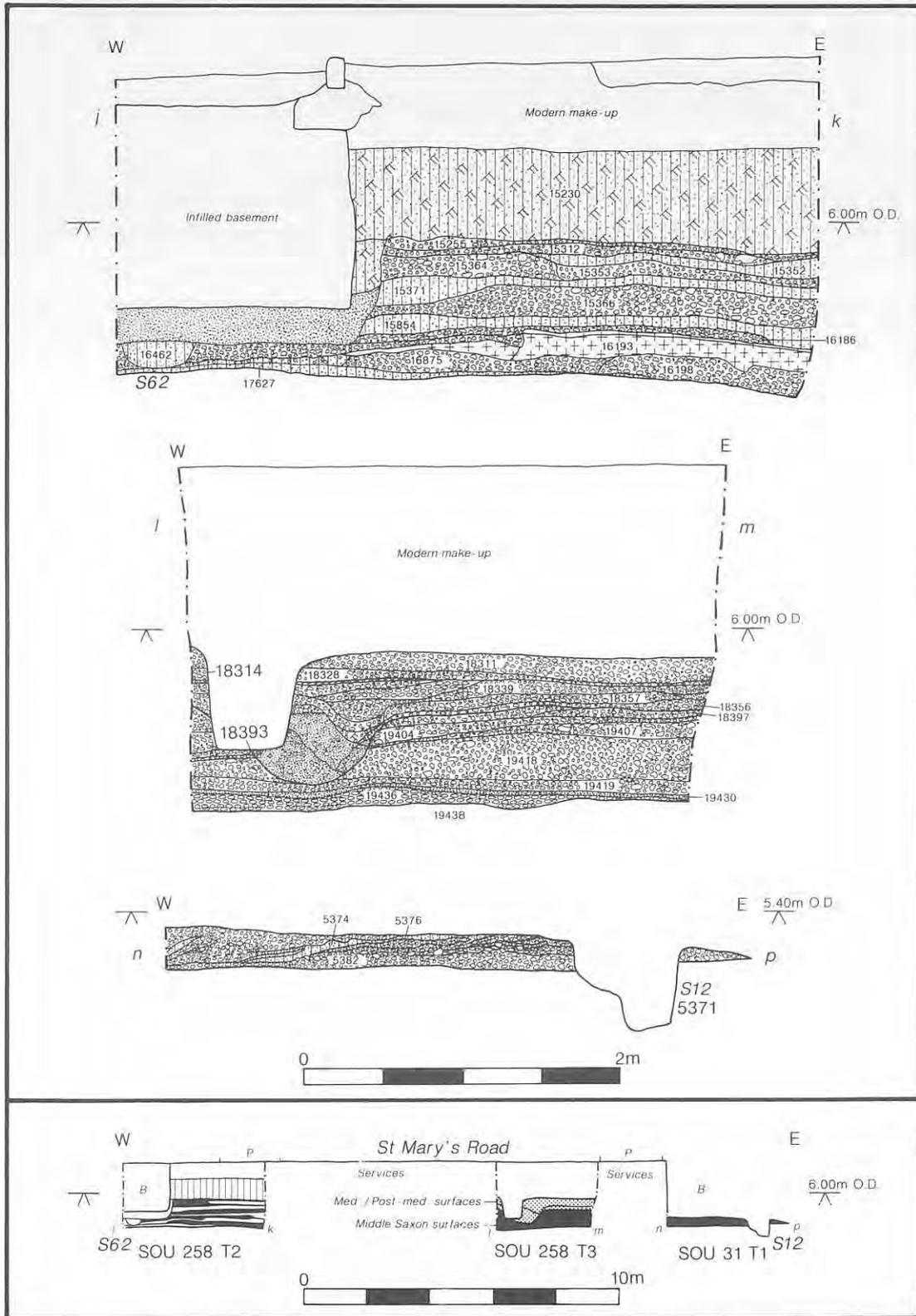


Figure 14 Individual and composite sections across north-south street (SOUs 31 T1, 258 T2 and 258 T3). For locations of sections (marked by letters in italics) see Fig 13. On the composite section S numbers are Structure numbers, B are basements and P are pavements. Scales 1:40 and 1:200 (composite section).

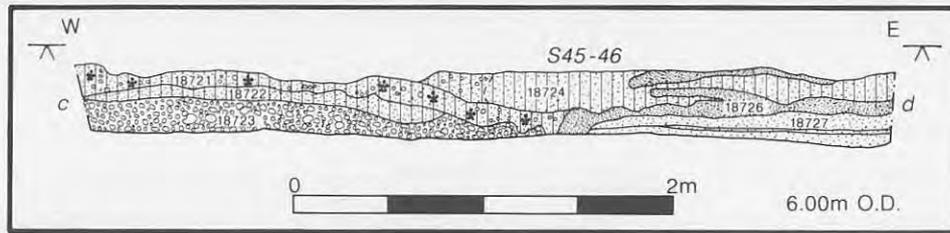


Figure 15 Eastern edge of north-south street (SOU 258 T4). For location of the section (marked by letters in italics) see Fig 13. S numbers are Structure numbers. Scale 1:40.

one small temporary structure (Structure 56), perhaps a shed, erected along the western edge (see Fig 68). The street remained in use during later periods, though the date of the later metallings was not always clear. However, at least ten metallings probably dating to the Middle Saxon period were recorded in one section (on SOU 258 T3) towards the middle of the street (Pl 9). A line of three small post-holes cut the earliest surface in this area, but no Middle Saxon features were clearly sealed beneath it. A line of stake-holes on the west side, though stratigraphically early, may also have post-dated the earliest metalling. Therefore, although no stake-holes were found which might clearly have indicated the existence of a pre-metalled street, the possibility of such should not be discounted.

Over most of the excavated areas on SOU 31 and SOU 258 T2 and T3, the earliest metalling on the north-south street was laid directly on what has been interpreted as hillwash or a developed Iron Age soil horizon. On SOU 258 T2, however, were a series of shallow, parallel, irregular gulleys that were sealed beneath the earliest metalling along the west side (Fig 16). These were generally about 0.7m apart, 0.25m wide, and 0.1m deep, and were aligned to the east-west rather than the north-south street. They were filled with dark greyish-brown soil containing a very small amount of Middle Saxon material. This remains an enigmatic group of features. Their layout would suggest that they did not result from the clearance of vegetation or the removal of topsoil,



Plate 8 Western edge of the north-south street exposed beneath St Mary's Road on SOU 258 T2. The two figures are standing along the street frontage. Photographed from the north (scales in 0.5m units).



Plate 9 Middle Saxon–post-medieval sequence of north–south street surfaces excavated beneath St Mary’s Road on SOU 258 T3. Photographed from the north (scale in 0.5m units).

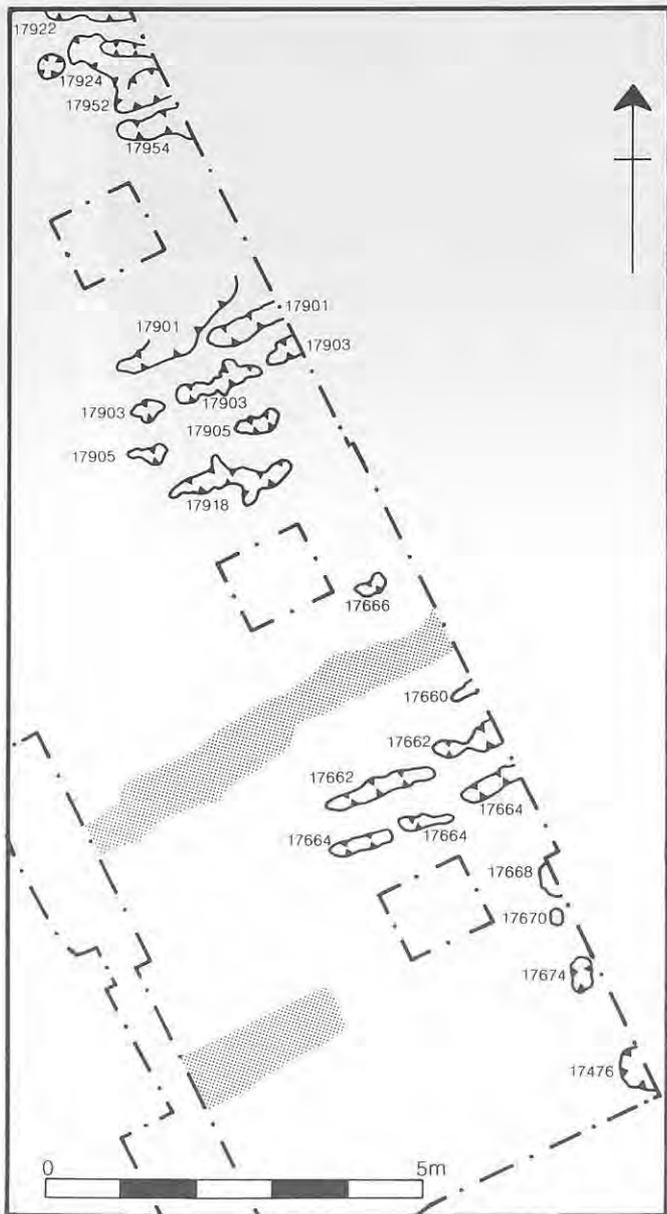


Figure 16 Possible plough marks sealed below the western edge of north-south street (SOU 258 T2). Scale 1:100.

and the most likely explanation is that they derived from ploughing. Against that interpretation is the fact that no other ploughmarks were found elsewhere at Six Dials, although it is possible that such features would not have survived in less favourable positions.

Two east-west streets (east-west street I and east-west street II) were excavated at Six Dials. They were approximately parallel to each other, and 62m apart. Both were 5m or slightly less in width. It was possible to examine in detail the junction of the metallings between east-west street II and the north-south street (Fig 17), though the junction between east-west street I and the north-south street had been removed by a 19th-century base-

ment. Where the sequence had survived at the junction, it was found that the earliest metalling on the north-south street predated the earliest metalling on the east-west street (Pl 10). However, it is not possible to say whether this sequence represents a difference of days or years. If the east-west and north-south streets were originally unmetalled, it is possible that the laying out of both was contemporary, but that the north-south street was the first to be metalled. It was clear however that the east-west streets were established well before the north-south street frontages were built up. At none of the junctions investigated were there any buildings sealed beneath the street, nor any pits or other features which would indicate the later superimposition of streets, particularly the east-west street. All of this would argue in favour of an early and coordinated development of the street system in advance of the construction of buildings.

Lines of stake-holes sealed beneath the earliest metallings of both east-west streets indicated the possible prior existence of unmetalled streets or tracks (Fig 18 and Pl 11). In addition to the more obvious alignments, there were also scatters of apparently random stake-holes whose purpose was not clear. The lack of stratigraphic relationships between them, and the similarity of their fills, meant that it has not been possible to phase them and perhaps recognise any patterns. Some may have been associated with the original marking out of the lines of the streets.

Extensive areas beneath east-west street I were exposed, but nowhere except beneath its postulated extension to the west of the north-south street were there any features or deposits other than stake-holes. In this area on SOU 169 T3, a natural, oval-shaped shallow hollow in the brickearth, c 14m across, was apparently levelled using either domestic refuse or soil mixed with domestic refuse (contexts 12371, 13133, and 13151). The ceramic assemblage is dominated by organic-tempered wares, and a date early in the 8th century is indicated. No subsidence of the overlying metallings had subsequently occurred (Fig 19 and Pl 12).

East-west street I, of which approximately 90m was exposed, was not exactly straight, but curved slightly to the south. Insufficient of east-west street II was exposed to indicate whether it showed a similar tendency, but observations made during subsequent watching-brief work suggest that it may have done.

There is evidence that both east-west streets extended to the west of the north-south street (see Fig 13 and Pl 13). Metalled areas of a similar width and on the same alignments as these streets were excavated on the western side of the north-south street. The postulated extension of east-west street I was exposed for a distance of some 20m west of the north-south street, and that of east-west street II for some 10m. There was no evidence that east-west street I ever extended any further to the west, though it is argued below that east-west

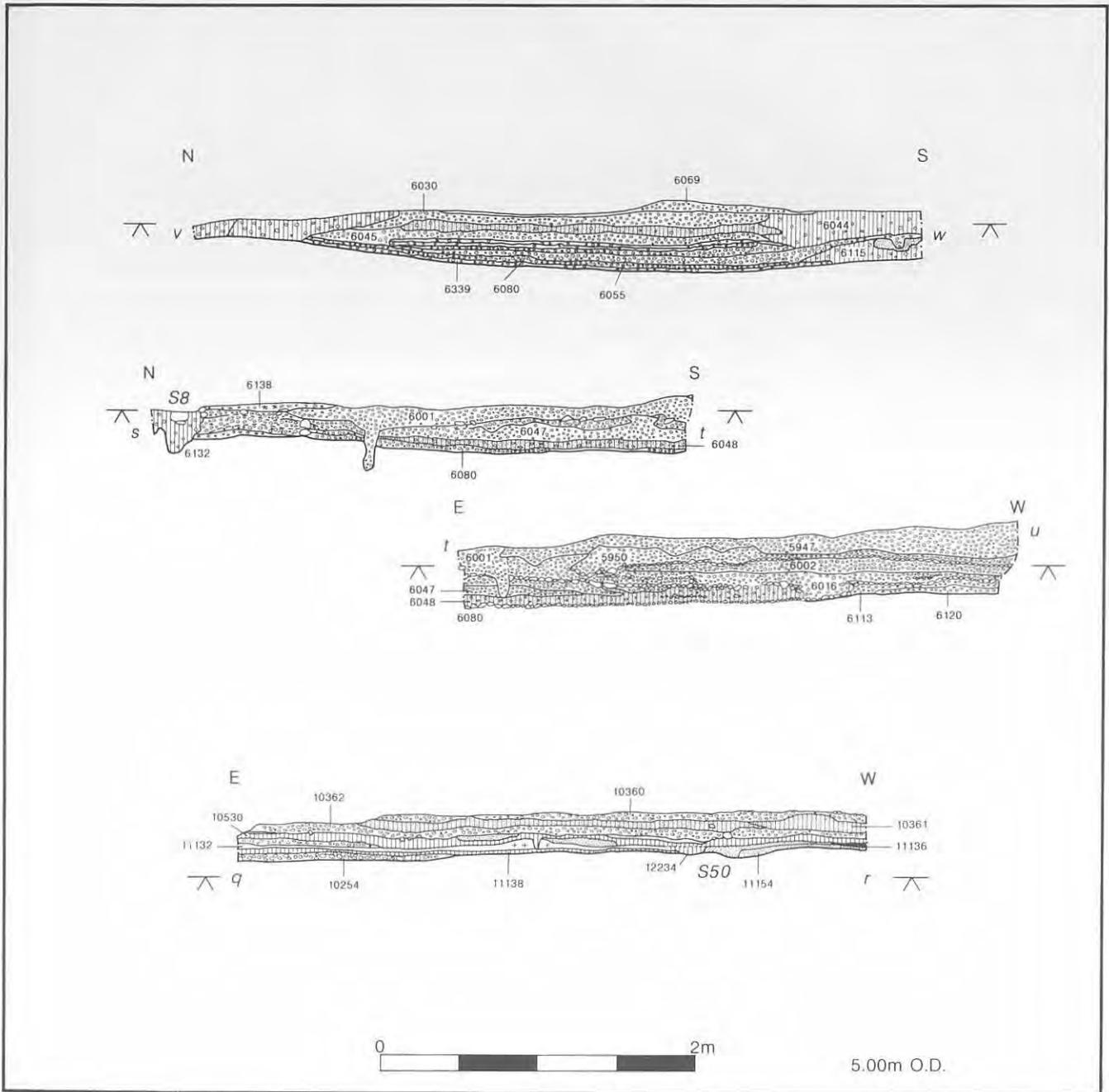


Figure 17 Sections across east-west street II (top), its junction with the north-south street (centre), and the extension to east-west street II (bottom). For locations of sections (marked by letters in italics) see Fig 13. S numbers are Structure numbers. Scale 1:40.

street II may have continued to the west as an unmetalled street or track beyond the boundary ditch, perhaps bridging the ditch if this had not already been infilled.

Both postulated extensions to the east-west streets are considered to have been laid out at an early date. Neither sealed earlier pits, though the northernmost of the two was laid over a deposit infilling a natural hollow, and over Structure 65 – a unique structure comprising a series of stones interpreted as post-pads. Both had several metallings, though in the case of the southernmost these

were interspersed with spreads of industrial and domestic refuse.

The northernmost apparently had a single, small Middle Saxon pit dug through it, though this was not certain as the surface stratigraphy had been truncated. The absence of any layers of gravel in the pit does suggest that it was dug after the third and latest metalling had been laid, and may reflect the subsequent disuse of the area.

The postulated western extension of east-west street II appears to have been less well maintained, and was probably in use for a shorter period than

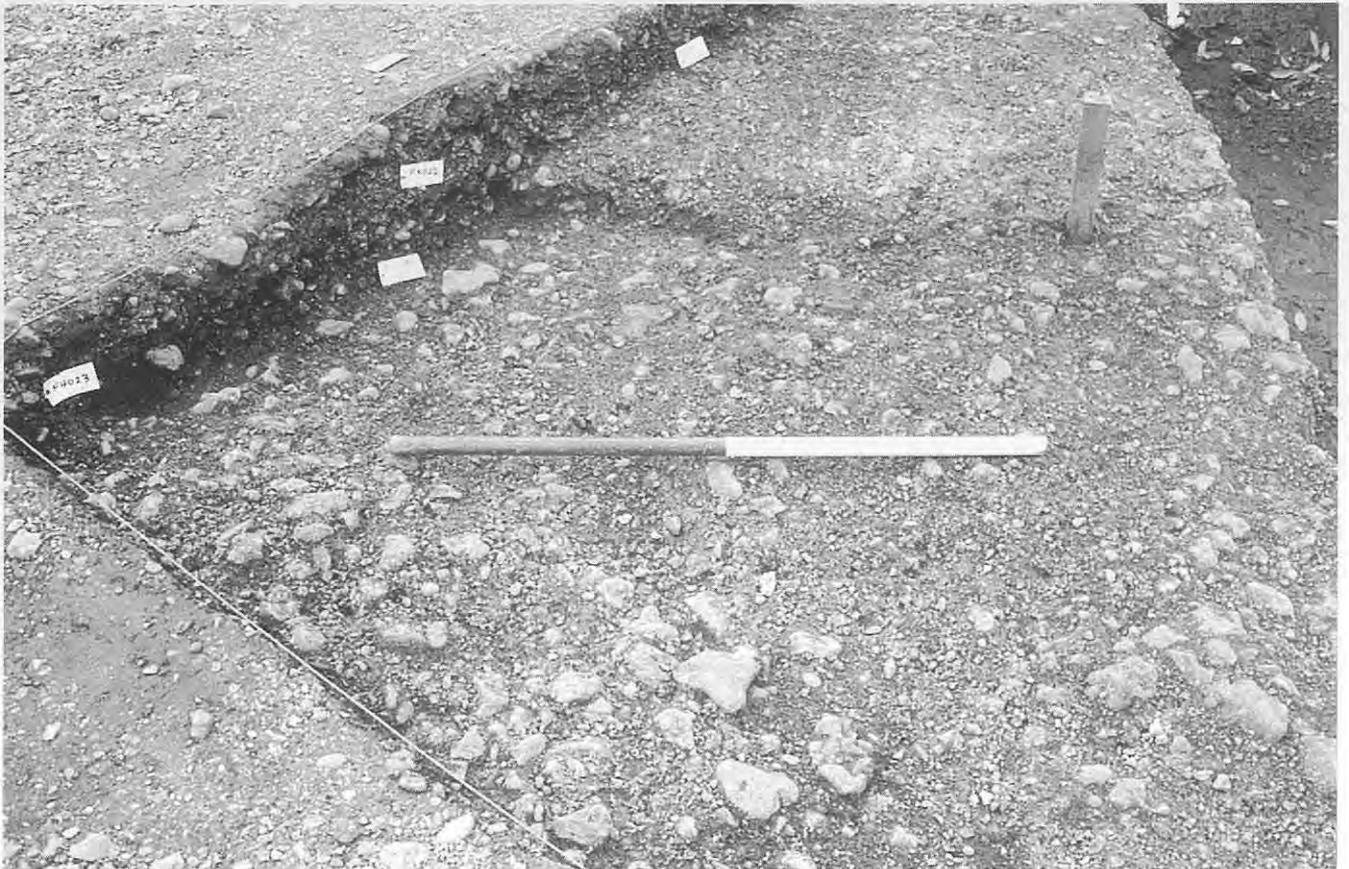


Plate 10 Gravel metallings at the junction between the north-south street and east-west street II on SOU 31 T4. Note the finer gravel on the north-south street at top centre of the photograph. Photographed from the east (scale in 0.5m units).

its northern counterpart. In addition to the spreads of industrial and domestic refuse interspersed with the metallings, at least one pit had been dug through gravel surfaces; and the junction with the metallings on the north-south street had been destroyed by the building of Structure 59. The first phase of this building, which may have been constructed in the early 9th century, involved the removal of the gravel metallings within the area of the building. This effectively cut off the metallated area behind it to the west, and it would appear that this was subsequently utilised as a yard area. There is some evidence that this east-west route was later re-established as a path or alleyway,

Whatever the fate of these postulated western extensions to the east-west streets, it seems clear from the evidence at Six Dials that the main stretches of streets were regularly and extensively remetalled, were maintained and kept free from industrial and domestic refuse, and did not fall into disuse or have pits dug through them throughout the duration of Middle Saxon occupation. There was, perhaps surprisingly, little evidence for the heavy use of the streets which might have manifested itself in the form of well-developed wheel-ruts or extensive worn or damaged areas.

The street system of Hamwic

The streets excavated at Six Dials belonged to a more extensive system within Hamwic, possibly extending beyond it. Although the layout of the streets is becoming clearer, the chronology of the system remains uncertain. It is not possible to show that the streets were laid out in a single operation to a pre-determined plan; or that an early localised system was subsequently extended as the town grew in size; or perhaps that an original, possibly unmetalled system was replaced by a more formalised layout.

The elements of the system can be divided essentially into two groups: the north-south streets; and the east-west streets, which may be subdivided into two groups based on slightly differing alignments.

The north-south streets

There were certainly two, and probably three, streets which were aligned north-south. The lines of all of these survive with some alteration to the present day, and are represented by St Mary's Road and at least the northern part of St Mary Street, by Derby Road and Golden Grove, and by

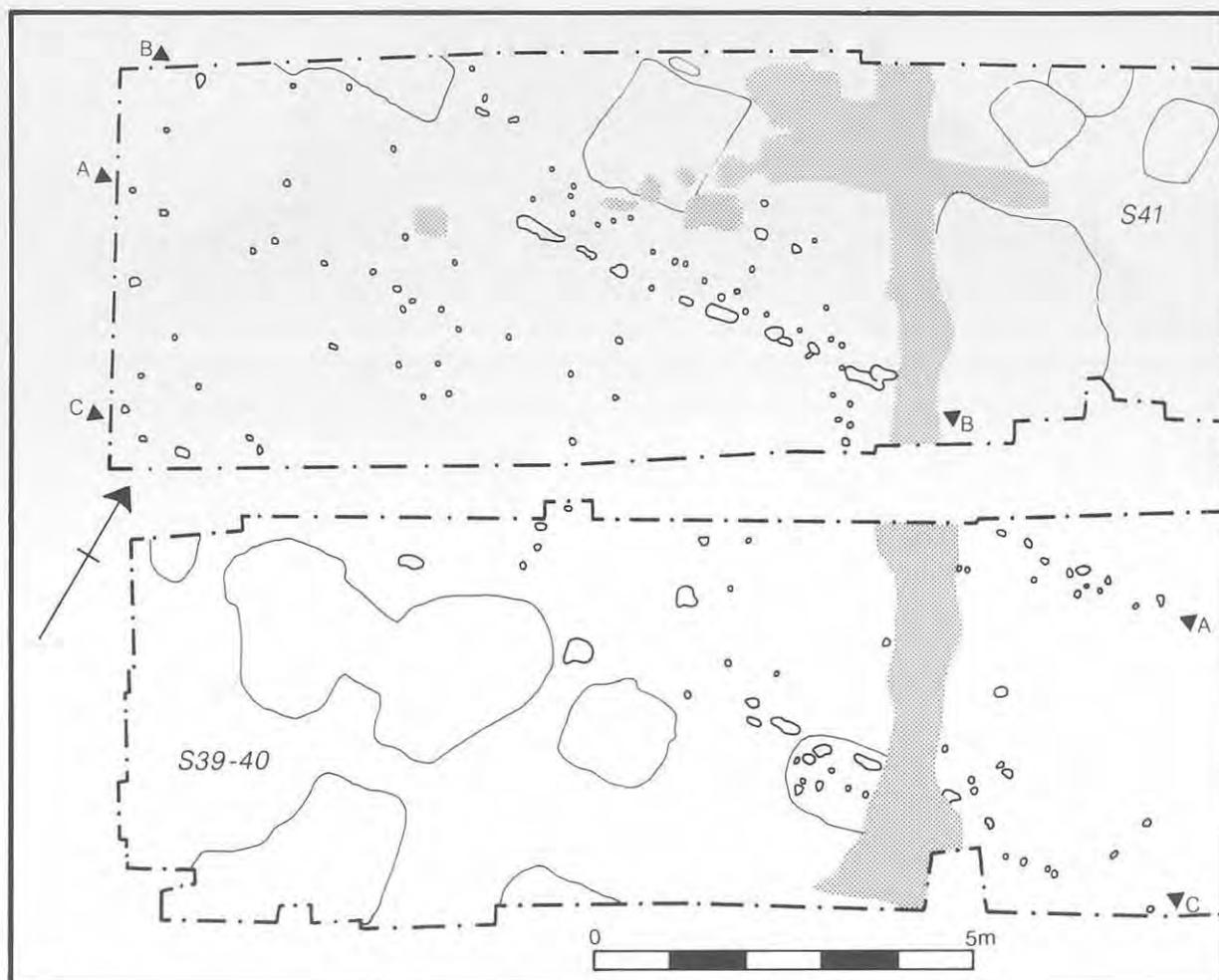


Figure 18 Fence lines with east-west street I (SOU 24). A-A marks a possible line sealed by the metallings (which have been removed). B-B and C-C mark lines on either side of the street. S numbers are Structure numbers. Pits are shown in outline only. Scale 1:100

Marine Parade (Streets 1/2, 3, and 10 respectively on Fig 12.)

The north-south street excavated at Six Dials corresponds to part of the present-day St Mary's Road. The earliest record of St Mary's Road dates from 1250 × 1252 when it was referred to as Broadway (Blake 1981, 30). Excavations at Six Dials indicate that the Middle Saxon street was up to 20m wide here. Subsequent medieval and later metallings did not extend to the same width, though their full extent could not be determined. It seems quite possible, however, that the earlier Middle Saxon metallings may still have been extant and that it was only the central spine of the street that was metallated subsequently. It is not certain how far this route extended to the north on this alignment. No gravels above the natural brickearth were observed in a pipe trench beneath St Mary's Road 300m to the north-west of Six Dials, but it may have been unmetalled at this point. However, more recent excavations at SOU 379, to the east of SOU 96, revealed the western edge of what may have been a hollow way containing evidence of metallings. This

extended beneath St Mary's Road and appears to have originated as a Middle Saxon feature.

St Mary's Road is a north-westerly continuation of St Mary Street. The earliest record of St Mary Street was in 1233 × 1253 (*ibid*, 85 and 206-8). It is also referred to as Broadway, though excavation and observations at SOUs 99 and 177 on opposite sides of the present-day street have failed to locate it. The two sites were 15m apart, which still allows the possibility of a wide street in between. Layers of gravel were observed directly overlying the natural brickearth when a 500m-long pipe trench was dug along the eastern side of St Mary Street (SOU 86). It was not possible to differentiate this gravel from the make-up for the modern road, but it may be significant that no features were sealed beneath the gravel, and no Middle Saxon features cut it. This evidence would strongly hint at the presence of an early street beneath present-day St Mary Street. Crawford's suggestion that St Mary Street and St Mary's Road together were a major street within Hamwic and a thoroughfare out of the town therefore



Plate 11 East-west street I on SOU 24 after removal of gravel metallings. Note the stake- and post-holes marking fence lines. Photographed from the north-east (scale in 0.5m units).

receives considerable support from the Six Dials evidence (Crawford 1949, 48).

The dating of the later metallings at Six Dials (on SOU 169 T3) to between the 13th or 14th centuries and at least the 18th century (based on the pottery; Duncan Brown pers comm) would support Crawford's view that St Mary Street and St Mary's Road together functioned as an original route into the medieval town, and subsequently continued in use as a way or lane of less importance (Crawford *ibid*). These later surfaces were, like their Middle Saxon predecessors, kept clear of rubbish and produced very little datable material. This in part can be explained by the absence of contemporary settlement in the vicinity. Most of the metallings were extensive and well laid gravel or cobbled surfaces with some evidence for localised repair. A series of wheel-ruts cut several of the pre-18th-century metallings; these had sometimes been repaired, and had sometimes infilled naturally with mud and silt. Where thin layers of mud and silt had built up on the surfaces, it appeared that gravelly make-up layers had sometimes been laid down prior to the subsequent remetallings.

There was evidence for possibly two ditches, probably dug for drainage, though they may also have served as boundaries (Pl 15). Both appeared to lie towards the centre of the street as metallings

extended to either side, although the extent of these could not be established (Fig 14 shows a reconstructed section across the north-south street). The earliest of the ditches, 18393, had silted up and probably been recut. It was U-shaped, approximately 1m wide, and 0.5m deep. The upper fill contained a few sherds of 13th-14th-century pottery, and was probably cut from the level of the latest Middle Saxon metalling, the dating of which remains equivocal. There was no dating evidence that would indicate that any of the metallings were Late Saxon or early medieval.

Feature 18314 may not have been a ditch. It was rectangular in section, 0.5m wide and 0.6m deep, and backfilled with sand. It cut the uppermost metallings which were extremely hard and had become concreted. Possibly, it was a feature associated with the raising of the street level in the 19th century to 1.5m above its pre-existing level.

The other major postulated north-south street in Hamwic is that which is thought to underlie present-day Derby Road and Golden Grove. This postulated street diverged from the line of St Mary Street, being perhaps 175m east of it at the northern end of St Mary Street, and less, possibly about 130m, at the southern end. It was probably first mentioned in 1252 as the way running from St Mary's Church to the *grangia* at Northam

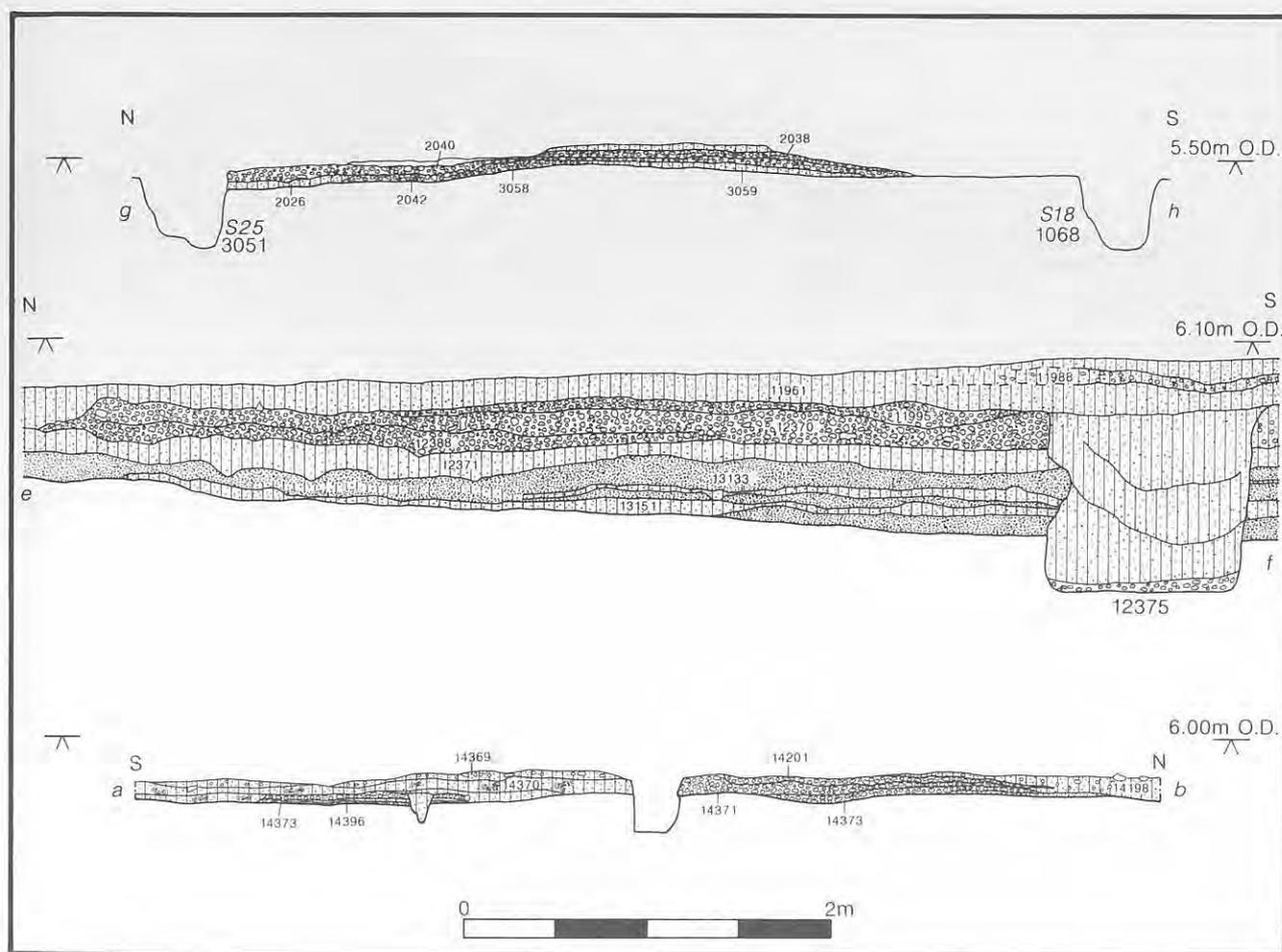


Figure 19 Sections across east-west street I (top), extension to east-west street I (centre), and an alleyway (bottom). For locations of sections (marked by letters in italics) see Fig 13. S numbers are Structure numbers. Scale 1:40.

(Blake 1981, 167). Excavations at SOU 332 along the west side of Derby Road were inconclusive in proving its presence, but hinted that it may have existed there as a comparatively narrow, unmetalled track. The other excavated evidence for this street, summarised by Morton (1992, 36), is tantalising, and at present is insufficient to prove that it was Middle Saxon in origin. If it were, then this street would have run approximately through the centre of Hamwic, and perhaps connected the town with Northam as well as providing another land route out of Hamwic.

A third north-south street lay slightly to the west of present-day Marine Parade, and was probably immediately adjacent to the waterfront of Hamwic. It may have functioned as a strand road within the town, and not been part of a major land route out of Hamwic as both the other north-south streets had probably been.

The east-west streets

These have been subdivided by Morton (1992, 36-8) into those streets which lay between the two major north-south streets (between St Mary Street and Derby Road), and those between the easternmost of these (Derby Road) and the River Itchen.

Two of the former group have been found at Six Dials and one at SOU 32 (streets 4, 5, and 6 respectively on Fig 12). All of these were in the north of the town. Gravel surfaces have been observed elsewhere, but insufficient of each was exposed to determine whether they were streets or not. It seems likely however, that a series of east-west streets more or less parallel to each other were laid out. None of these seems to have survived subsequently as either streets or field boundaries.

There were possibly three streets in the second group of east-west streets (streets 7, 8 and 9 on Fig 12), of which one probably survives today as a modern street line. The northernmost of this group was excavated on SOU 4 and perhaps also on SOU 13, while the southernmost may survive today as



Plate 12 Make-up layers beneath metallings on extension to east-west street I on SOU 169 T3. The make-up layers seal Romano-British ditch 13246. Photographed from the south-east (scale in 0.1m units).



Plate 13 The extension to east-west street I on SOU 169 T3 lies towards the top right of the photograph, with the boundary ditch to the left. Photographed from the south (scale in 0.5m units).



Plate 14 Post-medieval street surfaces exposed beneath St Mary's Road on SOU 258 T3, with SOU 258 T2 to the right of the photograph. The road level was raised in the 19th century. Photographed from the north (scales in 0.5m units).

Chapel Road. It is likely that the diversion of Chapel Road around the south of St Mary's Church does not follow an original Middle Saxon alignment, but perhaps was a late medieval development resulting from an expansion of the cemetery. A third street midway between these two, and parallel to them, may also have existed.

The layout and chronology of the street system

It seems likely that, although Hamwic's streets were not laid out in a strictly rectilinear pattern, there was some regularity in the system. This is perhaps best illustrated by the parallel nature of the east-west streets, which represented the most economic layout in a system governed by the presumably earlier north-south streets.

The two major north-south streets were not parallel; St Mary Street diverges by 6° from Derby Road. St Mary's Road trends further to the west, the divergence increasing to 30°, and the distance between the two thoroughfares increasing rapidly to the north. Excavations at Six Dials have shown that the precursor to St Mary's Road was an early feature, and there was no evidence for it having originally continued northwards on the same

alignment as St Mary Street. The reason for the change in alignment is not certain, though it may reflect the street's development and use as a major land route in and out of Hamwic. It is argued here that the divergence follows a topographical feature which appears on the Royal Engineers' maps of 1846 as a low spur of slightly higher ground which rises gradually to the north-west. This would have provided the most gentle and even gradient for the street to follow out of the town in this direction.

All of the east-west streets were approximately parallel to each other. The slight differences between the two groups of streets may reflect topographical and chronological factors; one group probably being related to the waterfront, and the other group to the major north-south streets. The distance (approximately 550m) between Chapel Road at the south end of the town and those streets towards the northern end at Six Dials is probably great enough to explain any differences in alignment, even if the original intention had been to lay them out parallel to each other. They may also have been laid out at different times, which might have resulted in slightly differing alignments as the system expanded. Additional streets may have been created as required, which may also serve to explain any differences in spacing between east-west streets.



Plate 15 Uppermost Middle Saxon street surface exposed beneath St Mary's Road on SOU 258 T3. A medieval roadside ditch lies along the left side. Photographed from the south (scales in 0.1m and 0.5m units).

Unfortunately it has not been possible to date different elements of the street system in either absolute or relative terms, except to show that the earliest metalling on east-west street II at Six Dials was later than the first metalling on the north-south street. It cannot be shown that one east-west street was earlier than another, nor that one group of east-west streets was earlier than another.

However, it seems unlikely that all of the street system was laid out in a single operation which predated the delineation of properties and the construction of buildings. It is more plausible that some form of settlement was established before the street system. Such an original settlement may have had a street system which survived and was extended as the settlement grew, or else was replaced by a new system which may have had little similarity with what had existed before.

Morton (1992, 38-9) discusses several possibilities for areas of very early settlement within Hamwic. The waterfront remains an attractive possibility, but, although a number of excavations have been carried out in this area, most sites were either of a small size or not located in the most suitable position to investigate this problem. No evidence for any street system which may have predated the system of north-south and east-west

streets discussed above has yet been found there, but the possible existence of such should not be discounted without further, large-scale excavations. The coins and pottery recovered certainly hint at early occupation in the area (Metcalf 1988, 21; Timby 1988, 117). Another possible area of very early occupation might be in the vicinity of St Mary's Road. Excavations at Six Dials have provided evidence for occupation beginning at least by the early 8th century, concentrated alongside a major street which underlies St Mary's Road. This and St Mary Street may be the line of the earliest street in Hamwic, with all the other elements having been added subsequently, and the waterfront a secondary development. Alternatively, this and the waterfront area may have developed contemporaneously, at an early date in the town's development, and the street system subsequently extended as the town grew in size.

The location of cemeteries can perhaps be used to postulate a progressive growth of the settlement and accompanying extension of the east-west street system. The cemeteries excavated at SOUs 20, 32/47, 34/43, and 25 were all stratigraphically early, as were the possible cemeteries at SOUs 7/14, and 36. At SOU 13, a metalled street was laid over the top of burials after the cemetery had gone out of use (Morton

1992, 138–41), providing evidence for a possible extension of the street system, perhaps in the later 8th or the 9th century. The possible cemetery at SOUs 7 and 14 may also have extended beneath a street, though there was only very slight evidence to support this. SOUs 34/43, 20, and 32/47 may have originally been located close

to the limits of a settlement that extended north-eastwards in stages. All dated to perhaps the early 8th century, but this chronology cannot be further refined. At a date by perhaps the middle of the 8th century these cemeteries had fallen into disuse and had been built over.

Properties

It has often been argued (for instance in Hodges 1988, 3) that clearly defined properties marked by physical boundaries were not a feature of Six Dials, or of Hamwic more generally. Although this interpretation is partly correct, it is in need of some modification. The regularity in the alignments and to a lesser extent the layout of the buildings at Six Dials, coupled with pit and stake-hole alignments noted there and elsewhere in Hamwic, suggests the existence of relatively fixed, and perhaps substantial, property boundaries (Fig 20). These were probably established at an early date and in some cases persisted throughout the duration of occupation, the streets being the most extreme example of this. However, it still remains true that some areas and perhaps many pits were apparently shared by different households, and that formal boundaries did not exist there. Furthermore, there is evidence in some cases for the amalgamation of properties over time, apparently as some buildings fell into disuse and the properties were abandoned.

The streets were early features and, with the possible exception of the somewhat anomalous Structure 65, no building can be shown to have predated them at Six Dials. However, lines of stake-holes have been noted beneath the earliest street metallings at Six Dials and elsewhere. These may have defined unmetalled streets or tracks, or else have been markers for the laying out of the streets. In either case, they served to mark early boundaries which were subsequently followed by the street lines. With the exception of the extension to east-west street II, there is no example of any of these streets subsequently falling into disuse and all were maintained throughout the duration of Middle Saxon occupation, the north-south street for at least a further 1000 years.

Most of the postulated property boundaries were aligned to the east-west streets, even those associated with structures fronting the north-south street, presumably reflecting the far greater lengths of east-west street frontage available. The boundary ditch which roughly paralleled the north-south street also appears to have had little effect on the alignment of buildings and properties, though this was almost certainly due to its peripheral position. Although it fell into disuse and was backfilled probably by the middle of the 8th century, there is evidence that its line was maintained, possibly by fences; some pits, but no buildings, lay west of it, and it seems that there was little or no expansion of the settlement beyond it.

Access to properties not fronting the streets was by way of alleyways and yards. As far as can be

ascertained, and at least initially, these properties contained structures which were not associated with those on the street. There was therefore no convincing evidence that houses fronting the streets, with ancillary buildings to the rear, were a common feature of Hamwic. In any case, complexes of more than two buildings were rare at Six Dials.

Given the early dating of the streets and many of the structures, it would seem reasonable to assume that many of the boundaries were similarly early, and the dating of some of the pits in the various pit alignments would suggest this to have been so. Only those on SOU 169 T1, which extended across the infilled boundary ditch, could be shown to have been later, and all had probably developed by the end of the 8th century.

It is difficult to be certain what form the postulated property boundaries initially took. The streets and boundary ditch have already been noted, but it is clear that there was no regular system of ditched enclosures at Six Dials, and ditches are a rare feature in Hamwic as a whole. Fence lines are likely to have been represented among the myriad stake-holes, but only very rarely where these contained distinctive fills could possible fence lines be discerned. Sometimes, one or more walls of a structure may have served to mark a boundary. Pit alignments provide the most convincing evidence for property boundaries, though they may have followed boundaries initially marked by fences. Such alignments have been recorded on sites excavated throughout Hamwic (Morton 1992, 47). They consisted almost exclusively of rubbish pits, often intercutting, and rarely of wells which might easily have become contaminated with refuse. Once established, such alignments are likely to have become permanent features, and the dating evidence from the pits belonging to them suggest that they spanned early to mid or later date ranges (see below). Many of the pits are likely to have been shared or used by households on either side of the property boundary. Occasionally, there is evidence of one form of boundary replacing another. For example, at the north end of SOU 24 a substantial metalled alleyway between Structures 42 and 44 was succeeded by a pit alignment which ran along the centreline of the alleyway and rendered it unusable. And it has already been suggested that pits may have replaced fences at other points.

It is clear from the layout of postulated property boundaries shown in Fig 20 that there was not a regular pattern of equal-sized properties. It is impossible to define a typical property in terms of its area, though there is a hint that those alongside

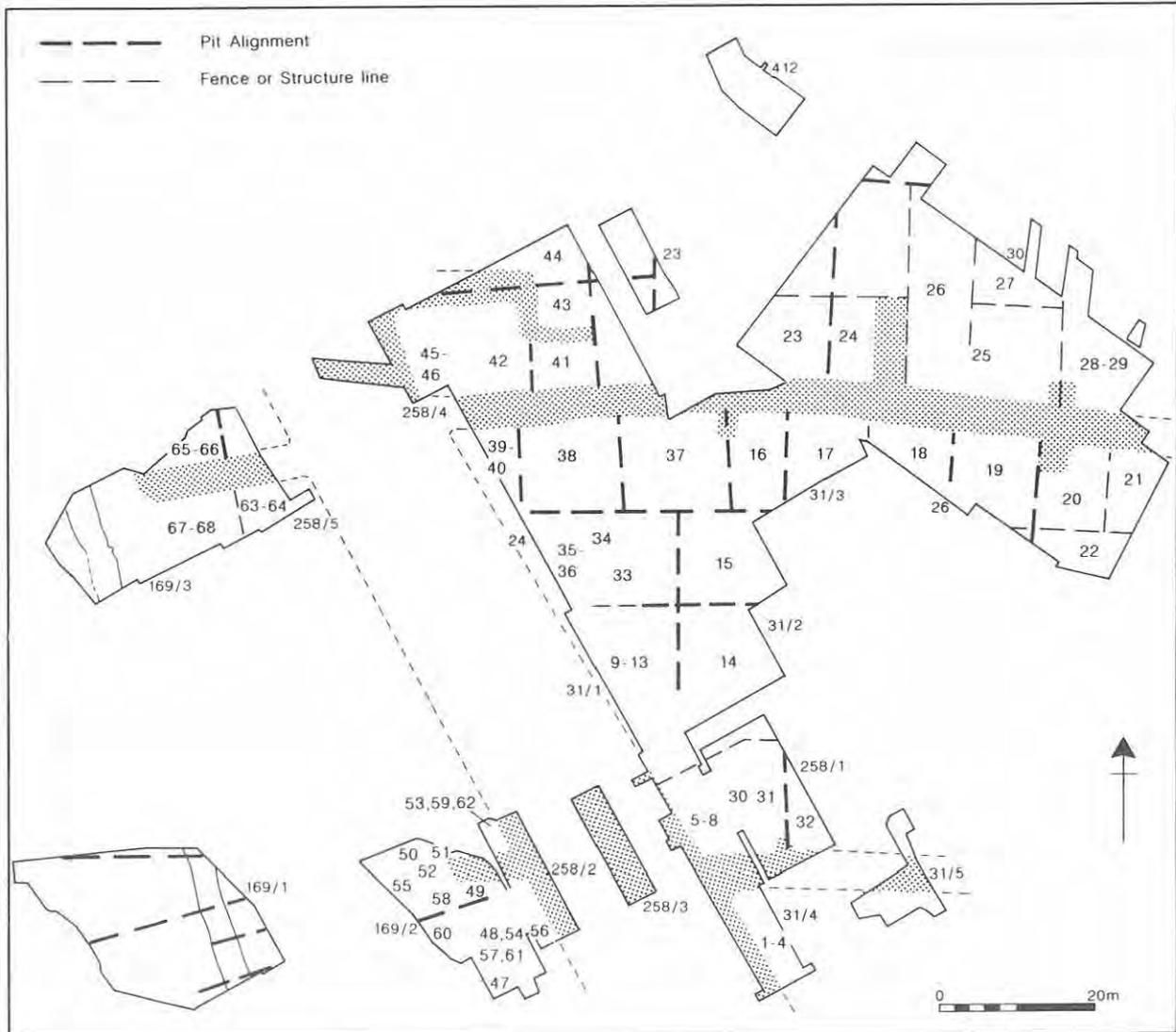


Figure 20 *Six Dials*: postulated layout of properties. Numbers within properties are Structure numbers; other numbers are site/trench numbers. Streets and alleyways are shown stippled. The boundary ditch is shown in outline. Scale 1:900.

the north-south street may have been larger. This may be a reflection of a preferred location coupled perhaps with occupation at an earlier date. The largest, containing the sequence of Structures 9-13, covered an area of approximately 240m² with a street frontage of 27m. Those containing Structures 41 and 43 perhaps occupied only half that area. Although there appears to have been considerable variation in the widths of properties, their lengths back from the streets seem to have been more regular at around 12.5m. Between east-west streets I and II this would apparently reflect a series of four properties separated by three equidistant east-west property boundaries marked by pit alignments. On SOUs 24 and 31 these property boundaries separated Structures 9-13 and 14 from Structures 33-6 and 15 respectively, and also the former group from Structures 5-8 and 30-2 to the south, and the latter group from Structures 16, 37,

38, and 39-40 to the north. There are strong hints of a similar arrangement to the north of east-west street I, though this was less clear in the vicinity of Structures 25, 26, 27, and 28-9. If so, then the pit alignment at the north-east end of SOU 30 might be expected to have lain midway between east-west street I and the next east-west street to the north.

To the west of the north-south street the pattern of the properties was less clear, but this is in all probability due to the proximity of the boundary ditch. The evidence from SOU 169 T2 and T3 indicates that in this area there was space for two properties between the north-south street and the boundary ditch, but alignments generally reflected the extensions to east-west street I and II. On SOU 169 T1 the pattern was somewhat different, but the east-west pit alignments are interpreted as reflecting the extension of properties across the infilled boundary ditch in an area where no

structures or other constraints existed. The two most northerly alignments may both have comprised a series of paired pits extending for at least 20m either side of an unmetalled track leading out of the settlement to the west. These alignments diverged slightly, but a third alignment lay parallel and approximately 12.5m to the south. This may have continued the line of that on SOU 169 T2, an overall distance of some 40m. These two southerly alignments were separated by a further east-west pit alignment midway between, which may have been a slightly later development and did not extend as far to the west. No similar alignments were apparent extending across the infilled boundary ditch on SOU 169 T3. The arrangement of these pit alignments, presumably reflecting property boundaries on SOU 169 T1, was unusual, as there were no north-south alignments, and any associated structures must have lain to the east. No lines of stake-holes were discerned continuing the pit alignments which appear to have had an open area in-between. Perhaps the pits represented some more organised pattern of cess and domestic rubbish disposal on the periphery of the settlement as pressure on land within grew during the first half of the 8th century.

The comparatively dense occupation at Six Dials during this period, attested by both the numbers of buildings and pits, is likely to have led to the subdivision of some properties. Structure 24 lying 90° to the street with an adjacent metalled alleyway provides one example for this; and another may be the building of Structure 17 in a property formerly occupied only by Structure 16. The later

amalgamation of properties as certain structures fell into disuse and were not rebuilt is suggested by the large number of abandoned structures cut through by later pits. Former property boundaries are also likely to have fallen into disuse, though nowhere is there any clear example of buildings having been built across former property boundaries. In both cases this decline, almost certainly beginning by the early 9th century, is most commonly seen in buildings and properties not directly fronting the north-south street. Examples of this are the property formerly occupied by Structure 14 probably being taken over by Structure 15, and the property once divided between Structures 16 and 17 again becoming one as Structure 16 was abandoned. Some complexes of buildings may occasionally have developed as certain properties were abandoned; for example, the postulated group around Structure 25 which was possibly associated with hide preparation. Other complexes such as the smithies at the street junctions (Structures 6-8 and possibly 30, and Structures 45-6 and possibly 42), and some perhaps associated with hide preparation (Structures 33, 34, and possibly 35-6), and Structures 49-53) probably always existed within single properties, in these cases all adjacent to the north-south street.

What seems clear therefore is that, although there was no strict regularity in the layout and size of the postulated properties, there was a degree of orderliness apparent from an early date, particularly in the east-west divisions, which might lead one to suspect some element of control in the arrangement.

The Structures

A total of 68 Middle Saxon structures has been identified at Six Dials, almost all of which were rectangular timber buildings for domestic or industrial use (Fig 21). The complete or near-complete ground plans of approximately half of these survived, enabling their dimensions to be recorded along with other details of their construction and use (Table 2). The remainder either lay partly outside the limits of excavation or had been extensively destroyed by later pit digging. The structures are numbered 1–68, and appear on various illustrations prefixed by the abbreviation S. Fence lines which were only rarely identified among the myriad stake-holes and features not otherwise assigned to buildings have not been categorised here as structures.

The evidence for buildings almost entirely comprises negative structural features. Only two examples (Structures 61 and 65) included some stone in their construction. In Structure 65, these were post-pads. It is unclear what use the stone was put to in Structure 61 – possibly they were post-pads. Thirty-nine of the structures were built using individual post-holes, eleven using post-in-trench or wall trenches, and fourteen using a combination of the two techniques. Post-ghosts were rarely discerned, but post- or plank-impressions were recorded in the bottom of many of the features. These were often double or paired impressions, and in a very few cases there were triple impressions. These indicated that in almost all cases split timbers had been used for the main vertical posts. In only one example (Structure 25) was there any post-packing other than earth; in this case, flint cobbles had been used as a packing in at least two of the post-holes. One of the smaller structures (Structure 56) was built using small posts or stakes driven into the ground, and not set in post-pits. A few structures appear to have utilised planks driven vertically into the ground (for example Structure 53), and at least two apparently had horizontally laid planks (Structures 15 and 52). Some buildings may have had sleeper beams resting on the ground surface, but the evidence for this is equivocal; in some cases (for example Structure 31) the edges of floors were very clearly defined, but there were no corresponding negative structural features; in other cases (for example Structure 41), internal features such as hearths and partitions survived, but again there were few or no negative structural features marking the outer walls of the buildings.

It is possible that most if not all of the walls between the vertical posts of the buildings were infilled with wattle, covered with daub. The main

component of the daub was probably brickearth, and it is likely that all of this would have come from the digging of the numerous cess and rubbish pits through brickearth that was up to 2m thick in the area. (Two pits with diameters of 1m and depths of 2m would have provided 3m³ of brickearth, sufficient to cover 60m² to a depth of 50mm – that is, a building 10m long, 5m wide, and 2m high.) Wattle-impressed burnt daub is a common find in excavations at Hamwic, sometimes with traces of limewash on the exterior surface. Wattle and the remains of other structural timbers are rarely found, and then only in a fragmentary, carbonised condition. A small amount of 'honeycomb-like' burnt straw from pit 13595 on SOU 24 provides the only evidence for the use of thatch as a roofing material. It probably came from the destruction of Structure 41, and is likely to have been the principal roof covering used on buildings throughout Hamwic. However, the use of reeds and wooden shingles cannot be entirely ruled out.

No sunken-featured buildings were found at Six Dials, though there is one possible example from SOU 36 (Morton 1992, 198–9). Furthermore, it is considered that none of the pits at Six Dials was used either for living or working in. Although some were markedly rectangular, and probably had had timber or wattle linings, none contained evidence of having been used for occupation, and none closely resembled the cellared structures dating to the Late Saxon period found, for example, at Thetford (Rogerson and Dallas 1984, figs 8 and 9): they were much smaller and there was no evidence of substantial posts around the edges or of floors and hearths within.

The overwhelming majority of the structures at Six Dials appear to have been rectangular in plan with floors at ground level; a few may have been square. They can be broadly divided into two groups which differ in function and size function (Fig 22), although it is not possible to draw an exact dividing line between the groups. Most of the more numerous groups were almost certainly domestic, though it is not improbable that they were also used for small-scale craft activities and storage. Referring to this group as 'houses' may be overly simplistic in view of the apparent absence of hearths in some of them. However none was clearly non-domestic, unlike the buildings in the less numerous group.

The buildings in the more numerous group were bigger, ranging from 7m (Structure 1) up to 15m (Structure 29) in length, and from 3m (Structure 8) up to 6.5m (Structure 29) or possibly 7.5m

(Structure 26) in breadth. The less numerous group, of which at least six examples have been identified (Structures 6, 7, 49, 50, 52, and 53), appear to have been sheds or shelters that served industrial purposes. Two (Structures 6 and 7) were smithies, and the remainder may have been associated with hide preparation. All may have been open on at least one side. Structure 52 was the smallest, but somewhat atypical in that it appeared to have been some form of plank-built retaining structure. Other than this, the smallest was Structure 53 which measured 2.2m by 1.5m. The largest (Structure 6) measured 6m by 3m.

What is clear from both of these groups is that lengths varied more widely than breadths. In the larger group there appears to be a bimodal clustering in the lengths in the 7–8m and 10–11m ranges, with a much smaller cluster in the 12–13m range. No structural, functional, or chronological reason can yet be advanced to explain these differences. There also appears to be a bimodal clustering in the breadths at around the 4m and 5m marks respectively. However, the longer of the structures were not necessarily the broadest.

Three buildings (Structures 1, 15, and 29) had what might be termed bow sides or curved walls, that is they were noticeably wider in the middle than at either end. In no example was this difference more than 0.5m. Structures 1 and 29 were the smallest and largest respectively of the domestic structures both had continuous wall trenches, and Structure 15 had mainly individual post-holes. Two other examples of bow-sided buildings have been found in Hamwic: at SOU 21 where one building replaced another (Morton 1992, 155–6). However, both of these are dated to the Late Saxon period whereas the Six Dials examples were built a century or more earlier.

One notable feature about most of the buildings at Six Dials and elsewhere in Hamwic was the irregularity in size, spacing, and general arrangement of structural features, as well as in the variety of constructional techniques which were sometimes employed within a single building. There was some evidence for the regular spacing of vertical timbers at intervals often around 0.75m, but this was rarely sustained along the entire length of a single wall in a building. In a number of examples there were large gaps in the spacing between post-holes which cannot be explained as having been doorways; doorways where recognised were generally 1m or less in width. Even where there was some regularity in the spacing of post-holes, it was clear that post-holes or post-impressions in opposing walls were rarely paired with each other. This and the general absence of ridge posts would suggest that roof timbers rested on a wall plate.

The use of different construction techniques within individual buildings is exemplified in a number of ways. For example, Structure 5 had a wall trench along the length of the building adjacent

to the street, but there were virtually no other structural features. Structure 25 also had a street-side wall trench, but there were at least two substantial post-holes along the side away from the street; the presence of a wall trench alongside a street was observed in fourteen of the 24 structures which employed wall trenches or wall trenches and post-holes in their construction. Structure 12 had continuous wall trenches at the south end of the building, but the remainder was marked by a series of post-holes. In the second phase of Structure 16, a wall trench was dug across the width of the building on the side away from the street, the remainder of the building being marked by post-holes. Structure 18 was unique at Six Dials in having an 'overshot' wall trench on the side adjacent to the street, though 'overshot' walls were occasionally a feature of buildings elsewhere in Hamwic (Morton 1992, 41). In contrast to the buildings incorporating wall trenches, which gave the impression of having often been more substantially built along their street sides, the post-hole buildings did not suggest this. Indeed, the opposite appears to have been sometimes true. For example Structure 11 had a series of fairly regularly spaced and substantial post-holes around all but the long side adjacent to the street; if it was not open on this side perhaps there were sleeper beams along this side. Structure 17 was similar, but had several shallow post-holes along the street side. Structure 15, one of the curved wall buildings, was of post-hole construction, but had a unique arrangement of what appeared to be overlapping plank impressions in the south-west corner. Finally, the occurrence in a single building of post-holes containing single, double, and even triple post- or plank-impressions is clearly demonstrated in Structures 11, 17, 46, and 54 for example.

It seems clear from the evidence at Six Dials that there was little change in construction techniques over time.

Fairly clear evidence of doorways was recognised in only nine structures, of which three (Structures 11, 12, and 15) had opposing doorways centrally or near-centrally placed in the long walls. Doorways were usually approximately 1m wide and were recognised either by a larger than normal spacing between post-holes (for example Structure 11), pairs of larger post-holes (for example Structure 15), a break in a wall trench (for example Structure 12), or in one case (Structure 9) by a possible porch arrangement. The failure to recognise doorways in the majority of buildings is certainly a reflection of the lack of any clear evidence for such. The sheds or shelters are all likely to have been open on one side at least.

Various internal arrangements and features were recognised including partitions, hearths, and possible storage pits. At least sixteen buildings had what have been interpreted as partitions, represented mostly by lines of post-holes (for example Structures 9 and 31), or less often by wall trenches (for example Structure 13 and the second phase of



Figure 21 Six Dials: Middle Saxon structural features. Hearths are shown in outline only. Numbers are Structure numbers.

Table 2 Structure summaries

S	Type	Dimen (m)		D	H	IP	P	Date	SOU	Comments
1	WT★	7	3.5	-	-	2	-	E	31 T4	Curved walls
2	PH★	11	?5	-	2	-	?	E-M	31 T4	
3	PH★	?5	?5	-	-	-	-	?M	31 T4	
4	?WT★	?	?	-	-	-	-	?	31 T4	Form uncertain
5	WT★	10	3+	-	-	-	-	E	31 T4	
6	PH★	6	3	1	1I	5I	1	M	31 T4	Shed/smithy
7	PH★	5	3	1	-	8I	-	M	31 T4	Shed/smithy
8	WT+PH	?10	3	-	1	-	1	M	31 T4	
9	PH★	10.5	4	1	-	-	1	E	31 T1	
10	PH★	10.5	?4	-	1	-	-	?E	31 T1	
11	PH★	7.5	5	2	-	2	-	M	31 T1	
12	WT+PH★	13	5	2	1	1	-	?M	31 T1	
13	PH★	10	4+	-	1	-	1	?L	31 T1	
14	PH◆	11+	6	-	-	1	-	E	31 T2	
15	PH+PL◆	7.5	5.5	2	-	1	-	E(-L)	31 T2	Curved walls
16	PH★◆	10	4	-	-	3	-	?E	31 T3	Two phase
17	PH★	8	4.5	-	2	3	-	M	31 T3	
18	WT★	10	4	-	-	-	-	E	26	Overshot walls
19	PH★	8+	5	-	1	1	-	E	26	
20	PH★◆	9.5	4	-	-	-	?	?M	26	
21	PH★	6+	4.3	-	-	-	?	?M	26	
22	PH◆	5+	4+	-	-	-	?	?M	26	
23	WT★	5.5+	?5	-	-	1	-	E	26	
24	PH★◆	7.5	5	-	-	-	-	M	26	
25	WT+PH★	19.5	5	1	1	3	1	M	26	?Composite structure
26	PH◆	13	7.5	-	1	-	1	M	26	?Composite structure
27	WT+PH◆	8+	6.5	1	-	-	1	E	30	
28	WT★	6+	?4	-	-	-	-	?E	26	
29	WT★◆	15	6.5	-	-	2	1	E-M	30	Curved Walls
30	PH★◆	11	6	-	-	-	-	E	258 T1	
31	PH+?★◆	11	5	-	3	2	2	M	258 T1	Multi-phase
32	WT★◆	8+	4+	1	-	-	1	M	258 T1	
33	PH+WT	10	4	1	-	-	-	E-M	24	
34	WT+PH	5	2+	-	1	-	1	E-M	24	
35	PH★	12	?	-	-	-	-	E	24	
36	PH★	6+	?	-	1	-	-	E-M	24	
37	PH★	8	4	-	1	1	-	E	24	
38	PH★	8+	5	-	2	-	-	E	24	
39	PH★	3.5+	?	-	-	-	-	E	24	
40	PH★	5+	1.5+	-	-	-	-	?	24	
41	PH+?	8	4	-	2	1	1	E	24	
42	PH	7	5	-	-	-	-	E	24	
43	WT	?	?	-	-	-	-	?E	24	Form uncertain
44	?	2.5+ 2.5+		-	-	-	-	E	24	Form uncertain
45	PH★	10.5	4	1	-	1I	-	E	24	Smithy
46	PH★	10.5	5.5	1	-	1I	1	M	24	Smithy
47	PH	2.5+	2+	-	-	-	1	E	169 T2	?Attached shed
48	PH★	12	5	-	-	2	?2	E	169 T2	
49	WT+PH	3	2.5	-	-	-	-	E	169 T2	'Shed'
50	WT+PH★	4	3.5	-	-	-	-	E	169 T2	'Shed'
51	PH★	?	?	-	-	-	-	E	169 T2	
52	PL	1.8	0.8	-	-	-	-	E-M	169 T2	Retaining structure
53	PL	2.2	1.5	-	-	-	-	E-M	169 T2	?'Shed'
54	WT+PH★	4	5	1	1	1	-	M	169 T2	
55	WT+PH★	6+	3+	1	-	-	1	M	169 T2	
56	PH★	4+	1.5	-	-	-	-	M	169 T2	'Shed'
57	WT★	10	5	1	1	-	-	M-L	169 T2	

Table 2 contd

S	Type	Dimen (m)		D	H	IP	P	Date	SOU	Comments	
58	PH★	10	5.5	-	-	-	-	M--L	169 T2		
59	PH★	5+	5	-	-	-	-	L	169 T2		
60	PH	2+	1+	-	-	-	-	M-L	169 T2		
61	WT+PH★	6+	5	1	1	1	-	L	169 T2	?Stone PP	
62	WT★	2+	?	-	-	-	-	L	169 T2		
63	PH★	4.5+	5+	-	-	-	-	?E	169 T3		
64	PH★	4.5+	5+	-	1	-	-	?E-M	169 T3		
65	PP	8.5	3	-	-	-	-	E	169 T3	Stone PP	
66	PH+?WT★	6+	3+	-	2	-	-	?M	169 T3		
67	WT★	5+	?	-	-	-	-	E	169 T3	Form uncertain	
68	PH★	?6	?5	-	-	-	-	?1	L	169 T3	Form uncertain

Key: D doorway, H hearth, I industrial, IP internal pit, P partition, PH post-hole, Pl plank, PP post-pad, S structure number, WT wall-trench, ★ adjacent to street, ♦ at right angles to nearest street frontage. Dating: E early, M mid, L late.

Structure 16). The partitions were possibly constructed of wattle panels, perhaps covered with daub, between timber uprights which may also in some cases have served to support the roof. Gaps in the partitions are interpreted as internal doorways. Structures 31 and 48 appear to have had two or more partitions, though some of the features may have been associated with other internal arrangements such as have been noted in a further six buildings (for example Structure 19). The functions of these remain uncertain. The location of all of the partitions either divided the building into equal areas, or one larger and one or two smaller areas.

No evidence was recognised of animals having

been kept within one part. (Phosphate tests were not carried out because it was expected that distinctions would be unclear in an urban situation.) There may have been some differences in use, however, with perhaps one end of the building used for cooking, for storage, or as a workshop, and the other for living in. The apparent absence of hearths from some of the buildings may provide an indication of a function other than for living in, though direct and conclusive evidence for their use for storage or as workshops (for instance) is lacking. At present only the smaller structures interpreted as sheds or shelters can be certainly assigned a function other than for living in.

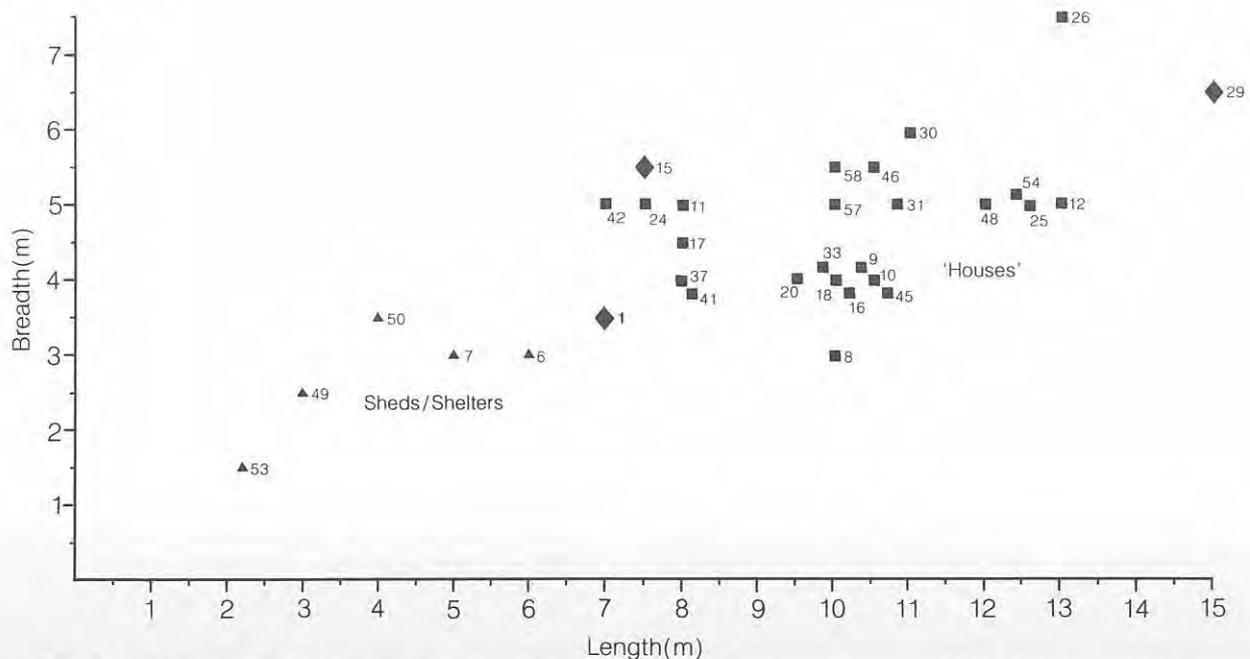


Figure 22 Structures: length/breadth scattergram, where both were measurable. Numbers are Structure numbers.

Twenty buildings had hearths, including four with two examples and one with three. In some buildings with multiple hearths it is clear that one sometimes replaced another (for example Structure 66). All were probably for domestic use, and comprised a circular or oval pad of clay or brickearth which had been burnt red in the centre. The clay pad was usually between 0.5m and 1m across, sometimes set on a base of flint cobbles, and in some cases set into the top of an infilled pit so that it formed a bowl shape. Most of the hearths were centrally placed along the long axis of a building, in many cases adjacent or near to an end wall (for example Structure 38) or a partition (for example Structure 41), or occasionally were more centrally placed (for example Structure 61). In some cases, hearths were built adjacent to the long walls (for example Structure 12). Two features in Structures 17 and 37 have been interpreted as collapsed ovens. The apparent absence of hearths in many buildings can be explained by their having lain outside the excavated area or by their having been destroyed by later pit digging. However, this does not provide a satisfactory explanation in some cases (for example Structure 15); either some above-ground hearth which has left no trace was used, or it is possible that some may not have had hearths and therefore that their interpretation as domestic buildings is incorrect. Perhaps they were workshops, or possibly barns or buildings for storage or materials or agricultural produce.

Seventeen buildings had features interpreted as contemporary internal pits, with four having two, and three having three examples. In addition to these, a further four buildings – the smithies (Structures 6, 7, 45, and 46) – contained complexes of pits associated with iron working. The internal pits varied in shape and size, and perhaps functions, though what these may have been other than storage remains unclear. The smallest examples (for example 2062 in Structure 14) were oval or circular, 1m or so across, 0.3m deep, with a flat or rounded bottom. Slightly larger and deeper examples (for example 2010 in Structure 15) had vertical sides and flat bottoms, and were probably lined. The largest examples (for example 2027 in Structure 29 and 10581 in Structure 48) were subrectangular or square, up to 1.3m across and 1.2m deep, with straight sides and flat bottoms which were probably also lined.

Some evidence for floors survived where stratified deposits were preserved. It indicates that in the earliest buildings (for example Structures 9 and 47) the natural brickearth was probably utilised as a floor surface after any overlying soil and vegetation had been stripped off. In subsequent buildings, thin, even spreads of clayey brickearth were laid down as floor surfaces. The evidence would suggest that these were generally kept fairly clean and clear of debris, though thin, so-called occupation deposits did build up (see Fig 64).

There is evidence that at least three of the buildings (Structures 1, 25, and 47) had ancillary structures attached to them (these have the same structure numbers as the buildings, but are not taken into account in the building measurements). The ancillary structures were between 4m and 6m long, and were attached to the ends of the buildings. They may have served industrial or domestic functions, or both. The example associated with Structure 1 contained two small pits, one of which appears to have been an iron-working feature; that associated with Structure 25 contained a hearth and may have been open to the north; that associated with Structure 47 was less regular and appears to have been open to the east.

All but eleven of the buildings lay adjacent to either the north-south or east-west streets, and as far as could be ascertained all but thirteen were aligned with their long sides parallel to the nearest street. Of the eleven buildings which did not have direct access to the streets, five were aligned with their long sides parallel to the nearest street. It was only those buildings which lay adjacent to the north-south street which took that alignment; elsewhere, all buildings were aligned to the east-west streets. It is clear, therefore, that as far as possible buildings were constructed adjacent and parallel to street frontages. It would appear that most of the buildings that were aligned at 90° to the streets were later buildings, often inserted within restricted areas between other buildings (for example Structures 16 and 24). Their construction allowed continued access via alleyways, sometimes metalled, to structures set further back and not directly fronting the streets.

Although both the north-south and east-west street frontages were densely built up, it was only along the north-south frontages that complex structural sequences were recorded. This may to some extent reflect the deeper and better preserved stratigraphy alongside the north-south street, but it is almost certainly principally due to a longer occupation span along those frontages, coupled perhaps with more regular rebuilding. There were sequences of up to five superimposed structures along the north-south street frontages, but no more than two and normally only one along the east-west streets. Structures 9-13 on SOU 31 T1 provide the largest sequence with five buildings, but there were further sequences of four on SOU 169 T2 (Structures 48, 54, 57, and 61) and three on SOU 31 T4 (Structures 1-3). On all of these house sites there was some 'shifting' of buildings within an individual property, particularly on SOU 31 T1, with buildings not being constructed on exactly the same sites as their predecessors – but rarely (if ever) crossing a property boundary. It also appears, perhaps rather surprisingly, that there were periods on possibly all of these house sites when the areas were given over to industrial activity and were not occupied by buildings (for example between Structures 54 and 57 on SOU 169 T2, and

between Structures 2 and 3 on SOU 31 T4). On the basis that the occupation span along these frontages was in the order of 150–200 years, it might be suggested that each building stood for at least three or four decades before being replaced. The fewer structural phases noted alongside the east–west streets (only occasionally such as in Structure 16 was there clear evidence of rebuilding) may be a sign that the east–west frontages did not remain as densely built up for as long as they did alongside the north–south street – perhaps for only 50 years around the middle of the 8th century was all of Six Dials densely built up, and 9th-century occupation may have tended to be concentrated close to the major street frontages. On the other hand, the difference in intensity of occupation may be a sign that buildings stood longer there. Structures 15 and 68 provide the best evidence for long-standing buildings; both were avoided by pits over a considerable length of time (though in the latter case there appears to have been a lull in the use of the area).

According to the dating discussed above, it is estimated that 38 of the structures were probably built in the early phase of occupation, that is before 750; 22 during the mid phase between 750 and 850; as many as six during the late phase around and after 850; and two cannot be assigned to any of these phases. Many of the early-phase buildings are likely to have still been standing during the mid phase, and possibly some of the mid-phase buildings during the late phase. No structural interpretations have been attempted here, except to say that almost all of the buildings were rectangular, single-storey structures with timber uprights infilled between with wattle and daub; the roofs are likely to have been thatched with straw and to have rested on wall plates. The basic form of construction appears to have persisted with little change or modification throughout the 150–200-year sequence of Middle Saxon occupation. There is no indication that there was any simple sequence in construction techniques. Despite an apparent difference in the preferred location and in the length of occupation, no clear differences were discernible in the size and nature of the buildings along the different streets. The apparent absence of larger, perhaps substantial buildings or complexes of buildings is a common feature of Hamwic's sites.

Sunken-featured buildings were conspicuous by their absence from Six Dials. No chronological trend was noted in the buildings except that all three of the curved wall buildings at Six Dials were probably built during the first half of the 8th century (by contrast, those on SOU 16 have been assigned to the Late Saxon period: see Morton 1992, 164). Of the two structures where stone was used, Structure 65 was early and Structure 61 late.

Although there were probably at least two industrial complexes other than the smithies, notably those perhaps related to hide preparation and associated with Structures 25 and 51 respectively, there are none identified as farm buildings. Only on

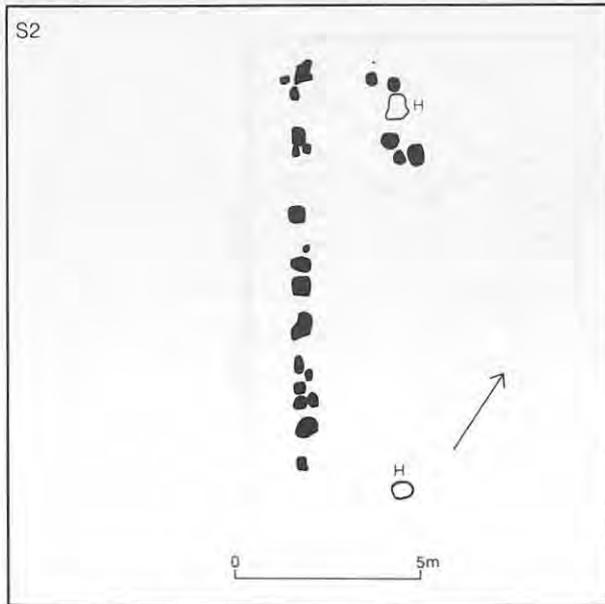
SOU 21 and 22 in the south of Hamwic was there anything which might be interpreted as an early, semi-rural property with farm buildings (Morton 1992, 157–60 and 164–6). Despite this absence, there is no evidence that Hamwic's house-forms differed from those of non-urban settlements. In this respect Six Dials, and Hamwic as a whole, may have been distinguished only by a higher density and more regular layout of buildings and properties.

Structures 1–3 (Figs 23–5)

The house site lay immediately to the south of the junction between the north–south street and east–west street II. It was not possible to expose complete ground plans of any of the structures in this area because the maximum width of the excavations at this point was restricted to 5m. However, three phases of structural activity were recognised.

There were several layers which predated the earliest structure and overlay natural brickearth. These comprised 6115, 6377, 6393, and 6418, all of which may have been variations of the same layer. They were greyish-brown silty loams admixed with up to 50% brickearth, and they contained varying (but small) amounts of fragmentary oyster shell, burnt daub, and charcoal. The few sherds of pottery from these layers show them to have been Middle Saxon rather than Iron Age, and no evidence for any buried Iron Age soil was found such as that recorded further to the west on SOU 169 (all trenches) and SOU 258 T2 and 3. The layers varied in thickness up to 0.5m, and none extended across the whole area. Layer 6393 was partly sealed beneath the earliest metallurgy on the north–south street, though it may have been contemporary with a postulated earlier unmetalled phase. It is uncertain what these pre-structural layers represent. They contained relatively few finds, but it seems unlikely that they had therefore been laid to level the ground before building began: there were only minor undulations in the surface of the underlying brickearth, which would not have required much elaborate levelling. Despite the relative absence of finds it is more probable, then, that they were deposits of rubbish perhaps associated with an adjacent building to the south.

Structure 2 (Fig 24)



This overlay Structure 1, was on the same alignment, and probably occupied a similar area. There may have been a short period between the demolition of Structure 1 and the construction of Structure 2 when the site was empty – indicated by layer 6190, which could not be securely assigned to either of these structural phases. Layer 6190 was up to 0.06m thick and comprised a mixture of fine sandy silt loam with some brickearth. It contained some charcoal flecking, and incorporated into the upper part of the layer were concentrations of oyster shell. It is perhaps most likely that this layer was a dump of domestic refuse from an adjacent building, which was levelled prior to the construction of Structure 2.

Only the western wall line of Structure 2 could be clearly defined. It was marked by a series of post-holes, which were irregularly placed and of varying shape and size. The largest was 0.5m square and 0.66m deep, and the smallest 0.2m in diameter and 0.04m deep. Plank impressions were found in the bottoms of several of the post-holes, but only 6726 contained a post-ghost of a plank; this measured approximately 0.3m by 0.07m. The spacing between the post-holes varied between 0.05m and 0.75m, except for a gap of 0.9m between 6327 and 6726 which may have marked the location of a doorway.

The eastern wall line lay outside the limit of excavation; Structure 2 had been at least 3.5m in width. Post-holes 7197 and 7199 probably marked the north end of the building, and 7197 may have held a ridge post though no other centrally placed post-holes were found. No features were found which marked the southern extent of the building though it seems not to have extended further south than post-hole 6741.

Approximately 1.5m from the north end of Structure 2 was a group of three post-holes up to 0.4m deep – 6313, 6319, and 6321. These cut floor

surface 6187, and may have belonged to a structure inserted into the north-east corner of the building. The form and function of this can only be surmised, but a raised bench is a possibility. Floor surface 6187 was a clean, hard-packed layer of redeposited brickearth up to 0.07m thick. It was very even, and survived over most of the interior of the building. An irregular burnt area adjacent to the north wall of the building may have been a hearth, centrally placed at that end of the building. If so, it may have gone out of use when the structure associated with post-holes 6313, 6319, and 6321 was inserted, unless they formed part of an associated hearth or oven structure. A small area of burning (7046, 0.35m in diameter) at the south end of the building may also have been a hearth. No evidence for a partition or any other internal division was found. Floor surface 6187 was overlain by layer 6182, a brown soil mixed with some grey ash, a little charcoal, and some oyster-shell fragments. This layer was up to 0.08m thick and is likely to have post-dated the use of the building (this possibility is discussed further below).

In summary, Structure 2 was probably a single-roomed domestic structure measuring approximately 11m by perhaps 5m. A group of small post-holes and slots (6364, 6366, 6368, and 6378) to the north, between it and east-west street II, may have marked a contemporary fence line.

Structure 2 was still partly standing when layer 6182 accumulated. This layer may have been a spread of domestic refuse, though it contained comparatively few finds and was not characteristic of the rubbish layers in pits. However, it seems rather too thick (up to 0.08m) to have been a deposit which accumulated over the floor surface while the building was still in use, and, although it butted against parts of the western wall line, it also spread beyond the confines of the building. It might be best interpreted therefore as having been some sort of domestic rubbish deposit which accumulated after Structure 2 has fallen into disuse, but when at least some sections of wall were still standing. Layer 6182 was sealed by 6181, a fairly even, hard-packed layer of redeposited brickearth which lay mainly within the northern half of Structure 2. The extent of this surface was delineated to the west by the wall line of Structure 2, suggesting that the latter was still partially standing when 6181 was laid down. However, this surface did extend over and beyond the post-holes which marked the north end of the building. Surface 6181 had been burnt red in several areas, but most strongly towards the centre, where it may have been resurfaced. Some burnt-clay inclusions within the layer indicate that it had been redeposited from elsewhere. It would appear therefore that surface or floor 6181 was laid down within the general confines of the northern end of Structure 2 when at least part of the west wall was still standing. This may have acted as a windbreak, or as a shelter if the roof was still in position or had been partly replaced.

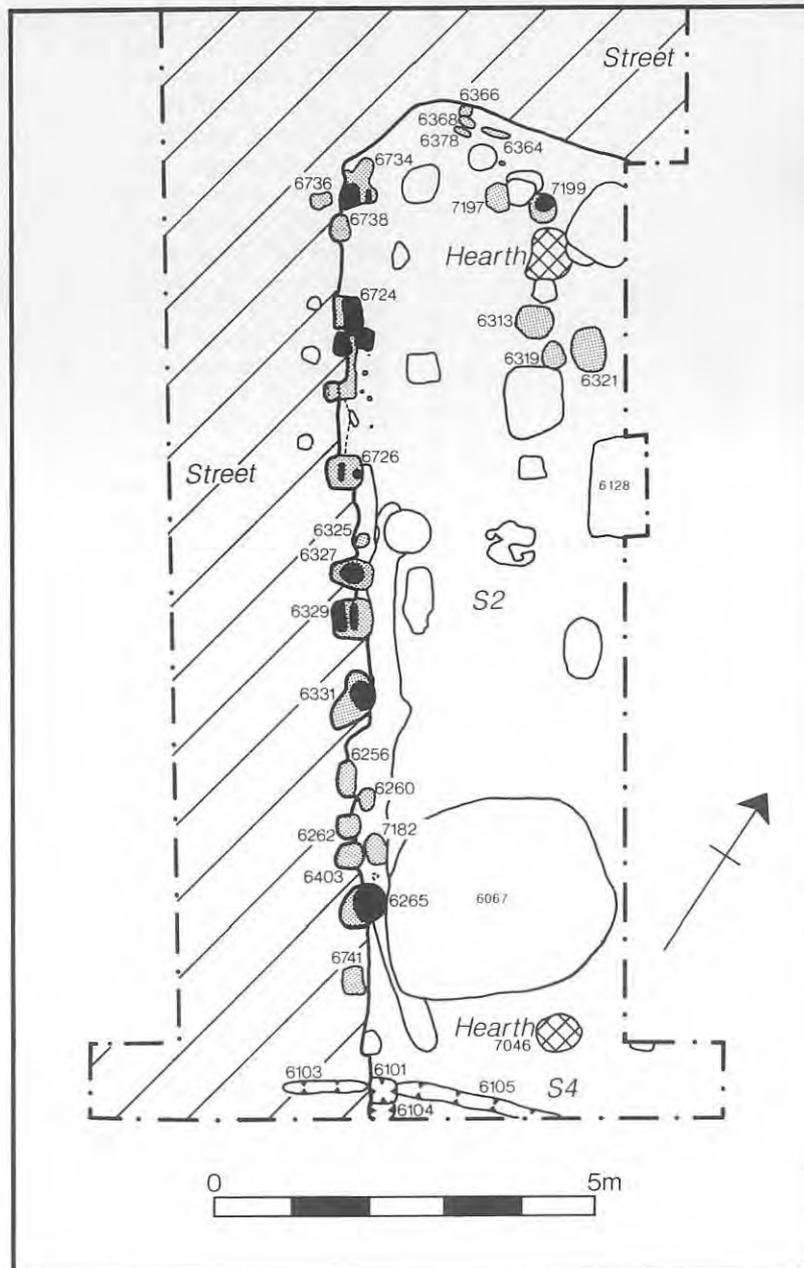


Figure 24 Structures 2 and 4 (SOU 31 T4). Scale 1:100.

A spread of burnt chalk covered much of surface 6181, except where the latter had been heavily burnt. The burnt chalk, 6125, was generally about 0.06m thick, and its maximum thickness was 0.13m. It comprised several layers which merged into one another and could not be easily distinguished. These extended as far as the limits of excavation to the east and south, as far north as east-west street II, and westward onto the eastern edge of the north-south street. Context 6125 appeared to seal some of the post-holes belonging to Structure 2, and ran up to the edge of others. This might indicate that some of the posts had been removed and others remained, though no wall could have been left between them. It is not clear whether surface 6181 and spread 6125 belonged to the same

phase of activity, but this is perhaps most likely.

It is suggested below that burnt chalk was used in hide preparation, and perhaps its presence here represents industrial usage of this part of the site after Structure 2 was abandoned. It may be significant that an area to the west of the north-south street also went through a similar phase of activity, perhaps at the same time. In that area (SOU 169 T2 and SOU 258 T2), Structure 54 was abandoned and partly dismantled, though some of the posts were left in place, and spreads of burnt chalk were deposited. This might indicate a general change of use of the area, from domestic occupation to industrial activity, which encompassed more than a single building or property.

The digging of pit 6067 probably took place early

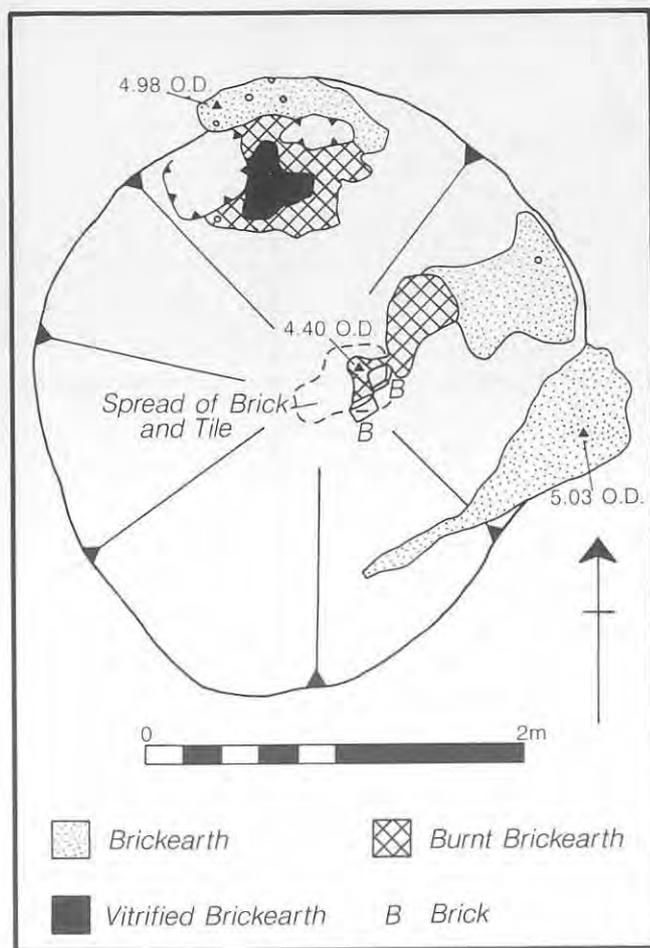


Figure 25 Remains of the hearth in the top of pit 6067 (SOU 31 T4). Scale 1:40.

in this phase of activity, though there is a possibility that it predated Structure 2. It was a large subcircular pit almost 3m in diameter and 2.5m deep. It apparently cut floor 6187 in Structure 2, but was sealed by the burnt chalk, 6125. Its relationship with layer 6182, which overlay the floor, is uncertain because the stratigraphy had become dislocated as a result of the pit contents settling. The bottom fill, 6752, was a dark greyish-brown soil with considerable charcoal flecking, and some fragments of oyster shell and burnt clay. It was sealed by a layer of redeposited brickearth, 6751, 0.25m thick. This was succeeded by a series of rubbish deposits and redeposited brickearth layers. Above these layers was a sequence of hearths comprising several superimposed areas of reddish, evenly burnt brickearth, each up to 1m in diameter, and a layer of small flint pebbles set in a matrix of reddish burnt brickearth (contexts 6433, 6335, 6436, 6437, and 6434 respectively). A black charcoal-rich soil, 6432, was probably associated with these hearths. The hearths predated the spread of burnt chalk, but could have been contemporary either with surface 6181 to the north, or (less likely) with Structure 2. If the latter, they may have been domestic hearths within the building. They were separated from the

burnt chalk by several layers of rubbish. The burnt chalk, 6410, was cut by a series of approximately twenty small stake-holes, and sealed by a further sequence of hearths, and spreads of ash and charcoal. These included 6427, 6253, 6759, 6409, and 6753. Although the degree of burning was less intensive than in the earlier sequence, all could have been associated with the industrial use of the area which postdated Structure 2.

A layer of gravelly soil, 6121, sealed the second sequence of hearths, and into the top of this was set a final group of hearths which may have postdated Structure 3, but this is uncertain. This final group comprised two lightly burnt layers of brickearth, 6246 and 6248, within layer 6254, a dark greyish-brown charcoal-rich soil. It is possible that these layers were floors within Structure 3. Overlying this were the remains of a heavily burnt, brickearth-lined hearth, 6406, which originally may have been up to 3m in diameter (Fig 25). This was set into a bowl-shaped hollow, formed in the top of pit 6067 as the contents subsided. Later disturbance, including the digging of pit 6404 (not illustrated), had caused some damage to this hearth, though three areas of it survived. The most northerly remnant had been burnt to a degree not seen elsewhere at Six Dials; a small area in the centre had become vitrified, and this was surrounded by intense red burning. Set into this area of burning were two fragments of Roman brick and a lump of unworked limestone which together may have formed part of a superstructure associated with this hearth. A number of small stake-holes (not illustrated) cut the brickearth lining around the southern edge. In the layer above the hearth was a concentration of Roman brick and tile, and lumps of unworked limestone, some of which had been burnt. This material lay in a jumbled group above the central area of the hearth, and could have come from a demolished or collapsed brick and stone superstructure to the hearth. Careful excavation of this deposit failed to reveal any details of its construction or function, but the degree of burning and the evidence for a superstructure suggests that the hearth had a specialised industrial purpose, and was not domestic. A metallurgical use might be considered most likely, on the limited evidence of a few fragments of crucibles, associated with copper-alloy working, which were found in the layer above the hearth. Glass working is also considered as a possibility (see below), but there was no indication of such a use. This hearth was replaced by a smaller feature (not illustrated) which comprised a U-shaped 'lump' of brickearth which directly overlay the vitrified area of the earlier hearth, and had been burnt red on the inner face. This probably also had a specialist function, and may represent a continuity of use from the earlier hearth, 6406, though neither of these are likely to have been associated with the two earlier groups of hearths in pit 6067. No structures or features contemporary with the latest hearths were identified, though it is

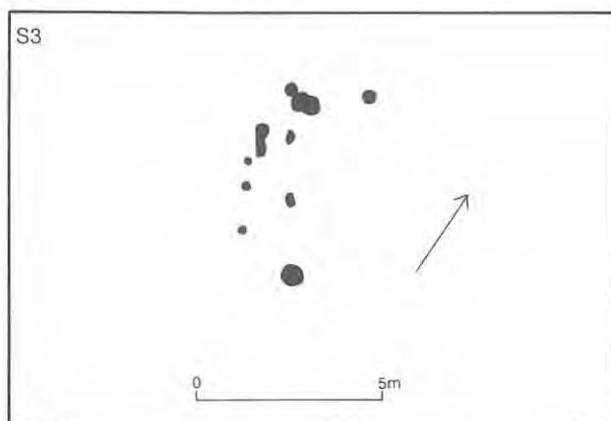
quite likely that any associated levels outside the pit had been removed by 19th-century basements.

Pit 6128 was broadly contemporary with the digging of pit 6067, but seems to have had only a domestic purpose. It lay on the eastern limit of the excavation, was probably subsquare, and 1.85m deep (see MF 5:C3).

Close dating of Structure 2 and the subsequent period of industrial activity is difficult. However, the very small quantities of pottery recovered from the surfaces associated with Structure 2 and the lower layers in pit 6067 would all suggest an early date; probably before 750. Two coins were found in contexts which postdated Structure 1 and predated Structure 3 (here and throughout the text, coin numbers refer to the catalogue entries in Metcalf 1988). Both were sceattas which have been classified as secondary 'porcupines' and would probably have been struck during the second and third decades of the 8th century. One (coin 18) came from 6318, the upper fill in pit 6317 associated with Structure 1: 6318 was a fill which postdated the use of this building, but predated the construction of Structure 2. The other (coin 16) was from layer 6178 which overlay 6181, a surface associated with the industrial activity on the site, which was laid down after the partial demolition of Structure 2.

These two coins and the pottery provide some evidence for the construction and use of Structure 2 and the subsequent period of industrial activity having taken place during the second and third quarters of the 8th century.

Structure 3 (Fig 26)



This building postdated Structure 2 and the subsequent spread of burnt chalk, 6125. Whether it was earlier, contemporary with, or later than hearth 6406 in the top of pit 6067 is uncertain, as the basements of 19th-century buildings had removed most of the Middle Saxon deposits down to the level of the burnt-chalk layer. The post-holes belonging to Structure 3 cut this layer, but it was not clear from what level they had been cut, and therefore if they were all contemporary. However, they are all considered here to have been associated with

Structure 3.

There are two possible locations for the western wall line, though it is quite possible that the features marking the two lines belonged to different phases of building. The outer, and less substantial line of features comprised a series of post-holes and a gully which had encroached by up to 0.5m onto the eastern edge of the north-south street, though this may have been obscured by later deposits when these features were dug. They survived only as shallow features a few centimetres in depth, and comprised 6670, 6672, 6674, 6676, 6680, and 6682. A second line of features lay up to 1m to the east of this wall line. The four features which made up this line, 6358, 6668, 6678, and 6750, were more regularly spaced with intervals between them of 1-1.5m. The north and south ends were marked by two fairly substantial post-holes, 6358, and 6750, up to 0.5m in diameter and 0.15m deep. The southernmost of these, 6750, cut post-hole 7028, which may have formed part of the north wall line of Structure 3. If it did, then post-holes 6358, 6668, 6678, and 6750 may have marked the western wall line of a later building, and were not associated with the line of post-holes to the west belonging to Structure 3. However, both lines of features were approximately 5m in length, and unless this was a coincidence it seems possible that the outer line marked either a fence line or some form of extension, perhaps a shelter or stall along the west side of Structure 3.

A single large post-hole, 6743, 0.3m in diameter and 0.5m deep, at the south end of the site may have been associated with Structure 3, though this is unlikely.

The eastern wall line lay outside the excavated area, but the north wall was marked by three shallow post-holes, 6787, 7028, and 7032. No floors survived within Structure 3, though if it did extend south as far as post-hole 6743, the burnt bricklayers 6246 and 6248 towards the top of pit 6067 may have been associated with it.

Two pits were perhaps contemporary with or later than Structure 3. Pit 7200 was a small subrectangular feature which measured approximately 1m by 0.85m, and was at least 0.5m deep. This had a rather mixed fill, and may originally have been a small storage pit towards the north-east corner of Structure 3 or a later building. Pit 6404 (not illustrated) was a smallish pit approximately 1m in diameter and 1m deep, which cut pit 6067 at the south end of the site. Its function is uncertain, though it may have been a small rubbish pit.

From the surviving features, one cannot be certain of many of the details of Structure 3, and whether or not it was domestic. The features attributed to this building may have belonged to two phases of structure, though a single building is considered here to have been more likely. The features in the northern part of the site indicate a building 5m in length, and perhaps up to 5m wide. The building may have extended to the south, but

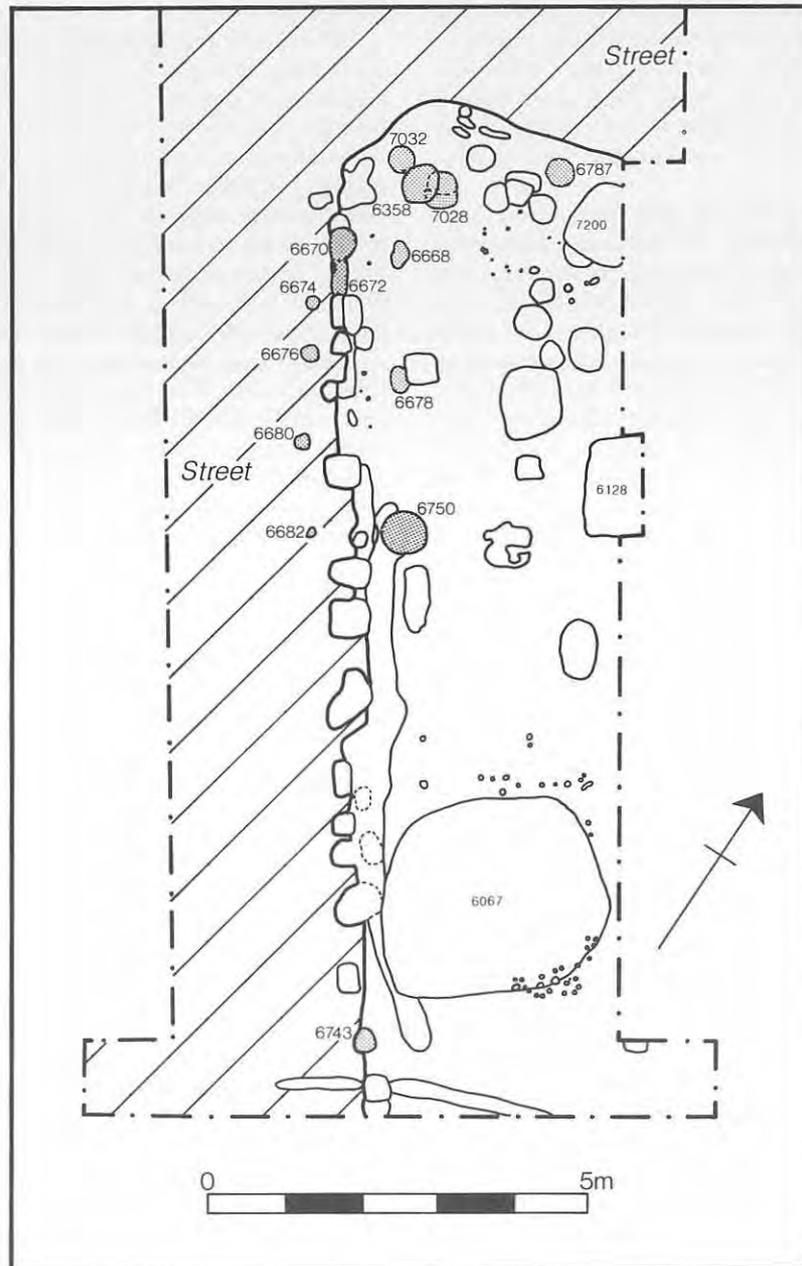
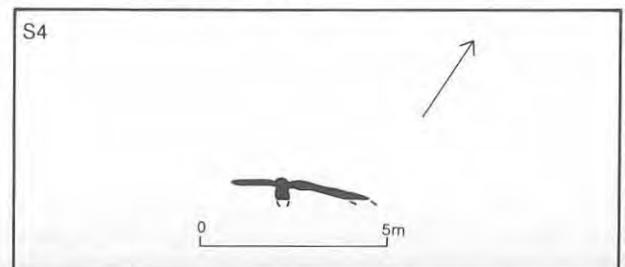


Figure 26 Structure 3 (SOU 31 T4). Scale 1:100.

there was no evidence for this. The truncation of the deposits by 19th-century basements means that Structure 3 may not have been the latest building on this house site, and there is a slight indication that one or more of the post-holes and pits may have belonged to a later phase of activity.

Structure 3 cannot be closely dated. Two Type 49 sceattas (coins 46 and 51), one from the very top of pit 6067, and the other from the surface of the surviving Middle Saxon deposits immediately to the north, might suggest a period of occupation some time within the last quarter of the 8th century and the first quarter of the 9th century, though this is uncertain as they may be residual.

Structure 4 (Fig 24)



The features comprising this structure lay at the extreme south end of SOU 31 T4, to the south of Structures 1–3. Further excavation was limited by a substantial basement which had destroyed all the archaeological deposits.

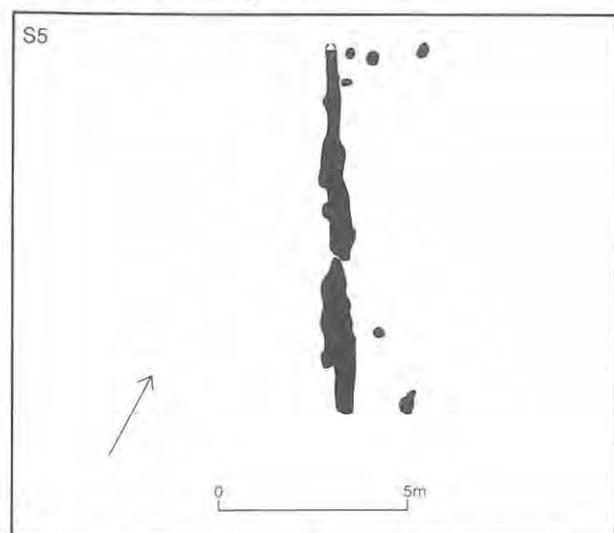
The structural features comprised a subcircular post-hole, 6101, 0.2m deep, which had two shallow slots 6103 and 6105 extending 1m and at least 2m respectively to the west and east of it. Another post-hole or slot, 6104, extended to the south. The layout of features does not closely resemble any other structural arrangement at Six Dials, and the limited area that survived does not allow their function to be ascertained. Stratigraphically these features were probably contemporary with or slightly later than Structure 2 to the north. If they were later, they may have been associated with either or both of pits 6067 and 6128.

Structures 5–8 (Figs 27–31)

The house site lay immediately to the north of the junction between the north–south street and east–west street II. It would appear that an area to the east occupied by two superimposed buildings, Structures 30 and 31, was also associated with the house site on which Structures 5–8 were built. This area is referred to in the following section, and Structures 30 and 31 are discussed in detail subsequently.

Stratified Middle Saxon deposits were present over most of the area up to a depth of 0.3m, and 0.8m survived immediately adjacent to the north–south street in a small area where the levels had not been truncated by 19th-century basements. There was no evidence for any buried Iron Age soil, nor any Middle Saxon deposits (except for a street metalling, which predated the earliest building on the site).

Structure 5 (Fig 27)



This was the earliest in a sequence of several superimposed structures. It lay adjacent to and was aligned parallel with the north–south street. The western wall line was marked by a discontinuous and somewhat irregular trench, 6279, which had

been dug up against and cut the earliest metalling on that part of the north–south street. At the northern end, this trench was approximately rectangular in section, up to 0.25m wide and 0.1m deep, and contained a small group of post-holes and post-impressions. It had been cut away at the extreme north by a wall trench of Structure 12. Further south it became discontinuous and less regular, with an interruption 5.5m from the north end which perhaps marked the location of a doorway. Two substantial subrectangular post-holes, 6275 and 6277 (not numbered on plan), had apparently been dug as part of the trench, though they may have been later. They measured 0.5m by 0.35m and 0.68m deep, and 0.35m by 0.3m and 0.71m deep respectively. Both contained circular post-ghosts up to 0.3m in diameter. Trench 6279 continued to the south of the interruption, though it was of a different profile. The southern section, 6108, was up to 0.75m wide and 0.3m deep, and for some of its length comprised two adjacent trenches. These contained some deeper post-holes, but no post-ghosts survived. It was not possible to determine whether these irregularly spaced post-holes and the two adjacent trenches were all contemporary as their fills could not be differentiated. This complex of features might have been the result of the rebuilding or extension of an original structure, rather than all having been contemporary structural features associated with a single phase of building.

There was no evidence to indicate the position of the eastern wall line. It may have lain beyond the limits of excavation, though in that case Structure 5 would have been at least 6m in width, and therefore unusually wide.

The north and south wall lines were probably marked by post-holes 6168, 6174, and 7195; and 6710 respectively.

There were no surviving floors or hearths within Structure 5. Hearth 6684 (Fig 29) might have been associated with this building, but it is considered (below) more likely to have been an iron-working feature belonging to Structure 6. The lack of floors is perhaps surprising in an area where stratified deposits did survive, but Structure 1 to the south also had no associated floor or hearths. In both these buildings the surface of the natural brickearth may have been used as a floor surface as it seems unlikely that any floors would have been completely worn away or removed. The only internal features were a single post-hole, 6703, and a small group of stake-holes in the north-western corner of the building.

Pit 15042 to the east of Structure 5 was probably contemporary with it (see Fig 50). This was an irregularly shaped pit which lay partly outside the excavated area. It was probably about 2m in diameter, and was 1.54m deep. The earliest fill, 17898, was a dark grey silty loam that may have been a cess deposit as it appears to have been considerably compressed from its original volume. It had been squeezed up the sides of the pit, but there was no green staining of the brickearth. Above this were

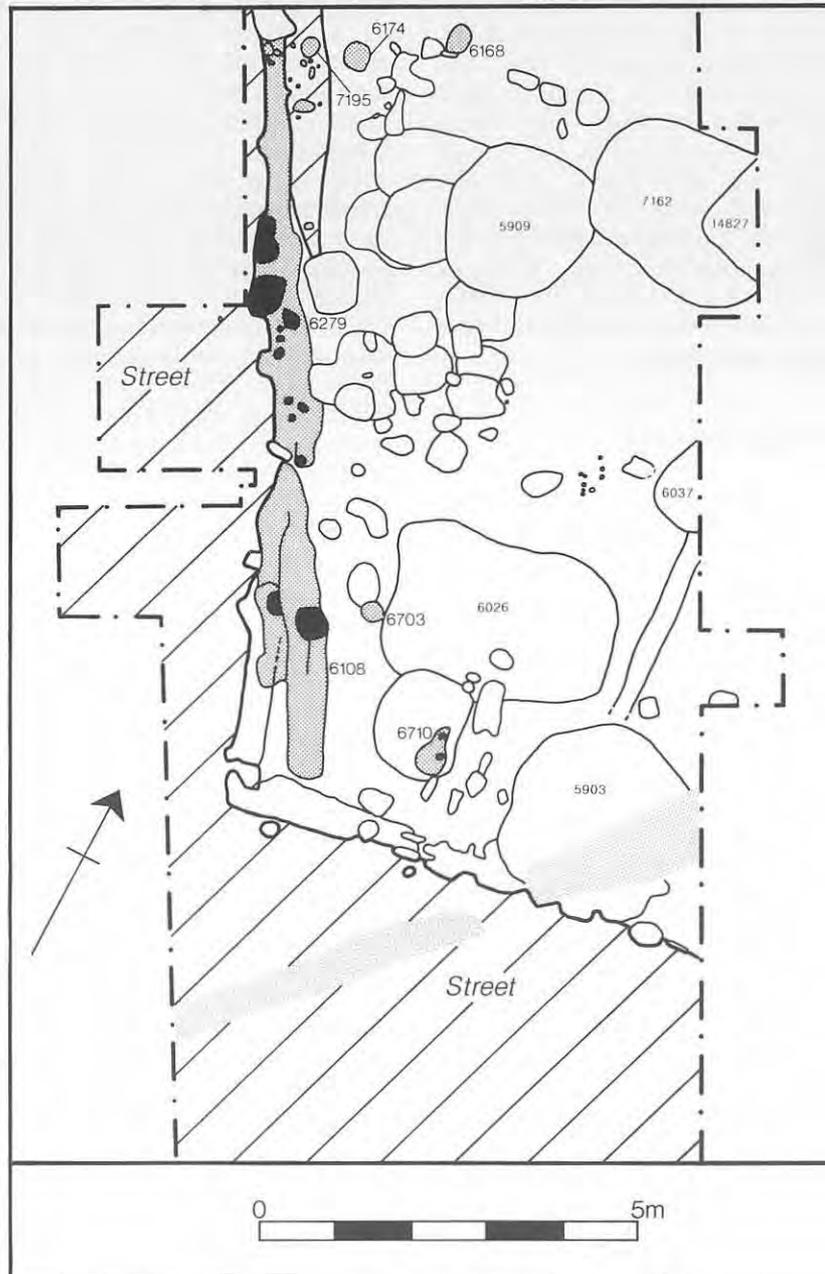


Figure 27 Structure 5 (SOU 31 T4). Scale 1:100.

two layers of yellowish-brown clay loam, 17894 and 17897, separated by a burnt daub layer, 17893. They contained few finds, and may have been deposited in order to seal and level the pit. These layers in turn were sealed by floor surface 15094 associated with Structure 8, which had been constructed across the top of the infilled pit. This and the subsequent floor surfaces had partly subsided into the pit.

Structure 5 was the earliest building on this house site, but there were no associated finds to enable the dates of its construction and use to be determined. It may have been contemporary with either Structure 1 to the south or Structure 9 to the north, or with both of them.

Structure 5 measured 10m in length, and was probably between 4m and 5m in width though this could not be determined.

It is assumed in the absence of evidence to the contrary that Structure 5 was a domestic building. However, after it went out of use, perhaps after a short period, the area was given over to iron working. During the intervening period, pit 6026 was dug (Fig 28). This was a large subrectangular pit measuring approximately 3m by 2m, and 1.8m deep. The initial fill, 6373, was a homogeneous layer of brownish-yellow soil up to 0.8m thick. This layer had a mottled appearance due to the presence of many small brown inclusions which were probably some form of organic or mineralised

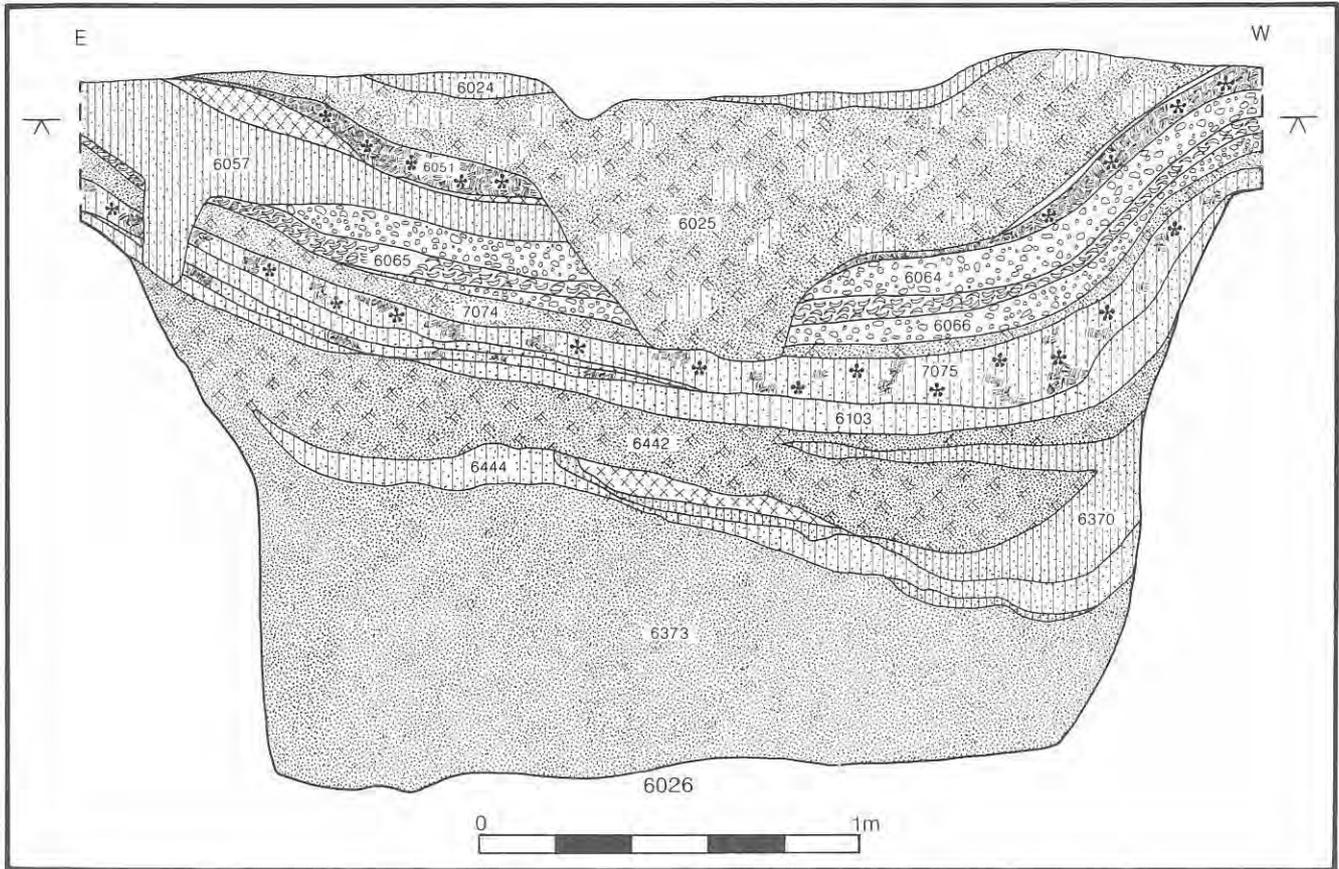
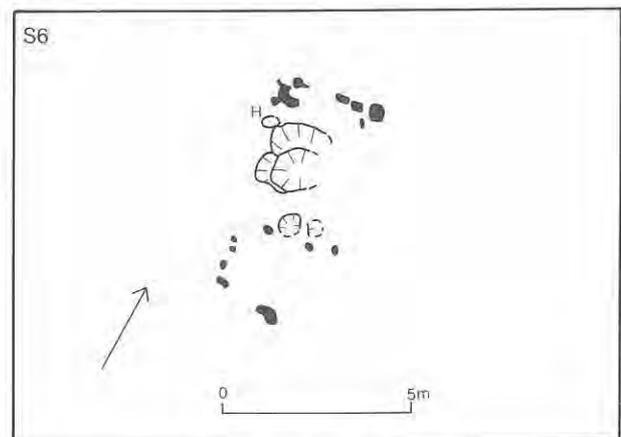


Figure 28 Pit 6026 (SOU 31 T4). Scale 1:20.

concretions. Context 6442 was a similar layer above 6373 and separated from it by several layers of domestic refuse containing some charcoal, and a small deposit of reddish ash. Contexts 6442 and 6373 may have been cess, though there was no green staining around the sides of the pit. The digging and the earliest use of this pit might best be associated with either Structure 9 to the north, or perhaps Structure 1 to the south. No dating evidence was obtained from the earliest layers, but they were subsequently sealed by various spreads and surfaces associated with the later industrial use of the area. There were no floor surfaces that had sunk into pit 6026 which might indicate that it postdated Structure 5.

Structure 6 (Fig 29)



This was a small shed or shelter measuring approximately 6m by 3m which was erected adjacent to the north-south street, but aligned to east-west street II. It is thought to have been an iron smithy.

The north wall comprised a series of four post-holes of varying size, 6152, 6166, 7167, and 7173. Each contained a plank slot in the bottom which indicated that the planks had measured up to 0.3m by 0.06m, and had been set up to 0.35m into the ground.

The western wall line was marked by an irre-

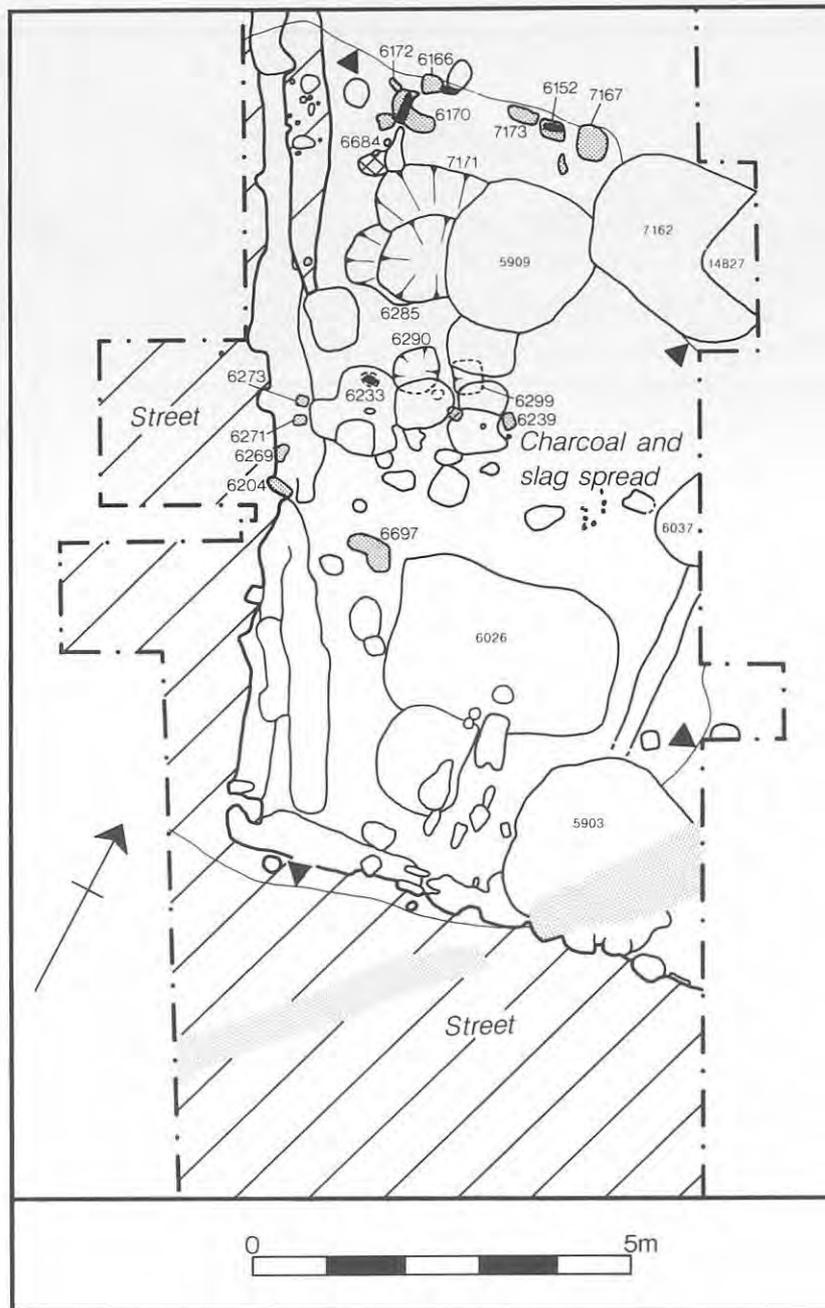


Figure 29 Structure 6 (SOU 31 T4). Arrows indicate limits of charcoal and slag spread. Scale 1:100.

gular line of post- and stake-holes, the most substantial of which, 6170, contained a plank slot measuring 0.4m by 0.1m and 0.2m deep. The other components of this wall line were 6172, 6269, 6271, and 6273.

There were two possible locations for the southern wall. It is most likely that post-holes 6204 and 6697 marked this wall line, and that a series of five small post-holes to the north (between 6233 and 6299), which had been partly truncated by later pits, held posts which formed a partition within the building and perhaps helped support the roof. None of these two groups of post-holes contained any plank- or post-impressions. There were no features which belonged to an eastern wall line

and it is probable that the building was open to that side. There may also have been a door or opening in the west side as there was a gap of almost 4m between post-holes 6170 and 6273, with a single small post- or stake-hole in the middle of this gap. An opening would have afforded access onto the north-south street; perhaps an important feature in a smithy. A thin discontinuous spread of redeposited brickearth, 6309, which overlay natural brickearth, may have been the remnants of a floor probably associated with iron working.

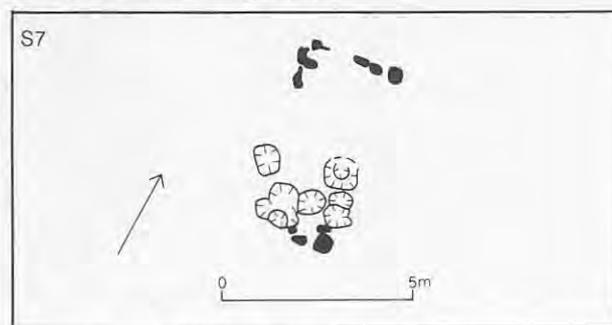
There were several features within Structure 6. It is difficult to establish the sequence in which these were dug, and to determine which may have been contemporary or belonged to the same general

phase of activity. The fills were sometimes very similar, and relationships between them often existed only in very limited areas. However, a likely sequence can be suggested. The earliest features were probably two small pits, 6290 and 6299 (see Fig 93). Pit 6290 was subcircular, had a diameter of 0.55m, and was approximately 0.25m in depth. 6299 was subsquare, measured 0.45m by 0.4m, and was also 0.25m in depth. They were filled with several alternating layers of brickearth and charcoal mixed with iron slag; these layers were discontinuous and do not appear clearly on the section drawing. Perhaps contemporary with these or later were pits 6285 and 7171; two or possibly three intercutting shallow pits up to 1.5m in diameter and about 0.4m deep. All of them contained undifferentiated fills of charcoal mixed with a little soil, and quantities of iron slag and hearth lining. Feature 6684 was also probably contemporary with this phase. It was an oval patch of redeposited brickearth measuring 0.3m by at least 0.35m, which lay directly over the natural brickearth. It was orange in the centre, burnt red around the edge, and generally hardened, probably as a result of heating. Several fragments of hearth lining lay around its edge, but they do not appear to have been *in situ*. Feature 6684 may have been a hearth associated with iron working, set at the northern end of the postulated opening in the west side of Structure 6. Alternatively (though less likely) it could have been a hearth within the earlier Structure 5.

Outside Structure 6 to the south-east was a thin gravel surface, 6150, which was probably a contemporary yard surface. The gravel was laid directly over natural brickearth and was sealed by an extensive spread of black charcoal-rich soil containing some iron slag. This spread, which comprised layers 6148, 6223, 17807, and 7075 in pit 6026 (see Fig 28), extended as far north as the house site occupied by Structures 9-13; and as far south as east-west street II. To the west it spread onto the north-south street (its limits lay beyond the excavated area); and to the east it extended up to the western wall line of Structure 31.

Structure 31 and possibly Structure 30 are thought to have been contemporary with Structure 6 and the associated iron-working activity, and are discussed in detail below.

Structure 7 (Fig 30)



Structure 7 was a partial rebuild of Structure 6. The north wall and most of the west wall of the earlier structure were retained, but a new south wall was built which reduced the dimensions of the building from 6m by 3m to about 5m by 3m.

The new south wall comprised post-holes 6688, 6690, and 6692, two of which contained post- or plank-impressions. The west wall may also have been partly rebuilt: post-hole 6305 cut hearth 6684 and pit 7171 (both associated with Structure 6). The earlier partition was also removed. All the structural features belonging to Structures 6 and 7 were filled with charcoal-rich soil so that it was virtually impossible to differentiate them on the basis of their fills.

Several features within Structure 7 were associated with this phase, but it is certain that not all were contemporary. A group of intercutting circular and subrectangular pits were dug, immediately adjacent to the southern wall. Comprising 6229, 6231, 6235, 6237, and 6287, these were up to 0.75m across and 0.25m deep (see Fig 93). Their fills were a homogeneous mixture of a very charcoal-rich soil and iron slag, and it was not possible to determine the sequence in which they were dug. However, they did cut the post-holes which held the partition in the earliest phase of Structure 6, as well as two associated iron-working features, 6290 and 6299. There were two other subrectangular, charcoal- and slag-filled pits in the southern part of Structure 7 which may also have been associated with this rather than with Structure 6. These were 6246 and 6289, the former of which had a circular patch of burnt brickearth approximately 0.4m in diameter set into the top of it. Several small, vertical stake-holes in the vicinity of the various postulated iron-working features were probably associated with them. Finally, a large, circular, bowl-shaped pit was dug which cut several of the earlier pits associated with iron working. Pit 5909 was approximately 2m in diameter, and 0.75m deep. The fill was a largely undifferentiated soil mixed with charcoal and iron slag, though the upper fill, 6176, which was contiguous with spread 6123 outside the pit, contained more iron slag than the lower fills, 6177 and 6178; the latter contained up to 40% brickearth inclusions and lenses. The upper fills, which postdated the probable use of this pit as an iron-working feature,

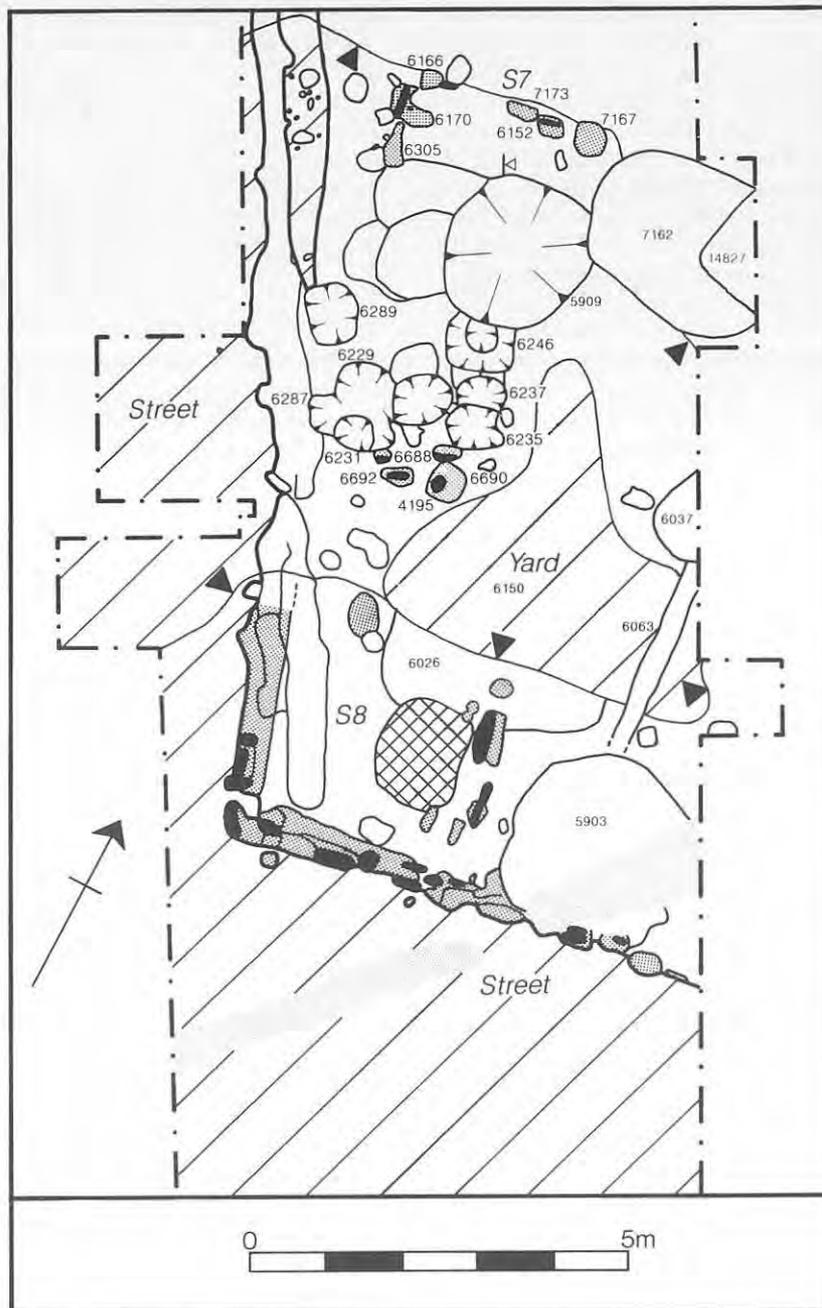


Figure 30 Structure 7 (SOU 31 T4). Structure 8 with which it may have been associated is also shown. Arrows indicate limits of charcoal and slag spread. Scale 1:100.

had two shallow graves cut into them. These contained burials 6008 and 6011 (see Fig 89).

Spreads of iron slag and charcoal associated with Structure 7 extended over the surrounding area. These comprised 6023, 6079, 6081, 6110, perhaps 15032, and 6051 in pit 6026 (see Fig 28). As with the earlier spreads associated with Structure 6, the northern limit was marked by Structures 9–13, and to the east the spreads extended onto the north–south street as far as the limit of excavation. However, to the south the spreads butted against the south wall of Structure 8 which had not been in existence during the earlier phase of iron working

associated with Structure 6. The extent to the east was unclear; Structure 10 had gone out of use, and probably been dismantled, and a discontinuous spread of slag and charcoal, 15032, extended over the area. However, 15032 may have been a later spread associated with the final phase of iron-working activity on the site rather than with Structures 7 and 8. Pit 15092 on the eastern edge of the excavations contained a discrete dump of iron slag in layer 15411 (see Fig 50). This lay just over 10m to the east of Structure 7, and may have belonged to the same phase of activity though the two could not be linked stratigraphically.

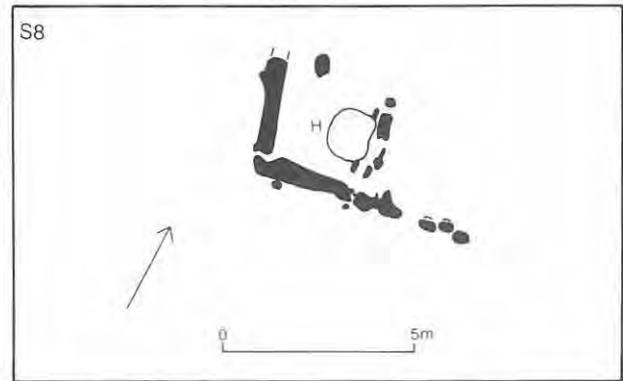
All of the spreads partly overlay a series of discontinuous gravel surfaces which were associated with Structures 7 and 8. These surfaces extended from the rear (north side) of Structure 8, and about 8m to the east of Structure 7. They comprised at least two phases of metallings; 6064, 6080, and 6150 were later, and separated from 6066 and 6082 by a layer of oyster shell, 6065, in pit 6026 (see Fig 28). Further to the east, gravel surfaces 14917 and 14953 may have been contemporary, but could have been associated with the final phase of iron working on the site after Structure 8, and possibly Structure 7, had gone out of use. A shallow gully, 6063, up to 0.15m in depth, extended at least 2.5m north from the rear (north) wall of Structure 8, cut gravel surface 6150, and was sealed by the charcoal and slag spreads. It does not appear to have been a structural feature, and may have been for drainage.

Pit 7162 was probably dug towards the end of this phase. It was a large subrectangular pit measuring 2.5m by 2m. The depth was not ascertained as only a 0.2m spit was removed from the surface. The upper fill, 6138, a sterile redeposited brickearth, overlay 6137, a homogeneous layer of dark greyish-brown soil containing considerable amounts of oyster shell and a small quantity of brickearth, burnt clay, and charcoal. Pit 7162 cut the eastern edge of pit 5909 and was stratigraphically earlier than the latest of the charcoal and iron slag spreads which postdated Structure 8, and possibly Structure 7. It was cut by pit 14827 and partly overlain by burial 6008. From the relatively small amount excavated, it was not possible to determine the function of pit 7162, though it may have been a cess/rubbish pit associated with Structure 8.

Pit 14827 was similar in dimensions to 7162; it was subrectangular in plan, and measured 2.25m by at least 2.5m (see Fig 50). It was excavated to a depth of 2m, though the bottom was not reached. The excavated layers, 15573 and 17192, were substantial deposits both in excess of 0.4m thick. Context 15573 was a very gravelly redeposited brickearth, and 17193 a similar layer which contained much less gravel. Both contained few finds, and it is quite likely that these layers were backfilled material in a well pit, though no shaft was located.

This phase of activity was followed by a final period of iron working in the area which is discussed at the end of the description of Structure 8.

Structure 8 (Fig 31)



This building lay at the junction of the north-south street and east-west street II, and was aligned parallel to the latter. It was built over the charcoal and slag spreads associated with Structure 6, and overlay the southern end of Structure 31 to the east. The second phase of Structure 7, the iron-working shed or shelter to the north, was contemporary with it.

The southern wall line was marked at the west end by a shallow, irregular trench which had been cut through the metallings along the edge of east-west street II. This trench, 6714, was up to 0.3m wide and 0.1m deep. In places it had a double-trench profile, and at irregular intervals along the bottom were several single and double plank-slots, and post-holes, between 0.14m and 0.28m in depth. Although no post-ghosts were present, these features would suggest that they held posts up to 0.25m in diameter, and planks up to 0.5m by 0.15m. To the east of trench 6714, the southern wall line was marked by a series of closely spaced post-holes, 5922, 6154, 6157, and 6158, two of which contained plank-impressions. Further to the east, the wall line continued as a shallow but regular trench, a few centimetres in depth and up to 0.35m wide. This trench contained two post-impressions. It was not clear how far it extended to the east, nor where any doorway might have been located along this side. Two small, shallow post-holes lay slightly to the south of the line of trench 6714, and cut the metallings on east-west street II. Contexts 6293 and 6716 were 0.1m and 0.2m in diameter respectively, and may have held external supports.

The line of the north wall of Structure 8 was marked by only one shallow post-hole, 6701, though it was fairly clearly delineated by the extent of the floor surfaces within the building and by the gravel surfaces outside to the north. Two small subsquare post-holes, 6703 and 7062, 0.25m square and 0.25m deep, may have belonged to this line, though stratigraphically they appear to have been slightly earlier. (They are not illustrated.)

The location of the east wall was not ascertained, but the line of the west wall was clear. A trench, 6105, had been cut into the edge of the metallings on the north-south street. Between 0.1m and 0.2m in depth, it contained several irregu-

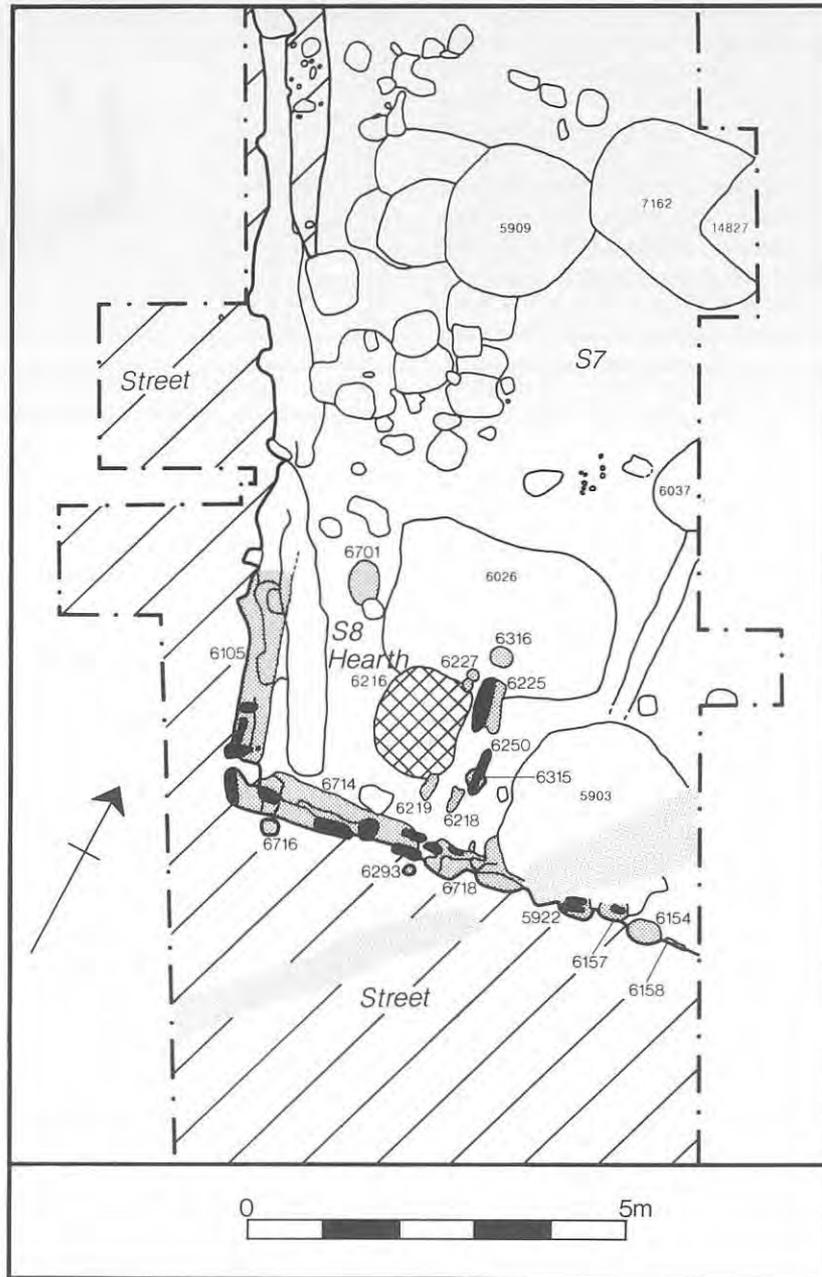


Figure 31 Structure 8 (SOU 31 T4). Scale 1:100.

larly spaced post- and plank-impressions.

Several internal features survived within Structure 8. A floor surface, 6210, extended over much of the interior of the building at the western end, but petered out towards the east except where it had subsided into an earlier pit, 15042. It was a compact layer of orange brickearth up to 0.08m in thickness, and rather uneven on the upper surface. A subrectangular area of the floor had been burnt a dark red colour to a depth of 0.05m, and is interpreted as a hearth (6216) centrally placed towards the west end of the building. There was also an area of light burning on the floor where it had been preserved in pit 15042 towards the eastern end of the building (see Fig 50).

A line of post-holes and slots approximately 3m from the western wall line of Structure 8 marked the location of a partition. This comprised features 6218, 6219, 6225, 6227, 6250, 6315, and 6316. These features appeared to cut floor 6210, but it is also possible that the floor butted to the vertical timbers in them. Hearth 6216 lay immediately to the west of this partition, and two of the smaller post-holes (6219 and 6227) may have been associated with the hearth rather than the partition. These may have held posts which could for example have been used to support cooking vessels over the fire. There was no gap between the post-holes and slots which might indicate the location of a doorway in the partition, though it is more likely

to have been at the northern end, where there may have been more space between the hearth and wall.

Pit 14913 may have been associated with Structure 8, but insufficient stratigraphy survived to demonstrate this (see Fig 50). If it were, it could have been a storage pit set in the north-eastern corner of the building. It was approximately circular, 1.4m in diameter, and 0.5m deep. The fill was a homogeneous greyish-brown soil, and contained two human metatarsals near the top. These may have come from a disturbed burial in the later graveyard discussed below, and might indicate that pit 14913 postdated Structure 8.

Structure 8 probably measured around 10m in length, though it was only 3m wide. It was likely to have been a domestic structure, and was contemporary with Structure 7, a shed or shelter associated with iron working (probably a smithy) to the north. It may have been constructed and been in use during the last quarter of the 8th century and the first quarter of the 9th.

The association of this house site with iron working continued after Structure 8 was demolished, though no structures survived from this latter phase unless Structure 7 remained standing. Spreads of charcoal, ash, and iron slag, and several features perhaps associated with iron working, postdated Structure 8, though it was difficult in some areas to distinguish the later spreads from earlier ones. A charcoal-rich soil, 4197 and 4148, spread over the site of Structure 8, and onto the northern edge of east-west street II. The spread was discontinuous in the other directions, though this may have been due partly to truncation of the deposits. To the east, gravel surfaces 14917 and 14953 and the overlying spread of charcoal and iron slag, 15032, may have belonged to this phase or to the earlier one associated with Structures 7 and 8. Several features belonged to the later phase of iron-working activity. These included a small subsquare pit, 6211, measuring approximately 0.35m square and 0.4m deep (see Fig 93). The bottom fills in this pit comprised a series of thin layers of charcoal and redeposited brickearth, similar to those found in the earlier pits, 6290 and 6299. In addition to this feature, there was a series of circular burnt patches up to 0.35m in diameter (not illustrated). A group of four, 6708, 6709, 6712, and 6713, lay close to the street junction; two further examples, 14983 and 14986, lay to the east; and 6694 lay to the north. These may have been hearths, most likely associated with iron working. The last phase of iron working might be dated to the first quarter of the 9th century, but this cannot be established with certainty.

Two features, 6657 and 6659 (not illustrated), were probably large post-holes which measured up to 0.5m in diameter and 0.35m in depth, and lay along the western edge of the site adjacent to the north-south street. They may have belonged to a building associated with the last iron-working phase, though they were most probably later. One other post-hole, 6244, postdated the iron-working

activity. Most of the later deposits had been truncated by 19th-century basements, but the few structural features that did survive indicate that there was at least one building which postdated the iron-working activity, though it is difficult to deduce any details of size or function. Post-holes 6657 and 6659 predated the burials in the area (see below), but 6244 is considered to have possibly been contemporary with them.

Three pits postdated the last iron-working phase, and could have been associated with the postulated building discussed above. These were 15027, a well; 6037, a small pit probably for domestic rubbish; and 5903, a large subsquare pit, approximately 2.5m square, which was probably a cess or rubbish pit. None of these features was fully excavated. The remains of two articulated human skeletons overlay the top of pit 6037, and pit 5903 contained the remains of several articulated individuals which had subsided into it as the contents settled. The inhumations from this area (discussed in detail below) are considered to have been buried in the later 9th or perhaps the early 10th century. If so, the earlier pits and postulated structure might be dated to as late as the second or third quarter of the 9th century, but this remains tentative in the absence of firm dating evidence for the later phases.

A discontinuous gravel surface, 6398, lay in the vicinity of pit 7162 towards the north end of the house site, and apparently postdated the burials. This, and a layer of worked-bone and -antler debris above the burials in pit 5903 provided very slight evidence for continued activity or occupation in the area following the use of the graveyard, but no structures could be assigned to this phase.

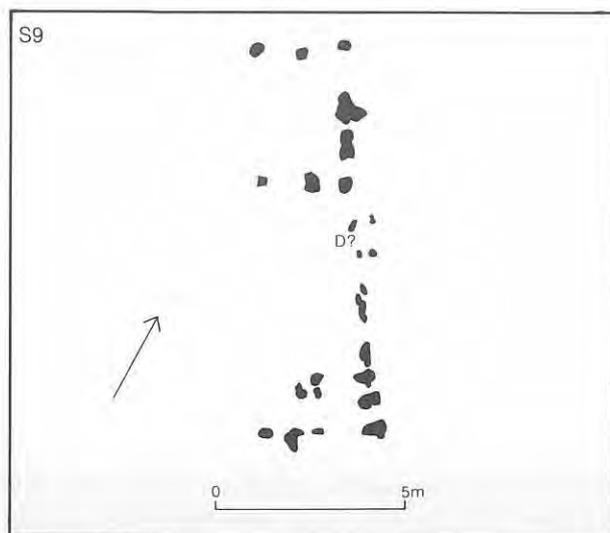
Structures 9-13 (Figs 32-6 and Pl 16)

The house site lay adjacent to the north-south street, to the north of Structures 5-8, and to the south of Structures 35-6. The limits of the site to the east are unclear, but they may have been the properties associated with Structures 14 and 15. Five buildings were recognised which belonged to an overlapping sequence of structures aligned parallel to the street frontage. There were no deposits which predated these buildings. Horizontal stratigraphy survived up to a depth of 0.2m at the southern end of the area, but decreased towards the north where the deposits had been removed down to the natural brickearth by 19th-century basements. This resulted in the structural remains and associated surfaces surviving better at the southern end, whereas towards the north only earliest and deepest features remained. Where stratified deposits did not survive, certain features have been assigned to a particular phase of building purely on the basis of their location relative to other features assigned to that phase.



Plate 16 Structures 9-13 on SOU 31 T1/T2. Photographed from the north (scale in 0.5m units).

Structure 9 (Fig 32)



This was the earliest building, and was built at the southern end of the site. Only part of the area fronting the street was exposed, but no features

marking the western wall line were found. It is probable that they had been removed by the wall trenches associated with Structure 12 which had been dug immediately adjacent to the street.

The eastern wall line was marked by a series of regularly spaced post-holes and slots. These comprised 5333, 5337, 5341, 5343, 5345, 6573, 6577, 6579, 6587, 6592, and 6594. The north-eastern and south-eastern corners were marked by post-holes 6555 and 5349 respectively. This series of features indicates the variety of arrangements of vertical timbers used in the construction of Structure 9. For example, the four features at the south end of the eastern wall line all differed from each other; 5341 was a single plank-slot with a plank-impression which measured 0.4m by 0.1m, and 0.4m deep; 5343 was a double plank-slot which contained a pair of smaller plank-impressions, each 0.2m by 0.05m, and 0.35m deep; 5345 was a double post-hole with two post-impressions, both up to 0.2m in diameter and 0.2m deep; and the corner post, 5349, was a single post-hole containing a subrectangular post-impression, 0.3m by 0.2m, and 0.45m deep. These features were closely spaced and measured from 0.5m to 0.75m between centres, though some of the others in the line were up to 1.2m apart. Midway along the eastern wall line were two small post-holes, 6592 and 6594, which were 0.75m apart and almost certainly marked the location of a doorway. Approximately 0.4m to the east of these was a further pair of small post-holes, 6596, which may have held posts supporting a porch in front of the doorway.

Two post-holes, 6539 and 7105, marked the northern wall line of Structure 9. Both were probably subrectangular, though they had been partly cut away by later post-holes, and both contained post-impressions. The west end of this wall line lay outside the excavated area, but the spacing between 6539, 7105, and the corner post-hole 6555 indicated a regular spacing of posts approximately 1.1m apart.

The southern wall line was marked by three post-holes, 5353, 5355, and 5357, of which 5355 was the largest and contained the impressions of two posts up to 0.25m in diameter. It was probably centrally placed at the south end of the building and may have held a ridge-post arrangement. Post-holes 5353 and 5357 were smaller and subrectangular, and lay approximately 0.3m either side of 5355.

Internally, Structure 9 was probably divided into two; the northern end, to the north of the doorway, being half the size (4m by 3.5m) of the southern end (4m by 7m). The line of the partition was marked by post-holes 5170 and 5180. Context 5170 was a substantial double post-hole which contained the impressions of posts or planks up to 0.25m in length and 0.2m wide. Context 5180 may have been similar, but had been partly cut away by a later pit, 4717. The size of these features suggests that the posts they held may also have supported the roof.

No floor surfaces or hearths associated with

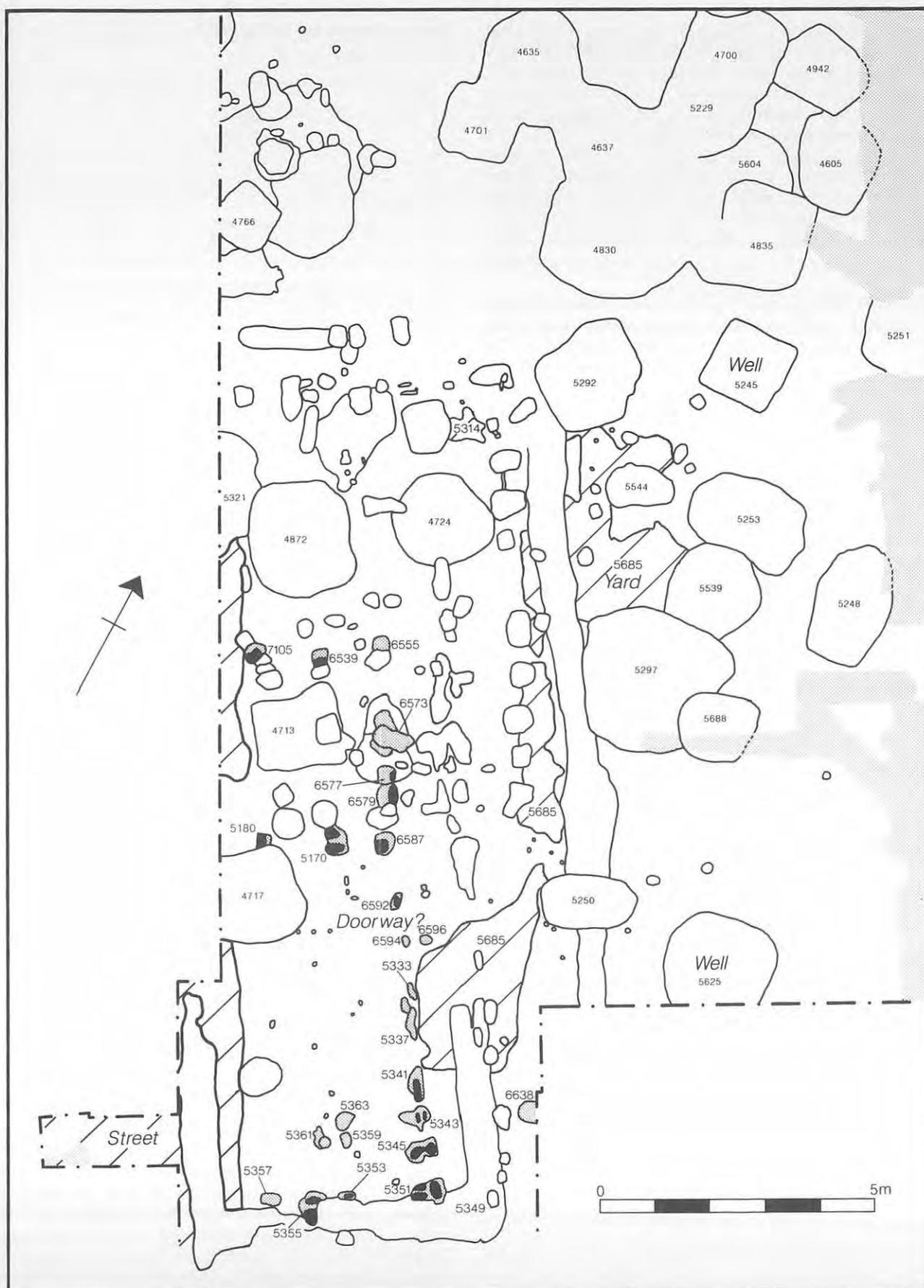


Figure 32 Structure 9 (SOU 31 T1). Scale 1:100.

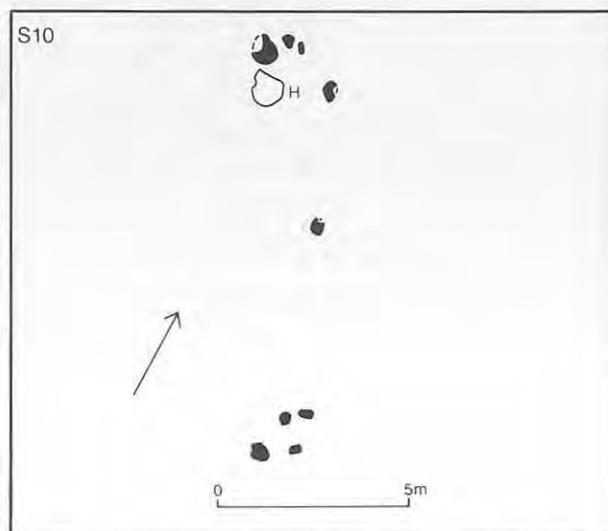
Structure 9 survived. It is perhaps most likely that the surface of the natural brickearth was used as a floor, and it is possible that one of the later pits, 4713 or 4717, had removed any evidence for a hearth. At the southern end of the building was a group of three shallow post-holes, 5359, 5361, and 5363. These suggest the presence of some form of internal structure fairly centrally placed a metre from the wall line, with each side about 0.5m long. Its function is uncertain. A thin spread of dark soil containing some charcoal surrounded the post-holes and may represent the remains of an occupation deposit at that end of the building.

Outside Structure 9 to the west was an extensive gravel yard surface, 5685, which had been partly cut away by later pits and buildings. The surviving surface extended from 2.5m south of the doorway up to 4m north of the building, and up to 6m from it to the east. The gravel had been laid directly over the natural brickearth as a single surface up to 0.1m thick.

Only one pit, 4872, could be securely assigned to this earliest phase of building, though others including one of the wells, 5245 and 5625, may have been associated with it. Neither of these wells was fully excavated, and although the pottery from the upper fills of the shafts was late-8th- and early-9th-century in date, it is possible that the wells were in use several decades earlier. Pit 4872 was a large subrectangular pit which measured 2m by 1.75m, and was 1.8m deep. The earliest fill, 4885, was a very dark greyish-brown clay loam mixed with up to 80% clay which occurred in discrete lumps. Within these lumps were large fragments of animal bone, mostly cow. It would appear that the clay was redeposited into the pit from elsewhere, and had not accumulated *in situ*. The only comparable soils were the earliest fills in the boundary ditch and the primary fills of some of the wells. It is considered most likely that the deposit in pit 4872 had come from the clearing out of a well in the vicinity, possibly 5245 or 5625. The layers above 4885 were all probably cess and domestic rubbish, and these were sealed by 4881, a layer of dark greyish-brown soil mixed with approximately 40% brickearth and a small amount of pale grey ash. The upper fills of domestic rubbish were sealed by floor surfaces associated with one or more of the later structures, 10, 11, and 12.

Structure 9 measured 10.5m by 4m and was most probably domestic. Its construction probably dates to the early 8th century.

Structure 10 (Fig 33)



About half of this building lay outside the excavated area, and only the eastern half of the ground plan was uncovered. Structure 10 was aligned parallel to the north-south street and lay to the north of Structure 9, though there was a very slight overlap between the two. This was sufficient to demonstrate that Structure 10 was later and replaced Structure 9, albeit on an almost entirely different site.

The western wall line was not exposed, but almost certainly lay immediately adjacent to the north-south street. The eastern wall line was marked by three irregularly placed post-holes of varying size, 5104, 5395, and 6522. The latter had been truncated by a later feature, and would originally have been larger than it is shown here. Only 5104 contained a post-impression; this was subrectangular and measured 0.25m by 0.2m.

The northern and southern wall lines were marked by several substantial post-holes. The northern group comprised 4988, 5002, 5081, and 7103; and the southern group 6537 and 6541. Context 5081 was particularly large though somewhat irregular, up to 0.75m in diameter, and 0.15m deep. Its location suggests that it may have held a ridge post in the north wall. A double post-hole, 6537, may have held corresponding posts at the south end of the building.

There were several internal features within Structure 10. A hearth, 5078, was centrally placed at the northern end of the building, approximately 0.5m from the north wall. It comprised a circular area of redeposited brickearth up to 0.9m in diameter which had been burnt a pale grey colour in the centre, and reddish around the periphery. A thin ashy spread, 5388, extended 3m to the south-east of hearth 5078, and may have been an occupation deposit derived from the clearing of the hearth. Both the hearth and the spread overlaid a layer of redeposited brickearth, 5387. This was a compact,

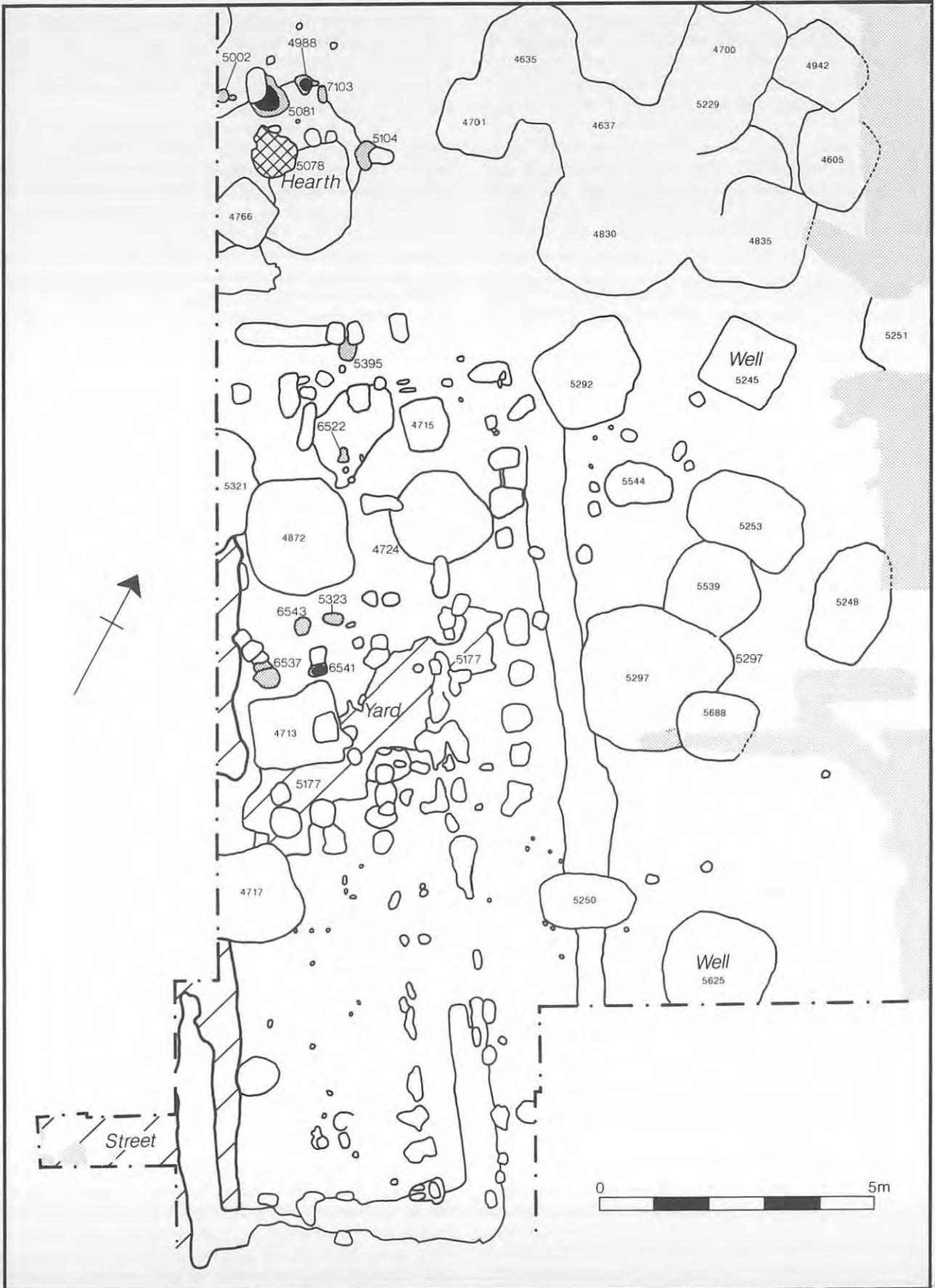


Figure 33 Structure 10 (SOU 31 T1). Scale 1:100.

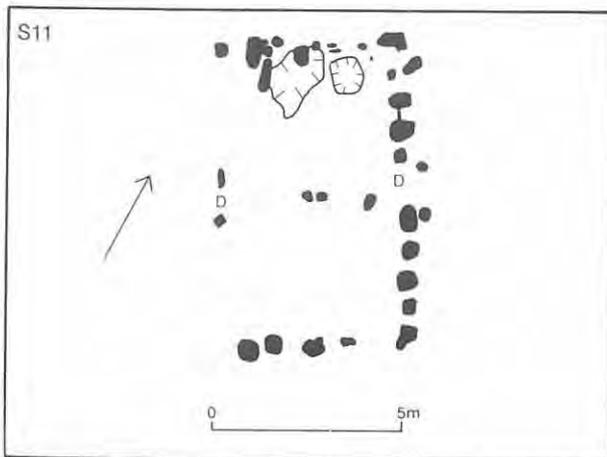
even layer up to 0.01m thick, which was laid directly over the natural brickearth and appears to have been a floor surface. It extended less than 3m from the north wall, and there is no evidence for it or a similar surface having been laid down at the southern end of the building, where the natural brickearth may have been used as a floor. It is possible that floor 5387 was contained within one room, though there is no indication that the building was divided in any way. Two shallow post-holes, 5323 and 6543, lay 0.75m from the south wall in the south-east corner of the building, and these may have been associated with some internal structure. Post-hole 5323 contained a Series E sceat (Coin 8), which may have been minted during the first decades of the 8th century.

The location of any doorways could not be established, though the remnants of a gravel yard surface, 5177, survived around the south-eastern corner of the building. This surface directly overlay natural brickearth, and there were no floor surfaces or occupation deposits beneath it which might have been associated with Structure 9.

It is difficult to ascertain which pits may have been associated with Structure 10. Pit 4713, which was not fully excavated, is a possible candidate, if it was not contemporary with Structure 11.

Structure 10 was 10.5m long and perhaps 4m wide. Like Structure 9 and the succeeding buildings on this house site it was probably a domestic structure. It can be dated broadly by reference to its place in the sequence of buildings on the site, the dating evidence from pits which may have been associated with it, and the Series E sceat from a post-hole. A date of construction during the first half of the 8th century is considered most probable.

Structure 11 (Fig 34 and Pl 17)



This was the third in the sequence of buildings on the site, and was the only one which lay entirely within the excavated area. It overlay the north end of Structure 9 and the south end of Structure 10. Post-holes belonging to it cut post-holes associated with the former and the yard surface associated

with the latter. Structure 11 was aligned parallel to the north-south street, but set back from it by about 1m. A layer of cobbles, 6526, had been laid up to the front (west side) of the building, and probably linked it with the street.

The western wall line was marked by post-hole 6524, slot 6535, and the edge of cobbled surface 6526. The two structural features contained the impression of a post and a plank respectively. The post-impression was 0.15m in diameter, and the plank-impression measured 0.05m by at least 0.05m. Contexts 6524 and 6535 were 0.75m apart and lay midway along the west side of the building. Their location suggests that they marked a doorway, and this probably lay opposite another, centrally placed in the east wall. Apart from the corner posts, there was no evidence for any other structural features along the west side.

The north-western and south-western corners were marked by post-holes 6643 and 6583. These, and the features marking the north, south, and east walls, were comparatively large and fairly regularly spaced, and contained evidence for a variety of construction techniques, though post-ghosts rarely survived. The apparent solidity and regularity of layout exhibited by Structure 11, which contrasts with most of the other structures, is discussed further below.

The northern wall line was marked by a series of features which included two medium-sized post-holes, 5307 and 5393; a small post-hole, 6502; two double post-holes, 5391 and 5397; a pair of plank slots, 5399, where the planks up to 0.3m long and 0.05m wide had apparently been driven directly into the ground; and a shallow, irregular feature, 5389, which may not have been structural. The north-eastern corner was marked by a large irregular post-hole, 6504, which contained a small post-impression.

The southern wall line was marked by only three features, not including the corner posts. These comprised a large post-hole, 6585, a smaller post-hole or slot, 5316, and a large single or double post-hole, 6545. The south-eastern corner was marked by a large irregular post-hole, 6533, which contained a subrectangular post impression measuring 0.2m by 0.15m. Both 6533 and 6504 in the north-eastern corner may have been double post-holes.

The eastern wall line was marked by the largest and most regularly spaced features which, with the exception of 5309 and 6506, all contained single or double plank-impressions. A gap of 1.15m midway along the east wall, between post-holes 6514 and 6527, probably marked the location of a doorway opposite that postulated in the west wall. Two smaller post-holes, 6472 and 6474, which lay 0.3m to the east of the wall line, probably supported a porch over the doorway. This may have been a later addition as the post-holes cut through the fill of gulley 5506 which is considered below to have been contemporary with Structure 11. Of the four post-holes to the south

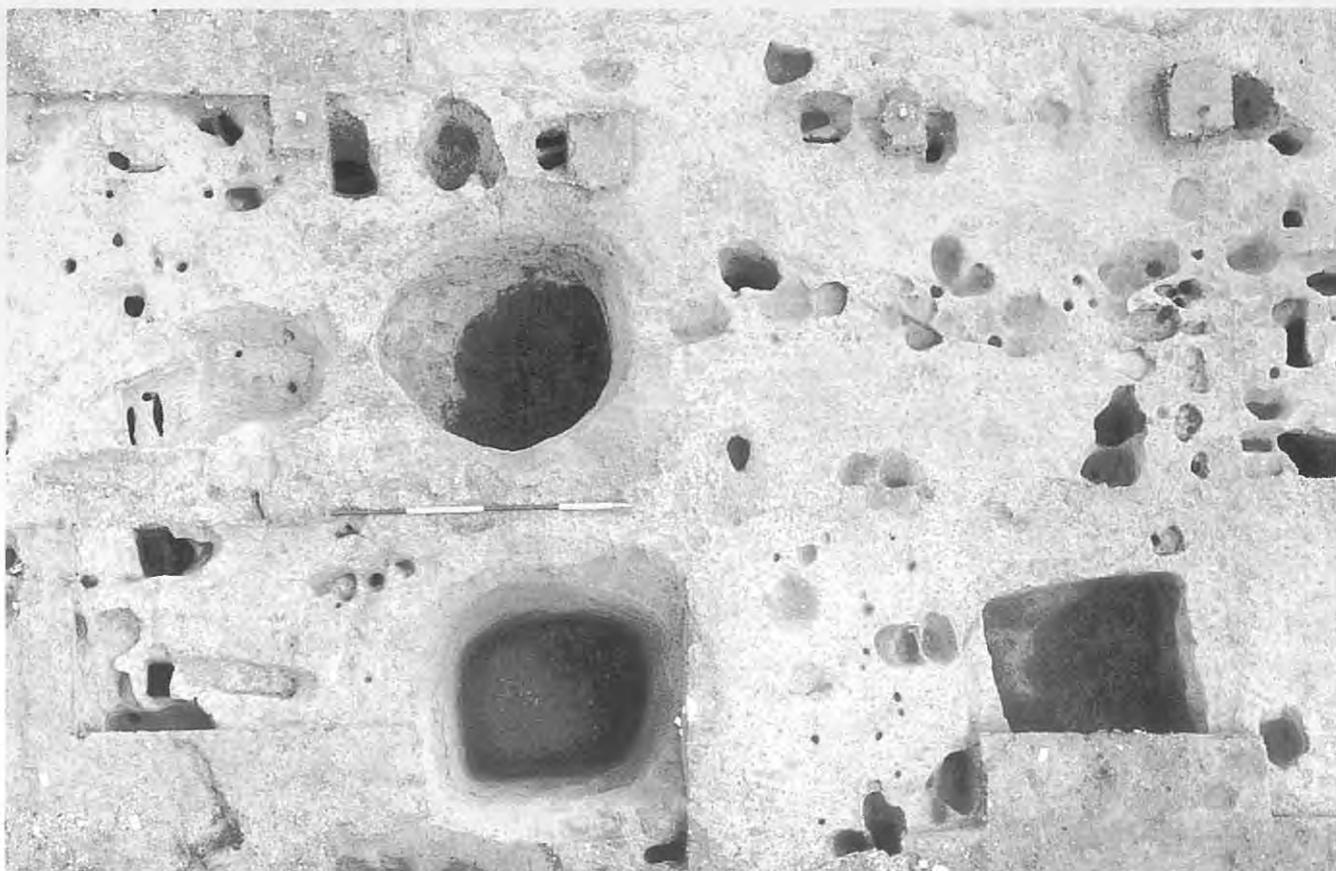


Plate 17 Structure 11 on SOU 31 T1/T2. Photographed from the west (scale in 0.5m units).

of the doorway in the east wall, 6527 and 6529 both contained a single plank-impression, and 5372 and 6531 double plank-impressions. These indicated that planks up to 0.4m by 0.12m had been used, though most were slightly smaller. They had been set in circular to subrectangular post-holes dug approximately 0.3m apart, and 0.75m between centres. The largest of these post-holes measured 0.7m by 0.45m, and was 0.5m deep; the smallest was 0.4m by 0.4m and 0.35m deep. To the north of the doorway in the east wall were four further post-holes spaced at similar intervals. Of these, 6506 was quite small but may have formed a double complex with 5309 to the east. Context 6514 contained a single plank-impression, and 6508 and 6511 double post-impressions. Although difficult to interpret, the latter indicate that posts, possibly squared and up to 0.25m in size, were used. These two post-holes, the largest of which measured 0.6m by 0.5m, were linked by a narrow slot 0.03m wide and 0.05m deep. This may have been a plank-impression (no similar features have been recorded elsewhere, however).

Within Structure 11 was a line of three small post-holes which lay across the centre. Two of these, 6547 and 6549, were adjacent to each other and located almost exactly in the middle of the building. Both contained the impressions of posts which measured up to 0.2m by 0.15m. These posts

could have acted as central supports for the roof. Between these and the east wall, and set slightly to the south, was 6551. This would have held a similarly sized post to the other two, but it is uncertain whether this formed part of the main structure of the building or was related to some internal arrangement.

A small pit, 4715, lay adjacent to the north wall, towards the north-eastern corner of the building. It was subrectangular, measured 1m by 0.75m, and was 0.5m deep. The sides sloped rather irregularly inwards and there was no evidence of any lining. The earliest fill, 4772, was a brown mineralised layer which may have been a cess deposit. It would seem unlikely that this pit was an internal cess pit, so perhaps either this layer was derived from some other use or it was deposited in the pit after Structure 11 went out of use. It was sealed by layers associated with Structure 12. Pit 4715 may have been dug as a small storage pit, though there is no evidence for this other than its shape, size, and location. Immediately to the west of pit 4715 was a shallow, irregular hollow, 5311, which appeared to have been dug against the north wall of the building. The hollow measured approximately 1.75m by 1.25m and was up to 0.2m deep. It may have been associated with slot 6520, which lay along the western edge. The slot was 0.85 by 0.25m at the

top, slightly smaller at the bottom, and was 0.35m deep. It is suggested further below that hollow 5311 and slot 6520 were perhaps associated with weaving. The slot could have held a beam on which an upright loom was built or supported, and the hollow may have been a working hollow. Such an interpretation remains tentative, although a few fragments of loomweight were recovered from the fill of the hollow.

A rectangular, vertically sided pit, 4713, in the south-western corner of Structure 11 may also have been contemporary. However, its size and its nearness to the walls perhaps suggests that it was not an internal feature. It measured 1.6m by 1.25m, and was 1.1m deep. The vertical sides suggest that it may have been lined, but there was no other evidence for this. The lower fills comprised a series of dark greyish-brown soils containing varying amounts of charcoal and ash. It is not certain whether these deposits were associated with its initial use, or represent later infilling of the pit, but they provide no evidence as to its function. If it was associated with Structure 11, pit 4713 should perhaps best be interpreted as a large, internal storage pit.

A subcircular pit, 4724, 1.8m in diameter and 1.2m deep, might also have been an internal feature. The possibility is suggested by its relationship with other features and by the dating of its infilling. It predated Structure 12, some of the post-holes of which cut its upper fills. The pottery recovered from it indicates that it was infilled during the later part of the 8th century; a date consistent with pits 4713 and 4715 which may also have been internal features, though all need not have been contemporary. If it was an internal pit within Structure 11, it lay adjacent to the east wall, and immediately north of the doorway. However, the sides and bottom were irregular, and showed no evidence of having been lined. The lower fills suggest that the pit had been used for the disposal of domestic refuse and had subsequently been sealed with a thick layer of redeposited brickearth, 4764. On balance, the nature of these fills, the size and shape of the pit, and the number of other postulated internal features make it unlikely that it too was an internal feature. Pit 4724 could have been associated with Structure 9, the earliest building in the sequence, though this interpretation is not supported by the pottery dating evidence.

A thin layer of redeposited brickearth, 6647, extended over much of the inside of Structure 11 and appears to have been an associated floor surface. It was laid directly over natural brickearth, gravel yard surface 6591 (associated with Structure 10), and the lower fills in pit 4872. Part of yard surface 6591 was probably removed when Structure 11 was constructed, and it is apparent that all of the earlier yard lying within the area of Structure 11 (5685, associated with Structure 9) was also cleared at this time. Context 5685 had been cut away within the line of the east wall of Structure

11, though it is not clear why gravel 6591 was not similarly removed. A discontinuous deposit of brown soil over floor 6646 at the southern end of Structure 11 may have been an occupation deposit, but the comparatively large amount of animal bone suggests that it could have been domestic refuse deposited after the abandonment of the building.

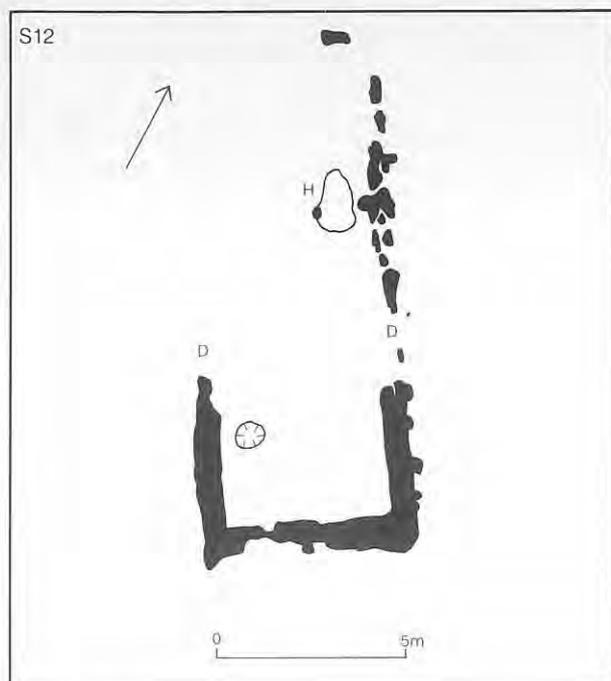
Immediately to the west of Structure 11 was a shallow gully, 5506. It was between 0.5m and 1m wide, and was 0.2m deep. It extended southwards for a distance of at least 10m from the north-eastern corner of the building to the southern limit of the excavation. This gully was not located on a subsequent excavation 2.7m to the south (SOU 258 T2), though it is possible either that it was cut by pit 14989 on that site (see Fig 50) or that it extended only as far as the pit. At the north end, gully 5506 lay within a few centimetres of the east wall of Structure 11, but it diverged slightly to the south where the gap was about 0.5m. There was no break in the gully outside the doorway in the east wall, and the fill appears to have been cut by post-holes 6472 and 6474 which probably belonged to a porch added to Structure 11. Gully 5506 sloped very slightly to the south; this and its proximity to the east wall of Structure 11 might indicate that it had been dug for drainage, perhaps to collect runoff from the roof which was channelled into pit 14989. Alternatively, but less probably, it may have been associated with some industrial activity. Whichever explanation is correct, gully 5506 was a unique feature on Six Dials where Middle Saxon gulleys and ditches, except for the boundary ditch, were conspicuous by their absence.

Structure 11 measured 7.5m by 5m, and appears from its ground plan to have been a squat, solidly constructed building. It was unusual in its dimensions, and in the size, regularity, and layout of the post-holes. Its length was comparatively short in proportion to the width; the length-width ratio was 1.5:1, whereas for other buildings at Six Dials it was around 2:1. The post-holes along all but the west wall were exceptionally large and regularly spaced, and there appear to have been opposing doorways in the east and west walls. It is possible that Structure 11 was open to the west (the side fronting the street), but the lack of structural features along this side does not necessarily indicate that this was so. Internally there appear to have been no divisions, though there was probably a pair of central roof supports. The pits which lay within the building, and the lack of a hearth, might suggest that it was not a domestic structure. However, Structure 11 was the third in a sequence of five structures, the rest of which are interpreted as domestic, and in the absence of evidence to the contrary it might also be seen as another domestic building, albeit an unusual one.

It is difficult to date Structure 11 closely. As the third in a sequence of five buildings, it was constructed and in use perhaps during the second half of the 8th century. The pottery from pits 4713 and

4715 indicates that they were infilled during the later part of the 8th century, though it is not certain whether all of them were associated with Structure 11. No dating evidence was obtained from the floor or occupation deposits.

Structure 12 (Fig 35)



This overlay Structure 9 on almost exactly the same site, adjacent and parallel to the north-south street. Structure 12 was slightly larger, but most of it lay within the excavated area and only the north end of the west wall was not exposed. The ground plan was unusual in that the southern end of the building was marked by a series of continuous trenches, and the northern end by individual post-holes and slots. It is considered below that this may have been the result of the southern end having been rebuilt on one or more occasions.

The northern wall line was marked by a single feature, 6518, which cut pit 4724. Context 6518 was an elongated post-hole or slot which contained a post-impression, and was partially filled with burnt daub. The lack of features marking the northern wall line of the building contrasts with the other wall lines, and may indicate that there was a centrally placed doorway at that end.

The northern part of the east wall line comprised a series of individual post-holes and slots, several of which contained post- or plank-impressions. The most northerly, 6516, cut the edge of pit 4724 and contained some burnt daub; this was the only feature in the line to do so. The features which made up this part of the wall line were of irregular shape and size, but there was some evidence that they were regularly spaced, with their centres lying approximately 0.75m apart. It is possible that two

phases of building were represented by these features, but it has not been possible to distinguish these either stratigraphically or from their alignments. A gap of 1m between post-hole complex 5315 and 5317 was probably a doorway, and it is likely that there was an opposing doorway in the west wall. A line of post-holes, 6622, 6628, 6632, 6634, and 6636, extended to the south of the doorway. These were cut by later wall trenches, but it is probable that the post-holes marked the original line of the east wall of the building.

No corresponding post-holes were found on the west side of the building, and it is possible that all evidence for them had been removed by later wall trenches. The wall trenches which cut the post-holes at the southern end of the east wall had been dug immediately to the inside (west) of them, and were collectively numbered 5318. They formed a continuous arrangement of wall trenches and associated features at the southern end of the building which are considered individually below as contexts 5318, 5330, and 5371.

Context 5318 appears to have comprised two parallel, intercutting trenches. It was unclear whether these were contemporary, or whether one replaced the other. Both were up to 0.5m wide and 0.4m deep, but varied in their width, depth, and profile. Several plank-impressions were noted, and some traces of associated ghosts were visible in the fill. These indicated that planks in the order of 0.4m by 0.15m had been used.

The southern end of the west wall, 5330, comprised two, or possibly three, wall trenches. One of the trenches may have marked the western wall line of the earlier building, Structure 9. However, it was not possible to detect any difference in the fill of 5330 which might indicate in what sequence, if any, the individual trenches were dug. No clear evidence for post- or plank-impressions and -ghosts was found, though it is perhaps most likely that the trenches were dug to hold earth-fast posts or planks. It seems probable that the wall trenches did not extend along the entire western side of the building, but were dug only at the southern end. Their extent to the north probably corresponded to those on the east side, and thus are likely to have marked the location of a doorway in the west wall opposite that in the east side.

The southern end of Structure 12 was also marked by a series of wall trenches, 5371, though towards the west they were quite shallow and not clearly defined. To judge from the layout and fill, 5371 was dug at the same time as wall trenches as 5318 and 5330 – as part of the same arrangement. As was the case with 5318 and 5330, it was not possible to determine whether the two or more trenches which comprised 5371 were contemporary or whether they represented more than one phase of building. There were several post- and plank-impressions in the bottom of 5371 which may have been associated with it, though at least some of these could have belonged to an earlier phase of

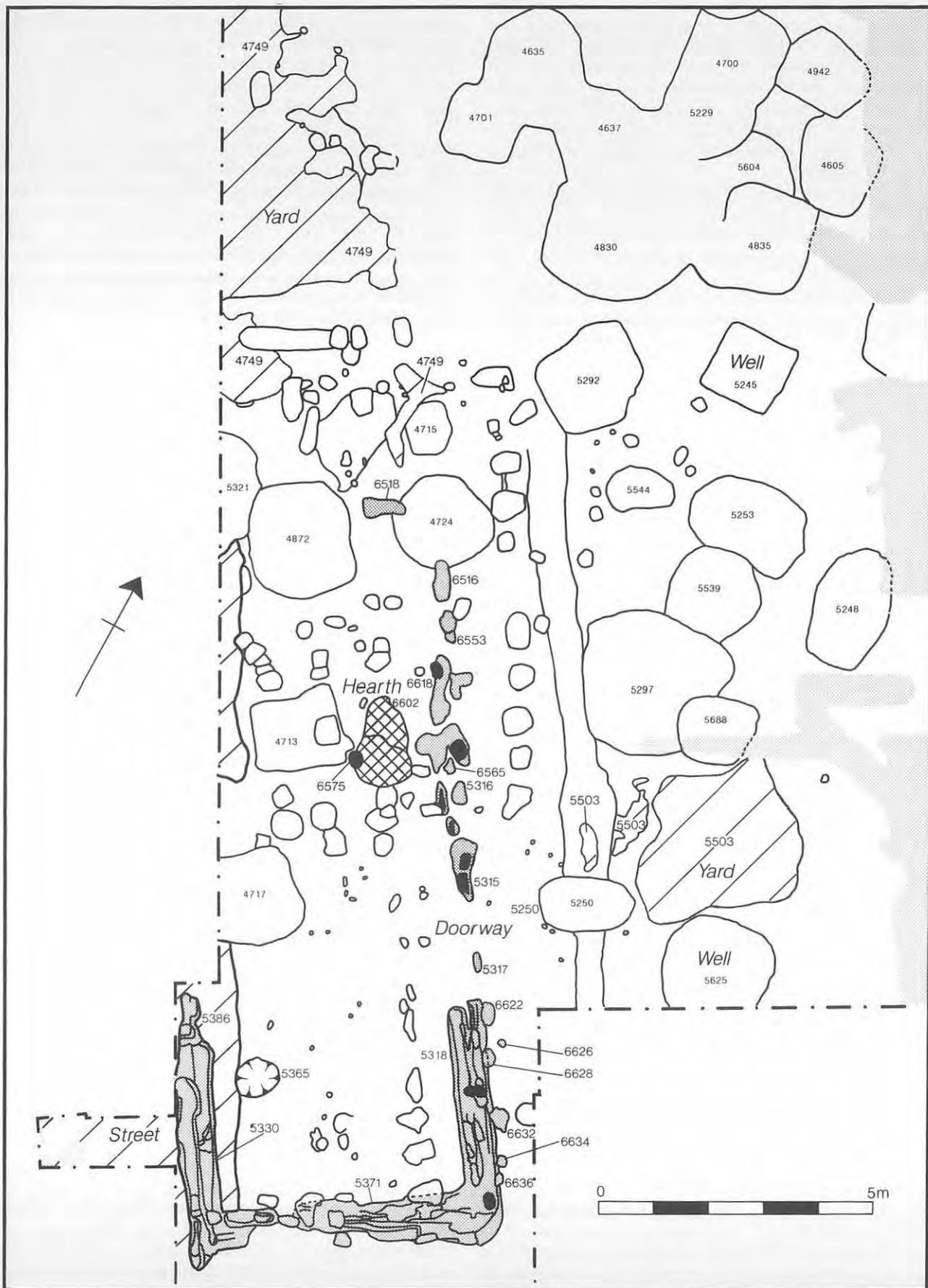


Figure 35 Structure 12 (SOU 31 T1). Scale 1:100.

Structure 12. A series of post-holes predated the wall trenches along the east side of the building, and these along with the possible examples in the southern wall may have belonged to an early post-built phase of Structure 12. This would have predated the wall trenches at the southern end, which themselves may represent two or more subsequent phases of building.

Within Structure 12 was a pear-shaped hearth, 6602, which was set in the northern part of the building, 4m from the north wall and adjacent to the east wall. It comprised a layer of burnt clay over a layer of flints. A small post-hole, 6575, on the west side of the hearth may have been associated with it, as may a shallow rectangular post-hole, 4736. The latter could also have held a roof support. Towards the south-west corner of the building was a shallow, oval pit, 5365, which measured 0.8m by 0.7m, and was 0.2m deep. It is most likely that this feature was a storage pit.

At the southern end of Structure 12 was a thin layer of brickearth, 4979, which appears to have been a floor surface. It was cut by a large number of stake-holes which might have been related to later activity on the site. At the northern end of the building was 6646, a layer of brickearth up to 0.17m thick, which sealed yard surface 6391 (associated with Structure 9). It is possible that 6646 was a floor surface which belonged to Structure 11, as its southern limit corresponded quite closely to the southern wall line of that building. If so, it remained in use in Structure 12. Hearth 6602 had been set into it, and it was sealed by a thin spread of charcoal-rich soil, 6645, which was probably an occupation layer at the northern end of Structure 12.

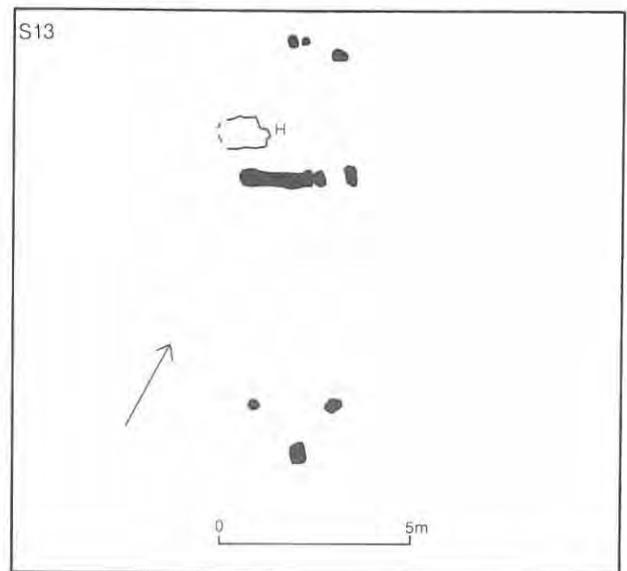
Outside Structure 12 were the remnants of one or more associated yard surfaces, 4749 and 5503. Several patches of gravel metalling, 5503, lay outside the building to the east of the doorway, but the most extensive spreads were to the north and north-east of the building. The latter spreads were collectively numbered 4749, and included layers of gravel which had subsided into several pits clustered together to the north-east of the building. This indicates that yard surface 4749 was originally more extensive than its surviving traces, though it is unlikely that 4749 and 5503 ever formed part of a single continuous surface.

Several pits are likely to have been dug while Structure 12 was in use. Pit 5250 cut gully 5506, associated with Structure 11, and was almost certainly associated with Structure 12. It was a narrow subrectangular pit immediately to the east of the doorway in the east side of the building. It measured 1.75m by 1m, and was 1.5m deep. The sides of the pit were stained pale green perhaps indicating that it had been used for the disposal of cess, though none of the fills appeared to contain any cess. A concentration of bone and antler offcuts in layer 5259 towards the top of the pit probably belongs to a later phase of activity and discussed

further below (p 84). Several other pits are likely to have been partially open during the period that Structure 12 was in use, and these are discussed further below. Their alignments (eg pits 5253, 5297, and 5539, and well 5245, all to the east of Structure 12) suggest that originally at least they were associated with buildings or properties along the east-west street rather than the north-south street.

In summary, Structure 12 appears to have been a domestic building measuring approximately 13m long by 5m wide. Opposed doorways lay along either side, and there is evidence that the south end had been rebuilt on at least one occasion. It was probably constructed at some point around the beginning of the 9th century.

Structure 13 (Fig 36)



This was the fifth and final structure identified on the house site. Although a complete ground plan was not obtained it would appear to have occupied much the same area as Structure 10.

The northern wall line was marked by several irregularly shaped and spaced, shallow post-holes, 4986, 5079, 5106, and 5163; with the largest, 4986, probably holding a corner post. These cut the hearth and associated floor surfaces belonging to Structure 10. Only two shallow post-holes, 6557 and 6598, marked the southern wall line, of which the former probably held a corner post. The west side probably lay outside the excavated area, as did the west side of Structure 10. Apart from the corner post-holes only one feature, post-hole 4982, lay along the east side. It contained a post- or plank-impression which lay at an angle to the wall line, and was in line with an internal partition marked by two more substantial post-holes, 4980 and 4982 (each containing a post-impression), and a shallow wide slot or gully, 4897. This did not extend across the building, and a gap towards the west side may have marked the location of an internal doorway.

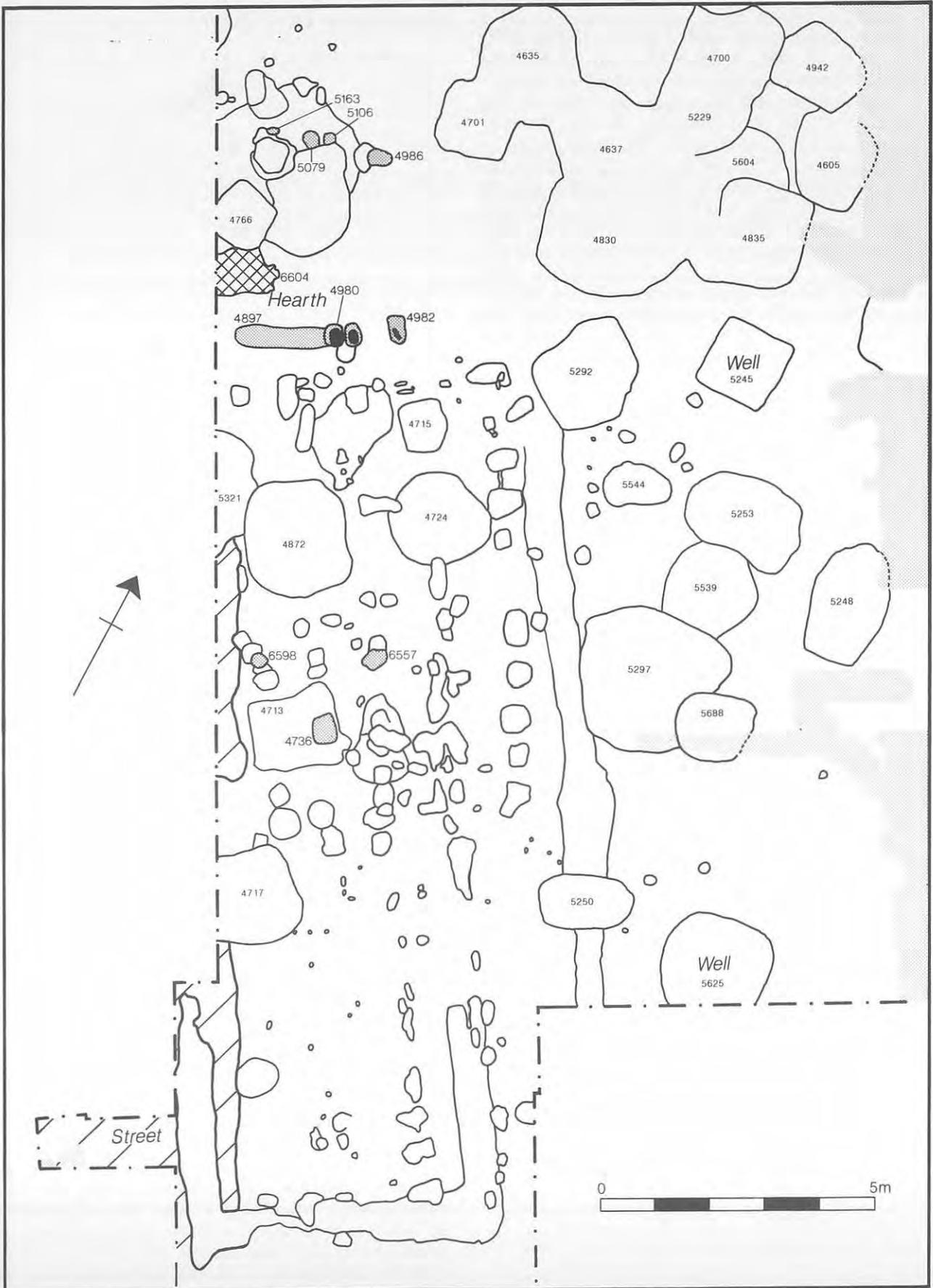


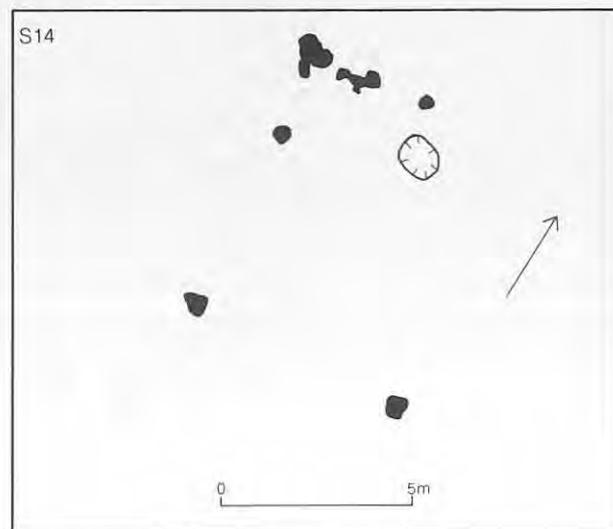
Figure 36 Structure 13 (SOU 31 T1). Scale 1:100.

The partition would have separated the building into two unequal areas, with a hearth, 6604, fairly centrally placed towards the north end, close to the partition. No traces of any floor surfaces survived.

It was not possible to assign any pits to this phase of structure with certainty, though pit 4717 to the south is a candidate. This subsquare or subrectangular pit, which lay partly outside the limit of excavation and was not bottomed, was at least 2.1m deep. The sides were well preserved, perhaps because it had been lined. Greenish staining of the sides suggests that it had been a cess pit. The upper fills, 4718 and 4719, contained a large quantity of bone- and antler-working debris, though this may not have been contemporary with the occupation and use of Structure 13; at least one other pit, 4766, which cut the hearth, indicated later activity on the site. It is also probable that at least some of the pits in the group to the east and north-east may have been still open if not actually dug when Structure 13 was standing. Pottery dating suggests that pits 4605, 4635, 4830, and 4835 to the north-east and 5248, 5250, 5292 and 5297 to the east all contained later (up to mid-9th-century and later) material, at least in their upper fills. The upper fills in the latter group were also notable for the quantities of worked-bone and -antler debris they contained, comparable with that in pit 4717 to the south of Structure 12. Further pits, notably 5236, 5238, 5240, and 5414, lay 10m or so to the east of Structure 13 (see Fig 37), and also contained late material along with quantities of worked-bone and -antler debris which perhaps was derived from the same source.

In summary, Structure 13 was 10m long and at least 4m wide. The virtual absence of any structural evidence for the west wall is noteworthy, though post-holes marking the north and south walls and a partition did survive. It is likely that Structure 13 was a domestic building, though perhaps also associated with the working of bone and antler, probably around the middle of the 9th century. If the bone- and antler-working debris in the fills of several nearby pits can be associated with this building (that is, if it did not derive from elsewhere, perhaps Structure 15 to the north, or from more than one source) its distribution would help in defining the extent of the property associated with Structure 13. This would then appear to have lain largely to the east, perhaps reflecting continued occupation along the north-south street frontage. Indeed, there may have been an eastward expansion of the property to include the area previously occupied by Structure 14.

Structure 14 (Fig 37)



This lay approximately 10m to the east of Structures 9-13, approximately midway between east-west street I and east-west street II, and partly outside the limits of excavation. Because of this and the digging of later pits, only a partial ground plan was recovered which did not allow the dimensions of the building to be ascertained.

Structure 14 was aligned to the east-west street, but it was unclear whether it lay parallel to it or at 90°; on the available evidence the latter is more probable. Post-hole complex 5430 probably marked the north-west corner of the building, with one line comprising 5686 and 6481 marking the north wall, and another comprising 5424 and 5441 marking the west wall. These were irregular in plan, and only the former group contained evidence for post- or plank-impressions. The two post-holes marking the west wall were more substantial and perhaps part of a regularly spaced line, 2.5m apart (5424 and 5430 were 2.5m apart, 5424 and 5441 5m apart). There is also some evidence for pairs of post-holes in opposing walls with 5420 and 5441 lying approximately 6m apart, though it is not certain that the former belonged to Structure 14. Two further post-holes, 5439 and 5660, have been assigned to Structure 14, but may be unrelated. Context 5439 continued the line of the north wall to the west and contained two plank-impressions; and 5660, a large post-hole with a single plank-impression continued the postulated line of the east wall to the north.

No floor surfaces survived. Pit 5422 may have been associated with Structure 14. It was a shallow, sub-oval feature which lay close to the north wall and may have been an internal storage pit. There were several stake-holes around the edge and the fill was a homogeneous dark greyish-brown soil which contained a few sherds of early wares. This, and the fact that the area was cut through by later pits, suggest that Structure 14 was in use during the first half of the 8th century.

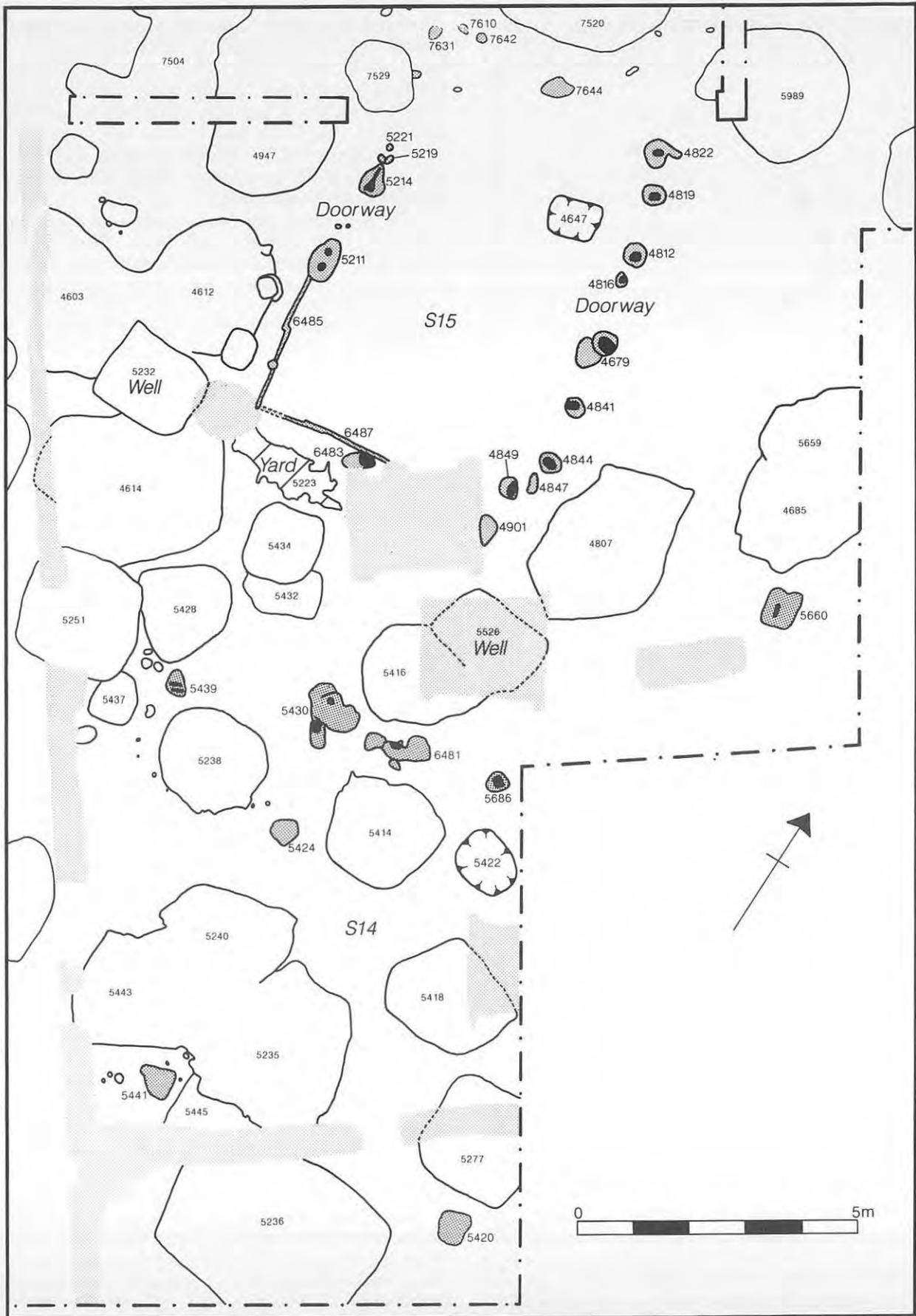


Figure 37 Structures 14 and 15 (SOU 31 T2). Scale 1:100.

Structure 15 (Fig 37 and Pl 18)



This lay approximately 15m to the south of east-west street I, from which it took its alignment and to which it lay gable-end on, and 17m east of the north-south street. It was surrounded by pits and other buildings; Structures 16 and 37 lay to the north, Structure 14 to the south, and Structure 33 to the west, though it is improbable that all of these were contemporary. Virtually the entire ground plan of Structure 15 survived, cut by perhaps only a single pit at the north end, and the possibility that it was a long-lived building is discussed further below.

It was slightly bow-sided, approximately 7.5m long, 5.5m across at the centre narrowing to 5m at either end. The east wall was marked by a series of irregularly spaced, circular post-holes between 0.2m and 0.8m apart, all but one of which contained post-impressions. These indicated that they had held single, subsquare posts, the largest 0.3m by 0.2m, the smallest 0.08m square. A gap of approximately 1m between 4679 and 4816 may have been a doorway midway along that side.

The west wall was of quite different construction, marked by probable plank-impressions as well as two post-holes, 5211 and 5214, approximately 1m apart, which marked an opposing doorway to that in the east wall. Context 5211 contained two small post-impressions each approximately 0.12m in diameter, and 5214 a T-shaped impression. The probable plank-impressions continued around the south end of the building, but had been cut away by modern disturbance towards the south-east corner where post-hole 4901 may have held a corner post. No corresponding post-hole was present in the south-west corner.

The plank-impressions in the two walls were at most 20mm deep; even allowing for some truncation of deposits, they had originally been very shallow. They comprised two sets of two slightly overlapping slots. Those on the west side, 6485, were 1.1m and 1.6m in length; the latter with a small post-hole midway along its length. Those on the south side, 6487, measured 1.25m and at least 1.6m.

Post-holes 4628 and 4903, which lay approximately 0.5m to the west of 6485 and cut pit 4612, may have been associated with Structure 15, perhaps added later, though their distance from the wall line makes it unlikely that they supported the roof. It is suggested below that they were in fact part of Structure 33. Post-hole 6483 which lay to the south of 6487, midway along the south wall, may have been associated.

The north wall line was marked by three irregularly shaped and spaced post-holes, 7610, 7642, and 7644, which contained no post-impressions or -ghosts.

A small rectangular pit, 4647, lay just to the north of the doorway on the east side (see Fig 78). Perhaps a storage pit, it measured 0.95m by 0.7m and was up to 0.6m deep. Two stake-holes around the edge at the bottom and several shallow grooves around the sides provide some evidence of its having been wattle-lined. It was filled with a homogeneous dark greyish-brown soil containing pottery of probable mid-8th- to mid-9th-century date. No floor surface or hearth survived within the building. A small area of a possibly contemporary gravel yard surface, 5223, lay immediately to the south, over natural brickearth. Part of the same surface had subsided into pit 4614 where it was sealed by deposits of 9th-century date.

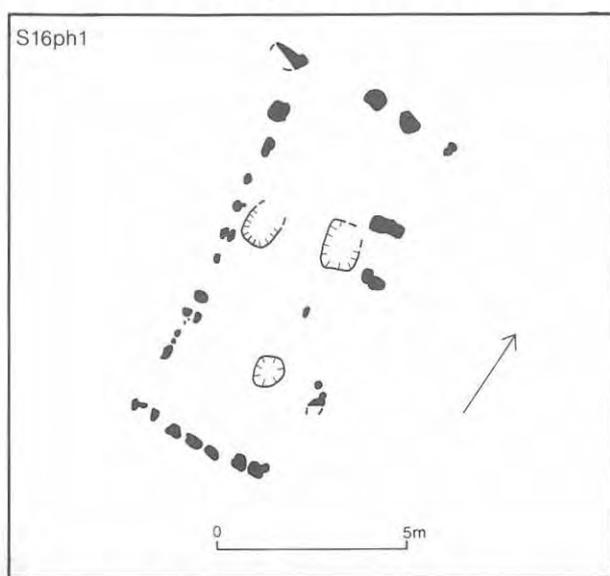
The dating and function of Structure 15 is uncertain, though the virtual absence of pits cut by it or cutting it suggests that it may have been a fairly long-lived building that was constructed probably during the first half of the 8th century. There is no evidence for more than a single phase of construction. Given the absence of later pits within the area of the building, it is surprising that no hearth has survived, and perhaps it was not a domestic structure. The presence of large quantities of bone- and antler-working debris in the upper fills of several surrounding pits to the south and south-west has already been noted (see Structure 13), and it is possible that at least some of this may derive from activities connected with Structure 15. These pits contained pottery which indicates that they were dug and infilled over a long period of time, from the earlier 8th century until perhaps as late as the beginning of the 10th century. The crescent-shaped concentration of some of the pits around the south end of Structure 15 suggests that it was standing when they were dug. The earliest was 5428, a shallow, subtriangular feature possibly dug to extract brickearth for making daub. Other pits included 5432 and 5434, both early and of uncertain function, and later, larger pits including 4612, 4614, and 4947 which may have been used initially for cess disposal and subsequently as rubbish pits.

Bow-sided buildings or structures with curved walls are rare in Hamwic, and there are only two other examples at Six Dials (Structures 1 and 25); these had continuous wall trenches with associated post-holes.

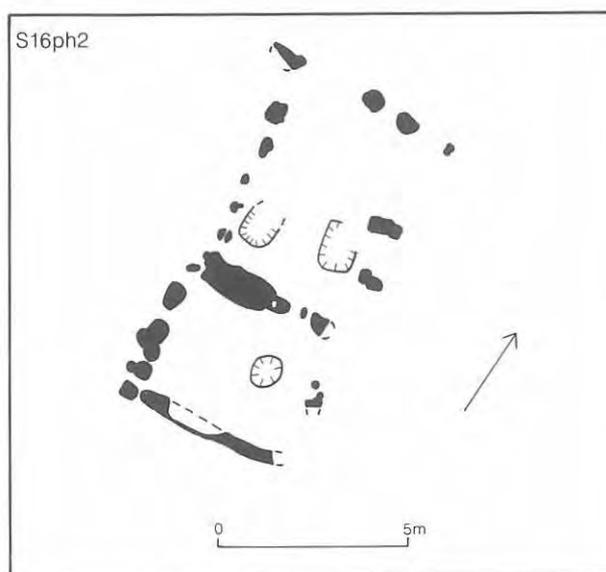


Plate 18 Structure 15 to the bottom right of the photograph on SOU 31 T2. Structures 9–13 lay towards the top of the photograph. Photographed from the east (no scale).

Structure 16 (Figs 38–9 and Pl 19)



This lay immediately to the south of east–west street I and was aligned gable-end on to it. There is some evidence for the southern half having been reconstructed. Structure 17 lay to the east and Structure 37 to the west, separated from Structure 16 by narrow alleys or pathways which



led from the street and allowed access to the rear of the buildings.

The northern wall line fronting the street was marked by two post-holes, 5491 and 5493, the former centrally placed with 5493 1m to the east. Impressions in the bottoms of these indicate that they held single planks up to 0.35m long and 0.15m

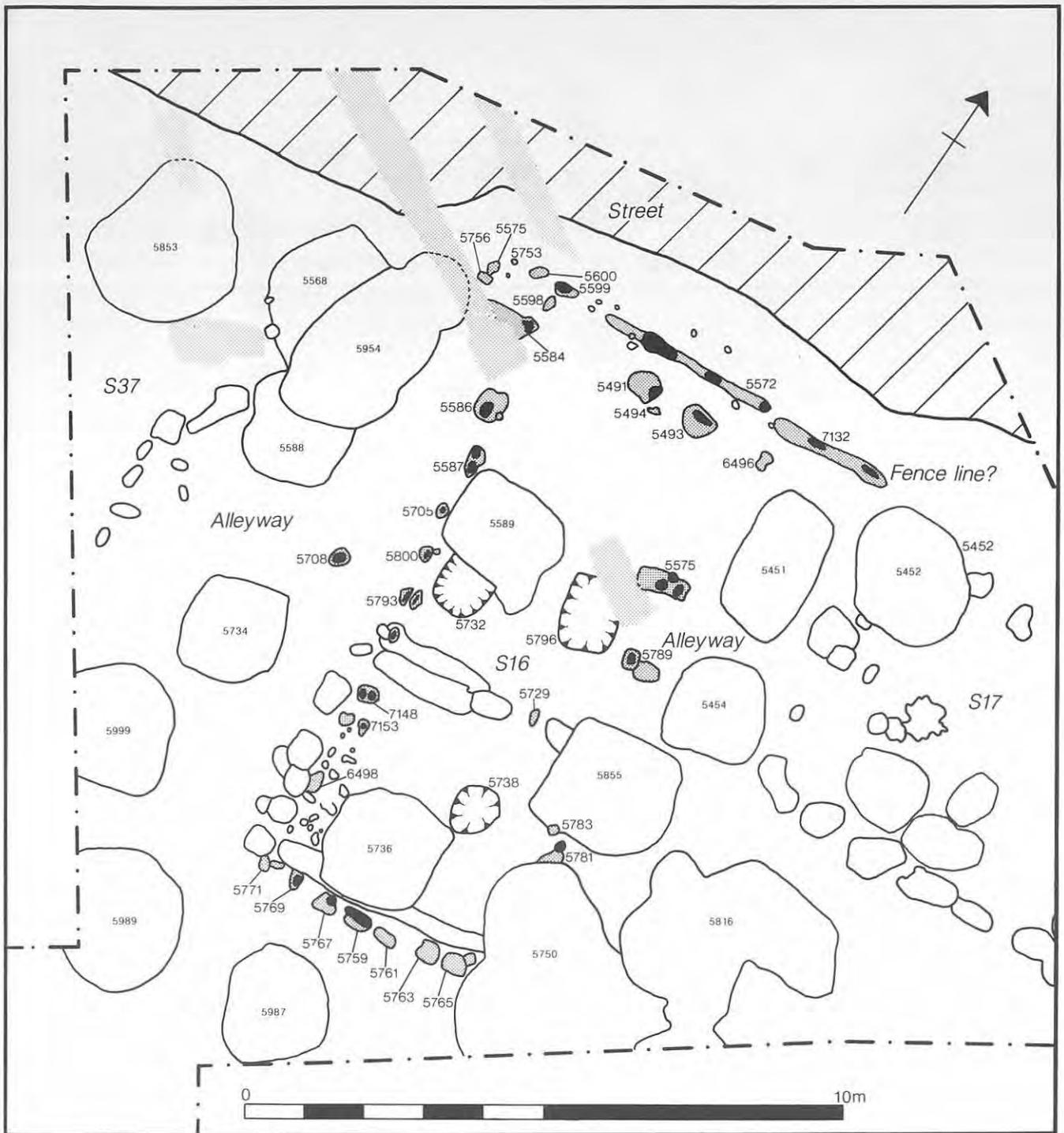


Figure 38 Structure 16, phase 1 (SOU 31 T3). Scale 1:100.

wide. Approximately 0.75m to the north was 5572, a shallow gully 3m long, containing several small stake- or post-holes in the bottom. This line was continued to the east by a further gully, 7132, and to the west by several stake- or post-holes, both groups of features extending beyond the corners of the building and in the case of 7132 apparently blocking the alleyway on that side. It is probable that this complex of features marked a fence line, perhaps later than Structure 16 and associated

with Structure 17 to the east.

The western wall line was marked by a line of perhaps a dozen irregularly shaped single and double post-holes between 0.4m and 0.55m apart. One of the larger of these, 5584, marked the north-west corner, but 5771 in the south-west corner was small. Several contained post-impressions or ghosts indicating that they had held a variety of posts and planks, the posts between 0.1m and 0.3m in diameter, the planks up to 0.2m by 0.05m.



Figure 39 Structure 16, phase 2 (SOU 31 T3). Scale 1:100.

The eastern wall line had been partly cut away by later pits, and there was no indication from the remaining post-holes that they had been dug in opposing pairs. Contexts 5575 and 5789, the only post-holes towards the north end, both appeared to represent more than one phase of structure though their fills were undifferentiated.

The southern wall line was marked by a series of post-holes of varying shape and dimensions between 0.1m and 0.35m apart. The largest

measured 0.4m by 0.35m, the smallest 0.25m by 0.12m. They were up to 0.2m deep, and although no post-ghosts survived, post- or plank-impressions were present in 5759, 5767, and 5769.

It would appear that at least the southern end of Structure 16 was later rebuilt using a combination of post-hole and continuous-trench construction. A new line of post-holes 1m apart was dug between 0.4m and 0.5m to the outside of the southern end of the west wall. It comprised several substantial



Plate 19 Structure 16 (to the left) and Structure 17 (to the right) on SOU 31 T3. East-west street I lies diagonally across the top right of the photograph. Photographed from the south-east (scale in 0.5m units).

subsquare or subrectangular post-holes, 5773, 5775, 5777, and 5779, the largest 0.7m by 0.5m, the smallest 0.45m square. Two of these, 5775 and 5777, comprised two and three intercutting post-holes respectively, perhaps representing a further rebuilding of the wall. Most of the eastern wall line had been cut away by later pits 5750 and 5855, and it was not possible to determine to what extent this had been rebuilt. The post-holes of the south wall were replaced by a shallow gully, 5757, just inside the earlier line. This was at least 4m long, between 0.3m and 0.45m wide, and 0.15m deep. The bottom was fairly flat, with only a single plank-impression at the west end and no post-ghosts visible within the fill. The location of doorways was not established, but the north or east walls were more likely given the close spacing of post-holes elsewhere.

Internally, Structure 16 was divided into two unequal areas by a partition which comprised a pair of parallel shallow gulleys, 5785, and post-holes 5729 and 5787, all of which belonged to the postulated phase of rebuilding though perhaps replacing an earlier partition. The gulleys were 2m long, 0.4m wide and 0.2m deep, but there was no differentiation between their fills, and no post- or plank-impressions were present. A closely similar arrangement of linear features was excavated on SOU 20 (Holdsworth 1980, 35, and fig 8,1) though

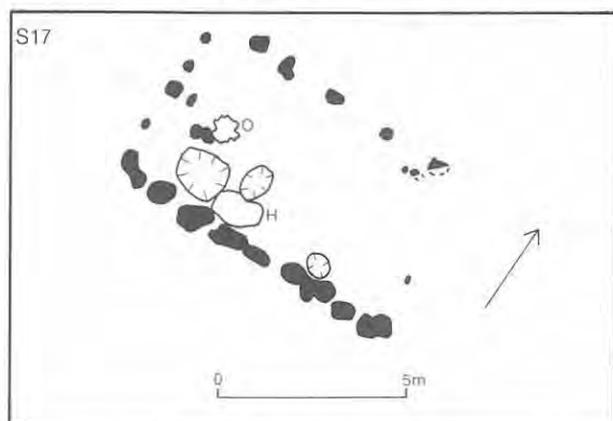
their structural function was not determined, and a single gully interpreted as marking a partition was present in Structure 13 on Six Dials. The gap between post-holes 5727 and 5787 was probably an internal doorway.

No hearth or floor surfaces survived within the building, though there were several pits which may have been internal features, perhaps storage pits. However, their functions remain uncertain. Context 5738 was a semicircular pit, 0.95m by 0.75m, and 0.1m deep, which lay towards the south of the building, and 5732 and 5796 were pits to the north. Context 5796 was subrectangular, 1.25m by 1m, and 0.12m deep, with several irregularly spaced stake-holes in the bottom. Context 5732, cut by pit 5589, was slightly smaller, subrectangular and 0.8m deep.

Structure 16 was originally 10m long by 4m wide. The postulated rebuilding of the south end would have reduced the length to 9.5m and increased the width to 4.5m. The location of the building, gable-end on to the street, between Structures 17 and 37, might suggest that it was a later insertion, though none of the pits in the area covered by the building predated it. Three pits, 5736, 5750 and 5855 were certainly later, containing pottery of mid-8th- to mid-9th-century date, and pit 5589 may have been even later. This would suggest that Structure 16 was constructed in the earlier part of the 8th century. Pit

5452, close to the north-east corner, was the only pit in the vicinity dated to this period and perhaps associated with Structure 16; it certainly predated Structure 17 which was built over the top of it. It is likely however, that Structure 16 was still standing when the latter was built: pit 5451, notably elongated in plan, appears to have been squeezed into the 3m gap between the two buildings, thereby blocking the alleyway. It was perhaps contemporary with fence 7132. Pit 5451 may have been dug initially for cess disposal, but was subsequently infilled with domestic refuse, the latest fill probably dating to the late 9th century. The pits to the west of Structure 16, in the alleyway between that and Structure 37, may have been associated with either of these buildings. These pits were also fairly substantial, probably dug for cess or rubbish disposal, and infilled during the 9th century. The alleyway, approximately 5m across, was sufficiently wide enough not to be blocked like the one to the east, and gravel layers which had subsided into pits 5588 and 5734 suggest that it had been metalled subsequently on at least one occasion, and continued in use.

Structure 17 (Fig 40 and Pl 19)



This was aligned parallel to east-west street I and set back about 2m from the edge of the metalled surfaces. Structure 16 lay to the west and Structure 18 to the east, both probably contemporary with Structure 17, though Structure 16 may have been built earlier and gone out of use earlier.

The entire ground plan of Structure 17 survived, and was unusual in that the south wall, away from the street frontage, appears to have been more solidly constructed than that adjacent to the frontage. It comprised a series of closely spaced post-holes containing a variety of single or double plank- and post-impressions, though no ghosts were visible in the fills. The post-holes were generally large and irregularly shaped, up to 1m across, and 0.2m deep. They held planks or posts set approximately 0.6m apart. The plank-impressions indicated that planks between 0.3m and 0.5m by 0.05m had been used. Where double plank-impressions survived (5465, 5469, 5476, and

5478), these were 0.15m apart with one or more stake-holes between. The location of doorways in this or any other wall was not apparent.

There were five post-holes on the north side, 1585, 1587, 5488, 5489 and 5578, approximately 1.5m apart and less substantial than those along the south side. Only 5578 had slight traces of a plank-impression, and the others post-impressions 0.15m in diameter.

The west wall was marked by several post-holes 0.4m to 0.8m apart, but none contained post-impressions. Context 5464 lay at the south-west corner, but there was an absence of structural features in the north-west corner unless 7160, which had sunk into an earlier pit, 5452, held a corner post. Context 5495, which was subrectangular and slightly larger than the others, lay midway along this side and may have held a ridge post. A small post-hole to the east, 5563, may have been associated with this.

The east wall was marked by a single, small post-hole, 5497, with 5968 probably holding a post in the south-east corner.

There was no evidence for any partition. No floor levels survived except in pit 5452 where there was a small spread of clay, 5810, burnt reddish on its upper surface. There were several internal features including a hearth, a possible oven, and three small pits. Hearth 5455 lay adjacent to the south wall, west of centre. It comprised an oval clay spread, burnt reddish, set on a flint-cobble base. Less than 1.5m away, centrally placed towards the west end of the building, was an irregular patch of burnt clay, 5557. This may have been the remains of another hearth, but there was no flint base and it appeared to have been part of a lining, perhaps from an oven. The three pits, 5461, 5533, and 5558, all lay close to the south wall, with 5461 and 5558 adjacent to hearth 5455. Contexts 5461 and 5553 were oval, bowl-shaped pits up to 0.9m by 0.7m and 0.3m deep. Context 5558 was larger, subrectangular, and flat-bottomed with two stake-holes towards the centre. Their function is uncertain, though storage is most likely. Their location makes it likely that they were associated with Structure 17. They contained pottery assigned broadly to the mid 8th to mid 9th century, a date consistent with the probable use of Structure 17 as suggested by the pottery from pit 5452.

The absence of later pits cutting Structure 17 suggests that it was a fairly long-lived structure, built shortly after pit 5452 in the north-west corner had been infilled. Pits 5451 and 5454 in the alleyway to the west appear to have respected it, as does pit complex 5816 to the south. There was only early material in 5454, but both 5451 and 5816 contained late pottery in their upper fills. It seems probable that Structure 16 to the west went out of use and the area was cleared while Structure 17 was still in use; possibly this area or property was taken over and used for pit digging and rubbish disposal so



Figure 40 Structure 17 (SOU 31 T3). Scale 1:100.

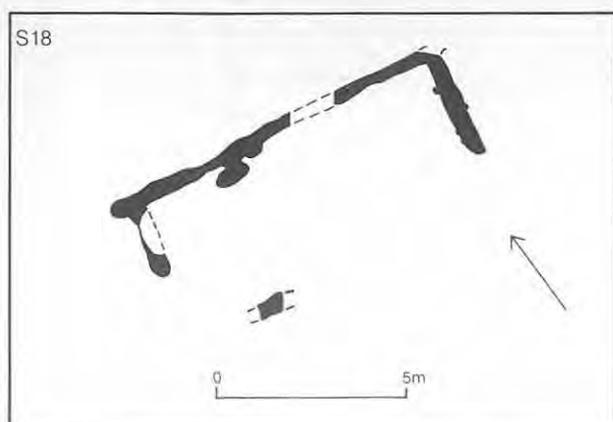
that pits 5589, 5736, 5750, and 5855 may all have been associated with Structure 17. Nothing in the finds from these pits would indicate that it was anything but a domestic structure, though the remains of a human neonate disposed of in one of the upper fills of pit 5736 is noteworthy. This was probably complete when placed in the pit, but only part of the cranium, the long bones and a few other skeletal elements survived, and these had become disarticulated as the pit contents settled. The

square shape of pit 5736 with regular, sloping sides indicates that it had probably been lined, and the lower fills suggest that it was a cess pit. This is the only example from Six Dials of the unceremonial deposition of a human body, a practice rarely found in Hamwic generally (Morton 1992, 52 and 204).

Despite its apparent longevity, there is no evidence for Structure 17 having been of more than a single phase. It measured 8m by 4.5m and appears finally to have been destroyed by fire as burnt daub

was recovered in substantial quantities from above the remnants of burnt floor surface in pit 5452 and the surrounding area, as well as from pits 448 and 2007 to the east. Smaller quantities of burnt daub occurred in the post-holes along the line of the south wall, presumably having accumulated in the holes left after the removal of planks, though no post-ghosts could be discerned.

Structure 18 (Fig 41)



This lay parallel to east-west street I, between Structure 17, 2m to the west, and Structure 19, 3m to the east. Almost the entire ground plan was exposed within the excavated area, although its extent to the south remained uncertain. Structure 18 was of unusual construction, having a continuous trench which extended along the street frontage and for up to 3m along the sides.

Trench or gully 1068, alongside the street, was 10m long, between 0.25m and 0.4m wide, and up to 0.3m deep. It was U-shaped in section with a flat bottom and sides sloping slightly inwards. There were no post- or plank-impressions, but in several places a differentiation in the fill was noted along the centre line probably marking the positions of earth-fast posts or planks. This was darker than the surrounding fill of redeposited brickearth. Towards the west end on the inner side was a substantial post-hole, 853, containing two offset post-impressions, the larger measuring 0.6m by 0.25m, the smaller 0.4m by 0.2m. The post-hole appeared to be associated with trench 1068 and there was no differentiation between their fills, though its purpose remains uncertain.

The eastern and western wall lines were marked by trenches 245 and 862, 2m and 3m long respectively. These extended at 90° from 1068 which overshot slightly at the west end – and probably also at the east end though this had been cut away by a modern feature. This was the only clear example at Six Dials of a structure with overshot walls, though at least one other is known from Hamwic (Morton 1992, 149).

There was only slight evidence to indicate the position of the south wall, possibly marked by a

short length of shallow gully, 2005, parallel to 1068 and 4m to the south of it.

Doorways may have been located at either end, as there was no break in trench 1068 alongside the street. The internal arrangements were also uncertain, though some remnants of a possible floor surface survived as discontinuous brickearth spreads extending over the inner edges of the wall trenches, and directly overlying natural brickearth. Towards the south-west corner, partly outside the excavated area, were the fragmentary remains of two or possibly three superimposed hearths, 3084–6 (not illustrated), which may have been contemporary with Structure 18. These survived as a disturbed area of burnt flints and baked clay, 1m across, and probably oval in shape. A shallow, subrectangular pit, 1284, also lay towards the south-west corner, adjacent to the hearths. This contained no pottery, but was stratigraphically early and its location and alignment would suggest that it was associated with Structure 18. It measured approximately 1.4m by 0.8m, and was 0.25m deep with a flattish bottom. A storage pit is the most likely interpretation. Although several other pits lay in the area of Structure 18, and two contained early pottery, all were stratigraphically later; the two containing early pottery, 448 and 2007 (discussed further below), cut trenches 862 and 2005 respectively, and suggest therefore that Structure 18 was early. All of these pits were fairly shallow, but several larger and deeper examples lay in the area between Structures 18 and 19, and to the south of Structure 18. None of these was fully excavated, but both 1376 and 1470 contained early pottery and so may have been contemporary with Structure 18. The others, 221, 223, 1381, and 1478, may also have been dug early, but contained later material in their upper fills. However, all but one of these were confined to the gap between Structures 18 and 19, and appeared to respect them, which suggests that these buildings were standing when the pits were dug. Alternatively, they may have postdated Structure 18 but reflected the continued existence of a property boundary. The evidence from the pits within Structure 18 suggests that this went out of use probably by the middle of the 8th century and was not rebuilt. A gravel spread, 864, perhaps a yard surface, was subsequently laid down across the area and pits 448 and 2007 were probably dug soon after this. Their small size and the shape of 448 in particular suggests that they were dug for a purpose other than cess or rubbish disposal. Pit 448 was subrectangular, 1.8m by 1.3m, and 0.3m deep, with near-vertical sides and a flat bottom. A later gravel spread, 859, extended over the south-west corner of this pit; above this was a substantial deposit of burnt daub, pieces of charred timber, two complete loomweights and several fragments. In addition there was a small quantity of smelting slag and several pieces of lava from the Eifel region which appeared to be offcuts rather than fragments of a finished quern. Among the charred wood were two

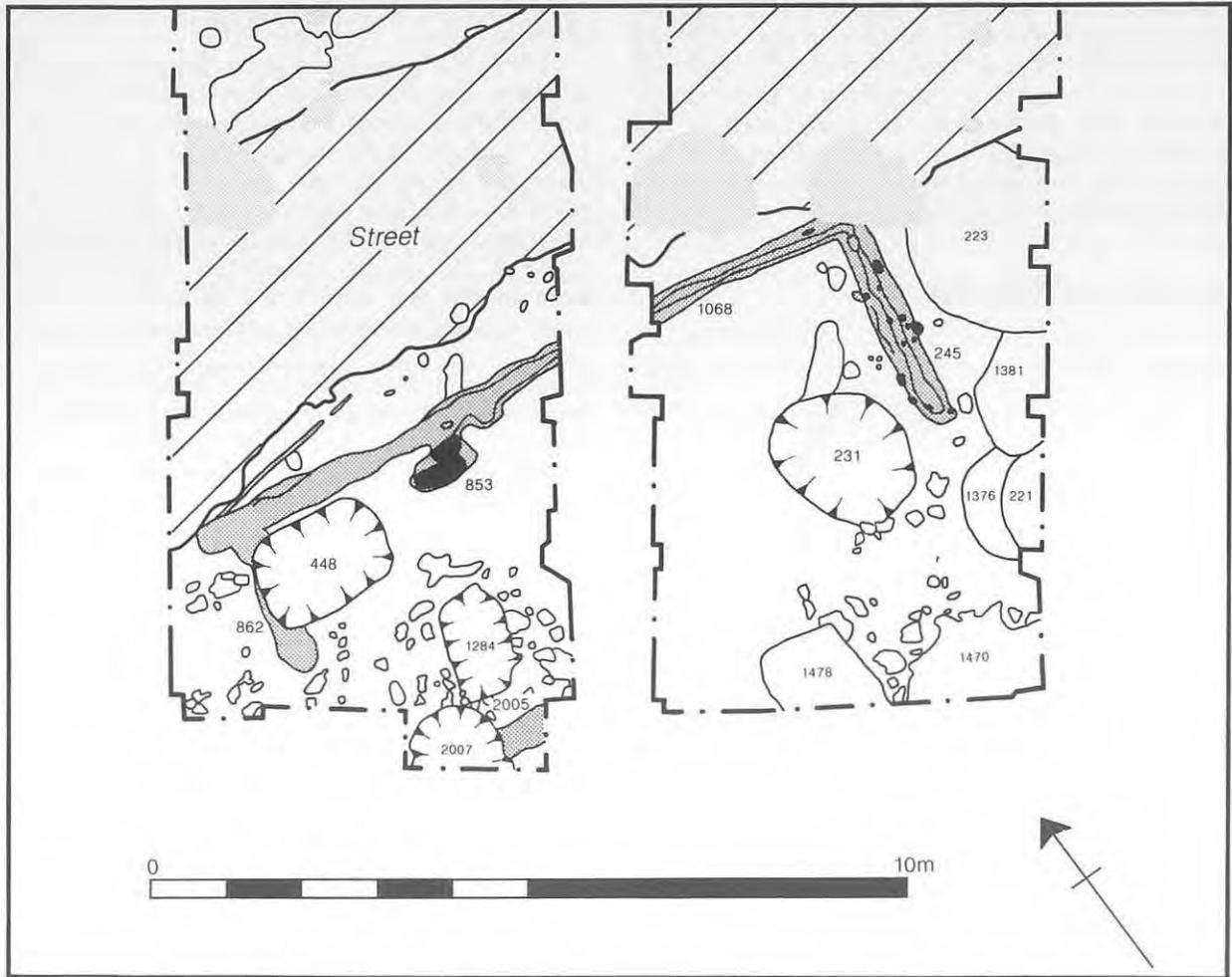
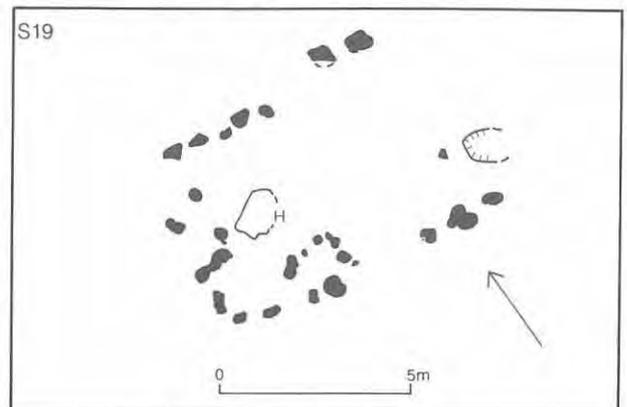


Figure 41 Structure 18 (SOU 26). Scale 1:100.

timbers, apparently *in situ*, set vertically in the north-east and north-west corners of pit 448. These timbers did not penetrate the brickearth, but could conceivably have been part of an upright structure, perhaps a loom set up in the pit. The burnt daub may have come from an associated structure, but no other evidence for this was found. Pit 2007 to the south also contained a large amount of burnt daub and charcoal, and similar material was spread over the surrounding area. It is possible that all of this debris was derived from the destruction of Structure 17 to the west or Structure 19 to the east, but these are considered to have been burnt at a relatively late date, perhaps after 850, whereas the pottery from pits 448 and 2007 suggests that these were infilled a century or so earlier. There is little evidence for the subsequent use of the area, though at least one pit, 231, was dug towards the east end and others contained 9th-century material at least in their upper fills.

Structure 19 (Fig 42)



This lay between Structure 18 to the west and a complex of structures (20-2) to the east. It fronted directly onto the south side of east-west street I and was aligned parallel to it. All but the east side was clearly defined, and all the walls were of post-hole construction.

The north wall adjacent to the street comprised at least six post-holes, with perhaps four more possibly having been removed by a pipe trench.

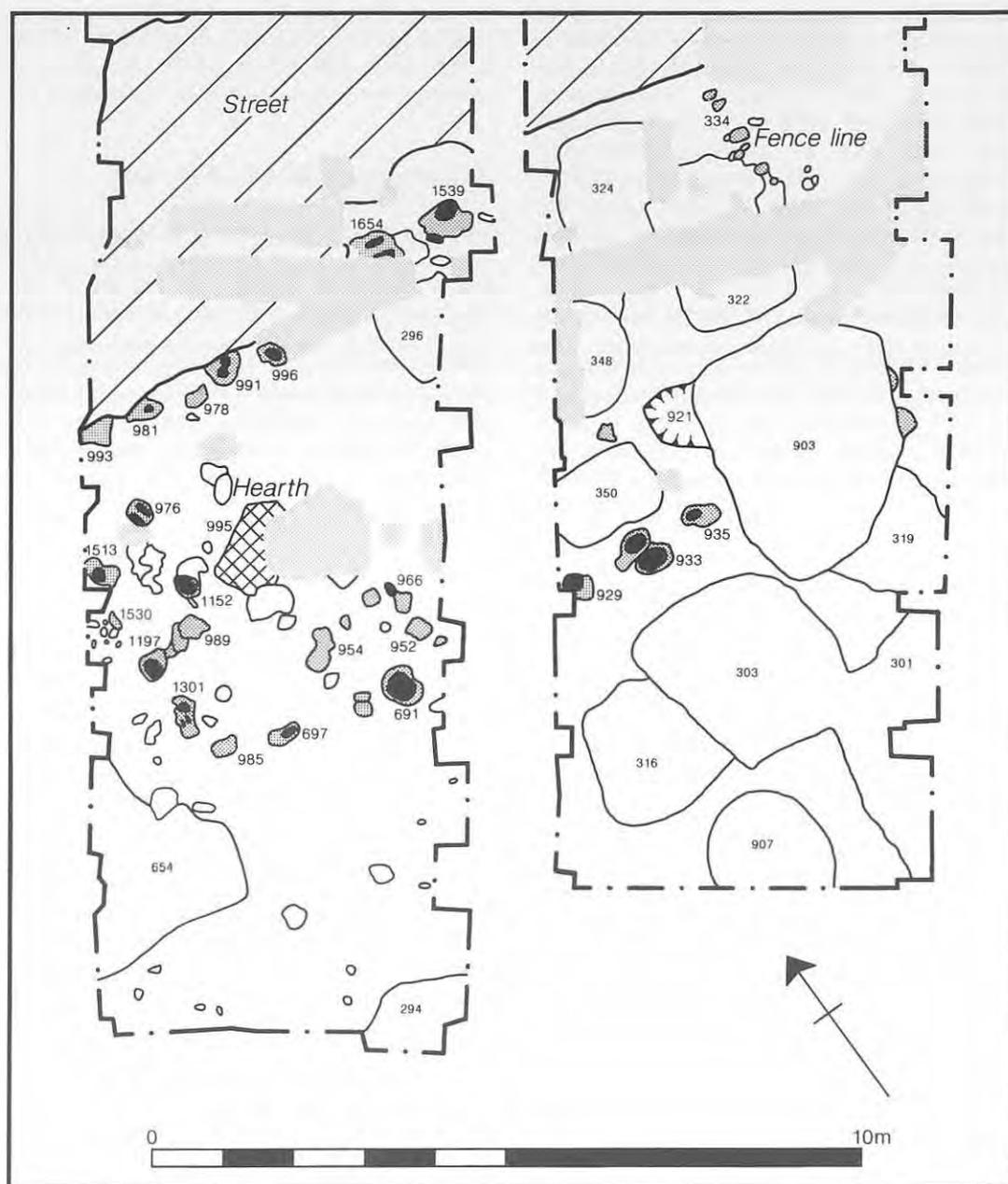


Figure 42 Structure 19 (SOU 26). Scale 1:100.

These were irregularly shaped, generally less than 0.5m across, and contained a variety of irregular impressions. Two larger post-holes, 1539 and 1654, lay slightly outside this line but were probably contemporary. The post-holes were regularly spaced, 0.7m apart, and possibly paired with post-holes in the south wall, a rare example of such construction.

At least seven post-holes marked the south wall, with others probably lying in an unexcavated area. They were of similar size, spacing, and irregular shape to those in the north wall. Post-holes 935 and 985 may have marked the south-east and south-west corner respectively of the building, but were less substantial than some of the other post-holes.

The west wall comprised at least four post-holes,

again of irregular shape and size but spaced at 0.7m intervals. The central one, 1530, was the least substantial. The location of the east wall was unclear, and no post-holes have been assigned to this. A row of stake-holes, including 334, up to 4m to the east of Structure 19, are thought likely to have been part of a fence line separating two properties.

The location of doorways was not ascertained though they may have lain midway along the north and south sides. Inside, an irregular-shaped hearth, 995, was centrally placed 1.5m from the west wall. This measured approximately 1.3m by 0.9m, and comprised flint cobbles set in a shallow depression and overlain by a layer of baked clay. A complex of small features, mainly post-holes, lay towards the

south-west corner. It is not certain whether all were contemporary and associated, and their function is correspondingly unclear. Two possible groupings can be discerned: one L-shaped arrangement comprising 976, 989, and 1152 between hearth 995 and the west wall, and a similar arrangement comprising 952, 954, and 966 between the hearth and the south wall. No floor surfaces survived. There may have been at least one internal pit. Pit 350 lay adjacent and parallel to the south wall, probably towards the south-east corner of the building. It was subrectangular, 1.6m by 1m, and at least 0.3m deep (it was not fully excavated). In a similar position adjacent to the north wall was pit 296. This lay partly outside the limit of excavation and was not fully excavated, but appears to have been 1.3m square with straight, near-vertical sides. A considerable quantity of burnt daub was present in the upper fill, but no dating evidence was recovered. Two other pits, 348 and 921, may also have been internal features towards the east end of the building, but only 921 was fully excavated. This was a small, subrectangular pit which produced no dating evidence, but was cut by 903, a large pit which contained late pottery in its upper fill.

Structure 19 is likely to have been early, and probably contemporary with Structures 18 and 20 on either side. There were no pits which certainly predated it, and 350, a possible internal feature, contained only early pottery. To the south and west were several pits (303, 316, 654 and 1376; not illustrated) which appeared to respect Structure 19. The upper fills were excavated; these contained only early and middle pottery, which suggests that the pits were in fact early features. There is a hint that Structure 19, though only a single-phase building, may have stood for a considerable length of time as it also appeared to be respected by later, probably 9th-century pits including 223 to the west and 319, 322, and 324 to the east. The latter group belonged to a line of at least seven cess/rubbish pits, all in excess of 1.5m across, which extended south from the street and marked a property boundary between Structure 19 and Structures 20–2. This line of pits lay immediately to the west of the projected fence line 334/336 which may have been equidistant between Structures 19 and 20, but whose chronological relationship to the line of pits is uncertain. The pits ranged from early to late in date and would have blocked any passage between the fence line and Structure 19, as did those to the west between Structures 18 and 19. However, access to the area at the rear of Structure 19 could have been afforded by a 2m-wide alleyway which remained open between the fence line and Structure 20.

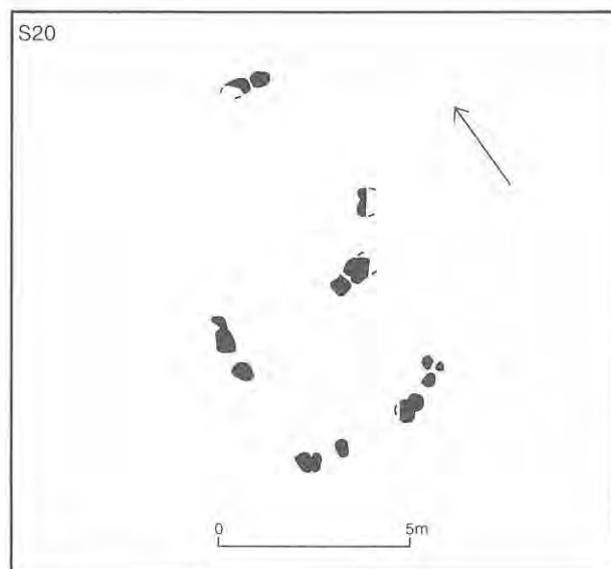
Structure 19 was perhaps finally destroyed by fire: several of the post-holes along the north side contained burnt daub, and more substantial quantities were found spread over the surrounding area as well as in pit 296 in the north-eastern corner, and pit 1381 outside to the west. If Structure 19 was burnt down, its destruction could have taken place

around the middle of the 9th century and been contemporary with the destruction of Structure 17 to the west and Structure 25 to the north-east, both of which may also have been destroyed by fire.

Structures 20–2 (Fig 43)

The house site lay east of Structure 19, adjacent to east-west street I. The area occupied by the structures extended beyond the limits of excavation to the south and west, but the complete ground plan of one building (Structure 20) and large parts of two others (Structures 21 and 22) were exposed. It is probable that three buildings were represented by the structural remains and that none overlapped. However, this is not certain and therefore they are discussed together below. The suggested plans and layout of structures are considered most probable on the basis of the available evidence, but alternatives are suggested. It is possible that the group of structures and pits assigned to this house site may all have been associated with developments within a single property.

Structure 20



It is most probable that this measured 9.5m by 4m, and lay gable-end on to the street with much of the northern half having been destroyed by modern sewer trenches. Only two post-holes survived which have been assigned to the north wall, though it is possible that they were part of Structure 21 to the west. Post-hole 357 would have marked the north-east corner, and a similar subrectangular post-hole, 355, lay 0.5m to the east, and was cut by pit 361 which would have destroyed any further post-holes in the north wall.

The southern wall line was marked by at least five post-holes with 387 and 4210 marking the

south-west corner, and 494 and 3126 possibly the south-east corner though they apparently lay slightly short of this. Post-hole 375 also lay in this line, but an unexcavated baulk obscured any further features. These post-holes were subcircular or subrectangular, up to 0.5m across and 0.25m deep, with similar-shaped post-impressions.

Except for two groups of possibly paired post-holes 4m apart and 4m from the south wall, there was little to mark the east and west walls. The east group comprised 377 with 385 set slightly inside, and the west group comprised 382. These were fairly substantial, subrectangular features up to 0.3m deep, containing post-impressions up to 0.4m long and 0.35m wide. Each group appeared to represent a single phase rather than a rebuild. South of 377 were at least three less substantial post-holes, 4272, 4273, and 4275; and south of 382 was a larger post-hole, 379, which cut pit 353. No structural features were identified to the north, though the profusion of modern sewer trenches may have removed any evidence of these. There is a possibility that the square arrangement of structural features at the south end of the postulated building were instead the west end of a building which extended to the east, or were possibly part of a small, square building.

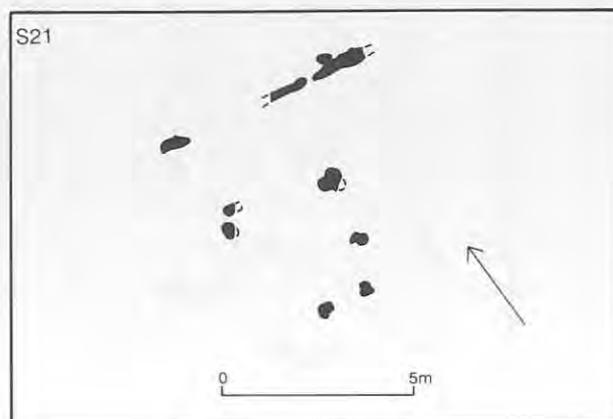
No floor levels survived. An oval hearth, 2187, lay towards the south end of the building, 0.5m from the west wall. It measured approximately 1m by 0.6m and comprised a base of flint cobbles overlain by a baked clay surface. No other internal arrangements were clear, but the location of post-hole 385 set inside the line of the east wall might indicate a partition.

Structure 20 was probably later than Structure 21, and (if the postulated ground plan is correct), was inserted between it and fence line 334/336 to the west. Whatever the extent of Structure 20, it postdated pit 353 which was fully excavated and contained only early pottery. Approximately 1.8m in diameter and 2m deep with near-vertical sides, the pit appears to have been dug initially as a cess pit, perhaps associated with Structure 21; the lower part of the sides were stained green, and the bottom layers of greyish-brown or brown silty clay loams were sealed by a charcoal deposit and had subsided to less than half their original depth. No clear evidence for any floor levels was found, though a small amount of burnt clay, some charcoal, and the charred remains of a vertical timber survived, possibly *in situ*, in the upper layers. The timber lay slightly outside the line of the west wall, was pear-shaped in section, measured 0.17m by 0.11m, and was 0.2m high.

Pit 361, which cut the postulated line of the north wall, contained a mixed assemblage of pottery including later, 9th-century material. This was the only feature which clearly postdated Structure 20. It was also apparent that a 2m-wide alleyway or path between this and fence line 334/336 to the west remained clear of pits, thereby allowing

continued access to the area behind the buildings that fronted the street.

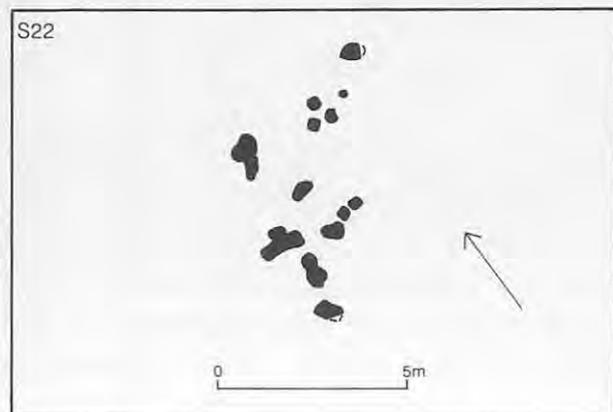
Structure 21



This lay immediately to the west of Structure 20, adjacent to the street and parallel to it. The east end lay outside the limit of excavation, but some evidence for the remaining walls survived. The northern wall line comprised at least two short lengths of irregular gully, 452 and 454, which contained several post-impressions up to 0.2m in diameter. The postulated north-west corner was marked by a double post-hole, 359, and the south-west corner by a possibly similar complex, 4162. Double post-hole 4259 was the only other feature along the south side, with a further substantial double post-hole, 3001/3003, at 90° to this perhaps supporting the roof and marking the location of a partition. No floor levels or hearth survived within the excavated area which had been heavily disturbed by modern pipe trenches, and the only other internal features were two shallow post-holes, 397 and 4170, towards the west end. No doorways were recognised.

The northern wall line was cut by pit 500, and, although the relationship of pit 363 to the west wall line was unclear, no features certainly predated Structure 21. If the postulated layout of this building is correct, it would have measured at least 6m by 4.3m, and probably been built early in the 8th century, predating Structure 20 to the west which was a later insertion in the intervening space. The double post-holes of Structure 21 might indicate a rebuild, though it is uncertain when it fell into disuse. Pit 361, which cut the north wall of Structure 20, was not fully excavated, but may originally have been a square or rectangular cess pit associated with Structure 21. It contained pottery of mixed date, but was notable for the large quantity of bone- and antler-working debris in the top fill. This may have been derived from Structure 21 which could have still been standing after Structure 20 had disappeared, probably some time in the 9th century.

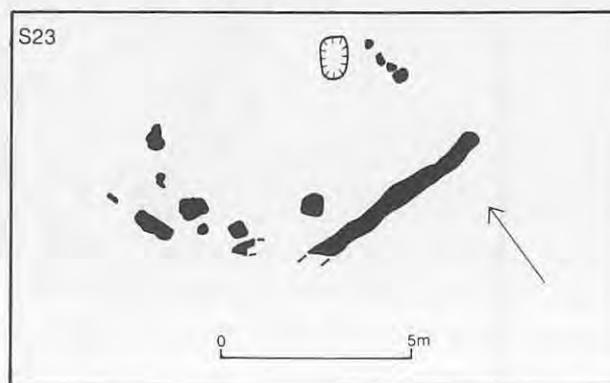
Structure 22



This was set back some 11m from the street frontage, to the rear of Structures 20 and 21 which were probably still standing. Only the north-west corner of the building lay within the excavated area and it would appear to have lain at 90° to the street. The north-west corner was marked by a substantial post-hole, 485, with at least five other irregularly spaced and shaped post-holes along the west side. A gap of 1.5m between 487 and 4255 towards the north end may have marked a doorway. All of these features contained post- or plank-impressions. The northern wall line comprised one larger post-hole, 4267, possibly a corner post 4m to the east of 485, with several shallow features slightly inside this line perhaps being part of some internal arrangement. Post-hole 483, and a line of three post-holes, 478, 4249, and 4250 3m to the south of the north wall may also have been internal features, the latter possibly marking a partition.

From the relatively small area of Structure 22 exposed, it is impossible to be certain about its shape, size, or function. It may have been a dwelling or an outbuilding associated with either Structure 20 or 21, or both, though there is no evidence for it having been anything other than domestic. It was respected by pits to the north and west; none of these were fully excavated, but to judge from their size they were probably cess/rubbish pits. The cluster to the west, south of Structure 20 is particularly apparent, and comprises 368, 370, 458, 459, 489, and 490.

Structure 23 (Fig 44)



This lay to the north of east-west street I and was aligned parallel to it. The west end extended beyond the limits of excavation, and only the south wall was clearly defined. This comprised a U-shaped gully, 2475, at least 5.5m in length and 0.3m deep, which cut the edge of the metallings on the street. No post-impressions or post-ghosts were discerned in the fill. A shallow gully, 2470 (not illustrated), parallel and 1m to the south of 2475, cut the uppermost surviving metalling on the street. If it was associated with Structure 23, it may have been an eaves-drip gully.

No structural features marked the rear (north) wall line, nor could any be certainly ascribed to the east wall, though its approximate location is indicated by the east terminus of gully 2470 marking the south wall line. A single post-hole, 2468, may have been a contemporary internal feature, as may have 781, a small subrectangular pit whose alignment was skewed to that of the building. This and four of the pits to the east (84, 86, 512, and 579 – the last two are not illustrated) contained burnt daub in their upper fills which was possibly derived from Structure 23. However, as is suggested below, Structure 24 was a more likely source for much of this debris, its probable later date being more compatible with that of the upper fills of these pits.

Whatever the size, layout, and function of Structure 23, it appears to have been in use probably during the earlier part of the 8th century, and all of the early pits in the area lay outside it to the north. These included one intercutting group comprising 39, 41, 612, and 615, which lay in a line at approximately 45° to the street. This alignment may have been purely fortuitous however, as the edges of each pit were aligned parallel to the street. All of these pits were markedly square or rectangular, up to 2m across and 2m deep. Their regular shape may indicate that they were originally lined, but whether they had any purpose other than for cess and rubbish disposal is unclear.

After Structure 23 was abandoned several pits were dug, including 84, 570, and 815; 570 cutting the edge of gully 2475. Further activity was indicated by the laying down of at least two gravel surfaces, 813 and 814, across the west end of the

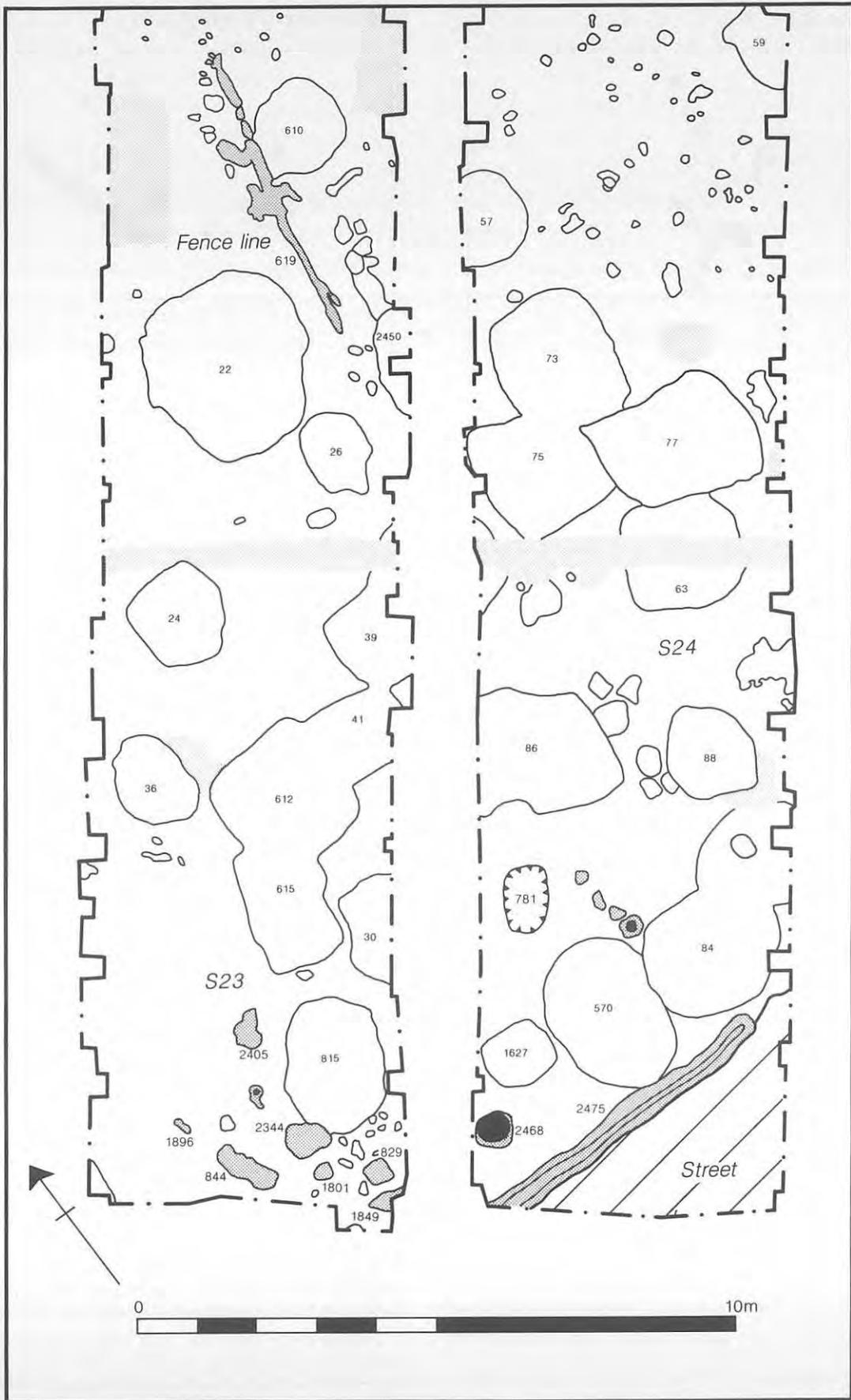
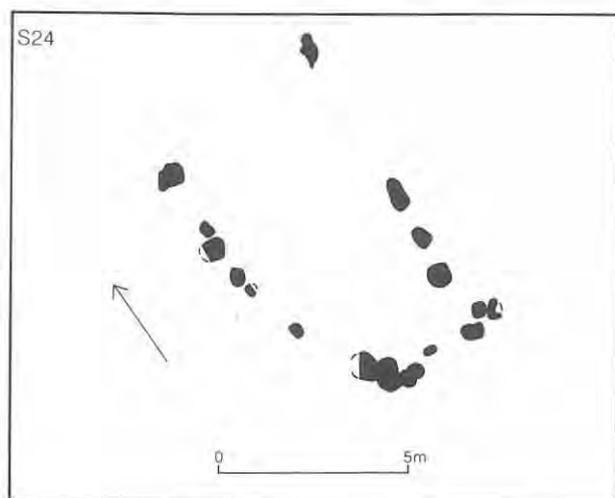


Figure 44 Structure 23 (SOU 26). Scale 1:100.

building. These survived as discontinuous spreads which had subsided into pits 615 and 815, and were in turn cut by at least one later structural feature. The gravel in pit 615 was cut at the south end by a shallow slot aligned parallel to the street, but set back some 5.5m from it. Possibly contemporary with this was 844, a shallow irregular gully, and slot 1896, both of which were aligned at nearly 90° to the street. On the slender evidence available, these would appear to have been parts of an insubstantial building, enclosure, or fence line constructed in the 9th century. It is possible that this may have been part of an industrial complex, tentatively associated with hide smoking. Pits 88 and 570 to the east were probably dug as cess pits, but both had a series of heat-reddened, bowl-shaped clay linings in their upper fills which utilised the hollows formed as the contents settled (these pits are more fully described and discussed below). Pit 88 certainly postdated Structure 24; this fact and the pottery dating of the upper fills of pit 570 suggest that its secondary use, perhaps for hide smoking, was in the 9th century. If so, it is possible that the whole of the area occupied by Structures 23 and 24 had become amalgamated into a single property; or (assuming that Structure 23 originally extended farther to the east and had been subdivided) they may have reverted to a single property. It is even possible that they were eventually subsumed into a larger property associated with Structures 25 and 26.

Structure 24 (Fig 45)



This fronted east-west street I, lay immediately to the east of Structure 23, and was separated from Structure 25 to the east by a metallated alleyway 4m wide. It lay gable-end on to the street and was a later insertion between the two buildings either side, replacing an earlier structure of uncertain form and function.

The preceding structure comprised a group of intercutting post- and stake-holes cut by the south-

western corner of Structure 24 and partly underlying a later street metallating. The most substantial of this group were 2577, 2583, and 2587. Perhaps contemporary, but not necessarily associated with these, was a smaller group of less substantial features which lay some 4m to the east sealed beneath the metallated surface of the alleyway. It remains a possibility that this precursor to Structure 24 and the area it occupied were once part of the property associated with Structure 23, as may have been the case later on. Alternatively, but less likely, is a link with Structure 25 to the east.

Structure 24 appears to have been squeezed in between Structures 23 and 25, and it was probably at this time that the alleyway to the east was established and metallated in order to provide access to structures and areas to the rear of those occupied along the street frontage. The exact layout of Structure 24 remains uncertain, particularly the north end. It may have been up to 7.5m long by 5m wide, though possibly a metre narrower at the south end.

It was constructed using irregularly shaped post-holes, several containing post- or plank-impressions. The south-west corner was marked by a complex of features, 529 and 531, which succeeded an earlier group in the same position. The remaining post-holes, however, including 1568 which marked the south-east corner, appeared to be simple, single-phase features. Context 2368 may have marked the north-west corner but this is uncertain. Gaps of approximately 1.5m between post-holes 779 and 3158, and between post-holes 2368 and 2396, may indicate the location of one or more doorways in the west wall. No hearths or floor surfaces were found. Pit 512, centrally placed at the south end, may have been an internal feature, though the early pottery from it, unless residual, conflicts with the later date thought likely for Structure 24. Pit 512 was an oval feature, 1.5m by 1.2m and at least 0.4m deep (not bottomed). It contained considerable burnt daub in its upper fill. Pit 63 was a square, shallow feature, centrally placed at the north end. It may also have been contemporary. However, its large size (2m square) makes this unlikely unless Structure 24 was not domestic.

There was good evidence for a property division between Structures 23 and 24, represented by a fence line, 619, extending to the rear and continuing the western wall line of Structure 24 (Fig 44). A 5m length of this narrow, shallow gully survived and no pits cut its projected line to the north or south, which suggests that it may have been in place prior to the construction of Structure 24.

There were several pits in the vicinity of Structure 24. Pit 579 was cut by post-hole 779 along the west side and predated it. Pit 77 to the north was also likely to have been earlier than Structure 24. The remainder were probably contemporary or later: although few were completely excavated, virtually all contained mid or later Middle Saxon pottery, and the upper fills contained assemblages that might be dated to nearer to 850. The only pit

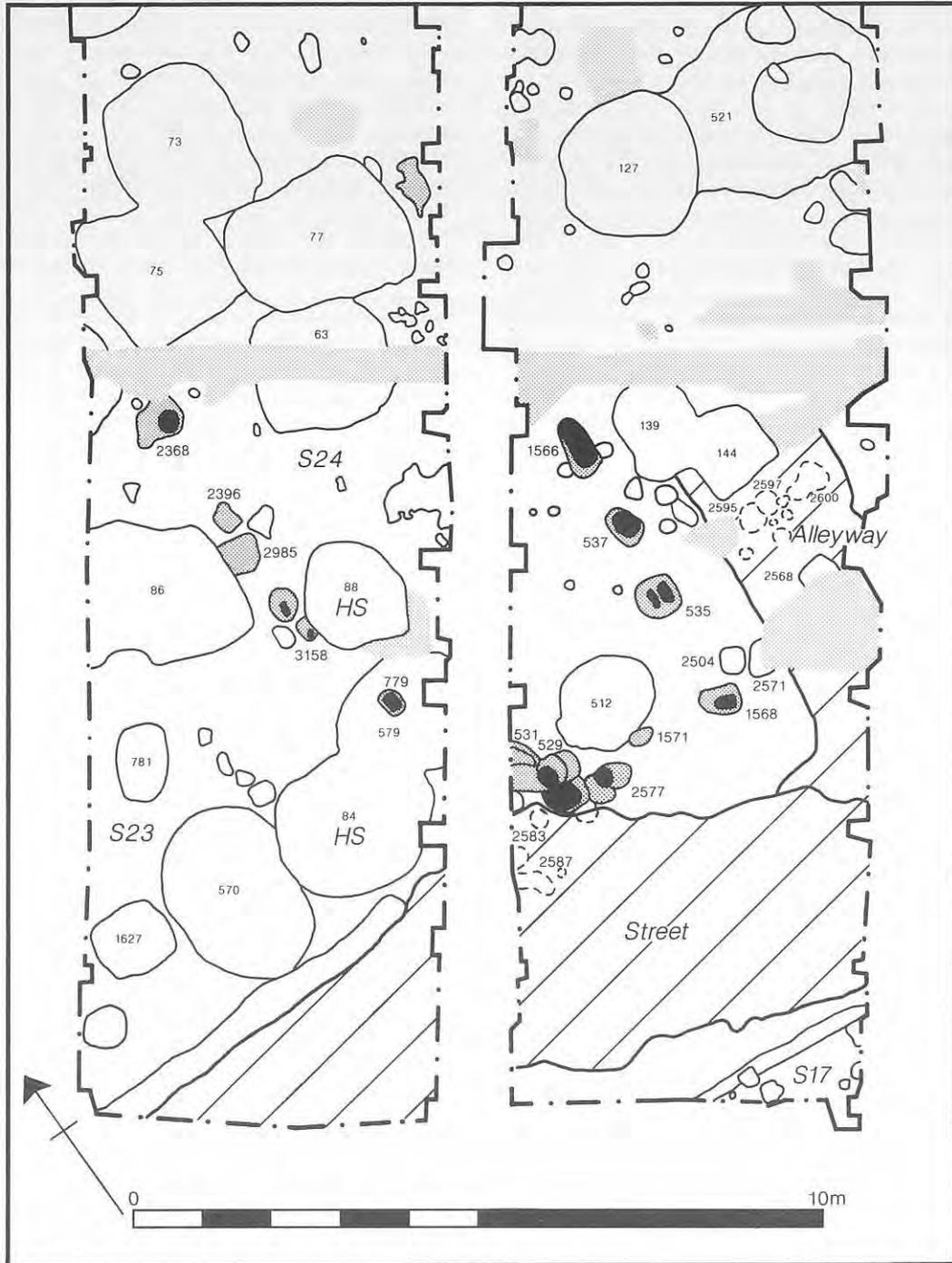


Figure 45 Structure 24 (SOU 26). Key: HS possible hide-smoking pit. Scale 1:100.

that was certainly later was 88, one of the putative hide-smoking features. Together, the dating evidence from the pits would suggest that Structure 24 may have been constructed in the mid 8th century and had gone out of use sometime during the first half of the 9th century – possibly destroyed by fire if the burnt daub in several of the surrounding pits is to be provenanced to this source.

The demise of Structure 24 may have rendered the alleyway to the east redundant, and this was

subsequently cut through by two pits, 139 and 144, which produced late pottery. The original extent of the metallated surface was clearly greater than what survived, for layers of gravel sealed the lower deposits in pits 127 and 521, 9m north of the street frontage, and in the latter pit the west edge of Structure 26 was defined by their extent. Spreads of gravel in the tops of pits 59 to the north and 77 to the west may also have derived from or been associated with these metallings, but they had

perhaps been part of a yard surface rather than a continuation of the alleyway. However, no surfaces survived in this area outside the pits. A maximum of two metallings were present to the south, adjacent to the street, but these did not form part of the more extensive street metallings and were instead part of a separate and localised operation. The sequence of metallings in pits 127 and 521 represented successive resurfacings as the pit contents settled. There is some evidence to indicate that access via this alleyway was controlled, perhaps even blocked; at least three shallow post-holes (2504, 2568, and 2571) lay in a line along the street frontage between Structures 24 and 25, with 2568 centrally placed and cutting the upper metalling on the alleyway. All contained burnt daub, a fact that may associate them with Structure 24, though their precise purpose remains unclear.

Structure 25 (Fig 46)

This lay adjacent and parallel to east-west street I, with Structure 28 (replaced by 29) to the east and Structure 24 to the west. Immediately to the north and possibly contemporary and associated was Structure 26. The exact layout of Structure 25 remains uncertain, though it may have comprised a complex of buildings which included an ancillary building to the east as well as Structure 26.

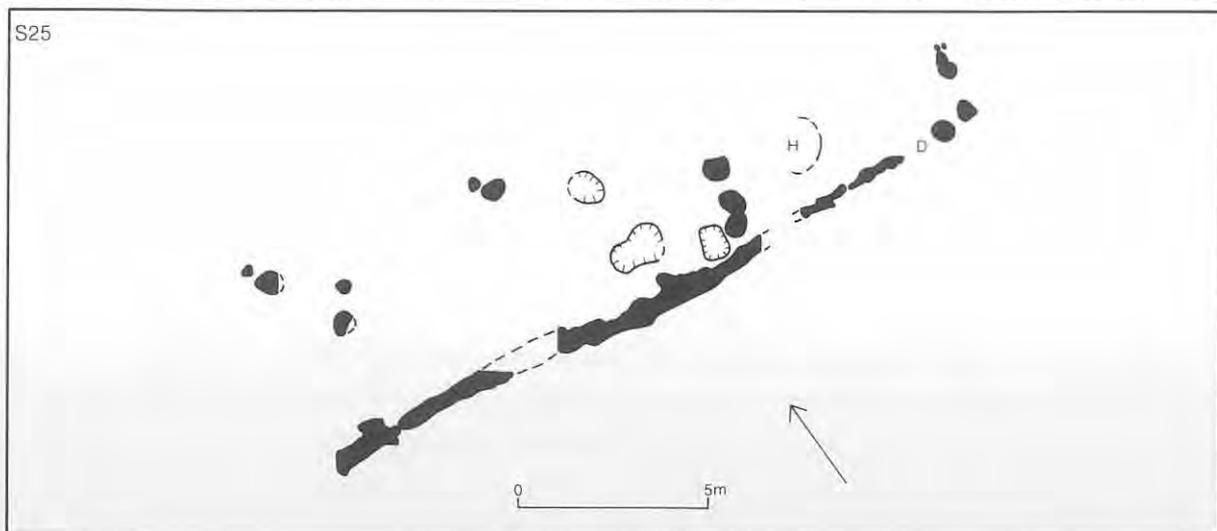
The south wall line alongside the street was marked by an irregular but substantial U-shaped gulley, 227, approximately 10.5m long and up to 0.4m deep, with an adjacent 2m-long extension, 3051, to the west. The wall line was extended up to 6.5m to the east by a much less substantial discontinuous gulley, 666, and at least two post-holes, 276 and 278, which perhaps formed part of an extension or ancillary structure. Together, these structural features occupied a street frontage of some 19m. A few post-impressions were present in the bottom of gulley 227, but these were of irregular shape, size, and spacing. There was some evidence for post-ghosts in the form of a discontinuous slot up to

0.2m wide filled with darker soil that was surrounded by brickearth packing. Gulley 3051 at the west end contained a slot or plank-impression, 0.75m by 0.15m, which marked the south-west corner. A smaller, rectangular post-impression towards the east end may have marked the south-east corner; if so it appears that the southern wall trench overshot the lines of the east and west walls, as was the case with Structure 18 on the opposite side of the street.

The line of the north wall was marked by two substantial post-holes, 881 and 1563, 5m from the south wall. Post-hole 1563 lay in the north-west corner, 881 midway along the north side, with any evidence for a post-hole in the north-east corner having been destroyed by a modern air-raid shelter. These post-holes were oval, at least 0.7m across, and 0.4m deep. They contained post-impressions measuring 0.4m by 0.2m and 0.25m by 0.15m respectively. 1563 was notable for having a flint-cobble packing, the only excavated example of this in Hamwic. A small post-hole, 3054, was the only other feature possibly associated with the west wall, much of which lay in an unexcavated area. The putative eastern wall line comprised at least three post-holes, 1077, 1101, and 1103. There were substantial, oval features containing sub-oval post-impressions up to 0.5m across.

The location of doorways was not ascertained, nor were any floor levels recognised. There were several features which may have related to the internal arrangements, though the lack of stratified deposits and datable finds makes this uncertain. These features (1074, 1142, 1382, and 1384) were either large post-holes, or more probably small pits, and all but 3056 lay towards the east end of the building. They were subrectangular or subcircular in plan, up to 1m across and 0.3m deep, and generally filled with homogeneous, yellowish-brown, redeposited brickearth. No post-ghosts were present, and only 1142 contained a possible post-impression.

The dating of this part of Structure 25 remains somewhat problematic. It is most likely to have been an early building – though possibly postdating



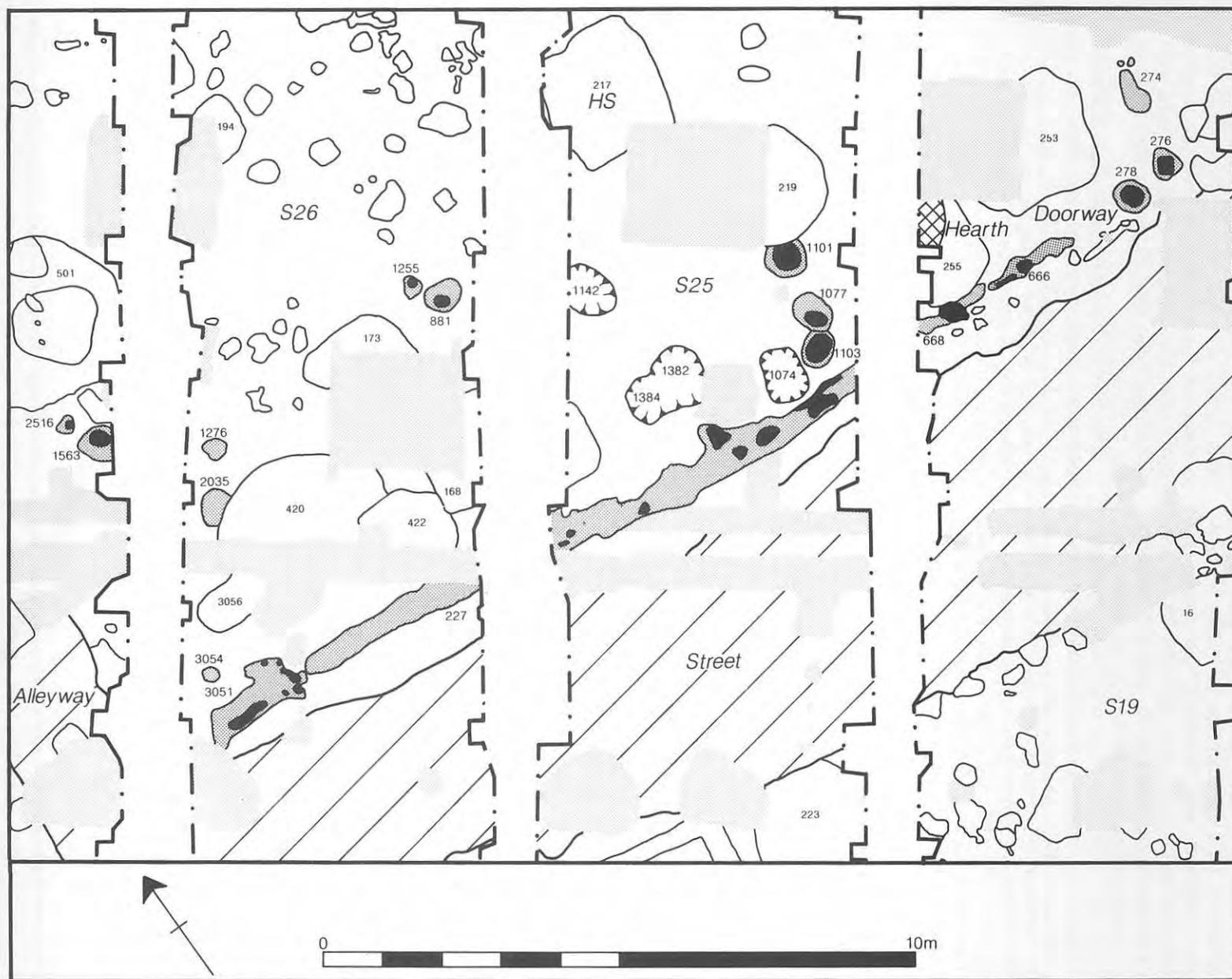


Figure 46 Structure 25 (SOU 26). Key: HS possible hide-smoking pit. Scale 1:100.

pits 173 and 422 – which went out of use some time during the first half of the 8th century. Unfortunately, the only pit which clearly cut any of the wall lines, 219, was not fully excavated and produced no unequivocal dating evidence. Two large pits, 168 and 420, which lay in the area occupied by Structure 25, produced predominantly late and mixed material respectively.

Immediately to the east of this part of Structure 25 was a building considered here to have been part of the same structure, though possibly it was a later extension to it. Another alternative, considered less likely, is that it was an entirely separate, unrelated structure. It was 6m long, and although its exact physical relationship with gulley 227 to the west was not ascertained, it was slightly offset from the line of the gulley and did not extend any further in that direction. This suggests that it was a later addition to a pre-existing structure. Its construction was somewhat different, comprising a narrow, discontinuous gulley, 666, continued to the east after a gap of 1m (possibly a doorway) by two substantial post-holes, 276 and 278, the former marking the south-east corner and containing a rectangular post-impresion 0.3m by 0.25m. This post-hole lay immediately adjacent to the south-west corner of Structure 28, though the latter may have disappeared by then, replaced by Structure 29. Evidence for an east wall was somewhat tenuous, but a shallow slot, 274, lay at 90° to the corner post-hole, and this line was continued to the north for at least a further 10m by a series of small stake-and post-holes probably representing a fence line. No evidence for a rear (north) wall was found.

Within this postulated extension to Structure 25 was a hearth set into the upper fills of a fairly large and deep pit, 255. The hearth, though not completely exposed, appeared to comprise an oval or circular pad of burnt clay on a flint base, and was at least 1m across. It lay in a fairly central position towards the west end of the building. Adjacent to this and east of it was a large, subrectangular pit, 253, 2.3m by 1.9m which was not fully excavated. This may have been contemporary, but more probably was later, its apparent location within the building having been coincidental.

Pit 255, which predated the hearth, produced early pottery, and pit 253 mid to later material. If the suppositions which have been made about Structure 25 are broadly correct then it might be surmised that the main part of the building was constructed in the first half of the 8th century, with the extension to the east having been a contemporary or slightly later addition. The extension may have gone out of use around 800, with the main building perhaps remaining in use until as late as the middle of the 9th century. In that case, it would have stood considerably longer than is suggested for the majority of buildings at Six Dials.

Structure 26 (Fig 47)



This lay immediately to the rear of Structure 25 and conceivably may have been attached to it or part of it. Structure 27, which probably predated it, lay adjacent and to the north-east. Some uncertainty exists as to the exact size and layout of Structure 26; if it took the form presented here it covered an area of 13m by 7.5m. It was aligned gable-end on to the street, some 6m north of it, with its western wall line continuing that of Structure 25, and lying alongside the projected east edge of the alleyway between Structures 24 and 25.

Post-hole 2514 marked the south-west corner. It lay immediately adjacent to post-hole 1563 in the north-west corner of Structure 25 and appeared to respect it. This suggests that the two were contemporary. The remainder of the western wall line comprised five irregularly shaped and spaced post-holes with none in the north-west corner. Those towards the south end contained a variety of plank- and post-impresions, with the plank-impresions in 1559 and 1561 at 90° and 45° respectively to the wall line. The eastern wall line was also irregular in the shape, size, and spacing of the post-holes, with a relatively small feature, 1395, in the south-east corner and none apparently in the north-east corner. The northern wall line was marked by several more substantial post-holes 3376, 3381, and 4033.

The large size and apparently rather irregular nature of construction of Structure 26 raises some questions about its form. Rather than a single building, it may have comprised two or three smaller, probably contemporary structures, perhaps sheds, shelters, or enclosed yards, or a combination of these.

No floor surfaces survived, nor were the

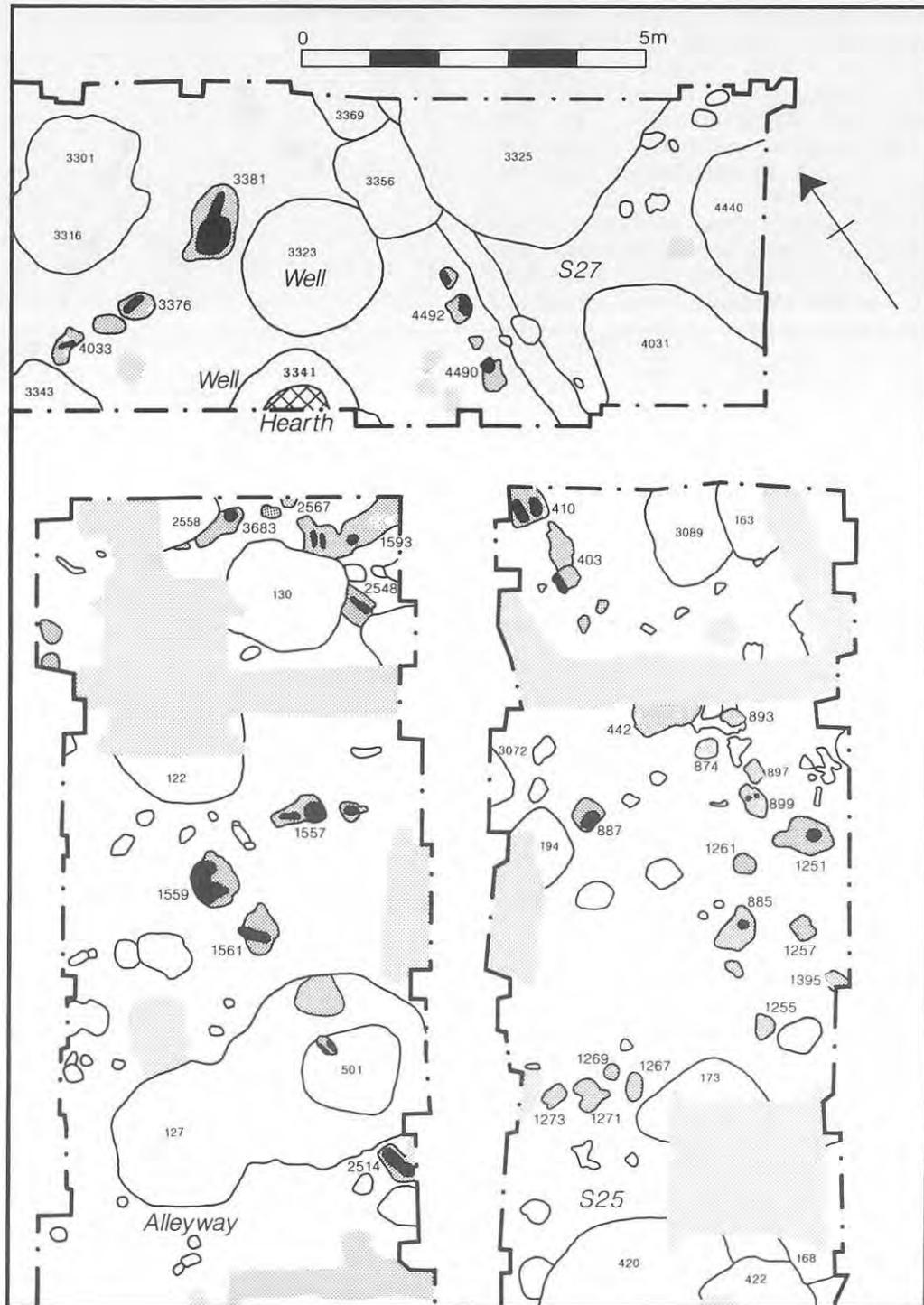


Figure 47 Structure 26 (SOUs 26 and 30). Scale 1:100.

locations of any doorways determined. However, towards the north end of the area covered by Structure 26 was a hearth or area of burnt clay floor which had subsided into the upper part of well shaft 3998. To the south of this, and probably contemporary, was a complex of structural features including gulley 1593 and post-hole 2548, which were filled with burnt daub. The post-holes contained post- or plank-impressions, the alignments

of which did not follow that of Structure 26. These features may have reflected some form of internal arrangement, perhaps a partition, or else been part of a self-contained structure. Further to the south lay another possible partition, or perhaps the north wall of a separate structure with 442 and 1559 marking the corners. The latter arrangement would account for the alignment of plank slots in 1559, at 90° to the west wall line, and for the apparent offset

of up to 1m between the post-holes to the south of 442 and those to the north. This putative southern element of Structure 26 measured 7.5m by 5m, and that to the north 7m by 8m.

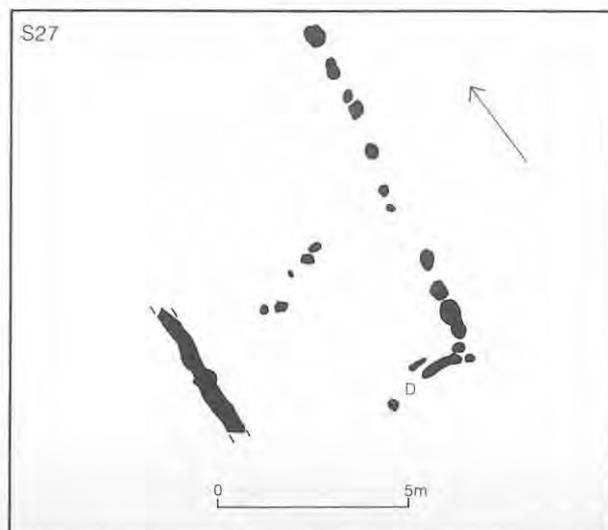
Whatever the precise constructional arrangements of Structure 26, the various elements were broadly contemporary and probably built during the later 8th or early 9th century. The western wall line and probable hearth postdated pits 501 and 3341, which produced pottery of early to middle date. The abandonment of Structure 26 is more difficult to determine because 130, the only excavated pit which clearly cut any of the structural features, produced insufficient dating material. However, a date towards the middle of the 9th century would not be inconsistent on the basis of the available evidence, though perhaps not all of the elements were abandoned at the same time; the southern part might have remained longer in use. If Structures 25 and 26 were parts of the same complex, it is possible that the various elements may have been in use for up to 150 years or so.

The extent of the associated property appears reasonably clear on the east side, defined by a fence line, but less so on the west side. There is more than one possibility. It may originally have extended as far west as Structure 23 and fence line 619, and had a street frontage of 28m. Or it extended only as far as the later metalled alleyway between Structures 24 and 25, and had a street frontage of 19m. It is an attractive possibility that it had extended to Structure 23; Structure 24's later insertion (representing increased pressure to build on available space from the middle of the 8th century) might be seen as part of the Structure 25/26 complex. And the putative hide-smoking pits in that area (88, 570, and 217, the latter being close to the north-eastern corner of Structure 25) might then be interpreted as all contemporary and all inserted into the one large complex. This interpretation may be supported by the fact that no similar pits were found elsewhere on Six Dials.

Various other pits lay to the north of Structure 26 and were perhaps also associated with it. However, although no further structures were recognised in this area among the few post-holes, numerous stake-holes, and myriad soil stains, others are likely to have lain outside the excavated area. The pits in this area ranged in date, size, shape, and presumably function, and some showed indications of having been dug along a boundary or property division parallel to the east-west street. An east-west line comprising 3367 and three intercutting pits (3349, 3369, and 4005) lay approximately 27m from the street frontage – the line appears on Fig 20, in the north-west corner of SOU 30. The pit fills ranged in date from early to late. All pits were large and deep (3367 was one of only a very small number of pits in excess of 3m deep), and were subrectangular or subcircular. They appear to have been dug initially for cess disposal, though 4005 was notable for a large

quantity of bone- and antler-working waste in the lower fills, such waste usually being confined to the upper or top fill of pits at Six Dials. Animal rib predominated amongst this debris, a characteristic of early bone- and antler-waste assemblages (Ian Riddler pers comm), the dating of which is confirmed by the pottery. To the south of this suggested pit alignment were several other pits (3301, 3316, 3321, 3345, and 3347) exhibiting a wide range of characteristics in their forms and probably functions, as well as their dates. Pits 3301 and 3316 were both irregular to subcircular in plan up to 1.75m in diameter, and 2.1m deep. The sides were vertical or undercut, and the bottoms were flat, and irregular. Pit 3316 was early, cut by 3301, which was of mid date. Lying at an angle to the street and building alignments, pit 3345 was rectangular, measured 1.5m by 1.2m, was 0.9m deep, and had near-vertical sides and a flat bottom. It may have been lined. It produced no dating evidence. Pit 3347 (see Fig 79) was an unusual, possibly unique, feature at Six Dials in that it was 1.25m square and 1.3m deep, and had sides which sloped down evenly to a flat bottom, 0.6m square (see Fig 79). The fine preservation of the sides and corners indicates that the pit had been lined. It was a late feature, and though it may have served some industrial purpose, its function remains unknown. Pit 3321 (see Fig 76) was a large, irregular to subrectangular pit, which measured 2.1m by 1.75m and was 2.1m deep (see Fig 76). The sides were near-vertical; extensive undercutting around the bottom indicated that it had not been lined. It had most probably been used for cess and subsequently rubbish disposal with a period of use spanning the early to middle period.

Structure 27 (Fig 48)



This lay to the rear of Structure 25, some 13m back from the street frontage but aligned gable-end on to it. Structure 26 lay to the west and

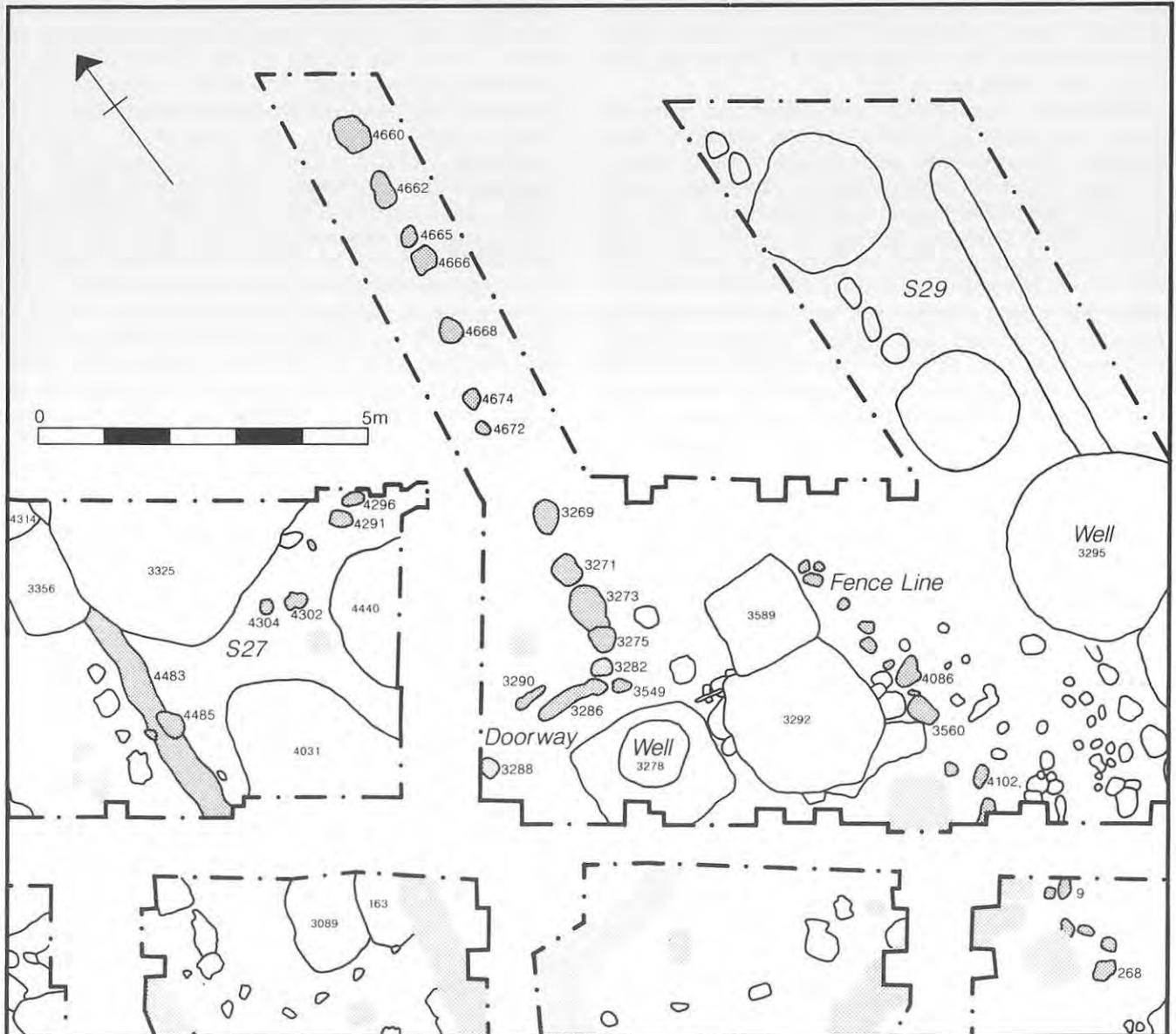


Figure 48 Structure 27 (SOU 30). Scale 1:100.

Structure 29 to the east, though both were probably later. If the layout suggested here is correct, the east wall comprised individual post-holes and the west wall was built using post-in-trench construction. Structure 27 was at least 8m long and 6.5m wide, and extended to the north beyond the limit of excavation. A narrow strip of ground was cleared along the projected line of the east wall, beyond the limit of excavation, in order to expose as much of this as possible.

The east wall comprised at least eleven post-holes, most subcircular or oval, the largest measuring 0.6m by 0.5m, and the smallest 0.2m in diameter. They were shallow, up to a maximum depth of 0.15m, and only one contained slight evidence of a post-impression. Spacing varied between 0.5m and 1.2m, with a larger gap of 1.5m between 3269 and 4672 – possibly a doorway. The

south-east corner was marked by a complex of features comprising 3275, 3282, 3286, and 3549.

Gully 4483, which marked the western wall line, had been cut by pits 3325, 3356, and 4314 towards the north end, and the south end lay in an unexcavated area. The remaining section was 4m long, up to 0.5m wide, and 0.2m deep. It was possibly associated with post-hole 4485, and slight traces of several other post-impressions were noted though no post-ghosts were visible in the fill.

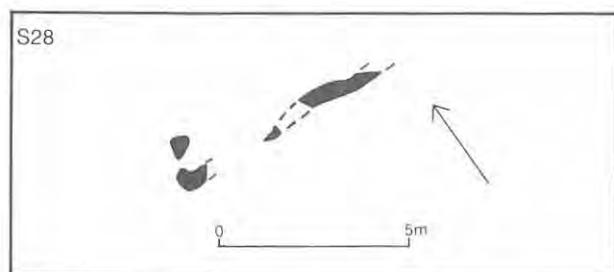
The southern wall line also extended beneath an unexcavated area, but comprised a shallow slot, 3386, and at least one post-hole, 3388, the gap of 1m between them being a possible doorway.

An irregular line of post-holes 4m from the south wall may have marked a partition, but no floor levels survived and the only other extant internal feature was perhaps pit 4440 towards the

south-east corner. This was circular, 2.25m in diameter, and 2.3m deep, though its comparatively large size throws some doubt on its having been an internal feature.

Structure 27 was an early building, probably dating to the earliest decades of the 8th century. It was cut by pit 3325, a very large subsquare or subrectangular feature that was at least 3m square and 2.3m deep. This was probably used for cess and rubbish disposal, and had become infilled by the mid 8th century, or shortly after, when it was cut by two adjacent, shallow subrectangular pits, 3356 and 4314, which may have had more specialised functions. Pit 4440 was infilled at a similar time to 3325, and 4513 somewhat later, probably in the middle of the 9th century. Several wells and pits lay in close proximity to Structure 27 and may have been contemporary and associated. These included well 3998 and pits 3316 and 3343 to the west (see Fig 47), and perhaps well 3278 and pits 3271 (not illustrated) and 3589 to the south-east; the latter seemingly respecting the fence line and probable property boundary to the east. It is possible that the area occupied by Structure 27 subsequently became subsumed into the property associated with Structure 25 to the south, in an expansion which also included the building of Structure 26. Prior to this it may have lain within a separate property with access to the street on either side of Structure 25.

Structure 28 (Fig 49)



The extent and nature of this building remain rather uncertain as relatively little of it survived extensive disturbance by modern pipe trenches. It is considered probable that it predated Structure 29 within the same property to the west of Structure 25. What remained indicated that it lay parallel and adjacent to east-west street I, and may have measured at least 10m by 4m.

Alongside the street, only 914, a 3.5m-length of gulley, survived. It was slightly sinuous, U-shaped in section, up to 0.45m wide, and 0.3m deep. No post-impresions or post-ghosts survived in the homogeneous fill of brown sandy silt loam. A possible western terminus was located, but 282, an L-shaped post-hole, 2m further to the west may have marked the corner. Arguments about the location of the west wall depend on resolving the position of the corner. The northern terminus of a largely destroyed gulley, 292, is considered most likely to

have marked the western wall line, with an ancillary structure or later extension to the west comprising post-holes 282 and 298. If gulley 292 did mark the west wall line, a slightly overshoot south wall adjacent to the street is indicated. The line of gulley 292 was continued to the north by a series of shallow scoops, 0.6m apart, containing single stake-holes. These may have marked an early fence line, perhaps an original property boundary.

The eastern wall line lay outside the excavated area, and no clear evidence for a north wall was found. The wall may have been marked by an irregular line of post-holes including 4106, 4110, and 4112, as well as 4395 further to the east. Such a line lay about 5m from the south wall, but the post-holes are considered below to have been more likely associated with Structure 29.

No internal features, hearths, or floors survived, and Structure 28 may have served a non-domestic function – as was perhaps the case also with Structure 18, a building that shared many similarities with Structure 28 (post-in-trench construction, an overshoot wall trench adjacent to the street, and an apparent absence of features marking the rear wall). The close proximity of 3299, a large, square, timber-lined well, less than 5m to the north, lends some support to the interpretation of a shed or workshop, perhaps open to the rear away from the street. The well's location, almost certainly within the same property, and its early dating (the timbers used in the lining were felled 695–733) make it very likely that it was contemporary and associated with Structure 29. Its unique size and method of construction (discussed below) can be explained if it had had an industrial rather than a purely domestic function. However, this function remains obscure. The only other features which lay within the excavated area and were probably contemporary with Structure 28 were a shallow pit, 4378, perhaps used to dig brickearth for daub and cut by well 3299, and a small, shallow pit, 280, cut by post-hole 298 at the west end of the building.

The limits of the associated property to the north and east lay outside the excavation. To the west they were probably marked originally by a fence line which continued the line of gulley 292 to the north. The line, immediately to the west of well 3299, was cut by two pits and well 3295, but was traced for a distance of at least 15m. It is possible that the boundary was subsequently extended 2m to the west as far as post-holes 282 and 298, which are thought to have marked the west wall of an ancillary structure or later extension to the west of Structure 28. These post-holes lay adjacent to post-hole 276 at the south-east corner of the postulated eastern extension to Structure 25. The structural sequence presented here envisages this extension having been later than Structure 28 and thus probably contemporary with Structure 29. The close coincidence of the eastern and western wall lines of the extensions to Structures 25 and 28 respectively suggests the existence of a long-lived boundary,

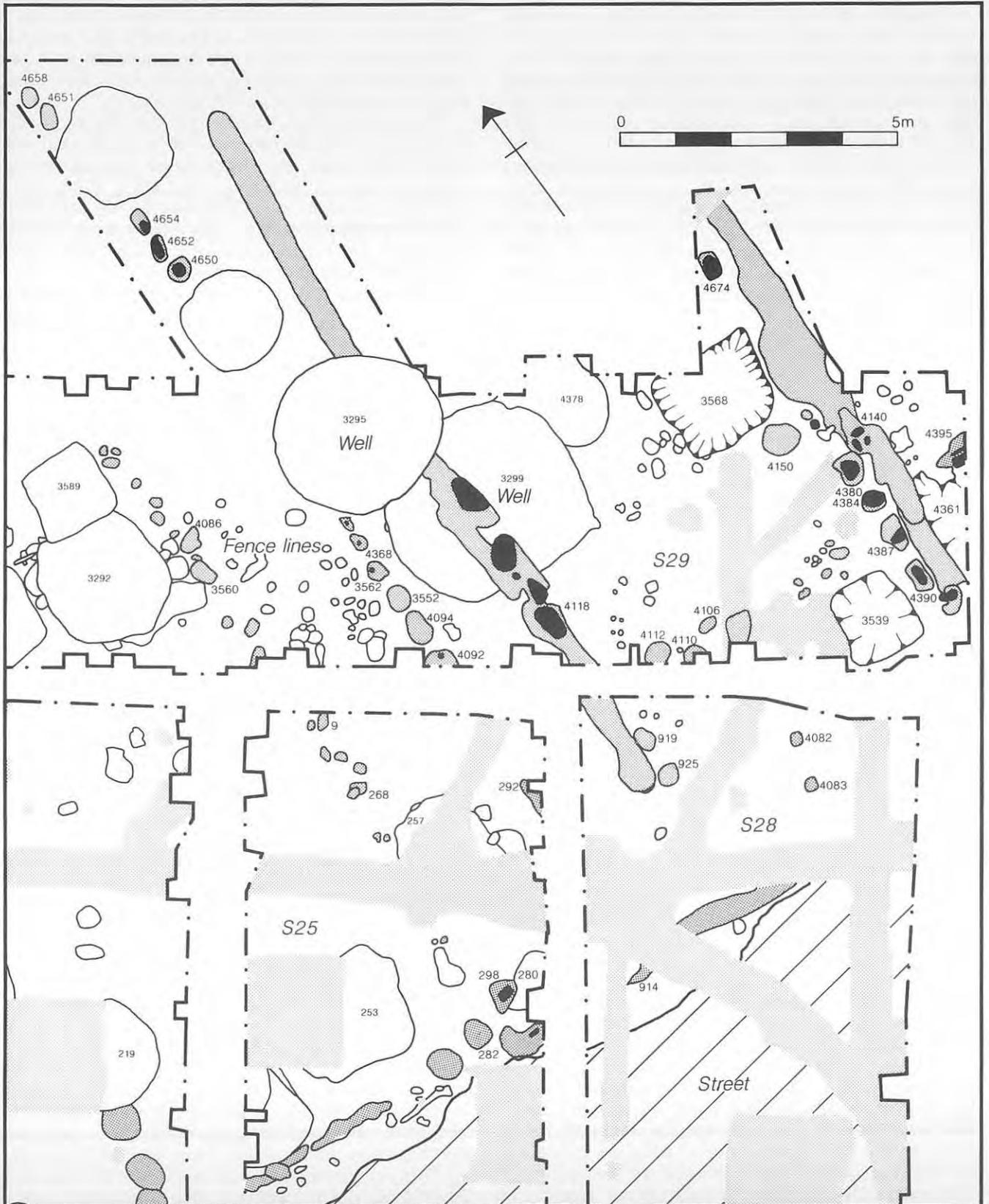
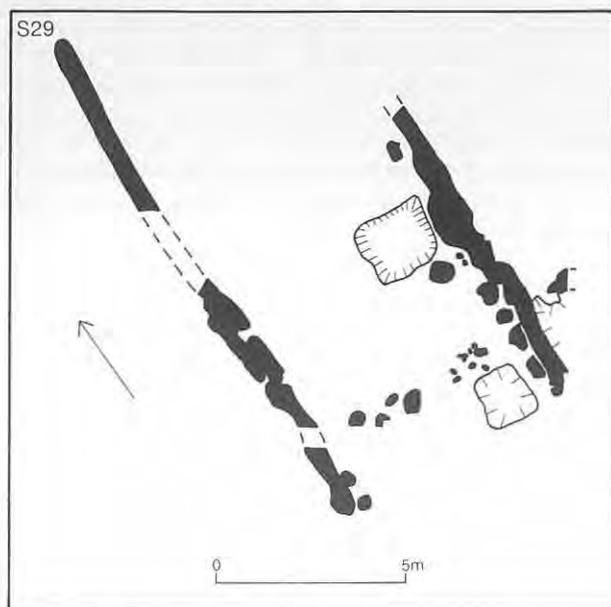


Figure 49 Structures 28 and 29 (SOU 26 and 30). Scale 1:100.

continued to the north as a fence line. This was probably established in the first half of the 8th century, replacing that to the east. Unlike the latter, this was not cut by any pits, but clearly respected by them.

Structure 29 (Fig 49)



This was a substantial building, of unique construction at Six Dials, which replaced Structure 28. It was aligned gable-end on rather than parallel to the street frontage, and set back 2.5m from it. The north end lay outside the limit of excavation; however, two strips were cleared along the projected lines of the east and west walls in order to expose them. There was some evidence to suggest that Structure 29 was rebuilt, but in its basic form comprised two wall trenches or gulleys along the east and west sides which were 14.5m long and appeared to be slightly bowed. The wall trenches were approximately 6.5m apart in the centre and 6.25m apart towards the south end.

The entire length of gully 4118 marking the west wall line was exposed, extending across the top of well 3299 which had been infilled, and cut by later well 3295. Only the section to the south of well 3295 was excavated, and it terminated in a slight bulge. Towards the south end it was 0.2m deep and between 0.3m and 0.4m wide; but it differed where it crossed well 3299, presumably because of the softer ground and because of subsidence into the well. Here, it appeared to have been rebuilt or reinforced by the insertion of several large timbers which had left post-impressions up to 0.3m deep and 0.65m by 0.3m, and which had themselves subsided as the well contents settled. No post-impressions or post-ghosts were noted elsewhere in 4118, which was filled with a large amount of burnt daub mixed with some charcoal.

The eastern wall line was marked by gully

4140, which was cut at the north end by a modern feature. The gully was less regular than that on the west side, but of similar dimensions. It did not extend as far to the south as 4118, but terminated within 4361, a slightly sunken, square or rectangular area. Context 4361 was probably contemporary with Structure 29 and associated with it; it is discussed further below. Approximately 5.5m north of the projected corner was a bulge along the inner line of gully 4140, coinciding with the rebuilt or reinforced section of the west wall. There were no post-impressions within 4140, nor any evidence that this particular section had been rebuilt, and it may therefore have been an original feature. However, along the inside of the southern end of gully 4140 were six post-holes, fairly evenly spaced between 0.6m and 0.8m apart, which may have represented a rebuild, a reinforcement to the existing wall, or conceivably even the insertion of a raised floor.

Another post-hole, 4674, lay to the north of the east wall; and two others, 919 and 925, at the south end of the west wall. They varied in shape, but all contained subcircular or subrectangular post-impressions up to 0.35m in length or diameter, and post-ghosts were indicated by concentrations of burnt daub in the central parts of the post-holes. The burnt daub in these, as well as in gulleys 4118 and 4140, suggests that the structural features were all broadly contemporary, and if not all dug at the same time at least went out of use together, apparently following the destruction of Structure 29 by fire.

No features marked the southern wall line, and that to the north lay outside the limit of excavation. There was only slight evidence for an original entrance along the sides. This was at the south end of the east wall, beyond where gully 4140 terminated, although it may have later been blocked by structural features set in post-holes 4387 and 4390.

Within Structure 29 were several features which are taken to have been contemporary. Approximately 2m from the south end was an irregular line of post- and stake-holes including 4106, 4108, 4110, and 4113, which most likely represents an internal structure or partition, though one that was very close to the south wall. None of these features contained burnt daub, and it remains a possibility that they were not associated with Structure 29, but instead marked the north wall of Structure 28.

Two subsquare pits, 3539 and 3568, lay adjacent to the east wall and it would appear that these were internal features. Pit 3539 was approximately 1.5m square, 3568 slightly larger, and both were 1.2m deep (see Fig 78). They had near-vertical, straight sides and flat bottoms suggesting that they had been lined. These were rather large for what is normally considered to be internal pits, but both contained substantial amounts of burnt daub (pit 3568 being almost entirely filled with more than 200kg of it), indicating that they had been open when Structure 29 was destroyed. The bottom fills

in both pits were thin layers of grey silty clay loams, but whether they were dug for storage, disposal, or some other purpose remains uncertain. The lower fills of both contained early pottery assigned to the first half of the 8th century.

There was clear evidence for there having been at least one clay or brickearth floor surface, though it was preserved only where layers had subsided into the top of well 3299. Within this feature were two superimposed surfaces, 3545, separated by a thin, dark (probable occupation) deposit, which extended up to the edge of the west wall line. The surfaces had not been burnt, but were overlain by 3544, a layer containing much burnt daub which extended into and filled gulley 4118. Layer 3544 was in turn sealed by two further layers of clay or brickearth, 3543, which extended up to the edge of gulley 4118. They too may have been floor surfaces. If so, they may represent continued use of Structure 29, or a successor to it, following its apparent destruction by fire – but no other evidence for reuse or rebuilding survived. Later cultivation had presumably destroyed any floor surfaces and hearths elsewhere within Structure 29. It was noted, however, that the soil overlying the natural brickearth did contain a considerable amount of burnt daub.

Immediately outside the south end of the east wall was 4361, a shallow hollow at least 2m square. Its location, alignment, and fill containing much burnt daub suggests that it was contemporary and associated with Structure 29. It was approximately 0.2m deep, with an irregular bottom cut by several stake-holes, a narrow slot, and a fairly substantial post-hole, 4369, which lay along the north edge and contained a double plank-impression at 90° to the wall line. A small external structure is indicated, but its purpose remains unclear.

There was evidence for a series of gravel yard surfaces, or perhaps paths, on the west side of Structure 29, outside the line of gulley 4118. Like the floor surfaces, these survived only where they had subsided into well 3299. There were several remetalings – but these may have been a localised response to the slumping. It is probable that the property extended 4m to the west, as far as the fence line which ran parallel to the west wall, with the area occupied by Structures 25–7 lying beyond. The northern and eastern limits lay outside the excavated area. At least three pits which may have been contemporary with Structure 29, or later, lay within the property.

Structure 29 is unusual by reason of its substantial size and its apparently bow-sided or curved walls. A closely similar arrangement of features, dating to the mid-11th century or later and excavated at Brighton Hill South, Hampshire, may represent the continuation of a vernacular tradition of which Structure 29 is a much earlier example (Fasham *et al* 1995, 88). It may have been domestic, though the two large, internal pits were an unusual feature. It was probably not the earliest structure on the site, and certainly postdated well 3299

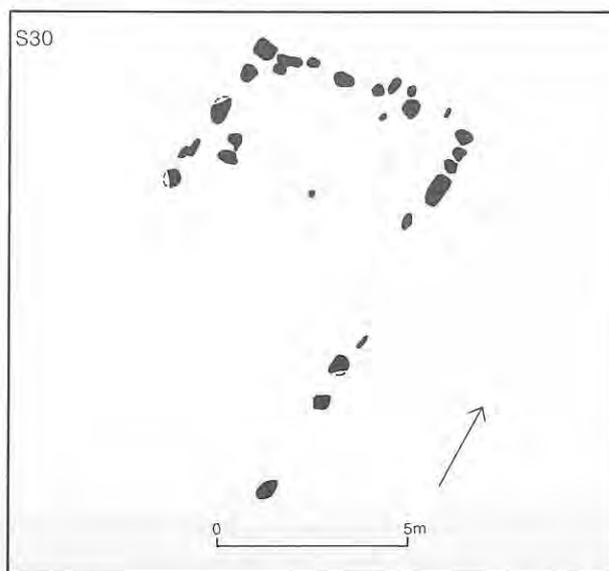
(likely to have been dug around the beginning of the 8th century). However, the evidence suggests that it was built during the first half of the 8th century, and perhaps remained in use until the early 9th century. It was cut by well 3295, which contained probable 9th-century pottery and a penny of Ceolnoth (coin 142, minted c 860) in the backfill of the well shaft; and the gulley, post-holes, and floor surfaces in well 3299 were sealed by layers containing later 8th- or 9th-century material.

No later structural features were recognised, but well 3295 (containing the Ceolnoth penny, which is one of the latest coins found at Six Dials) and a notable assemblage of sawn bone and antler from the top fill of pit 3539 indicate continued activity if not occupation of the area until the second half of the 9th century.

Structures 30–1 (Figs 50–1)

This house site lay adjacent to east–west street II, between structures 5–8 and 32. It comprised two major phases of building, both of which were aligned gable-end on to the street and occupied virtually the same area. Pit 15042 was earlier than these buildings, but no other features or layers were identified which predated them. Both buildings predated Structure 8. Structure 30 appears to have been a single-phase structure, but Structure 31 was more complex, and may have been substantially rebuilt on at least one occasion. The possibility that Structures 5–8 and 30–1 belong to a sequence of occupation within one rather than two properties is discussed further below.

Structure 30



The western wall line of this building was marked by a series of substantial post-holes of varying shape, 18813, 18871, 18873, and 18883, and a set of

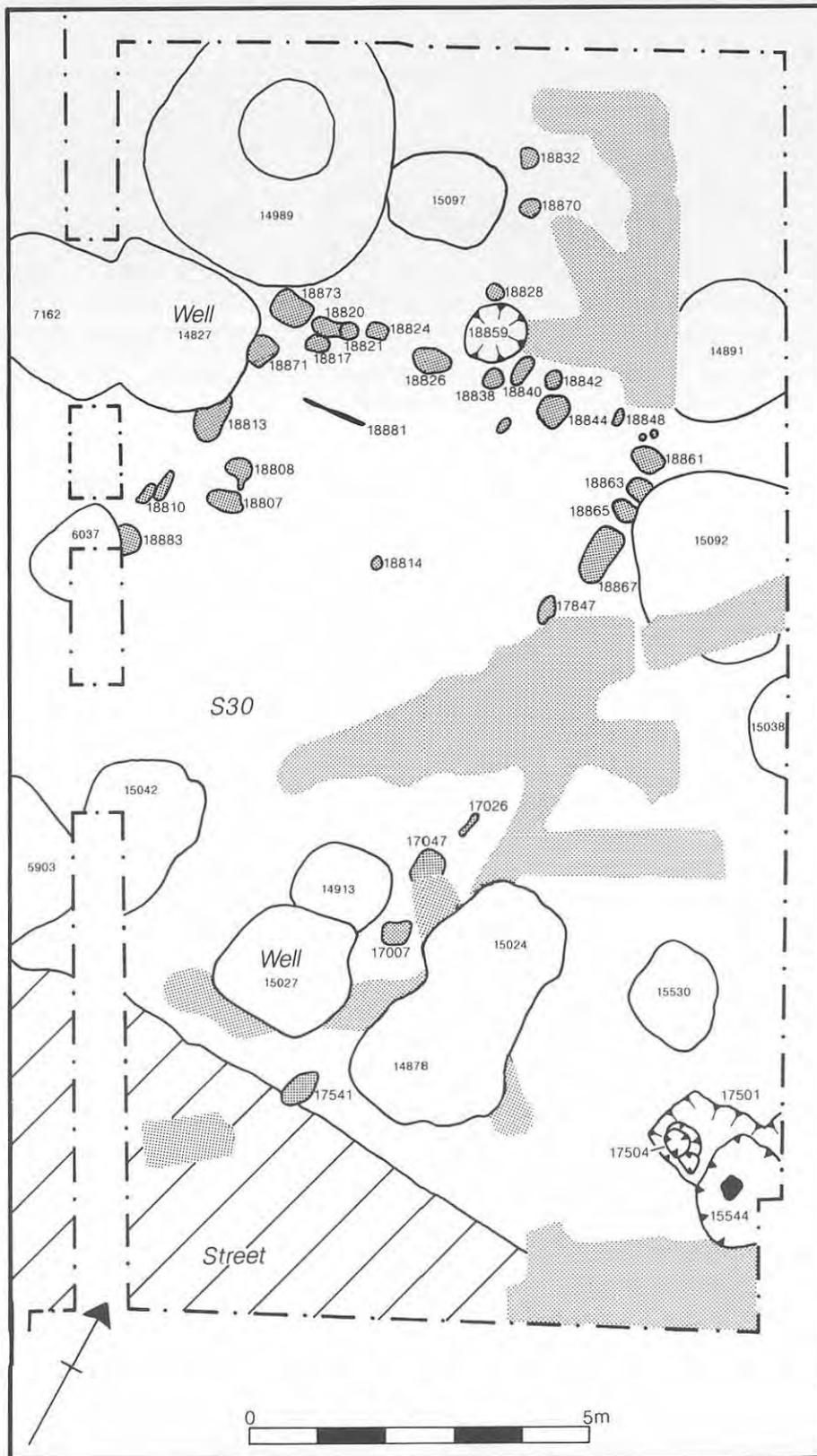


Figure 50 Structure 30 (SOU 258 T1). Scale 1:100.

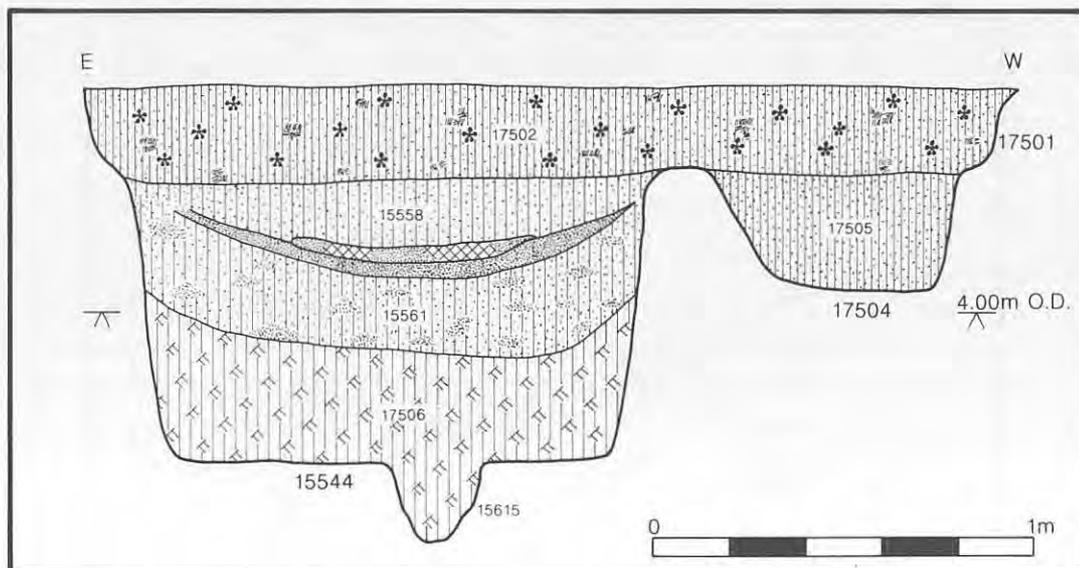


Figure 51 Pits 15544, 17501 and 17504 (SOU 258 T1). Scale 1:20.

double plank-slots, 18810. The southern part of the wall line and the south-west corner had been destroyed by a later pit, 5903. Post-hole 18873 in the north-west corner measured 0.6m by 0.4m and was 0.3m deep, and the others which comprised this line were of only slightly smaller dimensions. No post-ghosts survived in any of these features, though the double plank slots indicated that timbers up to 0.5m by 0.15m had been used. There was an element of regularity in the spacing of the post-holes, most lying approximately 0.75m apart (1.1m between centres).

The eastern wall line was also marked by a series of fairly substantial post-holes, the line of which had been partly destroyed in the middle and towards the south by modern service trenches. The features that made up this line were 17007, 17026, 17047, 17541, 17847, 18861, 18863, 18865, and 18867. Post-holes 17541 and 18861 marked the south-east and north-east corners of Structure 30, though these were no more substantial than any of the other post-holes. Post-hole 18861 contained the impression of a post approximately 0.25m in diameter. Although the eastern wall line did not survive for its original length, there was again some indication of the regular spacing of posts. The distances between the post-holes were very similar to those recorded in the western wall line, though posts in the opposing walls do not appear to have been erected as pairs.

The north wall was marked by a line of shallow features between the corner posts, 18861 and 18873. They were irregularly spaced, and generally subcircular or oval in plan, with a maximum depth of 0.2m.

With the exception of the corner post, 17541, there were no features which marked the southern wall line, though this would have lain immediately adjacent to east-west street II. It was not clear

where any doorways might have been located.

There were few internal features within Structure 30, and no clear evidence for floors, hearths, or a partition. The lack of floor surfaces and hearths within other early buildings in the area has been noted (for instance, Structures 1 and 5) and Structure 30 is not unusual in this respect. The natural brickearth might have been used as a floor surface, though a thin irregular spread of redeposited brickearth, 17752, in the southern part of the building (not illustrated) may have been the remnants of a floor. Above this was a thin spread of dark soil with some charcoal flecking, 17751, which might be interpreted as an occupation deposit within the building. These layers were also found, sunk into pit 15042. In the northern part of the building was a similar spread, 17297 (not illustrated), which overlay natural brickearth. It extended beneath the centrally placed hearths (15372 etc) associated with Structure 31, and there was no evidence for an earlier hearth in this position or elsewhere within Structure 30. Two oval post-holes, 18807 and 18808, set 0.5m within the western wall line, and a small central post-hole, 18814, on the same east-west alignment, could have marked the location of a partition approximately 3m from the northern end of the building. A narrow, shallow slot, 18881, in the north-west corner of the building, set 1m from the north wall and 0.75m from the west wall, indicated the location of an internal feature, though its function is unclear.

Structure 30 measured 10.5m by 6m. It was probably a domestic structure, though there were few internal features which would support this interpretation.

It could have been contemporary with Structure 5 to the west, and if so its construction would have predated the iron-working activity in the area.

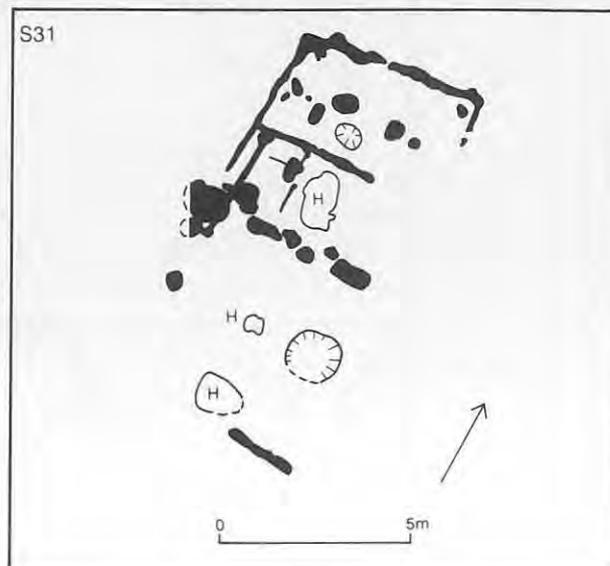
However, layers associated with Structure 30 had sealed pit 15042 which has been associated with Structure 5 (see above), and thus it is most likely that its construction and use postdated that of Structure 5. Structure 30 could therefore have been contemporary and perhaps associated with the earliest phase of iron working in the area, which may have commenced as early as the second or third decade of the 8th century. It is probable that Structure 30 predated Structure 32 to the west, and if so pit 15544 could have been associated with it. Pit 15544 was oval in plan, measured 1.75m by an estimated 1.4m, and was 0.95m deep (Fig 51). It was vertical-sided and flat-bottomed, and had a post-hole, 15615, centrally placed in the bottom. The post-hole was irregular in shape, measured 0.34m by 0.24m, and was 0.08m deep. The bottom fill, 17506, was a sterile, greyish-brown clay up to 0.5m thick. This also filled the post-hole. It was sealed by 15561, a greyish-brown soil with some brickearth mottling, and was sealed in turn by a layer of redeposited brickearth. At least five similar pits with post-holes in the bottom have been recognised in Hamwic, and several of these apparently had the remains of posts *in situ* (Morton 1992, 46). It is considered here that these may have been latrines with a central post possibly supporting a superstructure, perhaps a seat and shelter. The nature of the bottom fill in the example from Six Dials, and the layer of brickearth sealing it, would not be inconsistent with its interpretation as a latrine pit.

To the west of pit 15544 was a subrectangular hollow, 17501, 1.1m wide, at least 1.5m long, and 0.2m deep. It had near-vertical sides, and a fairly flat bottom. Towards the western corner of this feature was a small, subcircular pit or large post-hole, 17504, which was approximately 0.5m in diameter and 0.3m deep. It is uncertain whether 17504 and pit 15544 were truncated by 17501, or whether all three features were broadly contemporary and perhaps related in their use. Hollow 17501 contained a dark grey soil and a quantity of smithing slag, though it appears that the latter was redeposited in the feature from elsewhere and is unlikely to have been related to its use.

Neither pit 15544 nor pit or post-hole 17504 contained any smithing slag, and, although no relationships could be established between the three features, their stratigraphically early position in the sequence would not preclude their having been associated, perhaps as a latrine complex belonging to Structure 30.

No other pits can certainly be associated with Structure 30. Pits 14989 and 15097 are possible candidates, though it is more probable that they were associated with Structure 31, and are discussed further below. A line of shallow post-holes, 18828, 18832, and 18870, which extended northwards from the rear (north) wall of Structure 30 may have been a fence line which perhaps marked a property division associated with this building, or the subsequent structure, Structure 31.

Structure 31 (Fig 52 and Pl 20)



Structure 31 replaced Structure 30, and lay on the same alignment and on almost exactly the same site. It appears to have been a more complex, longer-lived structure, and was contemporary with Structure 6, the shed or shelter associated with iron working to the west, and probably also with Structure 32 to the east.

The various floor surfaces defined its limits quite clearly, but there were very few structural features which delineated the extent of this building. Within the building was a complex series of features associated with several phases of occupation, possibly spread over several decades.

Structure 31 was apparently divided internally into two or more areas; in the earliest phase this division was marked by a difference in floor surfaces between the north and south ends of the building rather than by any structural features. The earliest floor surface at the north end was a thin layer of brickearth, 17721, which extended 3m from the north wall of the building and clearly marked the location of the north-western and north-eastern corners. This floor appears to have been laid against the walls at the north end of the building (no other evidence for these walls survived). Floor 17721 was 20mm–30mm thicker around the edges, and this may have been the result of its having butted against the walls, rather than its having been worn away through use. Adjacent to floor 17721, and extending 2.5m to the south of it on the western side of the building, were two contiguous areas of brickearth floor, 15733 and 17298; these perhaps represented separate batches of brickearth prepared for use as flooring material. On the eastern side, floor 17721 extended further to the south, perhaps indicating the location of an internal doorway. At the south end of Structure 31 were the patchy remnants of a brickearth floor, 17230, but most of the area was covered by a thin spread of charcoal-rich soil, 17740, which contained a moder-



Plate 20 Structure 31 on SOU 258 T1. The ranging poles indicate the approximate positions of the east and west walls. Photographed from the south-west (scales in 0.5m units).

ate quantity of burnt daub. This may have been an occupation layer within the building, though the burnt daub might indicate that it was a destruction level perhaps derived from the partial burning of Structure 31. No deposits survived overlying the floor at the north end. A hearth, 15430, was centrally placed adjacent to the south wall of the building. This was constructed of a circular patch of cobbles approximately 0.75m in diameter, and overlain by a thin spread of burnt brickearth. Within Structure 31 were several features, though their purpose remains uncertain. A shallow slot, 15793 (not illustrated), approximately 1.8m in length, 0.3m wide, and 0.05m deep, lay immediately adjacent to the western wall. Three shallow, approximately circular features up to 0.6m in diameter, had been dug in the northern half of the building (17576, 17722, and 17755). All of these could have had a structural function, or they may have been related to the internal arrangements of the building. Context 17576 could have either held a ridge post or been a small storage pit, and 17755 may have been associated with a central partition or else was a second storage pit.

The second phase of the use of Structure 31 involved no major changes, but an internal structure was inserted adjacent to the west wall, and this may have replaced earlier features 15793 and

17755. It comprised two narrow, parallel slots, 16789 and 17189, approximately 1m apart. Context 17189 was 3m in length, was slightly enlarged at either end, and had a small extension on the west side. Context 16789 comprised two narrower slots which were slightly offset from each other. The northernmost of the two slots extended as far north as 17189, where it too was slightly enlarged. Its southern end was cut by a later post-hole; it had probably been about 0.75m in length. The southernmost slot was 0.85m in length, and stopped short of the southern end of 17189. A similar, but narrower and discontinuous slot linked 16789 and 17189 towards the northern end. It is uncertain as to what this internal feature was; the slots may have held planks, though no individual impressions were noted. No similar arrangements of internal features have been noted in any of the other buildings at Six Dials, and perhaps this group is best interpreted as having been associated with some form of bench or internal partitioning.

The northern extent of this internal structure would support the suggestion, based on the limits of floor 17721, that there was a partition at the north end of Structure 31. However, its extent to the south might indicate that there was no central division.

No floor surfaces, hearths, or occupation deposits could be assigned to this second phase, and it

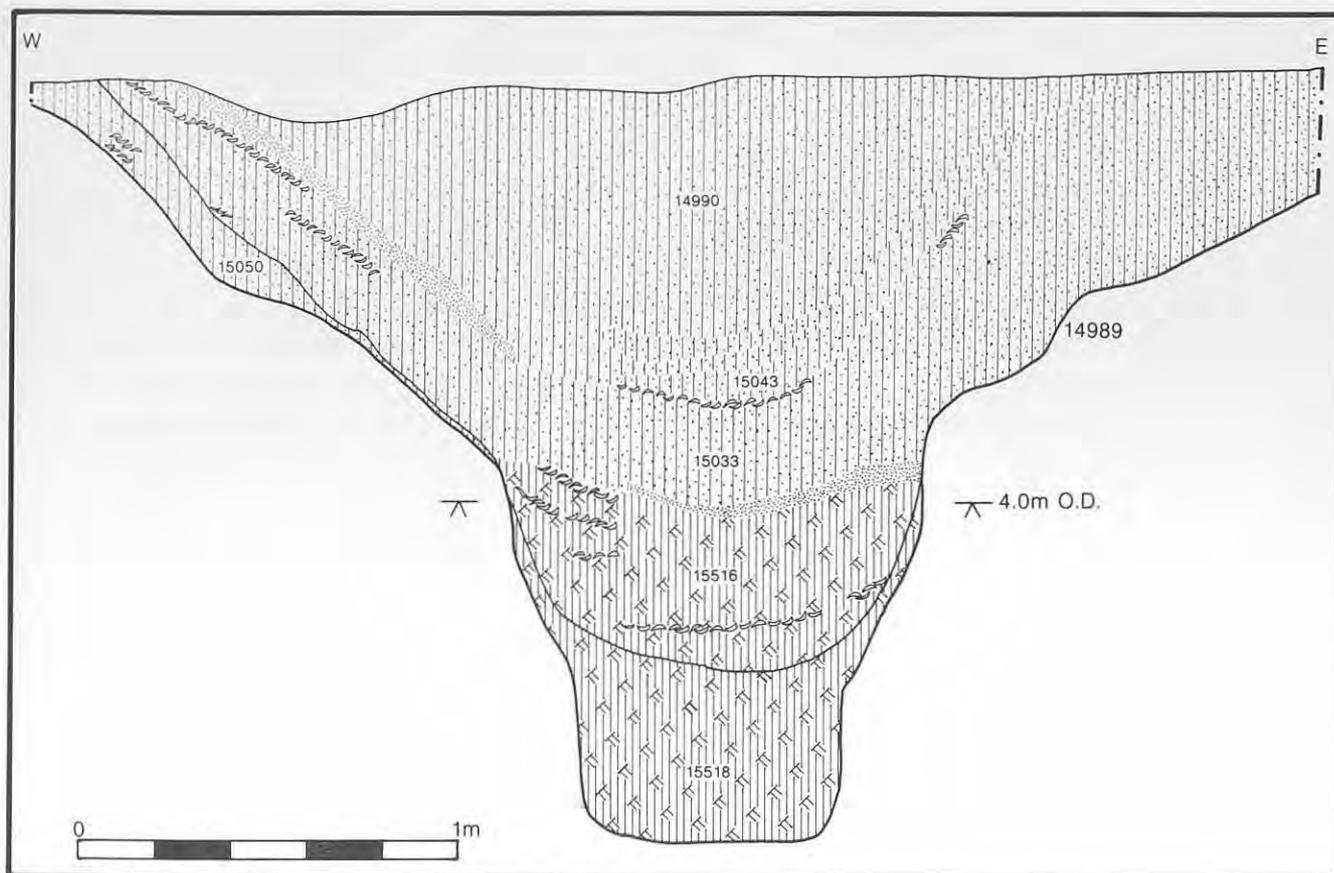


Figure 53 Pit 14989 (SOU 258 T1). Scale 1:20.

should perhaps be interpreted as a subphase of phase 1. However, some alteration to the internal arrangements took place, and it has been considered separately on this basis.

The third phase of Structure 31 was marked by the insertion of at least one substantial partition which divided the building into two or perhaps three areas (the divisions may have been present earlier in phases 1 and 2). As in the earlier phases, there were no structural features which marked the wall lines, which nevertheless were fairly clearly indicated by the extent of the contemporary floor surfaces. The difference in floor surfaces noted in phase 1 has been considered to represent a division of the building into two or three areas, although these divisions may not have taken the form of solid partitions. In contrast, the post-holes and slots which marked the central partition in phase 3 indicate that a line of substantial posts, perhaps infilled with wattle, divided Structure 31 into two equal areas. Access between the two ends of the building is likely to have been afforded by gaps at either end of the partition. The features which comprised the partition were 17148, 17185, 17187, 17195, 17231, 17234, 17251, and 18869. Their large size, up to 0.5m in diameter, 1m in length, and 0.7m in depth, suggests that they held timbers which did more than simply form a partition. It is likely that they formed a major structural element

within Structure 31, and would have supported much of the weight of the roof. The insertion of these timbers may have taken place as part of a partial or complete rebuilding of the structure, perhaps as a result of a fire. The possibility that Structure 31 was at least partially destroyed by fire and subsequently rebuilt is hinted at by the layer of charcoal and burnt daub, 17740, at the southern end of the building, and also by the substantial quantity of burnt daub recovered from layer 14896 in pit 14878, adjacent to the south end. This pit is discussed further below.

An irregular slot, 17136, 2m in length, 0.25m wide and 0.2m deep was dug along the front (south end) of the building adjacent to the street. It contained no post-ghosts or -impressions, but was probably a fence line or structural feature associated with the postulated rebuilding of Structure 31. It was not ascertained whether a similar slot lay to the west, but a possible gap might indicate the location of a doorway centrally placed at the south end which opened onto the street. It is suggested below that an earlier hearth in this position was no longer used.

In addition to the insertion of the central partition and the postulated rebuilding, the third phase of Structure 31 was also marked by a general replacement of the floors and hearth. At the south end, there was an even spread of pale grey ash,

16623, which may represent a floor, a destruction deposit which had been levelled, or perhaps an occupation build-up within the building. A small hearth, 16622, centrally placed within the southern half of the building, overlay this, and probably replaced hearth 15430 adjacent to the south wall which had gone out of use. Hearth 16622 comprised a circular area of burnt brickearth approximately 0.5m in diameter. Towards the north end of the building, a large hearth, 15732, was built adjacent to the partition. This hearth was built on a brick-earth floor, 16785, and measured 1.5m by 1m. A TRM date calibrated to cal AD 700–760 (at 68% confidence) was obtained from the hearth. Floor 16785 extended northwards from the central partition as far as the line of the earlier floors. This may indicate that some form of division continued, though the proximity to hearth 15732 renders it unlikely that there was any form of partition along this line. A thin, even brickearth floor surface, 16788, butted floor 16785 and covered the north end of Structure 31. As in the earlier phases, there were no structural features at the north end, though floor surface 16788 clearly marked its extent. This floor was overlain by a compact layer of dark greyish-brown soil, 16790, up to 30mm thick. Context 16790 may have been an occupation build-up within the building, and could have acted as a floor surface in the subsequent phase of building.

The fourth and final phase of the use of Structure 31 saw no major structural changes. Post-hole 17148 was replaced by 17187, and all other modifications were made internally. At the south end, hearth 15430, which may have gone out of use during phase 3, was replaced by hearth 17572. This was cut into the earlier layers, and comprised a circular base of fine to medium gravel overlain by two successive burnt clay surfaces, 17820, and 17569. Hearth 17572 was contemporary with a brickearth floor, 16620, which survived discontinuously over much of the southern end of the building. This floor was overlain by a layer of dark greyish loam soil, 15543, which contained small amounts of charcoal and burnt daub. The layer, although it did not extend beyond the limits of the building, may have accumulated following the abandonment of the building rather than during its use. Central hearth 15732 towards the northern end was relined, but no further brickearth surfaces were laid down. The compaction of layer 16790 (see above) may have resulted from its subsequent utilisation as a floor surface. Above it was 15794, an even spread of pale grey ash which extended up to the edges of the building, and which was cut by a number of stake-holes. This would suggest that layer 15794 accumulated or was deposited in the building during its use, and was not a destruction level. The lack of burnt daub and small quantity of charcoal in this layer would support this interpretation, though it is unclear whether it was laid as a surface, or whether it derived from some activity within the building. However, its extent and even-

ness, and the presence of a similar spread, 16623, at the south end of the building in the preceding phase, might suggest that ash was deliberately used as flooring material.

Several shallow features at the north end of Structure 31 cut ash layer 15794. Three of these, 14993, 15474, and 15476, were approximately oval in plan and lay in a line 1.5m from the north wall; two others, 16806 and 16787, were subrectangular, and set 1.5m apart and 1.5m from the west wall. These features may have had a structural purpose, though their layout would perhaps suggest that they were associated with internal arrangements, possibly benches.

Structure 31 was 10.5m long, and was almost certainly a domestic building. It exhibited an unusually complex occupation sequence, particularly for a structure along one of the east–west streets, albeit within 7m or so of the junction with the north–south street. The observed complexity is due in considerable measure to the survival of horizontal stratigraphy above the natural brick-earth; a fact that serves to emphasise how much information relating the structure, internal layout, and sequence of occupation may be lost in areas where this has been destroyed and where the only features that survive are those cut into the brick-earth. What might appear in plan to have been a simple, single-phase building may have had a much more complex and lengthy structural development. For example, this may have been the case with Structure 41, the basic plan of which is similar to Structure 31. Structure 41 also had a substantial central partition with an adjacent hearth, and there were few features which marked its extent. On this evidence it appears to have been a single-phase structure, though no floor levels except for the hearths survived.

The construction and use of Structure 31 probably dates to the second and third quarters of the 8th century based on the TRM date, and on the stratigraphic sequence.

The various phases of Structure 31 were almost certainly contemporary with Structure 32 to the east which was separated from it by an unmetalled alleyway up to 3m wide. This appears to have remained as an open thoroughfare for only a relatively short period before being dug through by several pits. Five pits, 14875 (not illustrated), 14878, 15024, 15092, and 15545, lay in the alleyway between the two house sites, and may have been associated with one or more phases of building to either side. All of the pits (except for 15092) intercut, though the relationships between them had been destroyed by modern service trenches. Two pits, 14878 and 15024, which lay adjacent to each other, were large, irregularly shaped features up to 2.5m in diameter and 2m deep. Both were dug to the underlying natural gravels and were probably intended as cess pits, though neither showed any evidence of having been lined. They had been dug up against the western wall line of Structure

32, but there was a gap of 0.5m between them and the eastern wall line of Structure 31 which may have continued to provide access between the buildings. After their initial use, 14878 and 15024 were sealed with layers of gravel and brickearth respectively, and subsequently used for the disposal of household refuse. A substantial layer of burnt daub, 15071, along with deposits of charcoal and ash in the upper part of pit 15024, was probably derived from the destruction of Structure 31. No other deposits of burnt daub were found in any of the surrounding pits and so it is possible that only the southern end of the building was affected. The adjacent pit, 14878, contained no similar deposits, and this may indicate that it was a later pit dug during phase 3 of Structure 31. Pits 14875 and 15545 to the north had been heavily disturbed by modern service trenches, but both had probably been subcircular hollows up to 1.5m in diameter and 0.5m deep. It is difficult to ascertain from their size, shape, and fill what their function may have been, though neither were typical cess or rubbish pits. Both could have been associated with Structure 30 or 31. To the north of these lay a large subcircular pit, 15092, up to 3m in diameter and in excess of 2.5m deep, which penetrated the natural gravels. This pit cut the wall lines of Structures 30 and 32, and is therefore most likely to have been associated with Structure 31. The bottom fills comprised a series of layers and lenses of grey soil, redeposited brickearth, and ash, which probably represent its initial use as a cess pit. These deposits filled half the pit, and were overlain by a substantial layer of smithing slag, 15411. It is most likely that this was derived from the iron-working activity which spread over the area occupied by Structure 31 after that building went out of use.

To the north of Structures 30-1 lay two pits, 14989 and 15097, which were probably associated with these buildings. 15097 was subrectangular, 1.4m deep, and probably dug for the disposal of cess. Immediately to the west of this, and perhaps dug slightly later, was a large funnel-shaped pit, 14989 (Fig 53). This was oval in plan, and measured 4m by 3.5m at the top. The sides sloped in at approximately 45° to a depth of 1m, but below this they were almost vertical down to the bottom at 2m. The lower fills were a mixture of grey soils and redeposited brickearth which suggests an initial use as a cess pit, though the profile of the pit might indicate that it was dug to serve a more specialised function. Above the bottom fills was a series of layers which had slumped into the top of the pit, and probably derive from its subsequent use for rubbish disposal. The funnel-shaped profile was a deliberate form of construction rather than the result of the weathering around the top. The sides were quite regular and smooth, and there was no evidence for any lining, nor for any collapse having taken place. It seems likely that the pit was a finished feature, rather than having been, for example, an unfinished well. There are no parallels

for this feature in Hamwic, and its original function remains uncertain.

To the west of Structure 31 was a subsquare pit, 14827, which cut the western wall line of Structure 30. This pit was not fully excavated, but the homogeneous nature of the fills, which were mainly mixed gravel and brickearth, suggests that it was probably a well. This interpretation is supported by the degree of slumping which had occurred towards the centre of the feature, possibly indicating the presence of a shaft. To the south of this probable well was a layer of charcoal and smithing slag, 17807, up to 0.15m thick, which had accumulated against the west wall of Structure 31 and sealed several of the post-holes which marked the western wall line of Structure 30. The charcoal and slag was part of a more extensive spread of industrial debris associated with the iron-working activity at the junction of the north-south street and east-west street II. If pit 14827 was a well, it would have provided a ready source of water for domestic use in Structure 31 and for industrial use, perhaps for quenching in the iron-working process.

Structure 8 succeeded Structure 31, and was aligned parallel to east-west street II. Structure 8, which was probably constructed and in use during the last quarter of the 8th and first quarter of the 9th century, is discussed further above. The discontinuous gravel spreads, probably yard surfaces, and the overlying spreads of charcoal and smithing slag which postdated Structure 8, extended up to what had been the alleyway between Structures 30-1 and 32. This would support the contention that the alleyway marked the eastern boundary of a property which in penultimate form was delineated to the south by east-west street II, to the west by the north-south street, and to the north by house site 9-13. This property appears to have been associated with iron working, probably smithing, in all but the earliest phase (represented by Structures 5 and 30).

After Structure 8 went out of use the area continued to be utilised for iron working, though no coherent structural plans survived from this phase. The later evidence comprised several burnt areas, perhaps hearths, and a further series of discontinuous spreads of gravel, charcoal, and smithing slag. The spreads extended over house sites 30-1 and 32 to the east. This might indicate that an earlier property division had ceased to exist, and that either two properties had been amalgamated or that the earlier boundaries were no longer maintained.

Three pits might be assigned to this phase though they could have postdated it. Pit 15027 was a well (not fully excavated) which had a square well pit and a circular shaft; it cut through all the surfaces associated with Structures 8, 30 and 31. Pit 15530 was a small, shallow, irregularly shaped pit which cut all the surfaces associated with Structure 32. Its function is not clear, but it seems not to have been dug for either cess or rubbish

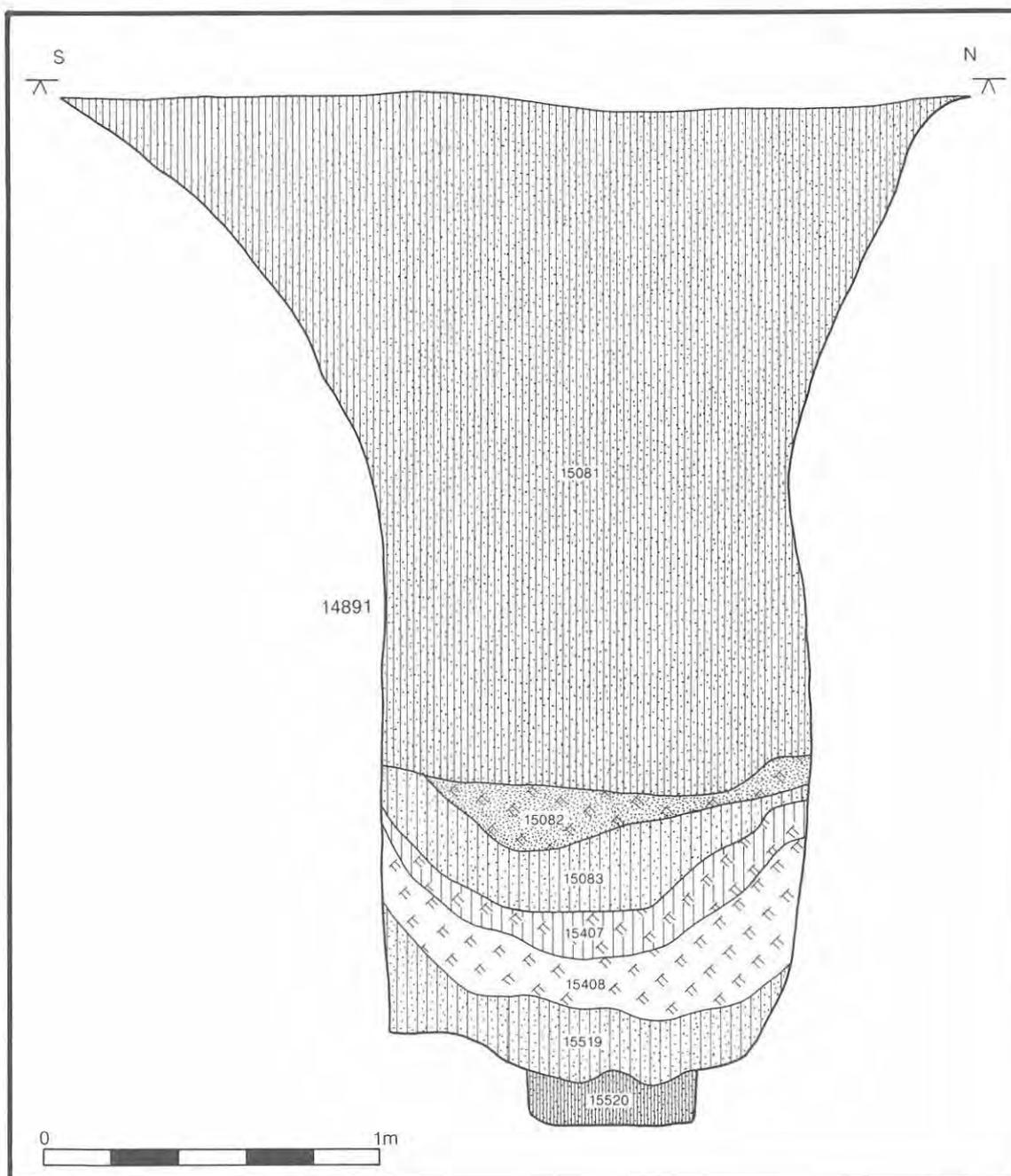
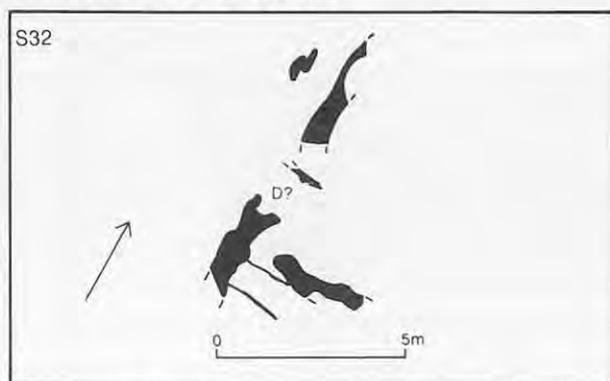


Figure 54 Pit 14891 (SOU 258 T1). Scale 1:20.

disposal. Pit 14891 (Fig 54) was a large circular pit, 1.6m in diameter and 0.15m deep in the centre at the bottom. The depth of the pit, and the cut which could have held a barrel or stave lining, suggest that it may have been dug as a well. However, the pit fills were not typical of a well, and the feature would seem to have been used for rubbish disposal. The bottom fills were organic and well preserved, and were probably domestic refuse rather than cess. This pit has been assigned to a late phase on the basis of a coin of Burgred (852–74) which was recovered from one of the upper fills, 15081. (The coin is described below, p 212.) To the west, several

other pits were probably broadly contemporary with pits, 14891, 15027, and 15530. These comprised 5903, 7162, and 14827 (see Fig 31). The coin of Burgred would suggest that this phase of occupation, which may have followed the iron-working activity, might be dated to the middle decades of the 9th century. The subsequent use of the area as a graveyard is discussed further below (p 202).

Structure 32 (Fig 52)



This lay to the east of Structures 30-1, and was separated from them by an unmetalled alleyway up to 3m wide. No complete ground plan was recovered as the building lay partly outside the excavated area, though it was clear that it lay gable-end on to east-west street II. Pit 15544, and features 17501 and 17504 predated Structure 32, and were probably associated with Structure 30 which is considered to have been earlier than Structure 32.

Structure 32 may represent two superimposed buildings though it is difficult to be certain since very little survived and both the northern and eastern wall lines lay outside the excavated area.

In what is taken to be the earliest phase, two short offset slots, 16249 and 16251, marked the west wall line which had been largely destroyed by later pit digging. These slots, approximately 0.75m long, up to 0.25m wide, and 0.45m deep lay 2m to the east of Structure 31. The south wall was marked by a slot, 17395, which was 1.6m long, 0.25m wide, and 0.2m deep, and which appears to have been butted by the metallings on east-west street II. A gap to the east may have marked the location of a doorway, centrally placed at the south end of the building. There were no post-ghosts or -impressions in any of these structural features.

Within the building were three parallel slots which extended from the western wall line. Contexts 16335 and 16339 formed a pair 0.75m apart and an estimated 2.5m in length. They were up to 0.07m wide and deep, slightly irregular, and contained no plank-impressions. Context 16656, a shorter, slightly broader, but more irregular slot, lay 2.5m to the north of 16339. A brickearth surface, 16379, which overlay natural brickearth, formed a floor within Structure 32. It is not certain whether 16379 was a deliberately laid surface or a layer of disturbed natural within the building. A large number of small stake-holes cut it, but no coherent patterns could be distinguished. A thin layer of dark, charcoal-rich soil, 16378, overlay 16379 and was probably an occupation deposit. A subcircular area of burnt brickearth, 15559, which had slumped into pit 15544 beneath the southern end of the building, may have been a hearth.

It is difficult to assess the form and function of the putative early phase of Structure 32. The

shallow slots and the large number of stake-holes within the interior suggest that it may not have been domestic. Slots similar to 16335 and 16339 are recorded from a structure at Melbourne Street, but are not interpreted (Holdsworth 1980, 32, fig 7,1). Perhaps they should be seen as some form of internal divisions or structure within a building which had an industrial rather than a domestic function.

What is taken to be the second phase of Structure 32, or perhaps a replacement of it, lay in the same alignment as the first phase but was offset approximately 1m to the east. The western wall line was marked by two very irregular, flat-bottomed trenches, 14974 and 15742. These were up to 0.75m wide and 0.15m deep, and a gap of up to 1.5m between them may have marked the location of a doorway. Their fills were homogeneous, and no post-ghosts were detected. However, seven small slots and post-holes adjacent to the western edge of trench 15742 appear to have been associated with it. These features, 16217, 16219, 16639, 16641, 16643, 16645, and 16647 (not illustrated), were closely spaced over a length of 1.5m, up to 0.2m in length and 0.2m deep.

The southern wall line may have been adjacent to east-west street II, though there were no structural features which marked this, and it is unclear how far the associated floor level originally extended. The west wall line did not extend as far south as the street, and this might indicate that Structure 32 was set back a metre or so from it.

Towards the southern end of Structure 32 was an irregular, shallow trench which may have marked the location of an internal partition. This feature, 15695, was up to 0.75m wide and 0.12m deep, but contained no post-ghosts or -impressions. If it did hold a partition, this would have stood between 1.5 and 3m from the south wall, and immediately to the south of the doorway in the west wall. Gaps of approximately 0.75m at either end between it and the side walls would have provided access between the two ends of the building. To the north of the postulated partition was an even layer of brickearth, 16344, which had probably been laid down as a floor surface. This was cut by a large number of stake-holes which formed no recognisable pattern, and some of which may have belonged to a later phase of activity. At the south end of the building there were two successive, discontinuous spreads of pale grey ash, 16361, and 16332, but there was no evidence for a hearth.

Pits 15092 and 15530 (discussed above, with Structure 31) also postdated this phase of Structure 32, as did pit 15038, which lay mostly outside of the excavated area. As with the earlier phase of Structure 32, it is difficult to say much about the form and function of this postulated second phase. It was at least 8m in length, probably about 5m in width, and is likely to have been broadly contemporary with the later phases of Structure 31. Although the form and arrangement of structural elements is unusual, it should perhaps be considered as a

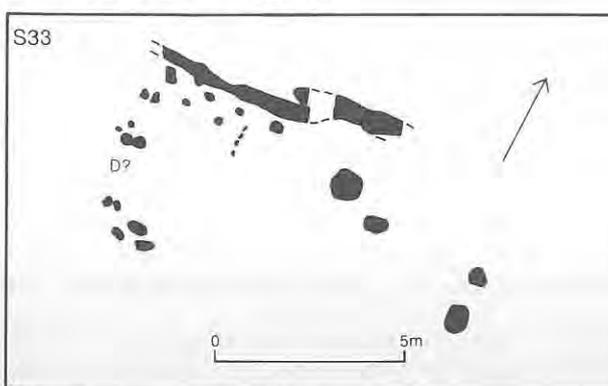
domestic structure erected and in use during the later 8th and early 9th centuries.

Structures 33–6 (Fig 55)

A sequence of structures can be suggested within a single property occupying an area approximately 12m square and adjacent to the north–south street. Structure 35, built alongside the street, would have been replaced by Structure 33 and its associated shed or shelter, Structure 34, both of which lay further to the east. These would have been succeeded by Structure 36, again alongside the street. It may have been the last property in this area – although later ones could have been lost to the 19th-century basements that heavily truncated the area.

It appears that Structures 33 and 34 were associated with much of the burnt chalk in the area. Contemporary pits included 7865, filled with burnt chalk, and 7235, the fills of which comprised substantial deposits of burnt chalk, and brickearth mixed with gravel (see Fig 95 for both). Pit 7235, 1.8m in diameter and at least 1.6m deep, with stepped sides, may have had an industrial function connected with hide preparation. Other pits that contained deposits of burnt chalk, but which were probably dug for the disposal of cess and domestic rubbish, included 7217, 7252, and 7289 (all dug apparently respecting Structure 33), and 7234 and 7536 (which also contained notable concentrations of bone- and antler-working debris). The pits containing deposits of burnt chalk all contained pottery of early to mid date, which implies that the activity associated with chalk burning continued from quite early in the 8th century until at least the latter part of that century. Other possibly contemporary pits, which did not include burnt chalk, were 7772 in the pit alignment to the north and some in the group at the west end of the pit alignment to the south. Well 7804 may have supplied water for hide preparation, as may have done Well 7230 to the south, though the latter possibly postdated Structures 33 and 34.

Structure 33 (Fig 55)



This lay some 19m south of east–west street I and at least 8m from the north–south street. Structure

34 lay to the north, Structure 15 to the east, Structures 9–13 to the south. The exact ground plan was not clear, though it probably covered an area of approximately 10m by 4m and was aligned parallel to the east–west street.

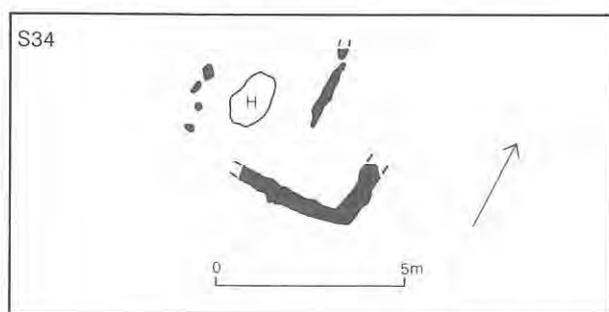
The north wall was marked by a series of at least five irregularly shaped post-holes between 0.65m and 0.8m apart with a double post-hole, 7370, in the north-west corner being the most substantial. The line of this wall and that of the south wall were less certain towards the east end, and the exact position of the east wall remains in some doubt. The only surviving evidence for the south wall was a somewhat irregular group of shallow post-holes comprising 6452, 6454, and 6456, with a pair, 5698 and 5700, perhaps marking the south-west corner. Possible pairs of post-holes, 7371 and 7445, and 7372 and 7460, may also have marked the eastern wall line, or may have been a rebuild (see below). Two substantial post-holes, 4648 and 4903, cut by the edge of pit 4612, have been assigned to the east end; these were 1.2m apart and would have been centrally placed in the east wall. However, their distance from the other structural features assigned to Structure 33, and their proximity to Structure 15 may mean that they were in some way associated with the latter structure. Furthermore, both contained post- or plank-impressions which in 4903 were aligned at 90° to the wall line.

Inside were several features, some of which were probably unrelated to Structure 33. A line of four plank-slots, 7723, formed a right-angled arrangement with a further line to the north truncated by gully 7366. These probably belonged to a small structure of uncertain form and function which predated Structure 33, and was similar to Structure 53 on the west side of the north–south street. It may have been contemporary with Structure 35. Post-holes 7374 and 7464, parallel to the north wall, were probably part of an internal arrangement, though the possibility cannot be discounted that they represent a partial rebuild along with some of those in the west wall. Towards the east end, shallow post-holes 4939 and 5226 may have been related to Structure 33, but this is not certain. The location of doorways was not ascertained nor were any hearths found, though several later pits at the east end of the building may have removed any evidence for hearths. Possible remains of an occupation deposit did survive at the west end in the form of a discontinuous spread of dark greyish brown soil apparently restricted within the limits of the building. This produced only early pottery.

Parallel to and immediately outside the north wall line was a shallow gully, 7366, up to 0.4m wide and 0.15m deep, which extended beyond the west end of the building as 7738, and to the east as gulleys 7512 and 7533, offset to the north. The latter features, cut by pit 7504, were more substantial than 7366; and 7738, cut by pit 7235, survived as little more than a mottled soil stain in the

built fairly early during the 8th century, with Structure 33 perhaps continuing in use until the second half of that century, and Structure 34 until the same time or slightly earlier. All of the pits which lay in the area occupied by Structure 33, notably 4603, 4607 and 4612, apparently postdated it, though all but 4603 contained early pottery in their lower fills. Gulley 7366 and its continuations to the east and west were also cut by pits containing pottery that dates to the early and middle parts of Hamwic's sequence, though the relationships with 7235 and 7289 were not unequivocal; pit 7289, probably a large cess pit, appears to have been dug in the alleyway between Structures 33 and 34. Most of the other pits in the area were probably associated with later structures to the west along the north-south street frontage. It is probable that pits contemporary and associated with Structure 33 lay within the large intercutting group to the south which are considered to have marked a major property boundary approximately midway between east-west streets I and II.

Structure 34 (Fig 55)



This appears to have been a small shed or shelter which lay to the north of Structure 33 and may have been associated with it. Its exact layout was not determined, but it was aligned parallel to the east-west street and probably measured approximately 5m by at least 2m.

The southern and eastern wall lines were marked by 7406, a shallow, irregular, right-angled trench or gulley, up to 0.5m wide and 0.15m deep, which had been cut by pit 7234 to the north and pit 7408 to the west. A few irregularly spaced stake-holes were noted in the bottom of this trench, but no post-impressions or post-ghosts were present and it is possible that it was not a structural feature. The nature of the fills further supports this possibility; a lower fill of brown sandy loam containing some iron slag, burnt pottery, and burnt bone was sealed by a layer of brickearth. A shallow post-hole either cut by gulley 7406 or part of it contained a Series E sceat (Metcalf 1988: Coin 9) minted in the first quarter of the 8th century.

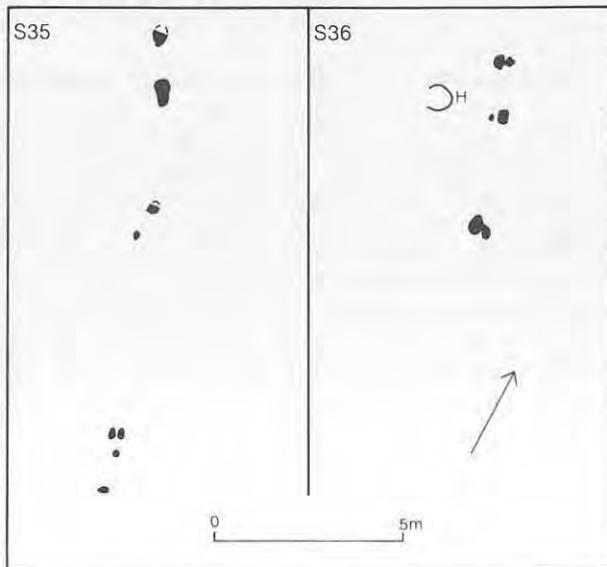
Several small post-holes comprising 7888, 7892, 7894, and 8167 appeared to mark the west wall, and perhaps not coincidentally also continued the line of soil stain 7739 to the south (Structure 33).

No evidence of a north wall survived; this may have been cut away by pits 7765, 8078, and 8249, though it is also possible that Structure 34 was open on the north side.

Two features lay within Structure 34 and were possibly associated with it. Context 8086, cut by pit 8078, was an irregular V-shaped slot which may have held some form of partition towards the east end of the building. To the west of this was hearth 8197 set within the upper fill of pit 7898 and centrally placed towards the west end of the building. This hearth comprised an oval, bowl-shaped area of burnt clay measuring approximately 1.5m by 1m. Some evidence of a later relining and the lack of a flint cobble base were features more characteristic of the possible hide-smoking hearths on SOU 26 rather than the normal domestic hearths, and it may be significant that there were extensive deposits of burnt chalk in the area which were probably associated with leather working – though it is clear that more than one phase of chalk burning is represented.

The principal feature associated with the burnt chalk was pit 7865. This was a rectangular, flat-bottomed pit, 1.4m by 1m and 0.5m deep, which lay immediately to the west of Structure 34. It was entirely filled with white burnt chalk containing a small amount of oyster shell (see Fig 95). There was some undercutting of the sides, though three stake-holes around the bottom edge may have held some form of lining in place. Surface deposits had largely been truncated in this area by 19th-century basements, but discontinuous spreads of burnt chalk did survive in some places directly overlying natural brickearth, with more substantial quantities present in several pits in the vicinity. To the west, the spreads appeared to extend up to the eastern wall lines of Structures 35 and 36; the upper part of pit 7235 which cut them was filled entirely with burnt chalk. To the north, pit 8249 which formed part of a long line of pits marking a major property division contained burnt chalk, mostly in the upper fills, as did pit 7898 within Structure 34. Although burnt chalk was present in the alleyway between Structures 33 and 34, it did not extend across the line of Structure 33, which suggests that the building was standing at the time of deposition.

Structure 35 (Fig 55)



The eastern wall line of Structure 35 was marked by a series of at least five shallow post-holes which may have been regularly spaced 1.5m apart, though the limits of the wall line remain uncertain. It most probably extended over a distance of up to 12m from 8175 in the north to 4996 in the south, the latter coinciding with the projected line of a major property boundary midway between east-west street I and east-west street II, and extending east from pits 4635 and 4701. Alternatively, the wall line could have extended a similar distance from a double post-hole (not illustrated) cut into the top of pit 9018 to the north, to 7744, in the south. However, this would have crossed the projected line of another major east-west property division represented by a line of pits including 7772, 8078, 8249 etc, and is therefore deemed less likely. All the post-holes had probably been heavily truncated, and the wall line was cut by wells 7230 and 7804, and pit 7235. Post-hole 8125 contained a double plank-impression, and 4992 appears to have been a double post-hole.

No floor levels survived. Post-hole 8177 may have been an internal feature or possibly even have marked the northern wall line. Hearth 7775 is considered below to have more likely belonged to Structure 36.

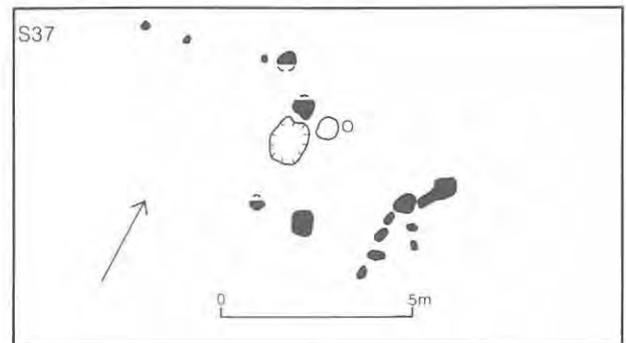
A stratigraphically early well, 8196 (not illustrated), which lay immediately to the north of well 7804, may have been associated with Structure 35. It lay at the western end of a line of at least eighteen pits that marked a property division to the north. Pit 8249, nearby, may also have been associated, as may other early pits including 4703 and 7283 (close to the south-east corner of the building), and 7261 and 7898 (to the east). To judge from the very limited evidence available, a date of construction early in the 8th century is suggested for Structure 35.

Structure 36 (Fig 55)

The eastern wall line of Structure 36 was marked by at least three shallow, double post-holes 7340, 7820 and 7834, with the possible remains of a fourth to the north. These appear to have been heavily truncated, but may have been spaced at regular intervals of 1.5m and have extended over a distance of at least 6m. No floor levels survived, but hearth 7775 has been assigned to Structure 36 on the grounds that it would have been centrally placed within this structure, rather than adjacent to the east wall in Structure 35. Post-hole 8177 could have marked the north wall of Structure 35, or been an internal feature within Structure 36, or been part of a further structure of which no other trace has survived.

Pits contemporary with Structure 36 may have included 4607 and other probable 9th-century pits in the group postdating Structure 33 in the pit alignment to the south, as well as 8078 in the alignment to the north, and 7408, a square, shallow, undated, brickearth-filled feature which postdated Structure 34. In addition to these, the hollows created by subsiding fills in earlier pits are likely to have been used for rubbish disposal. However, later pits appear to be conspicuously absent, perhaps indicating a general abandonment of this property or area fairly early during the 9th century.

Structure 37 (Fig 56)



This lay adjacent and parallel to east-west street I, but set back some 2.5m to the south of it. Structure 38, also set back from the street, lay to the west, and Structure 16 lay to the east, separated from Structure 37 by a metalled alleyway 3.5m wide. Part of Structure 37 was obscured by an unexcavated baulk, and later pits 8012 and 8033 had been dug though the west end removing any evidence for this, making the exact layout somewhat uncertain. However, it would appear to have measured approximately 8m by 4m.

The eastern wall line adjacent to the alleyway was the clearest, marked by a series of six closely spaced but irregularly shaped and sized post-holes. One of the smallest, 5710, lay in the south-east corner, with the largest, 5721, apparently marking the north-east corner though offset from the line of

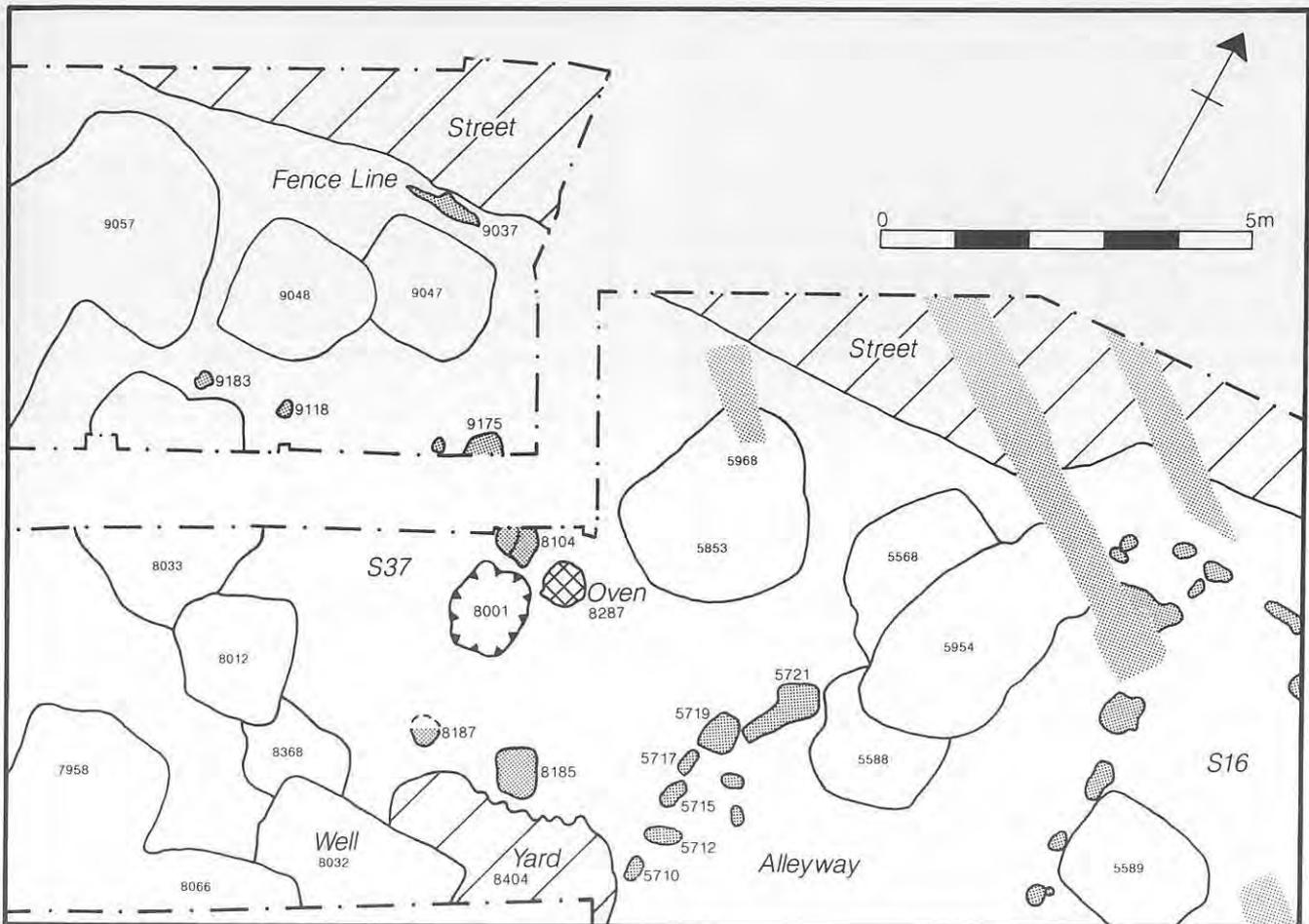


Figure 56 Structure 37 (SOUs 24 and 31 T3). Scale 1:100.

the other post-holes. Little survived to mark the line of the north wall, except towards the west end where there was one large post-hole, 8104, and two small post-holes, 9118 and 9183, the latter probably marking the north-west corner. A large post-hole or slot, 8104, lay approximately midway along but inside the line of the north wall. This may have been paired with a correspondingly substantial, circular post-hole, 8187, in the south wall. A large, subrectangular post-hole, 8185, was the only other structural feature marking the southern wall line, and like 8187 it contained no post-impressions and was uniformly filled with yellowish-brown brick-earth. However, the line of the south wall was clearly defined in this area by the northern limit of a cobbled yard surface, 8404, which lay to the rear of the building.

No certain floor levels survived and the location of doorways was impossible to ascertain, but two probable internal features were present. Context 8287 is interpreted as the remains of a collapsed oven which had survived partially upstanding because of its resistant nature. It was a dome-shaped feature which lay approximately midway along the north side, adjacent to the wall. It measured 0.5m in diameter, was 0.3m high, and

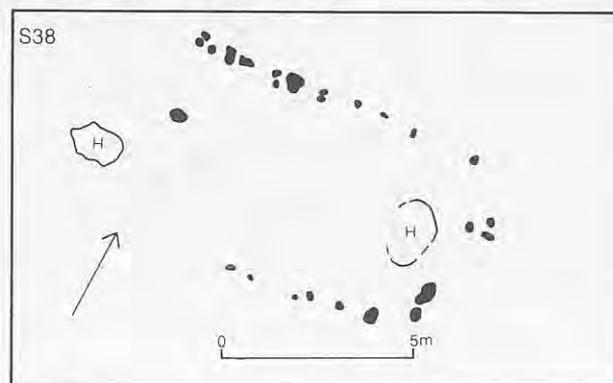
comprised eight superimposed layers of burnt clay of varying hues. The uppermost surviving layer contained fragments of daub-like clay lining and reused tile, and one of the lowest contained numerous small burnt flints, perhaps representing the original floor of the oven which had been set into a shallow hollow. However, this sealed a thin spread of ash and a further layer of burnt clay, perhaps the remains of a precursor to oven 8287. Heat from the oven had reddened the surrounding natural brick-earth and the overlying spread of sandy loam, 8407, perhaps a remnant occupation deposit. Immediately south-west of oven 8287 and centrally placed within Structure 37 was 8001, a subrectangular pit which measured 1.2m by 1m, and was 0.8m deep. This was near-vertically sided, and there were six irregularly spaced stake-holes in the flat bottom. The lower fill was a very dark grey clay loam containing abundant charcoal which was sealed by similar deposits mixed with large lumps of redeposited brick-earth. Context 8031 (not illustrated), a spread of very dark greyish-brown sandy loam containing much burnt clay and a group of loom-weight fragments, lay to the south of pit 8001. It was perhaps also the remains of an occupation deposit, which directly overlay natural brick-earth.

It was sealed by a layer of redeposited brickearth, 8405, confined to the west end of Structure 37 and possibly representing a later floor surface.

To the rear of Structure 37 and overlying natural brickearth, was a series of layers of redeposited brickearth, brown soil, and three yard surfaces respectively. The uppermost of the yards was a well-laid cobbled surface, 8404, cut by well 8032, which was probably also associated with Structure 37. Cobbles 8404 extended less than 2m to the south as far as the major east-west property division of which well 8032 and pits 7958 and 8066 formed a part. The remaining limits of the property occupied by Structure 37 also appear to have been fairly restricted, with the street lying immediately to the north, an alleyway to the east and Structure 38 only 5m to the west.

The dating evidence from the surrounding pits would suggest that Structure 37 was established fairly early in the 8th century, and continued in use for at least half a century, with no evidence for rebuilding. No pits predated it and the only certain early pit in the vicinity, 9047, lay to the north, possibly separated from the street by fence line 9037. Pits 5734 (not illustrated) and 7958, which may also have been early, lay to the south and south-west respectively; and several others probably dug during the latter half of the 8th century or the early 9th century also appeared to respect Structure 37. These included a cluster immediately to the north-east comprising 5568, 5588, and possibly 5954 which had all been dug on the west side of the alleyway, perhaps reflecting pressure on space in this apparently restricted property. These were large pits probably dug for cess disposal, as were 5853/5968 and 9048 to the north, the gap between them possibly providing access to the street. Pit 9057, to the west of 9048, may also have been dug at this time (only the top fill was removed and this produced late pottery). A smaller pit, 8368, to the south, cut by well 8032, has also been assigned to this phase of activity. Only two pits, 8012 and 8033, clearly postdated Structure 37. These had both been dug through the south-western corner of the building and were possibly contemporary with a late gravel spread which extended over the south-eastern corner of Structure 37, well 8032, and cobbled surface 8404. What structure or structures this was contemporary with, if any, remains uncertain, and no trace of any later building was found in the vicinity.

Structure 38 (Fig 57)



Like Structure 37 which lay to the east, Structure 38 was set back from the southern edge of east-west street I, in this case by some 5m. To the south was Structure 34, separated from Structure 38 by a major east-west property boundary represented by a pit alignment, and to the west were the fragmentary traces of Structures 39 and 40 adjacent to the north-south street.

The earliest feature on the site was 8953, a substantial hearth or oven cut by the northern wall line of Structure 38 (see Fig 62). This, like a virtually identical example (11323) on SOU 169 T2, did not lie within a building but was a freestanding external structure. Both are discussed further below.

All but the western wall line of Structure 38 were clearly defined, and in the latter area all surface deposits and shallow features had been removed by a substantial 19th-century basement. It is clear nevertheless that the building was 5m wide and at least 8m long, possibly more than 10m long.

The northern wall line comprised at least eleven post-holes, mostly small, irregularly shaped and quite shallow, though there were several double or possibly double examples towards the west end, two of which contained post- or plank-impressions. There was some evidence of regularity in their spacing at intervals of approximately 0.75m, a regularity also suggested by the spacing of the post-holes in the south wall. The north-eastern corner may have been marked by post-hole 8946; or else it had been destroyed by pit 8942. Evidence for the south-east corner may have been destroyed by a pipe trench.

The south wall had been cut at the west end by a 19th-century basement, but five small, shallow post-holes remained towards the east end, spaced at intervals of approximately 0.75m and possibly paired with post-holes in the north wall. The east wall line was also marked by several irregularly shaped and shallow post-holes.

Any structural features at the west end had probably been destroyed, but it is possible that post-hole 9181 belonged to this end, or held a ridge post if it were an internal feature. Pit 8972 may also have been an internal feature associated with Structure 38, and if so would probably have lain very close to the west wall. Pit 8972 was a small,

subrectangular, bowl-shaped feature which may have been dug specifically for a hearth. It measured 1m by 0.8m, was 0.3m deep, and contained a heat-reddened lining of redeposited brickearth and gravel into which was set a compacted layer of flints in a matrix of red sandy soil.

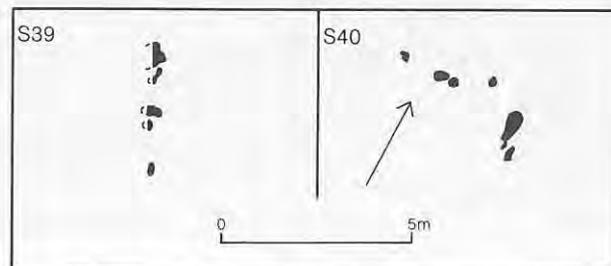
The location of any doorways was not ascertained though the arrangement of pits suggests that one lay midway along the north side. Fragmentary traces of a possible redeposited brickearth floor survived towards the east end, with an oval-shaped hearth, 8193, centrally placed adjacent to the east wall. Unlike many of the other domestic hearths, this was not set on a flint base.

Structure 38 was probably built fairly early in the 8th century, though it postdated hearth or oven 8953. It is likely to have remained in use until possibly some time during the first half of the 9th century when pits 8901, 8932, and 8941 were dug through it. At least five early pits dug in the area between Structure 38 and the street may have been associated with this building, and all but one contained mid pottery in their upper fills indicating continued use up to the later 8th century. These pits varied in shape, size, and perhaps function; 9416 was oval and only 0.3m deep, 9075 and 9521 were rectangular and at least 0.5m deep, 9422 was subcircular and 1.8m deep, and 8925, though not fully excavated, was probably similar but slightly larger. A small, oval pit, 8298, to the east of Structure 38, may also have been associated with it, and this cut a shallow, irregular feature, 8092, which had a pair of stake-holes in the bottom. Pit 8249 in the major pit line marking a property boundary to the south of Structure 38 was probably also contemporary if not associated, as other pits in this alignment may have been. Two wells, 9044 and 9405, lay to the west, but whether either was associated with Structure 38 remains uncertain as it is unclear how far the property extended in that direction. However, it is possible that wells were shared between properties and that either 9044 or 9045 was shared with Structure 39 or 40 to the west.

The demise of Structure 38 and the subsequent pit digging did not mark the end of activity in the area. The thin layer of brickearth which sealed some of the Structure 38 post-holes, and probably represented upcast from the pits, was itself covered with a gravel spread, 7957, which survived in and around pits 8901, 8932, 8941, and 8078. No structural features could certainly be associated with this spread, but its extent to the north was delineated by 8914 (not illustrated), a short length of an irregular, shallow gully. This was 2m long, up to 0.3m wide and 0.1m deep, and closely followed the northern wall line of Structure 38 between 9106 and 9205. Although no pits appear to have been dug in the area at this time, the upper fills of several contained late pottery. These lay mostly to the east of gravel spread 7957, and included pits 7765, 7958, 8012, 8033, 8061, 8942,

and 9057 (see also Fig 56). Furthermore, the truncated remains of the uppermost surviving Saxon deposits in this area contained mid to late pottery.

Structure 39 (Fig 57)



This lay to the west of Structure 38, in the angle between the north-south street and east-west street I. Only the north end of the eastern wall line was exposed within the excavated area, but from the surviving remains it would appear that Structure 39 was at least 3.5m long and aligned parallel to the north-south street. On the slender evidence available it is considered to have predated Structure 40 which covered part of the same site.

Post-hole complex 9516 may have marked the north-east corner, with a line of irregularly shaped and spaced shallow post-holes extending to the south. It is conceivable, given the structural sequences observed elsewhere alongside the north-south street (for example Structures 9-13), that this line of post-holes represented more than a single building. However, in the absence of any surviving stratified deposits overlying natural, and any distinguishing characteristics in the shape, size, or fills of the post-holes, this could not be demonstrated.

None of the interior of Structure 39 was exposed, and it is uncertain as to how far any associated property extended to the east. Structure 39 may perhaps have been contemporary and associated with the large hearth or oven which predated Structure 38, or it may have been contemporary with the latter. Either way, it is considered most likely to have been an early building. A north-south line of early pits comprising 9018, 9410, 9432, 9433, 9475, 9476, 9610, and well 9044, between 1m and 3m to the east of Structure 39, may have marked a property boundary on this side. The pits varied in shape and size, ranging from 9433 which was small and subcircular, through 9475 and 9476 which were larger, subrectangular, up to 1m deep with vertical sides and flat bottoms and therefore presumably lined, to 9432 which was a larger, deeper, more irregularly shaped feature. The latter was the only feature to contain later material in its upper fills. The pair of possibly lined pits, 9475 and 9476, may have been dug for some specific, perhaps industrial purpose, though the bottom fills of dark clay loam and yellowish-brown silty clay respectively provided no indication of what this might have been.

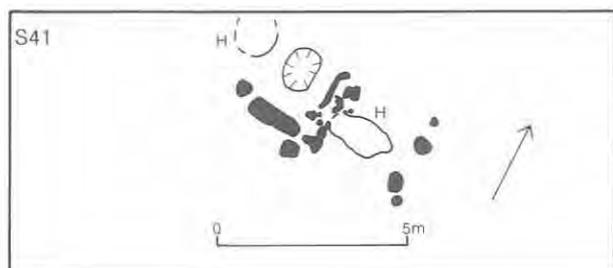
Structure 40 (Fig 57)

This covered part of the site occupied by Structure 39, but was aligned differently. Only the east end was exposed within the excavated area and the form this structure took is uncertain; it may have been a building or a fence arrangement. It is considered most likely to have postdated Structure 39, though there is no certain evidence for this.

The surviving, shallow post-holes formed an L-shaped arrangement measuring at least 5m by 1.5m and aligned parallel to the east-west street, but set back some 3m south of it. The post-holes were irregularly shaped, but those in the north wall were approximately 1m apart, with the most substantial, 9537, in the north-east corner. No features survived to indicate the position of any south wall.

All surface deposits had been removed by 19th-century levelling and there was no evidence for any internal features. However, post-hole 9504 in the north wall cut the edge of pit 9476; an early feature which contained a thick layer of gravel in its upper fill that may have been associated with Structure 40. Pit 9475, adjacent to 9476, was also early and likely to have predated Structure 40. No pits can be certainly associated with Structure 40, but if it did postdate Structure 39 it could have been contemporary with 9464, a comparatively large pit which contained mid to late material.

Structure 41 (Fig 58)



This lay 2m to the north of east-west street I, and was aligned parallel to it. Structure 42 lay to the north-west, with the street frontage immediately to the west apparently remaining unoccupied. The closest recognised buildings in that direction were Structures 45 and 46, approximately 10m away. To the east, the nearest structure probably would have been at least 5m away, beyond the limit of excavation. To the north lay Structure 43, separated from Structure 41 by a gravel path, 14587.

There were few structural features which marked the extent of this building, though the limits were indicated by other features. In its general ground plan Structure 41 was similar to Structure 31, though it was probably slightly smaller, with an estimated length of between 6m and 8m and a width of 4m.

The eastern wall line was probably marked by two subcircular, shallow post-holes, 13635 and

13626, 1.2m apart and centrally placed at the east end. However, it is conceivable that these were internal features and that the end wall lay further to the east, with post-hole 14585 possibly marking the north-east corner. Any post-holes marking the western wall line, and perhaps corresponding with 13635 and 13636, may have been destroyed by a pipe trench.

The line of the north wall appeared to be clearly demarcated by the southern extent of a gravel surface, 14587, interpreted as a path. This formed an easterly extension to gravel surface 13735. No structural features were identified either here or marking the postulated line of the south wall which is likely to have been partly cut away by pit 13336 and modern features.

A spread of yellowish-brown brickearth, 13640, towards the east end may have represented the remains of a floor, and there was evidence for other internal features including a partition, two hearths, and a storage pit. The partition lay 2.5m from the postulated east end and comprised two substantial post-holes, 13671 and 14589, 1.5m apart with a series of smaller features between. There were gaps of 1.2m between these post-holes and the southern and northern wall lines respectively, which probably marked internal doorways. Immediately to the west were two smaller post-holes and a shallow slot, 13675, which may have been associated with this partition or some earlier or later version of it. Alternatively, they may have belonged to some other internal structural arrangement which might also have included a shallow gully, 13652, and post-hole 13643 which lay at 90° to the west. Centrally placed and backing on to the east side of the partition was an oval hearth, 13638. This was made of clay which had been burnt red in the centre, but there was no underlying flint cobble base. A substantial post-hole, 14554, was cut through the west end of the hearth and may have been part of a later partition or have held a centrally placed roof support. Another, probably circular hearth, 13642, lay towards the north-west corner of the building, and like 13638 was made of clay which directly overlay natural brick-earth with no flint cobble base. A subrectangular pit, 13647, between hearth 13642 and the partition, may have been used for storage. It was 0.4m deep with near-vertical sides and a flat bottom, and contained several homogeneous layers of brown soil.

Structure 41 would have had direct access to the east-west street, and to the north-south street by way of a dog-legged arrangement of gravel surfaces, perhaps paths, extending from 14198 in the north via 13735 to 14587 in the south. The surfaces narrowed progressively from 5m down to 2m. They had been established to their full extent at a fairly early date and had been partly remetalled on as many as four occasions, but were extensively cut by later pits. The surfaces, which did not extend further east than Structure 41, appeared to demarcate properties associated with Structures 41 and 42 to the south and Structures 43 and 44 to the north. Although

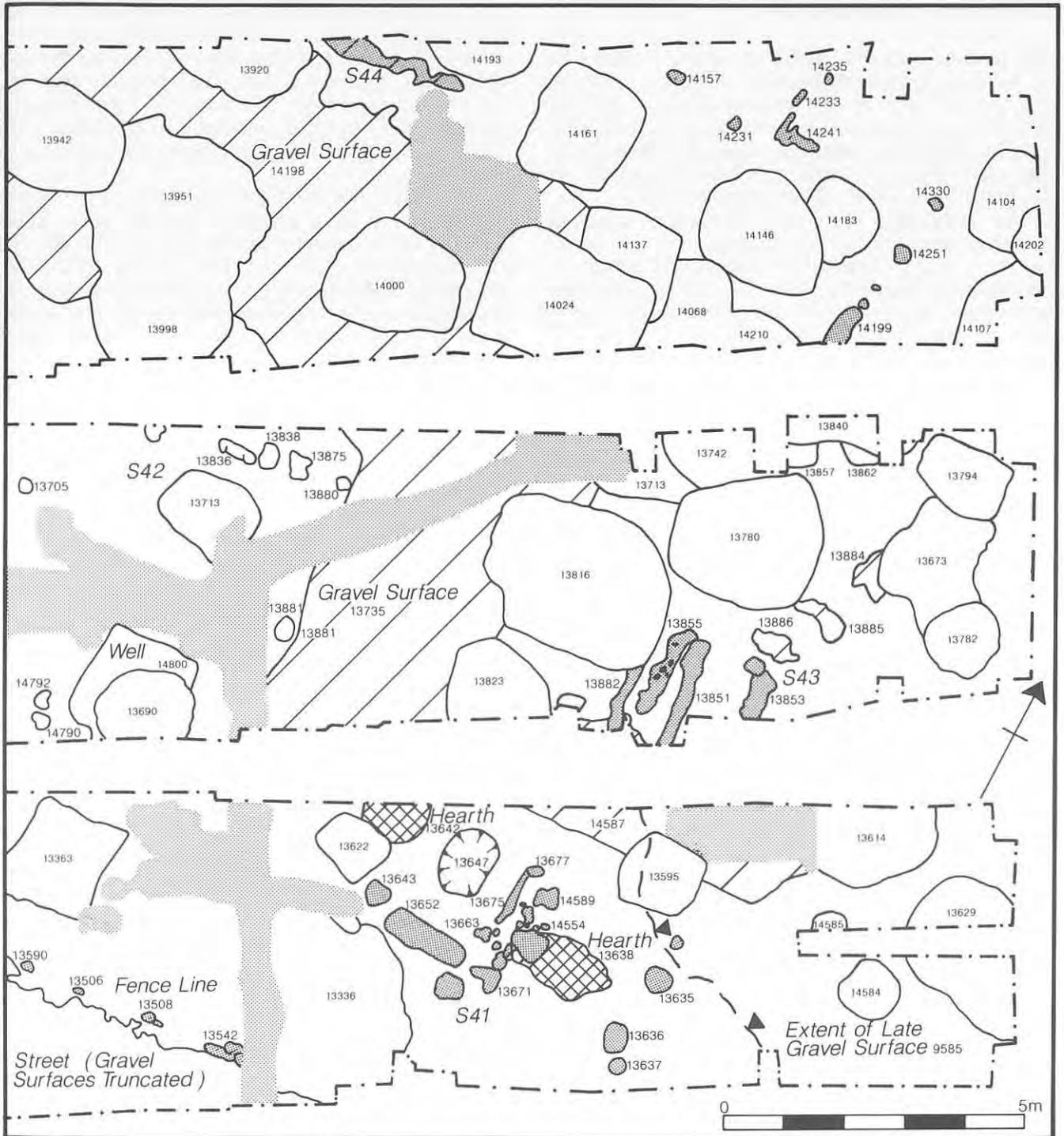


Figure 58 Structures 41, 43 and 44 (SOU 24). Scale 1:100.

the surfaces eventually fell into disuse there is some evidence that subsequent pit digging reflected the continued survival of the property boundaries (see below).

Structure 41 was probably built early in the 8th century. The possible remains of 13640, a floor surface towards the east end, contained a small number of fairly early sherds, and no earlier pits lay in the area occupied by it. At least two possibly earlier post-holes were sealed beneath the west end

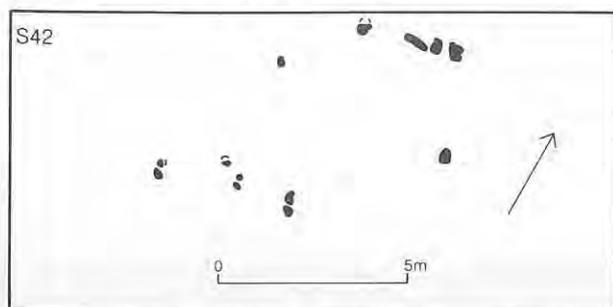
of path 14587, but the straight, well defined southern edge of the path suggested that it had butted the north wall of Structure 41 and was therefore later; if

earth mixed with what has been interpreted as burnt thatch (see below, p 246) – the only example of this from Six Dials. It is most likely to have come from Structure 41. However, a radiocarbon sample from the thatch (HAR-3291; 1060±60 BP) is calibrated to cal AD 880–1040 at 95% confidence.

No pits could certainly be associated with Structure 41, though 13614 and 13629 to the east and 13363 to the west, all of which contained mid pottery, may have been contemporary. Pit 13363 was somewhat unusual in that it was 1.6m square, but only 0.7m deep with vertical sides and an irregular bottom. The lower fill comprised a mixture of greyish-green silt and dark greyish-brown clay loam containing considerable charcoal flecking. The sides of the pit had been stained green, and much of the surrounding brickearth around the bottom had been discoloured grey. A cess pit is the most likely interpretation, a suggestion further supported by the successive deposits of brickearth and gravel, the latter perhaps the remnants of a yard surface, which sealed the lower fills. Immediately to the north of pit 13363 was a well, 14800, partly cut away by pit 13690 which contained probably 9th-century pottery. The well may also have been associated with Structure 41, and along with pit 13363 may have marked the extent of the property to the west. On the other hand, the boundary may have lain further to the west if Structure 42 was a part of the property (see below). The extent to the east was unclear. The northern and southern limits were probably defined by path 14587 and east-west street I respectively, thus suggesting a long narrow property. However, it may have extended further to the north if Structure 43, or the area occupied by it, was originally part of it or later became amalgamated with it (see below).

There was evidence of continued use of the area following the abandonment of Structure 41. The north-eastern corner of this building and the pits lying to the east were sealed by gravel surface 9585, though no structure associated with this was identified within the excavated area.

Structure 42 (Figs 58–9)



The layout and nature of this structure remain unclear. It lay between east-west street I, 4m to the south, and gravel surface 14198 to the north. The latter was a 5m-wide metalled path or alley-

way which extended to the east of the north-south street and formed a dog-leg of gravel surfaces or paths that continued as 13735 (immediately to the east of Structure 42) and as 14587. Structure 41 lay to the south-east, and Structures 45 and 46 to the west. The structural remains formed a rectangular arrangement of features 5m wide and up to 7m long.

The southern wall line was represented by three shallow, double post-holes, the most substantial being 14742 and 14790 lying 3.5m apart. Post-hole 14790 contained a Series J sceat (Metcalf 1988; coin 93), probably minted in the first quarter of the 8th century. The wall line may have continued in the unexcavated area to the east. Four irregularly shaped and spaced shallow post-holes marked the northern wall line, and although none contained post-impressions there was a hint in the shapes of 13838, 13875, and 13879 that these also may have been double post-holes, with a 1m-wide gap between 13836 and 13879 possibly marking a doorway. The line may have continued in the unexcavated area to the west. A single, centrally placed post-hole at the east end, 13881, perhaps held a ridge post, though no corresponding feature was located at the west end.

Much of the interior of Structure 42 had been cut away by service trenches, though post-hole 13705 and the possible remains of another to the south may have been internal features, perhaps marking a partition or roof supports close to the west end. No hearths were found, but traces of at least one possible floor surface survived in the vicinity of pit 13713. The natural brickearth was overlain in this area by a thin spread of disturbed natural mixed with charcoal, burnt clay, and a small amount of smithing slag. These were sealed by a compact layer of redeposited brickearth, 13758, which may have been a floor surface, and contained charcoal, burnt clay, and small pebble inclusions. Two subsequent layers of redeposited brickearth separated by loamy soils may also have been floor surfaces, but at least one was probably upcast from pit 13713. Unfortunately, the discontinuous nature of these various deposits made it difficult to establish their relationships with the structural features marking the northern wall line.

On the available evidence Structure 42 might be interpreted as a shed or shelter rather than a domestic building. If so, it may have been associated with Structure 41 to the east, or Structures 45 and 46 which were smithies to the west. However, it is possible that it predated the smithies but was still associated with some industrial activity; this is discussed further below.

Structure 42 is considered to have been early and, like Structure 41, appears to have been respected by the adjacent gravel paths. Pit 13690, probably a 9th-century feature which cut well 14800, was almost certainly later, as may have been the well itself and pit 13713 to the north. Pit 13713 produced no closely datable material, but

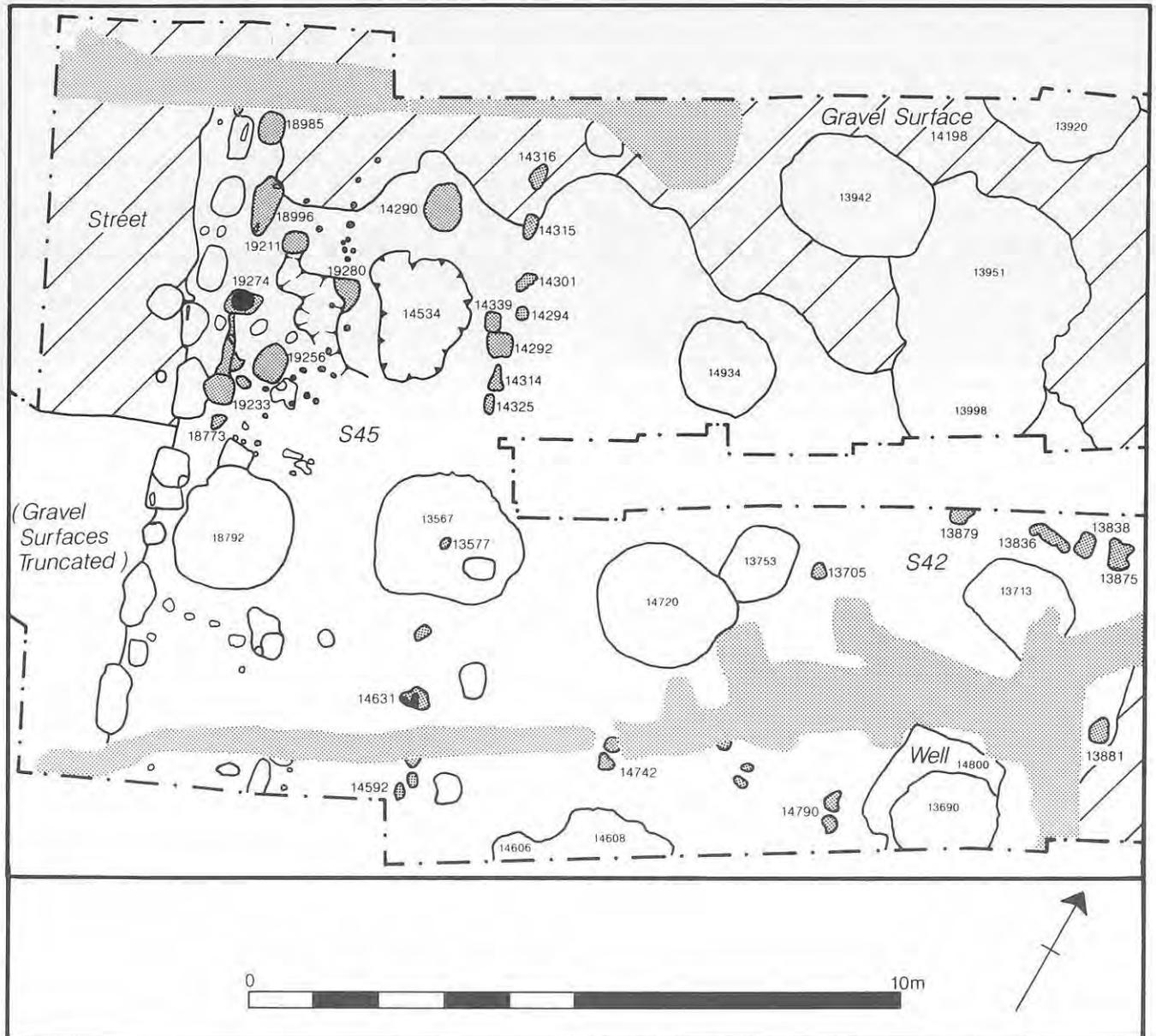


Figure 59 Structure 45 (SOUs 24 and 258 T4). Scale 1:100.

clearly cut the earliest of the possible floor surfaces, 13758. No other pits lay in the area occupied by Structure 42, but 14720, which was probably dug during the first half of the 8th century, and later pits 13753 and 14934, all lay to the west, and an undated complex of small pits comprising 13434, 14606, and 14608 to the south. It would appear therefore on the basis of the limited evidence available that Structure 42 had probably gone out of use by the end of the 8th century.

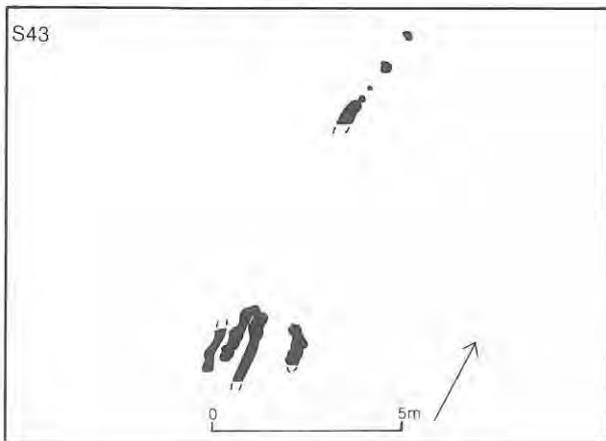
No structural remains were identified which postdated Structure 42, but pits 13713, 13753, 14720, and 14934 all contained substantial deposits of gravel in their upper fills which perhaps represented the remains of one or more later yard surfaces truncated elsewhere. It would seem most probable that these were associated with

Structure 45 or its successor, Structure 46, the smithies to the west.

One pit, 13567, predated the smithies, and if Structure 42 was early may have been associated with it. This pit was not bottomed, and the uppermost fill contained mid pottery. However, it appears originally to have been used as a cess pit for it was probably square or rectangular with near-vertical sides which were stained pale green lower down. Set in the upper part was a series of bowl-shaped, oval hearths each comprising a base of flint cobbles overlain by clay which had been burnt red (see Fig 94). A series of at least three hearths was recognised, each hearth separated from the next by a very thin ashy layer, with the largest measuring approximately 1.5m by 1.3m. There was no evidence for there having been any form of

superstructure, and except in their number they resembled domestic hearths identified elsewhere. However, there was no evidence that they lay within a building of any sort. Their purpose remains uncertain; they were stratigraphically earlier than the smithies, and did not have any obvious association with smithing either in their form or through any related iron-working residues, though small quantities of smithing slag were found in potentially early deposits in the vicinity of Structure 42, and a spread of charcoal-rich soil did extend beneath the earliest metalling on path or alleyway 14198. It is tentatively suggested therefore that this sequence of hearths may have had some industrial purpose, but one which seemingly did not involve any high-temperature processes, and smithing is considered unlikely.

Structure 43 (Fig 58)



What form this took is unclear for it comprised a diverse and not necessarily related group of features which lay to the north of Structure 41. The southernmost of these was a series of four, parallel but irregular, U-shaped slots or gulleys, between 1m and 3m long, and aligned north-south. Contexts 13851, 13855, and 13882 were up to 0.2m apart, with 13853 1m to the east. The latter may have comprised a slot/post-hole complex, but of the others only 13855 contained a few stake-holes in the bottom. Whether these features were contemporary was impossible to establish, and only 13882 could be reasonably closely dated, probably to the 8th century; it cut into the edge of path 14587 to the south, and was cut by pit 13816 to the north. A shallow slot, 14199, on broadly the same alignment as 13851 but more than 5m to the north, may have been associated with 13851. Two shallow post-holes, 14251 and 14430, continued this line a further 2m.

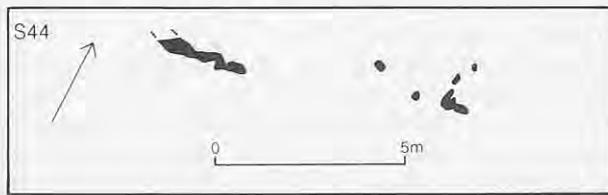
The linking of these features is extremely tenuous, though it is probable that the slots or gulleys to the south represented a series of replacements if they were not all contemporary. It seems unlikely that they formed part of a domestic building, and it is not certain that they all held timbers. Three patches of cobbling to the north-

east, 13884, 13885 and 13886, may have been part of a more extensive surface possibly associated with these features, but no other related surfaces or features were found.

The distribution of pits in the area may also provide some evidence for the putative southern and northern elements of Structure 43 not having been related, for these were separated by an east-west line of more than a dozen intercutting pits. This line extended at least 24m from 13942 in the west through 13794 on the eastern edge of SOU 24 to 6816 on SOU 23. Towards the west end it lay along the centre line of a substantial, 5m-wide path or alleyway represented by gravel surface 14198, the last in a series of up to four metallings. This suggests that the pit alignment represented the continued existence of a boundary, originally marked by the path, which persisted after the latter had apparently fallen into disuse or been superseded. Whether this boundary originally continued further to the east as is indicated later by the pit alignment is unclear, though the dog-leg of earlier gravelled paths suggests not. The pits were all dug and infilled during the second half of the 8th and 9th centuries, and may have represented some relatively minor rearrangement of the properties in this area at the time. Virtually all were large, deep features including 14024 which was subrectangular, 14137 which was square, and 13951 which was more irregular. Some such as 14137 may have been lined, though the majority probably not, but there is no evidence for any of them having been used other than for cess and rubbish disposal. The smaller examples such as 13794 appear to have been used for similar purposes.

There is also evidence for two north-south pit alignments in this area which presumably represented boundaries. One lay along the extreme eastern edge of SOU 24, probably extended over a length of 12m or more, and may have been broadly contemporary with the east-west line. Pit 13614 probably lay at the south end of this line which continued as far as a group of three intercutting pits, 14104, 14107, and 14202, extending beyond the limit of excavation. A second north-south alignment lay approximately 8m to the east on SOU 23, although only four pits lay within the excavated area (not illustrated). These intercut, but unlike the other alignments which comprised exclusively mid-period pits, this alignment included at least two early pits, 6848 and 6859. The implication is that this alignment was a development perhaps representing a property boundary established at an early date, towards the beginning of the 8th century, while the others were later-8th-century developments possibly reflecting a realignment, subdivision, or replacement of earlier boundaries not defined by pit alignments. It is most likely that there was some combination of the two arrangements, with path or alleyway 14198 being replaced as a boundary by the east-west pit alignment.

Structure 44 (Fig 58)



This lay at the north end of SOU 24, mostly outside the limit of excavation. It comprised a linear spread of burnt daub at least 2.5m long associated with an *in situ* charred plank or beam, with several possibly related structural features to the east. The burnt daub was aligned east–west alongside the northern edge of path or alleyway 14198, and was probably contemporary with it. The remains of the charred plank or beam (which may have been oak) lay at 90° to this at the east end of the burnt-daub spread, and were cut by pit 14193. A 0.3m length of this timber survived which measured approximately 150mm by 40mm in section. The burnt daub and timber may have represented the remains of the south wall or south-eastern corner of a structure which employed sleeper beams set in shallow trenches, for which slight evidence survived. Structure 44 may provide the only direct evidence for this method of building at Six Dials. (The absence of features marking the north and south walls of Structure 41 may also provide some evidence for sleeper beam construction, perhaps resting directly on the ground surface.)

A right-angled arrangement of shallow features, possibly post-holes, lay to the east of the line of burnt daub, with 14241 5m away marking the south-eastern corner. If these two groups of features were part of the same structure, it would have been at least 8m long. No floor surfaces or other internal features survived in either area, and the nature and use of the structure must remain conjectural.

Structure 44 appears to have been fairly early, aligned to or respected by the north edge of the earliest metalling, 14373, on the early path or alleyway 14198. (Each remetalling was fenced and narrower than its predecessor.) Pit 14193 was certainly later, but produced insufficient material to date it. However, pit 13920 to the west, which may also have been later, was probably dug in the later 8th century. There was a large deposit of burnt daub in the upper fill of pit 14024 to the south-east, infilled probably during the early 9th century, which may have derived from Structure 44, though similar destruction debris was largely absent from other features in the vicinity except for pit 14193. It seems likely therefore that Structure 44 was built fairly early in the 8th century and had probably gone out of use, destroyed by fire, by the end of that century.

Some pits associated with this building probably lay to the north outside the limit of excavation, but 14161 and 14183 to the east were early and may

have been contemporary. If so, the two groups of features assigned to Structure 44 would not have been part of the one building, for pit 14161 lay between them. It was a large subrectangular pit which was not fully excavated, but was likely to have been a cess pit, and 14183 was a smaller, shallower, subcircular pit.

Whether the destruction of Structure 44 predated the demise of the gravel path or alleyway to the south is unclear, though it seems probable that both occurred at roughly the same time towards the end of the 8th century. If so, it is also probable that many if not all of the line of pits cutting the gravel postdated Structure 44. Two substantial post-holes (not illustrated) were found on the same alignment, but 0.75m to the east of Structure 44; these might have belonged to a later replacement of the building, but again the majority would have lain outside the limit of excavation. The post-holes clearly cut all but the uppermost of the four metallings in this area, and provide the only evidence for a later structure in the vicinity. This might be assigned to the 9th century and thus have been broadly contemporary with many of the pits in the alignment to the south which formed an associated property boundary.

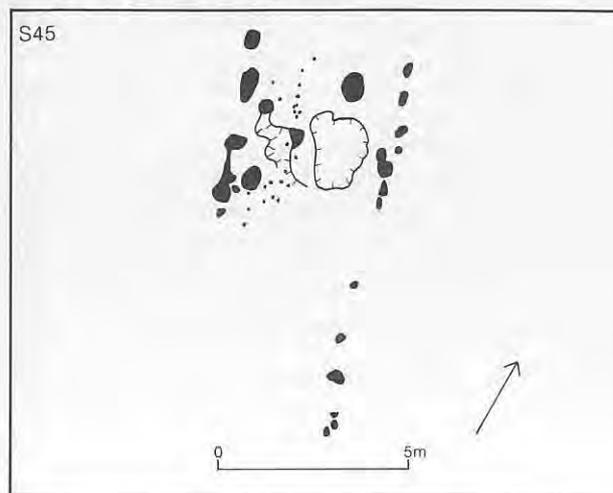
Structures 45–6 (Figs 59–60)

The house site lay adjacent to the north–south street, immediately to the north of its junction with east–west street I, and south of its junction with metallated path or alleyway 14198. It was occupied by two successive structures interpreted as smithies, though these did not represent the earliest activity on the site. The southern end of this house site had been truncated by a 19th-century basement which had removed all surface deposits, though pits and the deeper post-holes survived.

No direct relationship between Structure 45, the earliest smithy, and the earliest metallings on the north–south street survived, but post-holes belonging to Structure 46, the second smithy, cut the earliest metallings along the east side of the street. Post-holes belonging to both structures cut both the earliest metalling on path or alleyway 14198 and the series of hearths set into the upper part of pit 13567. This was the only feature that could be shown to have predated the first smithy, Structure 45. Further discussion of pit 13567 is to be found above, in the section on Structure 42, with which it may have been associated.

Structures 45 and 46 both lay broadly parallel to the north–south street, but both showed a slight skewing towards the east–west street alignment, presumably reflecting their location between east–west street I immediately to the south, and path or alleyway 14198 immediately to the north.

Structure 45 (Fig 59)



This was approximately 10m long and 4m wide, and all but the south end of the west wall line survived. The west wall was represented by at least four substantial post-holes, regularly spaced at 1.4m intervals, and with 18985 marking the north-west corner. All but one was subcircular. They were up to 0.5m in diameter and 0.2m deep, but only 19274 contained a post-impression and no post-ghosts were visible. The post-impression indicated that 19274 had held a circular post 0.3m in diameter.

The eastern wall line comprised a series of smaller post-holes of varying shape which may have been spaced at 0.7m intervals. Context 14316 appeared to mark the north-eastern corner, and 14592 possibly the south-eastern corner. They were up to 0.2m deep, with 14631 containing traces of a double post- or plank-impression.

No evidence for north or south walls survived, but any post-holes marking the latter may have been completely truncated, and the north end was probably open. This was suggested by the earliest metallurgy on 14198 which extended at least 1m inside the north end of Structure 45; presumably it would have been removed if it lay within a building enclosed at this end.

Four shallow features, probably not post-holes, lay towards the north end of Structure 45 (14290, 19256, 19211, and 19280). In addition, at the north end, there was also a shallow, sinuous gully extending to the south of 19211, and a line of at least twenty, charcoal-filled stake-holes, 1.5m from the west wall, lying in an uncertain relationship with this gully. All the internal features surviving in the truncated southern area have been assigned to Structure 46 on the basis that, being deeper features, they were more likely to have been associated with Structure 46, which was a more substantial structure.

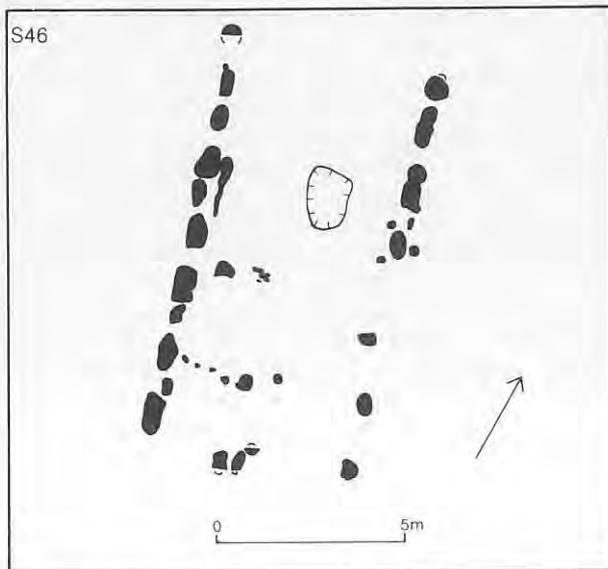
The major feature within Structure 45, and subsequently in Structure 46, was 14534, a pit; or rather a series of small intercutting pits. It lay towards the north-eastern corner of the building. It was irregular in shape, 2m long and 1.5m wide, up

to 0.5m deep with vertical or undercut sides, and had a level but pitted bottom reflecting the intercutting which was rarely apparent within the fill (see Fig 93). There was occasional evidence for slight, localised scorching of the sides. The fill or fills comprised a series of deposits of charcoal and slag, dark greyish-brown soils also containing charcoal and slag, and redeposited brickearth. Some of these deposits, particularly in the lower half of 14534, were clearly contained within smaller pits (14293, 14322, 14389, 14391, and 14392), but in the upper half were part of more general spreads, some of which extended beyond the edge of 14534. These differences could be shown to equate broadly with Structure 45 and Structure 46 respectively. It would appear therefore that in Structure 45 there was a series of small iron-working pits, probably subsquare or subcircular, approximately 0.4m across, and generally about 0.4m deep. These were replaced in Structure 46 by a single, shallow bowl-shaped feature, 2m across and up to 0.35m deep, with 14154 perhaps the bottom fill. Such a sequence of iron-working features, probably smithing pits, is apparently also demonstrated in the smithy to the south where a similar series of smaller pits in Structure 6 was replaced by a larger, bowl-shaped feature in Structure 7.

No floor levels survived which could certainly be associated with Structure 45, and it seems probable that the surface of the natural brickearth may have served this purpose, although there was little debris trodden into it; this contrasts with the amount of charcoal, slag and burnt clay incorporated into the surface of 14067, the overlying floor associated with Structure 46. The locations of any doorways in the east and west walls could not be ascertained, nor any internal partitions.

Although there were substantial and fairly extensive spreads of charcoal and slag around the north end outside Structure 45, it proved virtually impossible to distinguish which were debris from that smithy and which were associated with its successor, Structure 46. This, and a more general discussion of both smithies, their layout and dating, follows the description of Structure 46.

Structure 46 (Fig 60)



This replaced Structure 45 on the same site and alignment, but was larger and had left more substantial remains. There was no evidence to contradict the likelihood that this replacement had been effected very rapidly, and it is conceivable that the earlier smithy was still partly standing and in use during the time its replacement was being constructed. Structure 46 measured 10.5m by 5.5m, and like Structure 45 was built using individual post-holes. These had largely survived despite later truncation which had removed all surface deposits at the southern end.

The western wall line, which lay alongside the north-south street, comprised nine substantial, generally subrectangular post-holes between 1m and 1.5m apart, and at least two smaller post-holes. The largest measured 0.9m by 0.5m and was 0.35m deep, though only four contained single post- or plank-impressions in the bottom. It is possible that the gap between 18770 and 18977 marked the location of a doorway approximately midway along the west side. Two further post-holes, 18755 and 18916 (not illustrated), lay to the west of this wall line and also cut the uppermost surviving metallings on the north-south street; it is probable though not certain that these were also associated with Structure 46.

The east wall similarly comprised eight or nine substantial, generally subrectangular post-holes, perhaps paired with the larger examples in the west wall. In addition to these, there were several smaller post-holes. Six post-holes contained clear post- or plank-impressions, with four containing pairs of plank-impressions each measuring approximately 0.3m by as much as 0.1m. Post-hole 14261, which probably marked the north-eastern corner, contained a single post-impression, but 14603 in the south-eastern corner contained no impression. There may have been a doorway midway along the east wall opposite the postulated entrance in the

west wall, though the gap is perhaps due to the loss of shallow post-holes here through truncation of the deposits. A gap between 14164 and 14262 towards the north end may also have marked a doorway.

Evidence for a north wall was absent, though possibly destroyed by a pipe trench. However, the extent of the gravel surfaces on path or alleyway 14198 within the north end of Structure 46 suggests that this was probably open. These earlier surfaces had been partly cut away at the north ends of the east and west wall lines, probably at the time of their construction, but had been left where they remained within the building, butted to the south by clay surface 14067.

A group of three shallow features, 18749, 18751, and 19861, centrally placed at the south end, probably marked the south wall and may provide evidence for a ridge-post.

Two lines of small post-holes have been interpreted as possibly marking internal partitions, one comprising 18910, 18914, etc, approximately midway along the building; and the other comprising 18902, 18904, etc, 2m from the south end. Whether these were contemporary is uncertain. Any other internal features as well as floor surfaces had been truncated in the southern half of the building, but it is clear that pit 14534, an iron-working feature which lay in a central position in the north half, continued to remain a focus within Structure 46 as it had within Structure 45. Furthermore, it was surrounded by a rectangular clay surface, 14067, interpreted as a working floor. This had very clearly defined, slightly upstanding edges which in some places extended partly over post-holes associated with Structure 45, though not as far as the eastern and the western wall lines of Structure 46. It also extended over the earlier edge of pit 14534, the iron-working feature, thereby reducing it in size. As has been noted above, this was probably created in Structure 45 by a cluster of successive intercutting pits, replaced in Structure 46 by a single, larger, bowl-shaped feature. Clay surface 14067 was fairly hard, and charcoal, slag, and fragments of burnt clay had become compacted into the surface.

It was overlain by a series of interleaving and often indistinguishable spreads of charcoal, slag, and very dark grey soils which extended over the interior of the building, and outside to the north, east, and west (deposits to the south had been truncated). These spreads were up to 0.3m thick within the building, with the greatest concentrations of charcoal and slag lying in the eastern half of the building in the vicinity of pit 14534. Outside, to the west, a contemporary spread, 18722, extended between 2.5m and 3m onto the north-south street. Up to 0.1m thick, it was sandwiched between the earliest metalling, 18723, and the last surviving metalling, 18721, neither of which contained any slag (see Fig 15). The metallings on path or alleyway 14198 were also covered by similar spreads at least as far as the edge of excavation; they were not sealed by subsequent metallings. To the east, the spreads

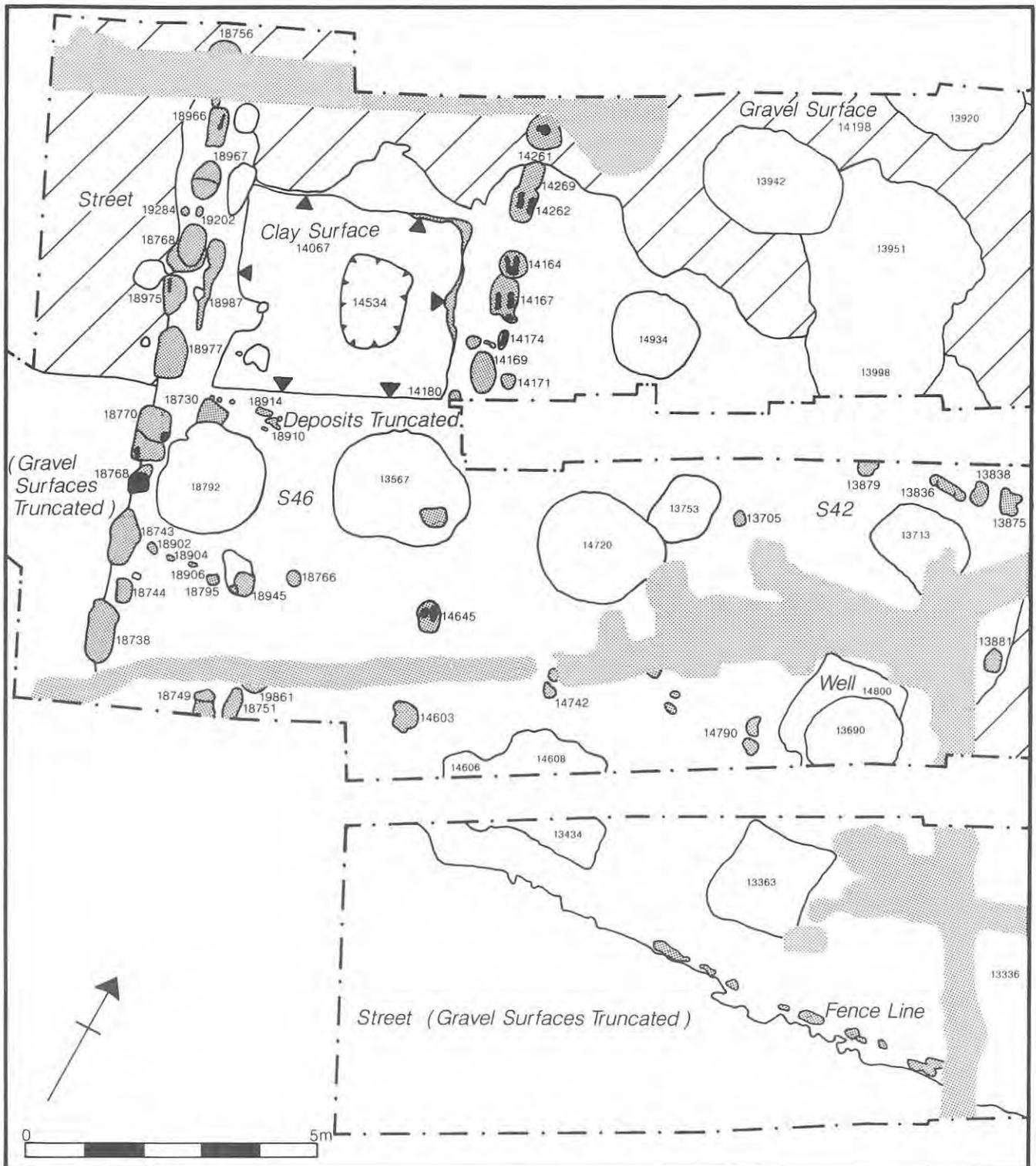


Figure 60 Structures 42 and 46 (SOUs 24 and 258 T4). Arrows indicate limits of clay surface 14067. Scale 1:100.

extended up to 5m from Structure 46 though they had been extensively cut by shallow 19th century foundation and pipe trenches.

No tuyères were found, but fragments of hearth lining were quite common. No raw iron or smithing tools have been recognised among the iron objects recovered from this area. A large fragment of a circular grinding stone, unique so far in Hamwic, was found in one of the upper fills in pit 18792 which lay within the area of Structure 46, but postdated it.

There is little doubt that Structures 45 and 46 were smithies. Like the smithing or smithies to the south represented by Structures 6 and 7, they lay at an important junction adjacent to the north-south street, a similarity which may have been more than coincidence. Furthermore, on both sites there appears to have been a phase of activity or occupation unassociated with iron working, represented by pit 13567 here (the upper fills of which were cut into by post-holes belonging to both Structures 45 and 46) and by Structure 5 to the south. Pit 13567 is uncertainly dated. It was not fully excavated, and pottery recovered mainly from the upper fills post-dating the hearths suggests a mid date. Nevertheless, because no other features or deposits other than the metallings on the street and the path or alleyway predated the smithies, it seems reasonable to attribute the beginning of iron working on the site to the first half of the 8th century.

Structures 45 and 46 were both larger and more substantially built than Structures 6 and 7, and appeared to have been rather more than simply sheds or shelters; to judge from the size of its post-holes Structure 46 may have been one of the most substantially built structures at Six Dials. However, whether they were also used for domestic purposes is uncertain. Both were probably open to the north and so any living area would have been restricted to the southern halves of both buildings. The postulated partitions in Structure 46 might provide some evidence of domestic use, but the truncation of deposits in this area has removed any traces of floors and hearths, and it has not been possible to determine whether or not the spreads of charcoal and slag extended across the whole of the interior of the buildings. It is conceivable that Structure 42 to the east may have been associated with the smithies, and if so probably with Structure 45, but there is little indication that it was a domestic structure and it appears more likely to have been an earlier shed or shelter. If there were separate domestic buildings associated with these smithies (like Structure 8 associated with Structure 7 to the south), these most probably lay to the north of path or alleyway 14198. However, 14198 and the subsequent pit alignment which was dug along its centre line argue strongly for the existence of a property boundary in this position, though this does not preclude the possibility that associated structures lay to the north and south of 14198, and it is uncertain whether the pit alignment extended any

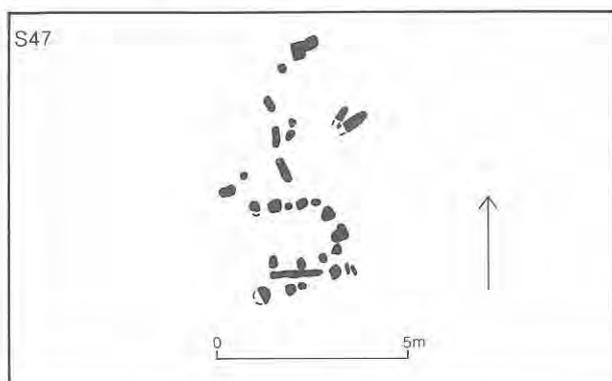
further to the west of pit 13942. Whichever interpretation is correct, path or alleyway 14198 would have provided access to the probably open north ends of both Structures 45 and 46.

Any pits and wells associated with the smithies almost certainly lay to the east within the confines of a property demarcated by east-west street I to the south, path or alleyway 14198 to the north, and its continuation as 13735 to the east. This supposes that Structure 42 was in some way associated with the smithies; or else that it preceded them and the area it occupied was later attached to them. Structure 42 is thought to have been built before the smithies, but may have overlapped chronologically with Structure 45, the earliest. Early pits 13567 and 14720 have therefore been assigned to Structure 42, though the latter might also be assigned to Structure 45, or at least have been still in use when Structure 45 was standing. The majority of pits in this area were mid or later in date and almost certainly contemporary and associated with the smithies, as may have been 14800, a well probably dating to the 8th century. There were at least four pits containing mid and later fills which lay close to the north-eastern corner of the smithies. Three of these, 13942, 13951, and 13998, cut path or alleyway 14198 and were subrectangular or subcircular, up to 3m across, and in excess of 2m deep; it is probable that they were all dug for cess and rubbish disposal. A smaller, circular pit, 14934, which lay to the south of these, was 1.5m in diameter and 1m deep, and was possibly also a cess pit. It had vertical sides and a flat bottom with some green staining, and the dark grey and greyish-brown fills contained considerable amounts of charcoal flecking. The remains of a gravel surface which had subsided into the top of this pit, as well as pits 13753 and 14720 to the south, provide evidence for a yard surface which had not survived elsewhere. This presumably extended to the south of path or alleyway 14198 and is most likely to have been associated with the smithies. Alternatively, but less likely, it may have belonged to a later unrecognised structure or phase of activity.

Continuity of occupation and use of this house site over a fairly long period for iron working is indicated not only by the presence of two successive smithies but also by the existence of only a single earlier pit, 13567, and another, 18792, which was probably later. (Pit 18792 was only partly excavated, to a depth of 1m, and the pottery remains undated. It is not certain that it cut feature 18730 to the north, which cannot certainly be ascribed to either of the smithies, and all other stratigraphic relationships had been truncated in this area. However, the charcoal-rich nature of the fills, which contrasted with those in the lower part of early pit 13567 to the south, suggest that it was a later feature postdating the smithies. Its size, 1.8m in diameter and in excess of 1m deep, would argue against it having been a contemporary, internal, feature - though which structure it was associated

with and where this lay remain uncertain.) It is probable, however, that the smithies remained in use over a fairly long period of around a century from some time in the first half of the 8th century until possibly the middle of the 9th century.

Structure 47 (Fig 61 and Pl 21)



This was the earliest structure recognised on the west side of the north-south street, in an area where a complex and comparatively deep sequence of Middle Saxon deposits survived (SOU 169 T2 and SOU 258 T2). These were deepest (up to 1m) immediately adjacent to the street, but became shallower to the west. Only the north-eastern corner of Structure 47 was exposed within the excavated area, but it was clear that it lay at least 8m from the west edge of the north-south street; and was aligned not to this but to the east-west streets. It has been argued above that short continuations of east-west streets I and II existed on the west side of the north-south street, though the continuation of east-west street II to the south fell into disuse fairly rapidly.

The long axis of Structure 47 probably lay north-south, with some form of ancillary building, perhaps added later, immediately to the north-east. Both were built employing individual post-holes and slots which were generally small but closely spaced, between 0.3m and 0.5m apart in the main structure and up to 1m apart in the ancillary building. A circular post-hole, 11353, marked the north corner, but contained no post-impression. Both the northern and the eastern wall lines as far as 11503 and 11358 respectively comprised post-holes, the majority of which contained single or double post- and plank-impressions indicating the use of timbers up to 0.3m by 0.1m. A pair of plank-impressions, 11488, adjacent to 11358 may mark part of a rebuild.

No floor levels survived within Structure 47 and the surface of the brickearth may have served this purpose. Several internal features were present which appeared to mark a partition or internal structure less than 2m from the north wall. This comprised a 1.5m-long slot or gulley with three possibly associated post-holes, 11480, 11482, and 11484, immediately to the north. At least two

further post-holes lay to the south of this.

Extending from the north wall of the postulated main part of Structure 47 was an F-shaped arrangement of structural features interpreted as representing a contemporary ancillary building, perhaps a shed or shelter, open to the east. This measured 4m by 2.5m, and was possibly divided into two equal bays by slots 11582 and 13366. Again, there were no surviving floor levels, but remnants of a thin, charcoal-rich soil, 11286, did extend over much of the area to the south-east, sealed hearth or oven 13368, and were cut by post-holes belonging to Structure 48 (see Fig 48). Layer 11286 produced a Series X sceat (Metcalf 1988: coin 116), minted perhaps during the first two decades of the 8th century.

Between Structure 47 and the north-south street were several contemporary features including hearth or oven 13368, well 13342, and pits 11675 and 12209. These either directly overlay or were dug into a superficial layer of post-Iron Age redeposited brickearth, probably hillwash, which overlay natural undisturbed brickearth. Apart from gravel 16877 to the east, there were no contemporary metalled surfaces other than those which probably formed parts of the street.

Hearth or oven 13368 was a substantial, free-standing, external structure, 3m to the west. It was very similar to 8953 on SOU 24, and like it was an early feature (Fig 62). It comprised what may originally have been an oval-shaped clay pad which had been burnt red in the centre, surrounded on three sides by a shallow slot which enclosed an area at least 1.3m by 1.3m. Less than 2m to the south of this was 11675, an oval pit, 1.8m by 1.3m and 1m deep, with near-vertical but slightly undercut sides, and a gently rounded bottom (see Fig 95). The bottom fills of loamy soil mixed with burnt chalk were overlain by a 0.45m-thick series of burnt chalk layers which appeared to be clearly associated with the use of the pit. It is suggested below that this was to do with the preparation of hides – perhaps soaking prior to the removal of fat and hair. Well 13342 to the north of Structure 42 could have supplied water for this and for domestic purposes. It had a square, stepped well pit with a circular shaft set in the north-west corner. Post-hole 13356 appeared to cut the fill of the well pit suggesting that the postulated shed or shelter at the north-east corner of Structure 47 was a later addition. Well 13342 was fully excavated to its maximum depth of 3m, but this was above the present water table and no organic remains had survived in the largely undifferentiated clay fill in the lower part of the shaft (see Fig 88).

Pit 12209 was probably also contemporary and associated with Structure 47. This was approximately 1.8m square and 1.8m deep with vertical sides stained green in the lower part, indicating a likely original use as a cess pit. This interpretation is further supported by the bottom fills of grey soil mixed with brickearth, and greyish-brown soil



Figure 61 Structure 47, hearth 13368, and contemporary gravel surfaces (SOUs 169 T2 and 258 T2).



Plate 21 SOU 169 T2. Structure 47 lies towards the bottom right of the photograph, and Structures 48 and 54 towards the top. Note oven 11323 towards the top right. Photographed from the west (scales in 0.5m units).

containing considerable charcoal flecking, sealed by a substantial layer of redeposited brickearth, together 0.6m thick. Above this was a complex sequence of floors and occupation deposits associated with a series of later buildings which had subsided into the pit.

The various gravel and cobbled surfaces which have been assigned to this phase represent the earliest in what was a long sequence of discontinuous metallings along the western edge of the north-south street and on the postulated western extension to east-west street II. Although the metallings along this side of the north-south street were often separated by spreads of domestic and industrial debris, and contrasted with the more uniform and extensive metallings along the east side (for example on SOU 31 T4), they nevertheless very clearly demarcated a street frontage which with one minor exception (Structure 56) was not encroached upon by any of the subsequent series of buildings. The relationship of Structure 47 with these surfaces is uncertain. There is evidence for a pre-metalling phase of the north-south street, in the form of three or more lines of stake-holes (not illustrated), which were sealed by a thin spread of olive-brown soil. Cobbled surface 16895 was well laid, but uncharacteristic of street metallings elsewhere which were generally composed of finer

gravel. It more probably was a yard surface or localised metalling along the edge of the north-south street, and was probably associated with Structure 47. This differed in character from gravel metallings 16198 and 17603 to the north, the latter very worn and probably an early metalling on the extension to the east-west street II.

The metallated surfaces had either been removed or did not originally extend over the south-eastern corner for in this area was a series of layers (16465 etc) up to 0.4m deep which contained notable quantities of animal bone and oyster shell mixed with some burnt chalk. There was some evidence of *in situ* burning, and the layers may represent a dump of domestic and industrial debris possibly associated with Structure 47.

Although comparatively little of Structure 47 was exposed within the excavated area, an unusual range of features were identified as probably having been contemporary and associated with it. It may have been a domestic structure, but both hearth or oven 13368 and pit 11675 attested to some form of industrial activity, the former perhaps a large bread oven, the latter possibly associated with hide preparation.

Insufficient pottery came from the features and contexts associated with Structure 47 to enable it to be dated. However, its demonstrably early position

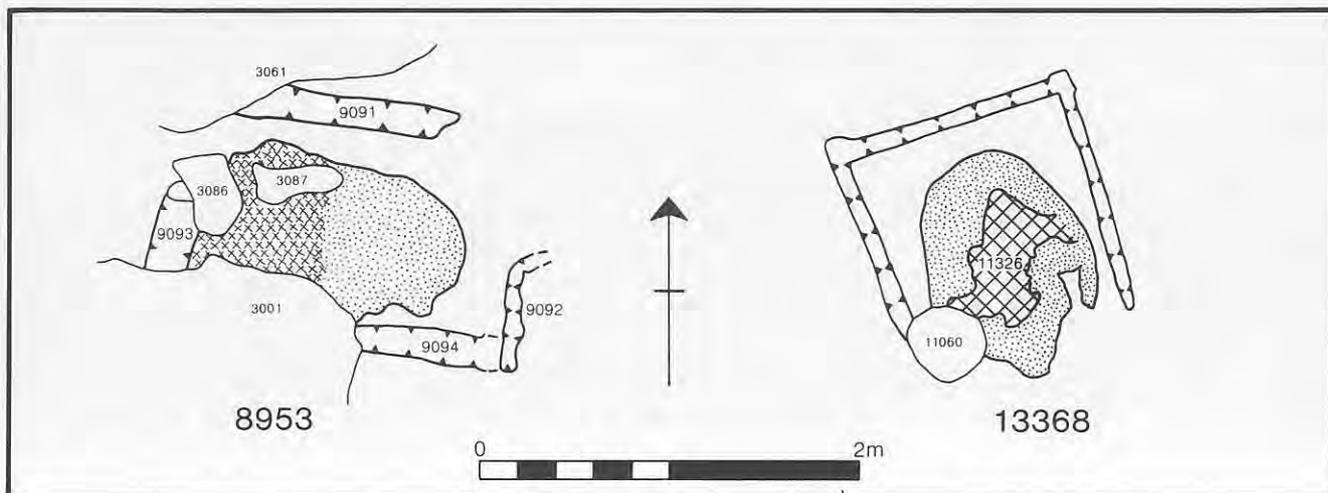


Figure 62 Hearths/Ovens 8953 (SOU 24) and 13368 (SOU 169 T2). Scale 1:40.

in the stratigraphic sequence suggests that it was erected around 700 or shortly after, and possibly remained in use for several decades. Why it should have been aligned to the east–west rather than the north–south street is unclear, but this was an arrangement reflected by several later structures and a number of features in the area.

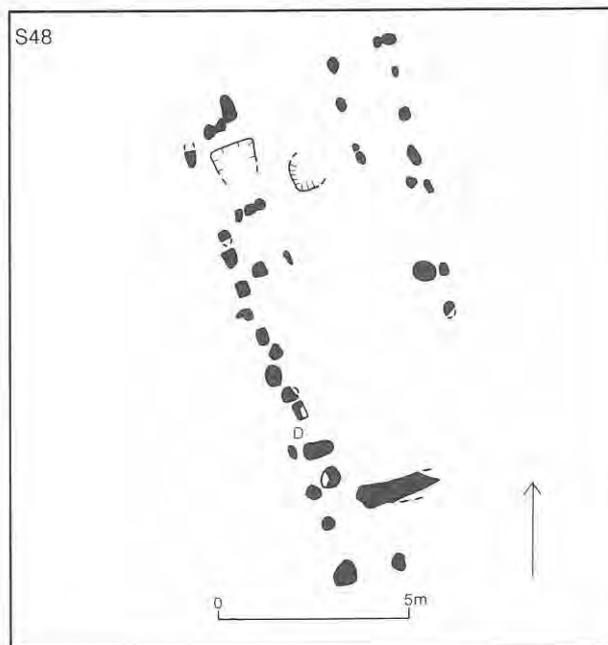
Structures 48, 54, 57, and 61 (Figs 63–4, 66, 68, and 70; Table 3)

This house site lay adjacent to the western edge of the north–south street, and south of the projected extension to east–west street II which apparently fell into disuse at or soon after the demise of Structure 47. Structures 48, 54, 57, and 61 represented a series of buildings on the site, some of which were contemporary or associated with others elsewhere in the area. All of the structures which occupied this house site were aligned parallel to the north–south street and occupied more or less the same area. The property associated with Structure 48 may originally have extended over the entire excavated area to the west and south of the streets, and later been reduced in size; it was unclear how far it and the later properties extended to the south.

The comparatively deep and complex stratigraphy which survived over virtually the entire southern half of the excavated area meant that a good sequence of floor levels, occupation deposits, and yard surfaces existed in and around all but the north ends of the structures on this site (see Fig 63). It probably represents the most complete surviving sequence of structures and deposits uncovered in Hamwic, perhaps spanning the early 8th to the later 9th centuries; only the very latest deposits appear to have suffered some truncation, and in places these were preserved where they had subsided into the tops of earlier pits. The northern half of the excavated area had been more heavily truncated by 19th-century basements, but many of

the earliest deposits survived, and virtually all of the metallings and intervening deposits on the north–south street along the eastern edge of the area lay outside the basemented area.

Structure 48 (Fig 64)



It is possible that Structure 47 was still standing when Structure 48 was built, and if so there would have been a gap of only some 2m between the main parts of the buildings, with the ancillary part of Structure 47 possibly abutted by Structure 48.

Structure 48 was up to 12m long and 5m wide, and was built mainly of posts set in individual post-holes. These were best preserved along the western wall line where a series of fifteen can be assigned to this building, extending from 10097 in the north to 11908 in the south. They were mostly sub-oval or subrectangular, up to 0.5m deep, with the larger

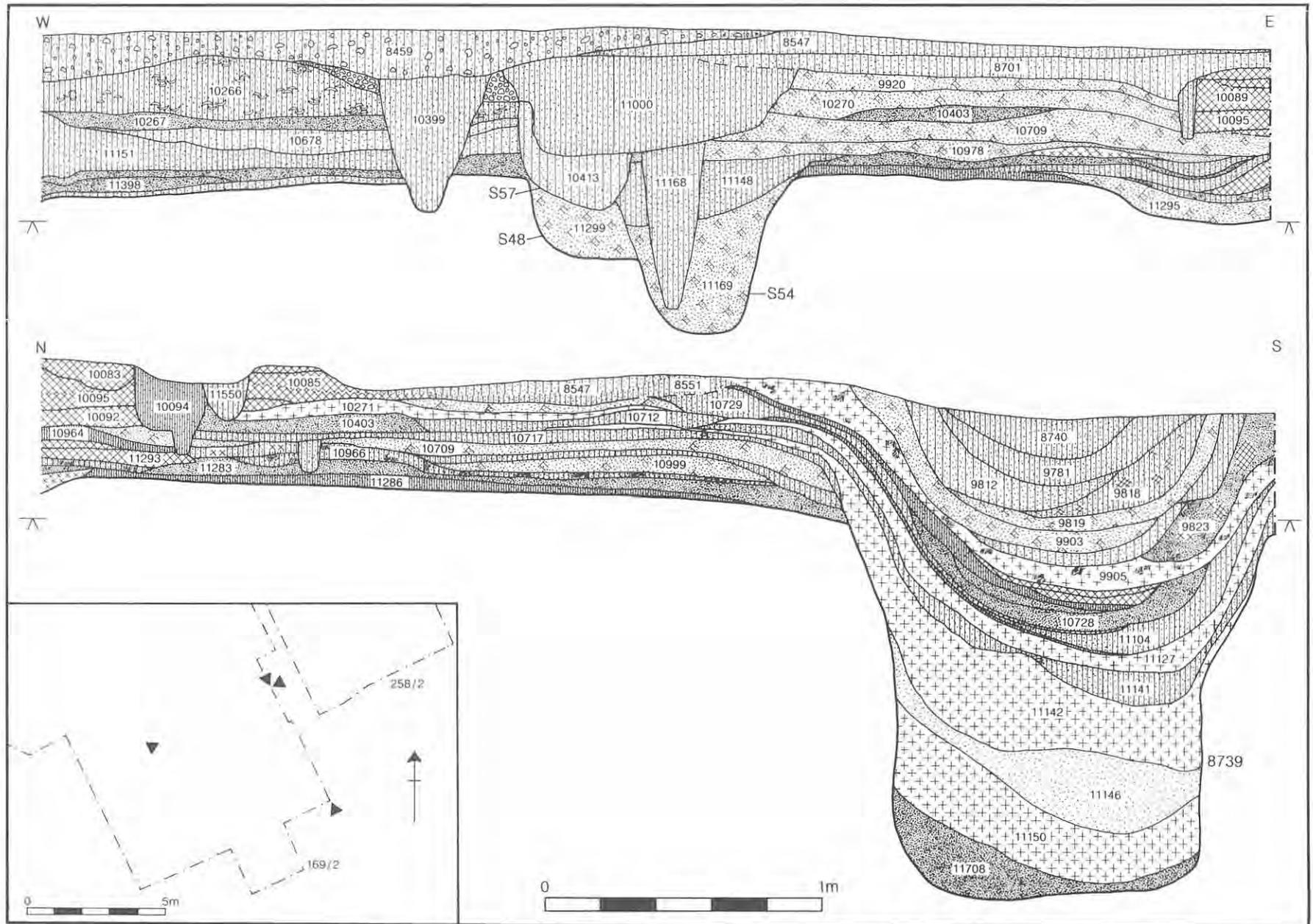


Figure 63 Stratified structural sequence through Structures 48, 54, 57, and 61 (SOU 169 T2). The inset shows the locations of the sections. Scales 1:20 and 1:200 (inset plan).

examples lying towards the south end though this probably reflects the varying degree of truncation. Spacing generally varied between 0.5m and 0.7m, with a slightly wider gap of 1m between 11566 and 11568 interpreted as a doorway. (This was also the position of a doorway in at least two of the subsequent structures.) All of the post-holes in the west wall contained post- or plank-impressions. These were mostly of individual posts between 0.15m and 0.3m in diameter, though corner post-hole 11908 had a double impression, and three of the subrectangular examples towards the north end contained double plank-impressions.

The eastern wall line (from 19153/19155 in the north to 16879 in the south) was not fully exposed, but appeared to comprise a series of less substantial post-holes spaced at intervals of between 0.7m and 1m, with no doorways clearly apparent, nor any post-impressions surviving.

Post-holes 9965, 10523, 10525, and 19177 have been assigned to the northern wall line, though whether all of them belonged to this is uncertain due to the truncation of deposits in this area. All but 19177 lay towards the north-west corner and contained post-impressions. Only a single post-hole marking the southern wall line was exposed (11902).

Four groups of features within Structure 48 may have marked partitions or other internal arrangements. At the north end were two groups of shallow, truncated post-holes which perhaps belonged to a single arrangement in the north-west corner. These formed a right-angle with 19303 at the corner of two lines which extended north to 19175 and west to 11063. Post-holes 11651 and 11812 lay 1.5m to the south of this and extended 1.5m in from the west wall. The most substantial of the four groups of internal features was a shallow, U-shaped gully, 11559, 2m from the southern wall line and 1m from the western wall line. This was at least 2m long with the excavated section containing two pairs of plank-impressions.

No hearths were found within the excavated area, but two pits lay at the north end. Pit 10449 in the north-west corner was partly cut away by a 19th-century pipe trench, but was probably 1m square and 0.6m deep. It was filled almost entirely with pale brown redeposited brickearth. Pit 10581 lay to the west of this, partly in an unexcavated area. This was probably 0.9m square, 1.1m deep with evenly sloping sides and a flat bottom (see Fig 78). The lower part was largely filled with a 0.5m-thick layer of dark grey sandy clay, sealed by substantial deposits of mixed burnt and unburnt brickearth presumably derived from a demolished structure, though this was not identified. The shape and fill of this pit suggest some function other than storage which may have been the purpose of pit 10449.

The interior of Structure 48 was covered with a well preserved clay or brickearth floor surface, 11283, which was generally between 20mm and 40mm thick. This sealed 11286, the charcoal-rich soil contemporary with Structure 47, and was

covered by 10966, a similarly thin spread which is interpreted as an occupation deposit or build up within the building. Layer 10966 contained an imitative Series X sceat (Metcalfe 1988: coin 121) which was minted perhaps during the first quarter of the 8th century. Outside Structure 48 to the west were the remains of a cobbled yard surface, 11341, which survived rather patchily adjacent to the building, but was more substantial further west where it extended beyond the limit of excavation. Its extent to the north was uncertain due to the truncation of deposits beyond well 13342. It directly overlay the redeposited brickearth hillwash, and sealed post-holes belonging to Structure 47; which suggests that, if Structure 47 had still been standing at the time of Structure 48's erection, it had been dismantled soon after. On the available evidence, it is suggested that Structure 48 was built fairly early in the 8th century and remained in use until the latter half of that century.

Well 13342 probably remained in use, probably associated with Structure 48; and pit 8469 immediately outside the doorway was also contemporary. The latter was a subcircular feature approximately 1.5m in diameter and 1.8m deep, with the sides sloping in to a rounded bottom. There was no indication of a lining. It appears to have been dug for cess disposal. The sides towards the bottom were heavily iron-panned though not stained green, and the lower 0.5m was filled with fairly clayey, grey or brown silty loams sealed by a layer of redeposited brickearth up to 0.2m thick. The latter, like the brickearth sealing layer in pit 10581 within Structure 48, was mixed with a considerable amount of burnt brickearth and the two deposits may have derived from the same source. There was evidence for a substantial slumping of 0.5m or more in pit 8649 as a result of the settling of the lower fills. This may have taken place over a long period of time, for pottery recovered from the fairly complex sequence of fills indicated that initial infilling contemporary with Structure 48 had begun early in the 8th century, but that the latest deposits, which included one or more gravel yard surfaces, dated to the second half of the 9th or possibly even the 10th century.

It is suggested below that Structure 48 was contemporary with Structures 49–53, a complex to the north which may have been associated with hide preparation. A property boundary marked by a pit alignment extending from 8840 in the east to 10675 in the west appears to have lain between, with a further boundary marked by a fence line extending from the north-eastern corner of Structure 48 alongside the north–south street. The latter comprised a 4m line of five, small, irregularly shaped and spaced post-holes with 19157 at the south end and 19165 to the north. These would have effectively blocked the extension of east–west street II from the north–south street, and this was subsequently used temporarily as a yard surface associated with the Structure 49–53 complex.

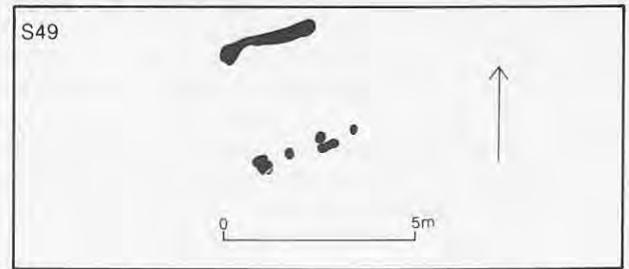
Structures 49–53 (Fig 65; Table 3)

The house site lay at the north end of SOU 169 T2 and comprised a group of five probably associated structures. All, with the exception of Structure 51, which is interpreted as a domestic building, appear to have been sheds, or shelters, or retaining structures. Contemporary spreads of burnt chalk suggest this may have been a complex associated with hide preparation. The burnt chalk spreads were confined to the area of the extension to east–west street II, probably used as a yard surface, and part of the north–south street, with the deposits between having been truncated. Structures 49–53 were grouped around this yard surface which appeared to have been the focus of activity. With the exception of Structure 52, none contained burnt chalk deposits.

Although Structure 47 to the south has also been linked with hide preparation it is considered more likely that this was earlier, and that Structures 49–53 were contemporary with Structure 48. The evidence for this is equivocal; stratified deposits did survive at the north end of the site, but these had suffered varying amounts of truncation which did not allow them to be directly linked with the sequence at the south end. However, Structures 49–53 were contemporary with the disuse of the extension to east–west street II, which appears to have been utilised then as a yard surface, and it seems unlikely that this change in function would have occurred during the earliest phase of occupation, represented by Structure 47.

It is unlikely that Structures 49–53 were directly associated with Structure 48. There was probably a property boundary between them represented by a line of at least five pits extending from 8840 in the east to 10675 in the west. When this was established is difficult to ascertain, but it was long-lived. The two most likely possibilities are either that there was originally a single large property associated with Structure 48 which was subsequently subdivided and Structures 49–53 built, or that the boundary was established earlier separating Structure 48 from Structures 49–53, all of which were built at more or less the same time. The latter is most probable – pits 8456 and 10675 being dug fairly early in the 8th century, and Structure 49 itself possibly forming part of the boundary.

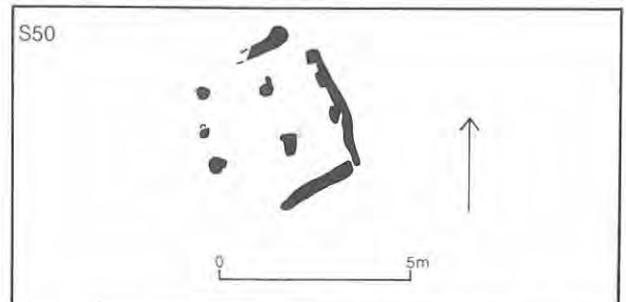
Structure 49



Structure 49 lay close to the north-west corner of Structure 48, with the extension of east–west street II 2m to the north. It was subrectangular, measuring 3m by 2.5m, and apparently open on the east and possibly also the west side. The northern wall line was marked by shallow gully 10988, with an irregular-shaped post-hole, 11526, at the west end. The southern wall line comprised four alternate single and double post-holes, none containing post-impressions, with 11110 and 11118 marking the south-east and south-west corners respectively. Although the nature of the wall lines differed, their layout indicates that they belonged to the same building. The absence of structural features along the east and west sides other than at the corners suggests that these may have been open.

Virtually all surface deposits had been truncated in this area and no floor surfaces survived, nor any other internal features. It is conceivable that paired pits 8840 and 8682, both probably cess pits with the latter lying centrally within the area occupied by Structure 49, may have been contemporary and associated with this building. However, these are considered below more likely to have been contemporary with Structures 54 and 55 which were later.

Structure 50 (Fig 65)



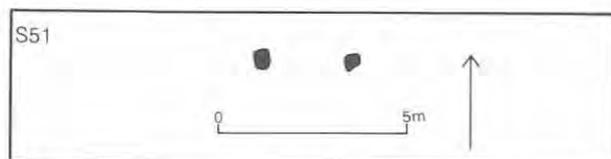
This was a subrectangular building, perhaps a shed or shelter like Structure 49, but slightly larger, measuring 4m by 3.5m. It lay more than 5m to the north-west of Structure 49, and 1.5m from the western terminus of the extension to east–west street II, the latter subsequently obscured by Structure 52 and the associated burnt chalk spread immediately to the east of Structure 50. Structure 55 overlay the south-west corner of Structure 50, with the remainder of the building and associated burnt chalk deposits sealed by a later remetalling of the extension to east–west street II.

Table 3 SOU 169 T2: structure matrix (S numbers are structure numbers).

Date	South end	North end
	S61	S62
Late		S59
	S56	S58
	?Hide preparation	
Mid	S54	S55
	S48	S49 + S50 + S51 + S52 +S53 (?Hide preparation)
Early	S47	

charcoal deposits elsewhere have been found mixed with iron-working slag, but no slag was found here, and the absence of any burnt daub suggests that it was not a destruction deposit. It was presumably associated with some form of industrial activity, contemporary and probably related to the burnt chalk deposits in the area, but what this was remains uncertain.

Structure 51 (Fig 65)



Only a very small part of this building, probably the south-western corner, was exposed within the excavated area. It lay 2m to the north-east of Structure 50 and immediately north of the extension to east-west street II. To judge from the size of the two post-holes excavated it would appear to have been a fairly substantial structure, probably a domestic building, though its size and layout have not been ascertained. It seems most probable that it extended back at 90° from the east-west street as there was no evidence for it further west, adjacent to the north-south street, in the area occupied by Structure 53, a structure considered to have been broadly contemporary.

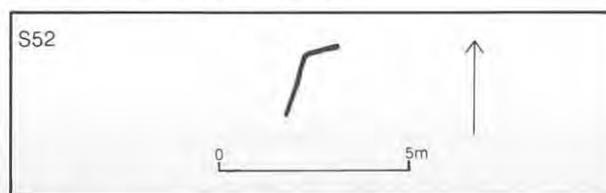
A large, subrectangular post-hole, 12785, is interpreted as having marked the south-west corner with a similar example, 10365, 2.5m to the east. Both contained substantial post-impressions up to 0.3m in size. They cut the edge of the earliest metalling on the extension to east-west street II, but were sealed by the later remetalling contemporary with Structure 55 to the west.

No floor surfaces or other internal features were

revealed in the small area exposed, but deposits in this area had been fairly heavily truncated.

At least two pits in the area were probably contemporary and associated with Structure 51, and both lay immediately to the west of it, close to the north-east corner of Structure 50. Only the top fill of pit 8848 was excavated; pit 9707, which was probably of similar shape and size, was subcircular, 1.8 in diameter, and 2m deep, with near-vertical sides and a rounded bottom. The lower fills of dark grey clay loam with varying amounts of oyster shell were sealed by a layer of redeposited brickearth. They may have been cess deposits, though there was no green staining of the sides. Within these lower fills was a spread of gravel which was clearly restricted to the southern half of the pit, and could have been part of a later metalling on the extension to east-west street II. This postdated the burnt chalk deposits, none of which had spread or been deposited in pit 9707. The pottery from the pit indicated a date probably after 800 for its infilling, but virtually all of this came from the fairly homogeneous dark greyish-brown upper fills, and the pit itself could have been dug somewhat earlier, perhaps around 750. Other contemporary and associated pits are likely to have lain outside the excavated area to the north.

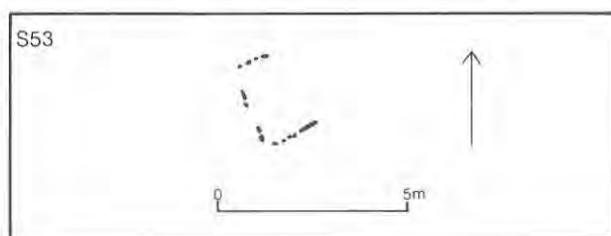
Structure 52 (Fig 65)



This lay immediately to the east of Structure 50 and less than 1.5m from the south-west corner of Structure 51. It remains a unique structure in

Hamwic, but this is probably because of its ephemeral nature which means that examples elsewhere have not survived or been recognised. It survived as a 'boomerang-shaped' shallow slot or 'groove' between burnt chalk layers 11133 and 11132, the latter extending east from Structure 50 over the earliest metalling on the extension to east-west street II. The slot was approximately 3m long, 30mm wide, and 70mm deep, but contained no stake-holes or other structural features. It may have held planks, for it appears to have acted as some form of retaining wall with burnt chalk 11132 apparently piled against the east side where it survived to a depth of up to 0.1m. This deposit spread at least 5m to the east where it was truncated, but appeared to be restricted fairly closely to the area covered by the extension to east-west street II. Further, probably contemporary and associated deposits of burnt chalk were found on the edge of the north-south street immediately to the east of Structure 53.

Structure 53 (Fig 65)



This lay adjacent to the north-south street and was aligned to it, with Structure 51 probably immediately to the west, though the area between the two was not excavated. Structure 53 may have been a shed or shelter, but was somewhat smaller than Structures 49 and 50; measuring approximately 2.2m by 1.5m. It appears to have been open on the east side facing the street.

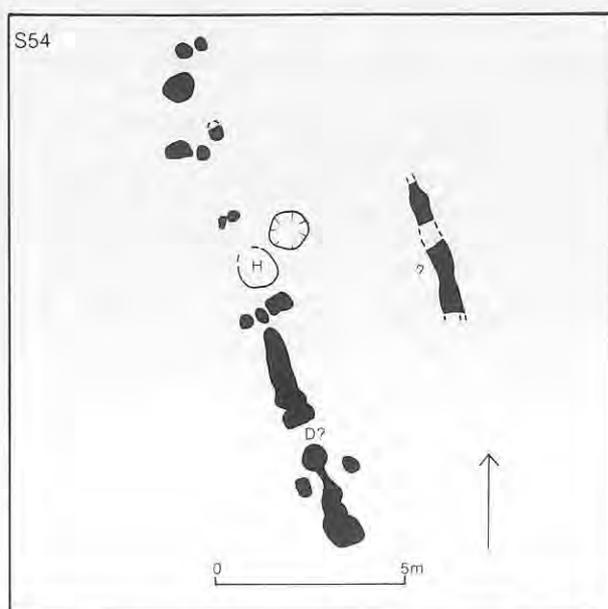
The structural features marking the north, south, and west sides comprised a series of narrow, shallow slots which were possibly plank-impressions. They were between 0.1m and 0.6m long, and closely though irregularly spaced. They would originally have been deeper, but the deposits in this area to the west of the north-south street had been largely truncated by a 19th-century basement. However, it was clear that pit 16169 had been cut from a higher level and thus its location, apparently within Structure 53, was coincidental. Although fairly shallow, this pit had removed any evidence of internal features and perhaps for an east wall, though it is considered likely that Structure 53 was open on this side.

Immediately to the east of Structure 53 was a substantial spread of burnt chalk, 16198, up to 0.3m thick, which comprised three or more individual layers. They directly overlay the earliest metallings on the street in this area and also

extended over and into pit 15317 which cut the metallings. Burnt chalk 16198 petered out 1m to the south of the pit. It is uncertain how far it spread to the north or onto the street. There is no evidence, however, of this or any other domestic or industrial deposit extending as far as SOU 258 T3 which was opened 7m to the east.

Pit 15317 was a very substantial feature, 1.8m in diameter and almost 2.5m deep. It had near-vertical sides with little undercutting, but no evidence of having been lined. It was probably dug contemporary with Structures 48 and 49-53, though it may have predated them. In either case, it remained open for a considerable time; a fact evidenced by the sequence of fills it contained, some of which had been deposited directly into the pit, others having subsided into it. It was the only pit found at Six Dials which cut through the north-south or an east-west street, though it did lie within 3m of the edge of an exceptionally wide street along which was considerable evidence for the disposal of industrial and domestic waste, as well as piecemeal remetalling. It lay closest to the complex of structures at the north end of the site, and probably fell within the property or area used by these rather than that of Structure 48 of the south. The extent of the burnt chalk spreads in this area would support this interpretation. The bottom fills, below the burnt chalk, were grey clay loams interleaved with some brickearth layers probably derived from collapse of the sides. These suggest that the pit was dug initially for cess disposal, though no green staining was observed. Apart from the burnt chalk deposits, the remainder of the fills comprised very gravelly dark greyish-brown soils containing considerable domestic refuse, with several layers of gravel representing later metallings which had subsided into the pit.

Structure 54 (Fig 66)



This succeeded Structure 48 on more or less exactly the same site, though like its predecessor the remains of the western wall line were more substantial than those to the east, alongside the north-south street. Furthermore, because of the truncation of deposits at the north end there is some uncertainty concerning the exact structural arrangements there. However, Structure 54 appears to have been 12.5m long and 5m wide, with some evidence for a small additional structure, possibly an extension, at the north end.

The western wall line was marked by a series of substantial post-holes, with 10513 and 11255 in the north-west and south-west corners respectively. The latter was particularly large, measuring 0.9m by 0.9m and 0.35m deep, though it contained no post-impression or -ghost. A post-hole/gully complex extended 2m to the north of this as far as 11195 where there was a gap of 0.5m, probably a doorway. A further post-hole/gully complex continued for 2.5m north of this between 11174 and 11170. Two of the three post-holes in the latter complex contained triple plank-impressions which indicated planks up to 0.3m by 0.1m, set between 0.15m and 0.2m apart. The gully petered out, and the wall line was continued by three further groups of post-holes between 2m and 2.5m apart, all with single post-impressions. Some of these, such as 9944 and 11698, appeared to lie within the building, with 10073 and 11706 in corresponding positions outside. A similar pair, 11060 and 11285, lay at the south end. The significance of this is unknown.

The line of the east wall adjacent to the north-south street was not certainly identified. It is most likely that evidence for this had been removed by later gully 15396 (shown on Fig 66) which belonged to either Structure 57 or Structure 61. This survived at the southern end, but had been truncated at the northern end by a 19th-century basement.

Virtually all of the southern wall line lay outside the limit of excavation, and no evidence for the north wall appeared to survive. However, two shallow post-holes, 10279 and 10285, and a series of four or five parallel, shallow gulleys immediately to the north may have been associated with this, or with an additional structure or extension. The gulleys were of irregular width and spacing, and had been truncated to the east, though none extended beyond the line of the west wall. The most northerly, 10296, cut into the edge of the gravel on the extension to the east-west street, and they might be interpreted as eaves-drip gulleys but for their number and spacing. These factors also throw into doubt their structural interpretation, as does the absence of post-impressions or -ghosts, and their purpose therefore remains uncertain.

At least three possible internal post-holes have been noted along the west side, but none seems to have marked a partition – with the possible exception of 11698 where any evidence to the east has been destroyed by a pipe trench. A partition in this position would have divided the building into two equal halves. Immediately north of this and adjacent to the west wall was hearth 11673. This was subcircular, and comprised a clay pad burnt red in the centre overlying a flint cobble base. Immediately to the north-east of this was a small, irregularly shaped pit, 11531, up to 1m across and 0.6m deep, with sloping sides and a flat bottom, cut by a pair of large stake-holes 0.3m apart. It was filled with a large amount of broken-up hearth lining, though the pit itself did not appear to have been part of a hearth or oven. The remains of up to two clay or brickearth floor surfaces survived at the south end of the building, but had been truncated to the north. The earliest of these, 10999, was rather patchy, but 10709 extended over almost the entire interior at the south end (see Fig 63). It was laid over 11313, a thin occupation layer above floor 10999, and over 10996, the occupation layer above floor 11283 in Structure 48. Like 11283, floor 10709 was a thin, even surface on average about 40mm thick, and it too was overlain by an occupation layer, 10717, that contained much charcoal and was up to 40mm thick.

Outside the building to the west were the patchy remains of a gravel yard surface, 10419, which overlay several spreads of brickearth, perhaps upcast from the digging of pits 8469 and 8576. The yard surface had in places been re-metalled twice, and was covered with a spread of dark greyish-brown silty loam up to 0.1m thick which contained a considerable amount of animal bone, oyster shell, and charcoal. This probably represents domestic refuse deposited on the yard surface. Such deposits rarely survive elsewhere due to truncation. The evidence from this area supports the evidence from pit fills elsewhere that rubbish, both domestic and industrial, was not always disposed of discretely into pits.

Pits probably dug at this time include paired pits 8682 and 8840, and adjacent pit 8541 in the line



Figure 66 Structure 54 and contemporary gravel surfaces (SOUs 169 T2 and 258 T2). Scale 1:100.

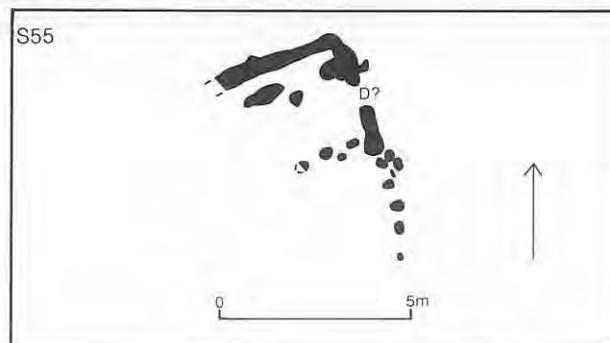
extending west from the north-west corner of Structure 54. They are considered to have marked an established property boundary, though the postulated extension at the northern end of Structure 54 lay beyond this line. Pits 8682 and 8840 both measured approximately 1.4m by 1.3m and were 2m deep (see Fig 77). They had near-vertical sides and flat bottoms, and may have been lined. Both contained bottom fills at least 0.75m deep comprising layers of grey silty loams, redeposited brickearth and ash which had undergone considerable settling, and probably represented cess, an interpretation strengthened by the green staining observed on the sides of the pits. These were sealed by a substantial deposit of burnt daub deposited from the east, most probably derived from Structure 54, or perhaps one of its successors, Structures 57 and 61. The pottery from these pits would suggest that they were dug at the end of the 8th century and continued in use into the following century. In addition, pit 8576 was probably dug through the top of well 13342, which by now had fallen into disuse, though no replacement for this was found within the excavated area. Furthermore, it is clear that pit 8469 immediately to the west of the doorway was still open and used for rubbish disposal.

The north-south street was remetalled at this time, though along the west edge it appears to have been restricted to a series of gravel paths up to about 2m in width. There was no evidence to suggest that these had once been extensive surfaces that had subsequently been worn away. However, it is possible that 15391 and 16426 were originally part of a continuous north-south path, with a separate area of metalling, 15392, extending to the east. Contexts 15391 and 15392 were both laid on a possible brickearth make-up layer. This contained a small amount of daub and charcoal and may have been the remains of a demolition layer, perhaps derived from Structure 48 which preceded Structure 54. This layer may originally have been more extensive and its narrow extent perhaps reflects its partial survival below the metalled paths. At the north end, 16426 was laid directly on the earlier deposits of burnt chalk. The 5m gap between 16426 and 15391 is somewhat curious in that it was exactly on the projected line of the formerly 'decommissioned' extension to east-west street II; perhaps the substantial deposit of burnt chalk in this area served as the street surface, a possibility hinted at by its 'dirty', slightly stony nature.

Structure 54 was probably built in the second half of the 8th century. It was not immediately succeeded by Structure 57 for there was a period around the end of the 8th century and the beginning of the 9th when the area was given over to industrial use, again probably associated with hide preparation. No structures associated with this use were certainly identified, though Structure 56, which was a small shed or shelter on the edge of the north-south street at the south end of the site, may have been contemporary. This is discussed further

below, but it is relevant to note here that deposits derived from the industrial activity filled two earlier pits which postdated Structure 54. Pit 8739 (see Fig 63), which cut the floor surfaces and overlying occupation deposits within Structure 54, and pit 8723, which cut contemporary yard surfaces to the west, were both seemingly dug as cess pits. (The associated structures may have lain to the south of the excavated area – they do not seem to have been exposed within the excavations.)

Structure 55 (Fig 67)



Approximately half of this building was exposed in the north-west corner of SOU 169 T2. It overlaid the west side of Structure 50 and was cut by post-holes belonging to Structure 58. It measured at least 6m by 3m, and lay at the western end of a remetalling on the extension to east-west street II, some 12m from the north-south street. Although it lay north-south, it took its alignment from the east-west street. Immediately to the south was an east-west property boundary represented by a pit alignment comprising pits 8456, 8541, 8682, 8840, and 10675. Several constructional techniques were represented in this building, not all of which were necessarily contemporary.

The eastern wall line was marked at the north end by two slots or gulleys, 11190 and 11461, each approximately 1.3m long and separated by a gap of 0.5m which probably represents a doorway; this would have provided direct access on to the extension to east-west street II. The wall line was continued to the south by a series of at least five small post-holes 0.5m apart. None of these features contained post-impressions or -ghosts.

The north end was marked by a continuous trench, 11396, more than 3m long, up to 0.4m wide and 0.3m deep, but again devoid of post-impressions or -ghosts.

Stratified surface deposits petered out in this area, and, although no hearths or floor surfaces were found, there was evidence for at least one partition. This lay 3m from the north end and was marked by a line of small, shallow post-holes extending west from 11390. Less than 1m from the north wall lay a further line of shallow features comprising 11052, 11261, and 11130, which clearly also related to some internal arrangement, but not a partition.

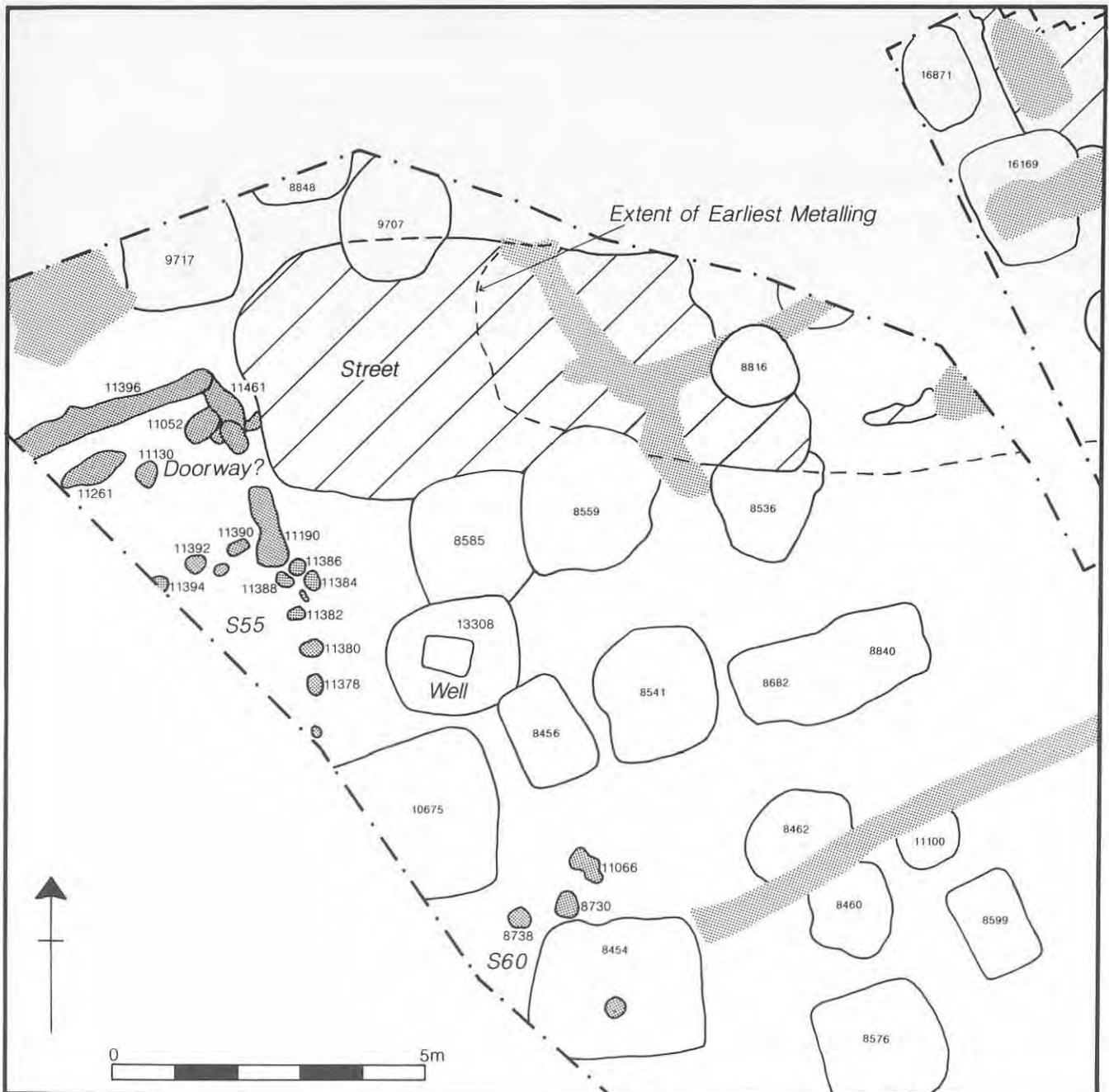


Figure 67 Structures 55 and 60, with extension to east-west street II (SOU 258 T2). Scale 1:100.

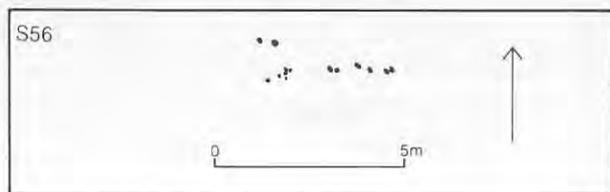
At least part of the extension to east-west street II was remetalled at this time, extending the earlier limit to the west by some 4m. This appeared to run up to the entrance to Structure 55, sealing the earlier spreads of burnt chalk. Pit 9717 to the north was probably contemporary and associated, as pit 8585 to the east may have been, if it was not an earlier feature. Pit 8585 was cut by well 13308 which has also been assigned to Structure 55. Only the upper part of the well was excavated, but it was found to have had a rectangular shaft set in a subcircular pit. Besides the two pits identified, others associated with Struc-

ture 55 are likely to have lain outside the excavated area to the west, and all of those exposed in the east-west pit alignment to the south also would have been open at this time.

Structure 55 appears to have been a domestic structure which postdated the spreads of burnt chalk and associated structures. Along with the remetalling on the extension to east-west street II it represented a major change in use of this part of the site, probably within a single property. Whether Structure 51 or a successor to it stood immediately to the north of the street is unclear from the small area exposed there. Structure 55 was probably

broadly contemporary with Structure 54 to the south; this is further indicated by the pottery from the features assigned to it. This was generally mid or later in date, indicating infilling from the latter half of the 8th century into the 9th century.

Structure 56 (Fig 68)



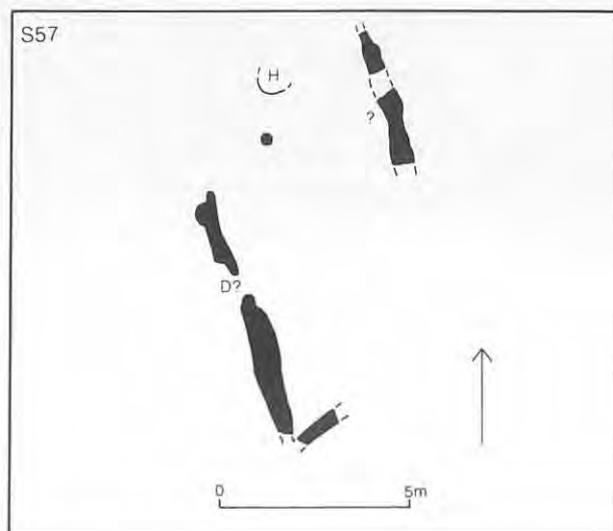
This lay in the extreme south-east corner of SOU 258 T2, south of the junction between paths 15391 and 15392, the former remetalled at the south end as 15399. It was probably a small shed or shelter which measured at least 4m by 1.5m, and was aligned east-west to path 15392 rather than north-south to 15399. It probably predated Structure 57 immediately to the west, and may have been broadly contemporary with a period of industrial activity at the southern end of the site, again possibly relating to hide preparation.

Only the eastern end of Structure 56 lay outside the excavated area with the remainder marked by an L-shaped arrangement of large stake-holes up to 0.5m apart. It appears to have been open on the north side, and there may also have been an entrance or doorway on the south side, between 15810 and 15816 which were 1m apart. The stake-holes were cut into a spread of burnt chalk up to 50mm thick in the south-east corner of the site and was perhaps utilised as a floor surface; no other internal features were noted.

Structure 56 may have been broadly contemporary and perhaps associated with the burnt chalk spreads, or have postdated them. No other structures or features could be linked to this activity. The spreads were thickest in the south-east corner, where they were sealed by path 15399, but survived more patchily to the west. They apparently postdated Structure 54, but there is evidence to suggest that at least some of the posts in the west wall were still standing when the burnt chalk was deposited. Pit 8723 (to the west of this wall line) and pit 8739 (to the east: see Fig 83) contained more substantial deposits of burnt chalk, up to 0.35m thick, but appear not to have been directly related to this activity. Both were dug earlier, probably as cess pits, and were subsequently used for the disposal of industrial waste. In addition to the chalk, both pits contained deposits of fine red sand up to 0.3m thick. These lay more or less directly beneath the burnt chalk, but were confined to the pits, with no comparable deposits recorded elsewhere. Given the close physical association of the burnt chalk and sand in these two pits, it would seem reasonable to

link both with the same industrial activity, probably hide preparation.

Structure 57 (Fig 68)



This lay on more or less exactly the same site and alignment as Structure 54, postdating the industrial use of the area. Structure 56, which may have predated it, lay close to the north-eastern corner; and to the north either Structure 58, or Structure 59 which was later, or both, are likely to have been contemporary. Structure 57 appears to have been a domestic building, approximately 10m long and 5m wide, though truncation of the deposits at the north end made its precise length impossible to determine.

The western wall line was marked by two substantial but irregular trenches, 10412 and 10518, with a 0.6m gap in between, which was probably a doorway in the same position as in preceding Structures 48 and 54. The southern trench, 10518, was the larger at 4m long, up to 0.7m wide, and between 0.2m and 0.4m deep. No post- or plank-impressions were present, though in places there were slight traces of a discontinuous darker fill along the centre, perhaps marking the positions of earth-fast posts or planks.

It is probable that the eastern wall line was also marked by a trench, but all traces were probably removed by 15396, which was a later structural feature.

At the southern end a short length of a smaller trench, 11846, was exposed lying at a slightly acute angle to 10518, though the junction between them had been destroyed.

No evidence for the north wall survived, but it is quite probable that it lay immediately to the north of hearth 10571 which would thus have been centrally placed at the north end of the building. This, like many of the other domestic hearths, comprised a circular clay pad, burnt red in the centre, set on a base of flint cobbles. Also at the north end, but slightly offset from the centre line, was a deep

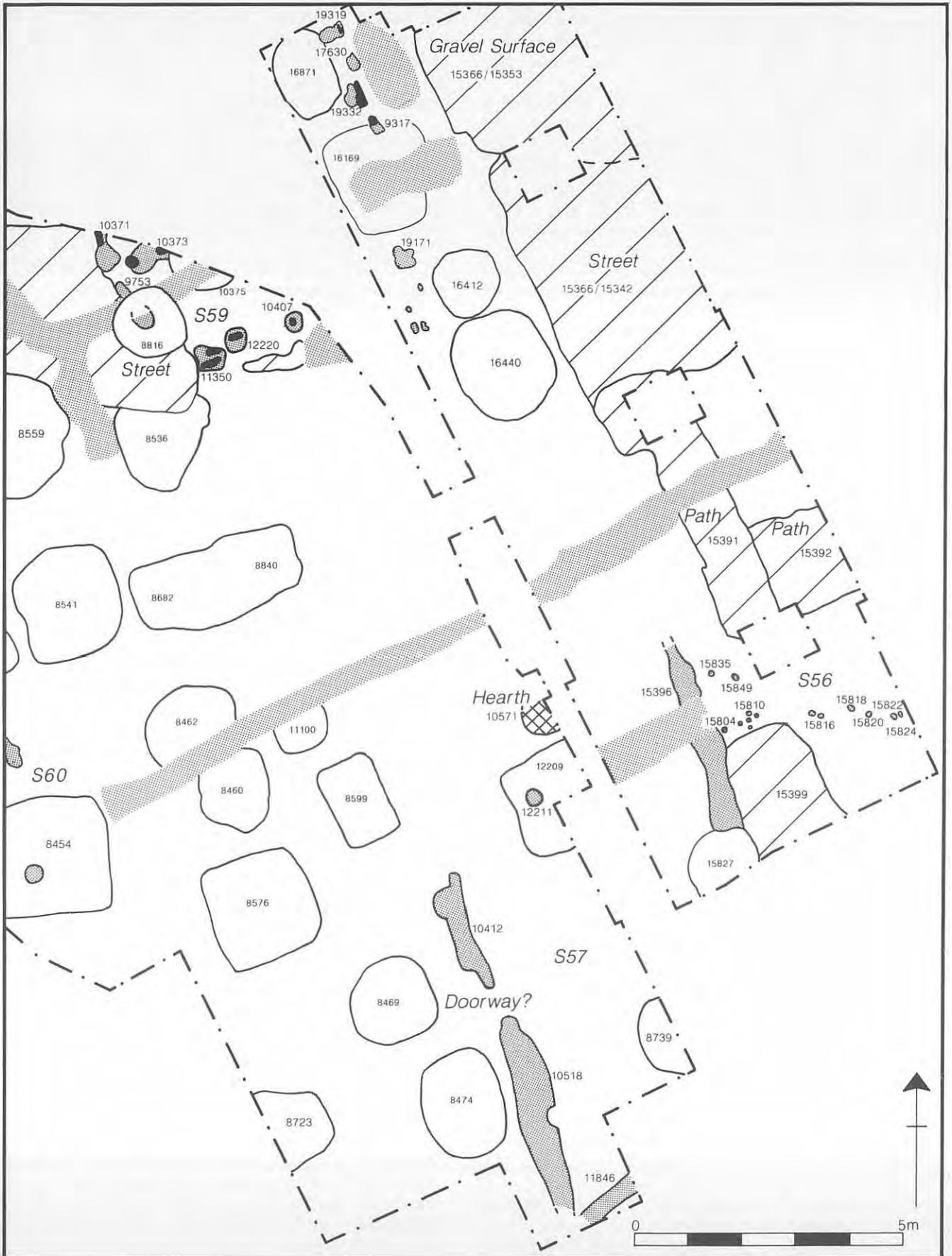


Figure 68 Structures 56, 57 and 59, and contemporary gravel surfaces (SOU 169 T2 and 258 T2).

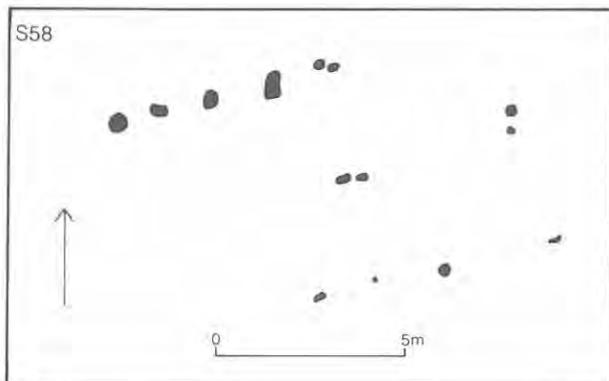
stake- or post-hole, 12211, set in the upper, subsid-ing fills of pit 12209. This did not appear to mark a partition, for which no evidence was found, and may have been a roof support.

A discontinuous clay or redeposited brickearth floor surface, 10403, survived over much of the south end of the building, overlying occupation layer 10717 in Structure 54 and the later spreads of burnt chalk (see Fig 63). It was best preserved where it had subsided into pits 8739 and 12209. Here there were as many as four resurfacings presumably in order to counteract the slumping. The overlying occupation deposit, 10271, contained less charcoal but rather more ash or burnt chalk than the earlier occupation deposits.

Outside Structure 57 to the west was a rather mixed and ill defined spread of dark soil, ash, and oyster shell. No contemporary yard surfaces were identified, and pit 8454 on the western edge of the site may have been the only pit dug in the area at this time, though both 8469 and 8723 would have still been open.

The dating of Structure 57 remains somewhat uncertain, but its place in the sequence suggests a date of construction probably in the early part of the 9th century.

Structure 58 (Fig 69)



This lay immediately to the south of the extension to east-west street II which again fell into disuse, either at this time or shortly before. However, gravel spread 8824 indicates some continued (but more limited) use of the area as a path or yard. Structural features assigned to this building were mostly fairly shallow and it is not certain that they were all associated; truncation of the upper levels, particularly towards the west, had destroyed any direct stratigraphic links. However, it was clear that post-holes in the north-west corner of Structure 58 cut features and deposits associated with Structures 50 and 55, and what have been interpreted as contemporary floor and yard surfaces overlay earlier pits to the south.

Structure 58 is interpreted as a rectangular, post-built structure, perhaps 10m long and 5.5m wide, which appears to have overlain an

east-west property boundary marked by an earlier pit alignment extending west from pit 8840. This building lay only some 6m from the north-south street, but was aligned parallel to the extension to east-west street II.

The northern wall line was clearest, with a large circular post-hole, 10534, containing a post-impression 0.3m in diameter, probably marking the north-west corner. A series of less substantial, more irregularly shaped post-holes, set between 1m and 1.5m apart, extended to the east, but none was found marking the north-east corner unless 12764 and 12766 represented the corner of a rather shorter building than has been envisaged.

The putative southern wall line comprised four small post-holes, with 11120 and 11360 being the largest. They were not paired with post-holes in the north wall. In the absence of stratigraphical links these could not be certainly assigned to Structure 58, however, and the possibility remains that they may have belonged to a possibly contemporary fence line, with the south wall of the building lying to the north but having left no trace.

Post-holes 12222 and 12226 are considered to have lain in a fairly central position at the east end. However, if post-holes 11522 and 13351, apparently square to 12764 and 12766 in the north wall, were not internal features, they may have marked the east end instead. In the latter case, the remaining features to the east perhaps belonged to an ancillary structure or fence line.

With the possible exception of post-holes 11522 and 13351, there were few other internal features and the location of doorways could not be ascertained. Slight traces of a possible brickearth floor surface did survive in pits 8456 and 8585, and in well 13308, but not elsewhere within the building. However, there was a spread of burnt daub towards the east end which was probably a destruction level associated with Structure 58, although it might have derived from Structure 55 which preceded it.

The southern wall line was approximately delineated by a gravel spread, 8818, which petered out to the south and may have been the remains of a contemporary or later yard surface, though not as substantial or as well defined as 8824 to the north. No evidence of gravel 8818 or of any corresponding floor surfaces associated with Structure 58 was found in pit 10675 which lay across the projected southern wall line, although the top fill was quite stony. If gravel spread 8818 was associated with Structure 58, together they would have extended across an earlier probable property boundary marked by the east-west pit alignment there.

Two pits have been tentatively associated with Structure 55. Pits 8816 and 10375 lay adjacent to each other, close to the postulated north-eastern corner of the building. Both cut through all the metallings and deposits on the extension to east-west street II, but were sealed by Structure 59. Pit 10375 lay partly outside the excavated area and was not investigated, but it appeared to have been

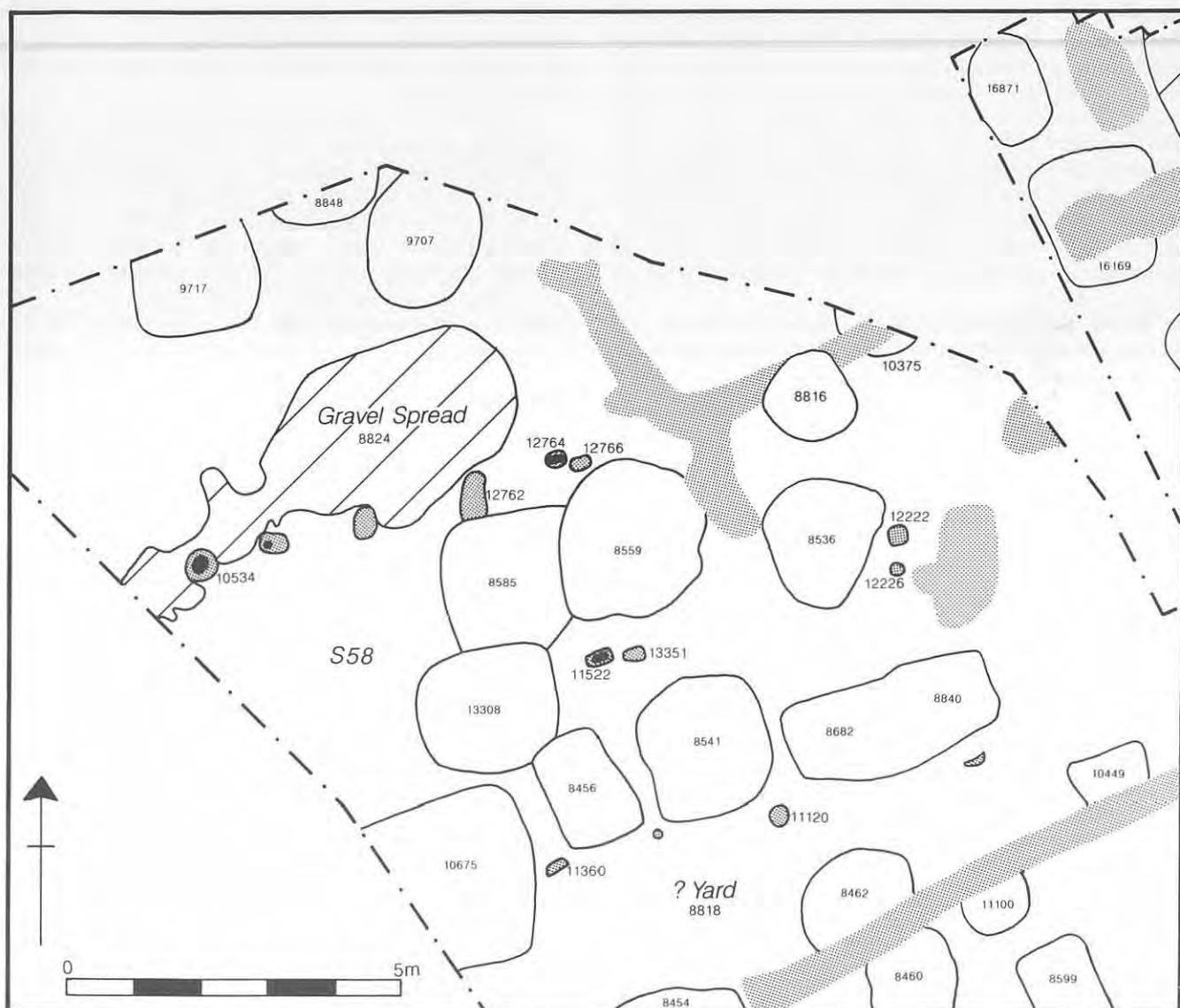


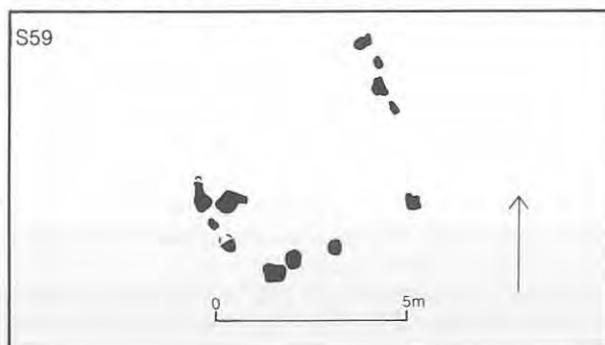
Figure 69 Structure 58 and contemporary gravel surfaces (SOU 169 T2). Scale 1:100.

similar to 8816 which was circular, 1.3m in diameter, and 1.2m deep, with vertical sides and a flat bottom. The bottom fills in 8816, which comprised grey clay loams with considerable charcoal flecking sealed by redeposited brickearth, suggest this to have been a cess pit, albeit fairly small. No larger pits within the area excavated could be shown to have been dug at this time, though several of the earlier pits were probably still partly open and refuse may have been disposed of in these.

Insufficient pottery was recovered from pit 8816 to enable it to be dated. However, the upper fills of several pits in the area including 8840 and 8682 to the south, and 9717 to the north, contained probably 9th-century assemblages which may have derived from Structure 55, and a date of construction for this building around or just after the beginning of the 9th century would fit conveniently into the proposed structural sequence. Structure 55 was most likely a domestic building, though some

doubt surrounds this interpretation in view of the uncertainty surrounding its exact layout.

Structure 59 (Fig 68)



This lay at the north end of SOU 169 T2 and SOU 258 T2, across the junction between the

north-south street and the extension to east-west street II. It is most likely to have been broadly contemporary with Structure 57 to the south, but almost certainly postdated Structure 58 to the south-west. Only part of the southern half of the building was exposed, but it was clear that it lay adjacent and parallel to the north-south street, and was at least 5m long by 5m wide. Its construction involved the removal of most of the earlier deposits in the area, mainly gravel surfaces and layers of burnt chalk, in order to create a clear, level site on which to build.

The exposed parts of the southern, eastern, and western wall lines were post-built, with the post-holes generally between 0.5m and 1m apart. The south-east corner was marked by a shallow post-hole, 19171, but there was nothing in the south-west corner. However, the majority of the remaining post-holes were fairly substantial, though of irregular shape, and contained a variety of post- and plank-impressions up to 0.4m by 0.15m. The eastern wall line was partly cut away by pit 16169. The western line extended across pit 8816.

There may have been a doorway at the south end between post-holes 10407 and 12220, and a shallow post-hole or slot, 10373, 2m from the south end, may have indicated the location of a partition or some other internal arrangement. Traces of a thin brickearth floor surface survived, which extended over and into pit 8816. No hearths were located.

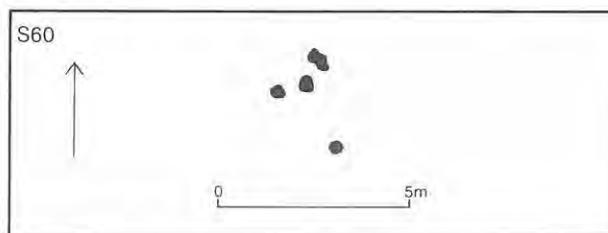
Pits 16412 and 16440 close to the south-east corner may have been associated with Structure 59 or its successor, Structure 62, though this remains somewhat conjectural due to the truncation of deposits by a 19th-century basement. Pit 16412 was a small, subcircular pit approximately 1.2m diameter and 0.6m deep, whose function is uncertain. Pit 16640 was a much larger, subrectangular feature, 2m by 1.7m and more than 2m deep. This appeared to have been recut, or at least to have had a smaller pit similar to 16412 dug into the top of it. It was not bottomed, but was probably originally used as a cess pit as the lower layers comprised a mixture of redeposited brick-earth and grey silty loams. These were sealed by a thick deposit of gravel, redeposited brickearth, and a further layer of gravel. The gravel layers may have been metallings on the extension to east-west street II which had subsided into the pit rather than sealing layers. If so, pit 16440 would have been much earlier than Structure 59, and could have been contemporary and associated with Structure 54 which lay immediately to the south. However, it contained no burnt chalk deposits and thus probably postdated the activity at the northern end of the site.

A short distance from the south-west corner of Structure 59 lay a further pit, 8559, contemporary with this or Structure 62. Pit 8559 was a fairly large, irregularly shaped feature probably used for rubbish disposal. The pottery from it would suggest

a date of infilling during the first half of the 9th century, perhaps extending beyond the middle of that century, and it thus represents one of the last pits in this area.

No yard surfaces were identified to the west, but the north-south street was re-metalled at the north end where a gravel surface, 15353, up to 0.2m thick was laid down adjacent to Structure 59. This could not be clearly distinguished from 15366, an earlier metalling on the east-west street. A date some time during the first half of the 9th century is most likely for the building of Structure 59, again probably a domestic structure.

Structure 60 (Fig 67)



Only the north-eastern corner of this building was exposed within the excavated area. It was aligned to the extension to east-west street II some 6m to the north, with the north-south street approximately 15m to the east. A probable east-west property boundary marked by a pit alignment extending west from 8840 lay immediately to the north. Its size, layout, and function remain uncertain. Possible contemporary structures are discussed further below.

Three post-holes marked the eastern wall line, with 11066 offset slightly to the east of the line possibly in the north-east corner, and another cutting the upper fills of pit 8454. All were fairly shallow and contained no post-impressions. Post-hole 8738 to the west of this line may have belonged to the north wall, or to some internal arrangement – the north wall not being marked by any structural features. Some support for the latter possibility comes from the extent of one floor surface (possibly two) which had subsided into pit 8454, and perhaps also into pit 10675 to the north. In pit 8454 the eastern wall line was clearly delineated by the extent of the clay or brickearth floor surfaces, with the earliest overlain by a charcoal-rich occupation deposit and a spread of burnt daub, perhaps representing a destruction layer. The second possible floor surface sealed these, but like the earlier surface was confined to the western half of pit 8454. This might provide some evidence for a rebuild of Structure 60. Two layers of redeposited brickearth, perhaps floors, were also found in the upper part of pit 10675. These were confined to the south side, and the edges of both were fairly clearly defined. They were separated by two layers of greyish-brown soil with

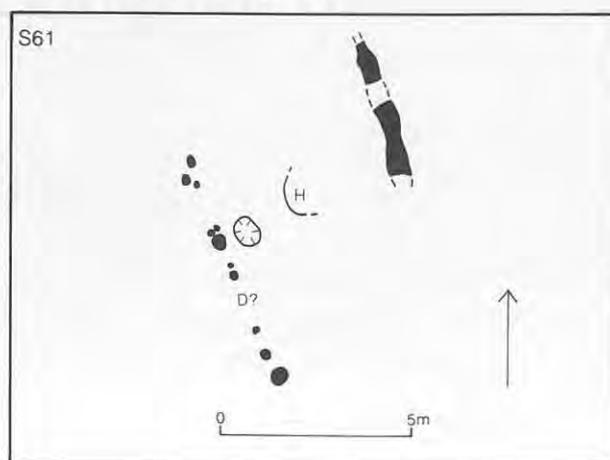
some charcoal and oyster shell, but no burnt daub. If the latter layers of redeposited brickearth were floors, the north wall of Structure 60 would have lain a metre or so to the north of post-hole 8738.

Two successive gravel surfaces were preserved in the eastern half of pit 8454, and were probably the remains of yard surfaces contemporary with Structure 60 which had not survived elsewhere. No pits were found in the immediate area which might have been dug at the same time as Structure 60, but these could have lain to the west; a large number of pits, but no buildings, were found on SOU 169 T1, less than 25m to the west.

The dating of Structure 60 is largely dependent on pit 8454 which it partly overlay. The middle and lower layers in this large, but comparatively shallow pit (1.2m-deep) produced mid pottery suggesting infilling up to c 800. However, the upper layers which sealed the post-hole, floors, and other deposits possibly associated with Structure 60, produced late pottery perhaps dating to around the middle of the 9th century. Construction some time in the first half on the 9th century is therefore indicated.

The presence of one or more brickearth or clay floor surfaces suggests that Structure 60 was probably a domestic building. It is likely to have postdated Structure 55, and also Structure 58 to the north, but may have been contemporary with Structure 59 or 62 to the north-east, and with Structure 56, 57, or 61 to the south-east. The absence of direct stratigraphic links make this impossible to establish. However, if Structure 60 were a domestic building, Structure 56 in the latter group is perhaps more likely to have been contemporary, since it appears to have been a small shed or shelter, whereas the others were fairly substantial domestic buildings, which on the available evidence would have occupied the same property. Another possibility that cannot be entirely ruled out is that Structure 60 was contemporary and perhaps associated with spreads of burnt chalk which predated all of the structures.

Structure 61 (Fig 70)



This was the final building identified in the sequence comprising Structures 48, 54, 57, and 61. Although only fragmentary remains survived, it would appear to have occupied much the same area as its predecessors and to have had a similar layout. Like them, it was aligned parallel to the north-south street, and was at least 6m long and 5m wide. There was also some evidence for subsequent activity on the site which is discussed further below.

The western wall line was clearest with a large, circular post-hole, 9845, containing a post-impression 0.3m in diameter. It probably stood in the south-west corner. To the north were three groups of smaller post-holes, between 1m and 1.5m apart. It is very likely that the line extended beyond post-hole 13360, but this cannot be demonstrated since deposits further north had been truncated.

The east wall was marked by trench or gully 15396. This was a slightly irregular, U-shaped feature at least 4m long, up to 0.5m wide, and 0.35m deep. It had been cut by a small pit, 15827, towards the south end, and truncated by a 19th-century basement at the north end. Trench 15396 probably replaced earlier trenches or post-holes marking the eastern wall lines of Structures 54 and 57, completely removing them in the process. No post-impressions or post-ghosts were recognised in the fairly uniform fill of loose, moderately stony, dark greyish-brown soil, but it is likely that the trench held earth-fast post-planks.

Most of the southern wall line lay outside the excavated area, and any remains of the northern wall line had been destroyed.

It seems likely that at least one of the gaps between the groups of post-holes in the west wall marked an entrance, and a doorway to the north of post-hole 9847 would have been in the same location as in the preceding buildings. Hearth 10081 probably occupied a central position within the building, and although only partly exposed appears to have comprised a circular or oval pad of burnt clay just over 1m in diameter. A small, shallow pit,



Figure 70 Structures 61 and 62, and contemporary gravel surfaces (SOUs 169 T2 and 258 T2). Scale 1:100.

10272, lay 1m to the south-west of hearth 10081 and less than 0.3m from the west wall. Only 0.15m deep and filled with a very dark greyish-brown soil, it was perhaps used for storage. However, it contained a stone mortar – a flat piece of sandstone with a small hollow in the surface containing gold flecks and traces of mercury, the hollow having been used to prepare an amalgam for mercury gilding. This is a unique find, and it is possible that Structure 61 was associated with the craft of gilding. (In addition to this, three lead ‘runners’ were found in possibly contemporary deposits to the west outside of Structure 61: see below.) The discontinuous, patchy remains of a brickearth floor surface did survive at the southern end of the building, but were preserved best where they had subsided into pits 8739 and 12209. In the former, two superimposed surfaces were present, 9819 and 9903, both lightly scorched (see Fig 63). This, and the presence of a burnt daub spread overlying the floor surface immediately to the west of trench 15396, suggests that Structure 61 may have been destroyed by fire, perhaps on more than one occasion.

Parallel to Structure 61, and 3m to the west, was a slightly sinuous gully, 10682, at least 3.5m long, up to 0.5m wide, and 0.15m deep. This petered out at the north end, and no post-ghosts or -impressions were identified. It is possible that 10682 was not a structural feature, and like 5506 associated with Structure 11 (see Fig 34) may have been for drainage or some form of boundary marker.

No yard surfaces were identified, but several pits as well as a series of possible midden deposits could be assigned to this or a later phase. Pit 8474, probably a cess pit, was dug close to the south-western corner of Structure 61 (see Fig 79). This was a subrectangular feature, 2m by 1.5m, and 1.5m deep, which although weathered and eroded around the top had vertical sides and a flat bottom suggesting that it may have been partly lined. The bottom levels comprised several thin layers of redeposited brickearth mixed with grey silty soils, overlain by rather more substantial deposits of brickearth and grey silty soils containing a considerable amount of charcoal flecking. These in turn were sealed by several layers comprising a subcircular burnt area approximately 1.2m in diameter, perhaps the remains of a rubbish fire.

The deposition of rubbish on the edge of the north-south street in this area followed a remetalling of path 15391 which had itself been obscured by domestic refuse previously. The remetalling, 15364, formed an irregular path between 0.4m and 1.2m wide, and up to 0.15m thick, along the western edge of the north-south street.

Structure 61 was probably built during the first half of the 9th century, perhaps nearer 850 than 800. Pit 8474 has been attributed a mid date on the basis of the pottery, but it has been suggested above that it may have contained some redeposited material used to seal the lower fills. Pits 8460 and 8462 both produced only late material, and 8469,

8454, and 10675 all contained late material in their upper fills. The latter two pits lay up to 10m from Structure 61, but would probably have been within the property associated with this building which may have survived virtually unchanged, particularly if Structure 62 to the north was in existence at this time. Although Structure 61 would appear to have been domestic, the find of the gilding mortar perhaps indicates that such buildings had also been used for small-scale industrial or craft activities which have left little or no material trace.

The demise of Structure 61, perhaps by fire, did not mark the end of activity in this area for there was some slight evidence for further occupation. Parallel to Structure 61, and 0.5m to the west, were at least four lumps of unworked limestone, 0.2m to 0.3m in size, possibly set in a shallow trench, and apparently postdating the building. Context 10398 to the north (comprising three lumps) and context 11310 to the south were probably part of an originally more substantial line for there was a scatter of similar-sized pieces in the uppermost surviving layers to the west, and a more substantial dump, 8546, in the top of pit 8474 (Fig 71 and Pl 22). Again, none of these pieces showed any evidence of working. If these are the remains of a structure, it is unclear what form it took. The only other structure at Six Dials (and, as far as is known, within the entire settlement) to have used stone was Structure 55; this was comparatively early and the stones were probably used as post-pads, not apparently their function here.

Pit 15827, which cut the eastern wall line of Structure 61, may have been contemporary. This was a shallow, bowl-shaped pit, 1.3m in diameter and 0.4m deep, which contained no distinctive fills or finds. There was no evidence for any floor levels in this area, but to the west in pits 8469 and 8474 were the remains of up to two superimposed gravel surfaces, 8565 and 8566, which had subsided into the tops of these features. In pit 8474 these sealed a layer of very dark greyish-brown soil quite rich in oyster shell which overlay the dump of limestone. The uppermost surrounding layers surviving were also quite gravelly, and together they represent some of the last Middle Saxon deposits which could be identified at Six Dials. They directly underlay 19th-century structures.

The north-south street also showed some evidence of later remetalling. A thin, discontinuous spread of gravel, 15325, sealed the possible midden deposits in the south-eastern corner of the excavated area, and may either have represented a localised metalling, perhaps a yard surface, or have been part of a more general remetalling of the street. This was overlain by a 0.75m-thick layer of fairly stony soil which contained late Middle Saxon material along with a few post-medieval finds. No Late Saxon or medieval features or finds were identified within this layer which may have been ploughsoil, and thus the last Saxon deposits in this area should probably be broadly dated to the latter half of the 9th century.

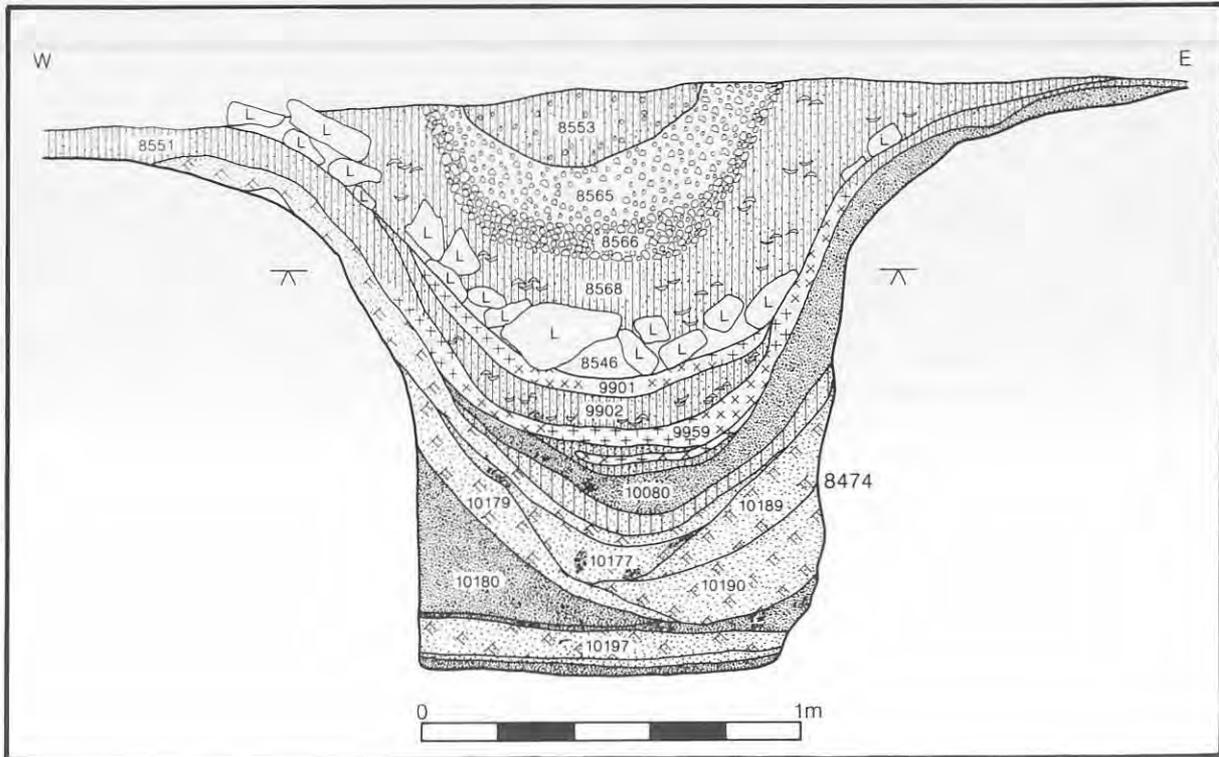
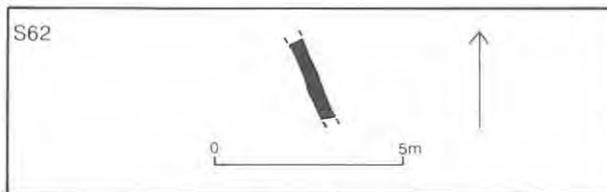


Figure 71 Pit 8474 (SOU 169 T2). Scale 1:20.

Structure 62 (Fig 69)



This lay mostly outside the limits of excavation at the north end of SOU 258 T2, and may have been contemporary with Structure 61 to the south. It replaced Structure 59 on the same alignment and probably the same house site, though only a single structural feature survived.

Trench or gully 16462, which marked the eastern wall line, lay parallel to the north-south street but set-back from it by a metre or so. It was at least 2m long, 0.3m wide, and 0.15m deep, and was cut by pit 16169 at the south end. No post-impressions or -ghosts were present, though it was likely to have held earth-fast posts or planks like trench 15396 in the west wall of Structure 61 to the south.

No other structural features lay within the excavated area, but the very patchy remains of at least one clay or brickearth floor and a possible hearth did survive along the extreme western edge of the site. These were probably associated with Structure 62 rather than with Structure 59, and were in turn overlain by several thin layers of dark greyish-brown soil and burnt chalk or ash, the

latter probably redeposited material, which post-dated Structure 62. At least some later activity was also indicated by pit 16169. This was an irregularly shaped feature up to 0.6m deep, which contained several clayey fills with some burnt daub, the latter possibly derived from Structure 62.

Two superimposed gravel surfaces, 15353 and 15363, were laid on the north-south street north of gravel 15342 – the still upstanding, 0.4m-thick, cambered metalling on the earlier extension to east-west street II. All of these were covered by one or more subsequent metallings which probably postdated Structure 62, were together up to 0.4m thick, and extended as far south as path 15364. There was no evidence for these having been other than late Middle Saxon in date. They were in turn sealed by the same layer as at the south end; a 0.7m thick, dark greyish-brown, moderately stony soil containing some Middle Saxon finds mixed with a small amount of post-medieval material (Pl 23).

Structures 63-4 (Figs 72-3)

The house site lay in the south-eastern corner of SOU 169 T3, immediately to the south of the junction between the north-south street and an extension to the west of east-west street I. The site appears initially to have been given over to iron working, almost certainly smithing, as a substantial spread of charcoal and slag up to 0.07m thick overlay one or more layers of redeposited or disturbed brickearth, which contained small



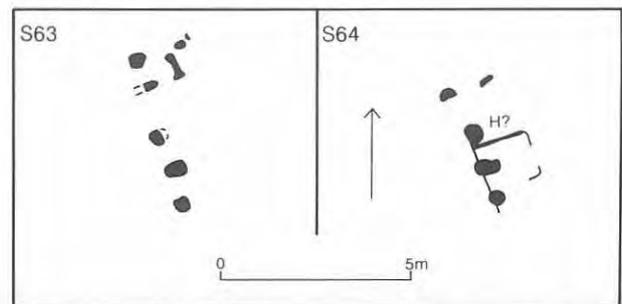
Plate 22 Dump of limestone with some Roman brick and tile in the top of pit 8474 on SOU 258 T2. Photographed from the east (scale in 0.5m units).

amounts of slag. These in turn overlay natural brickearth or the infilled early Roman ditch, 13146. No features or structures directly associated with this activity were identified within the restricted area exposed, but pit 13184, which was an early feature to the east, contained a dump of smithing slag in the bottom. Several other pits in the vicinity, notably 11975, also contained varying quantities of slag, but this was all likely to have been redeposited in later features. The possible existence of a smithy at a street junction is again noteworthy, and is comparable to similar arrangements which existed at street junctions to the east (Structures 45–6) and to the south (Structures 6–8). However, the available evidence from SOU 169 T3 suggests that the example there, although early and possibly predating or superseded by the other two, was not so long-lived. It was replaced (probably early during the 8th century) by at least two superimposed buildings not apparently associated with iron working.

Although only relatively small areas of Structure 63 and 64 were exposed, both appear to have been aligned parallel to the north–south street which almost certainly lay immediately to the east, outside the limit of excavation. Immediately to the north was a probable extension of east–west street I to the west of the north–south street, though the

metallings in this area had been largely truncated or destroyed by a 19th-century cellar. Elsewhere, stratified deposits did survive to a depth of up to 0.3m, but these had clearly been truncated. Isolated structural features cut from higher levels indicated the existence of at least one building which post-dated Structures 63 and 64.

Structure 63 (Fig 72)



Only the north-west corner of this was exposed, but sufficient to indicate a building at least 4.5m long by more than 5m wide. It was post-built with 12993 marking the north-west corner, and a series of substantial, subcircular or subrectangular post-holes spaced at intervals of approximately 1m along

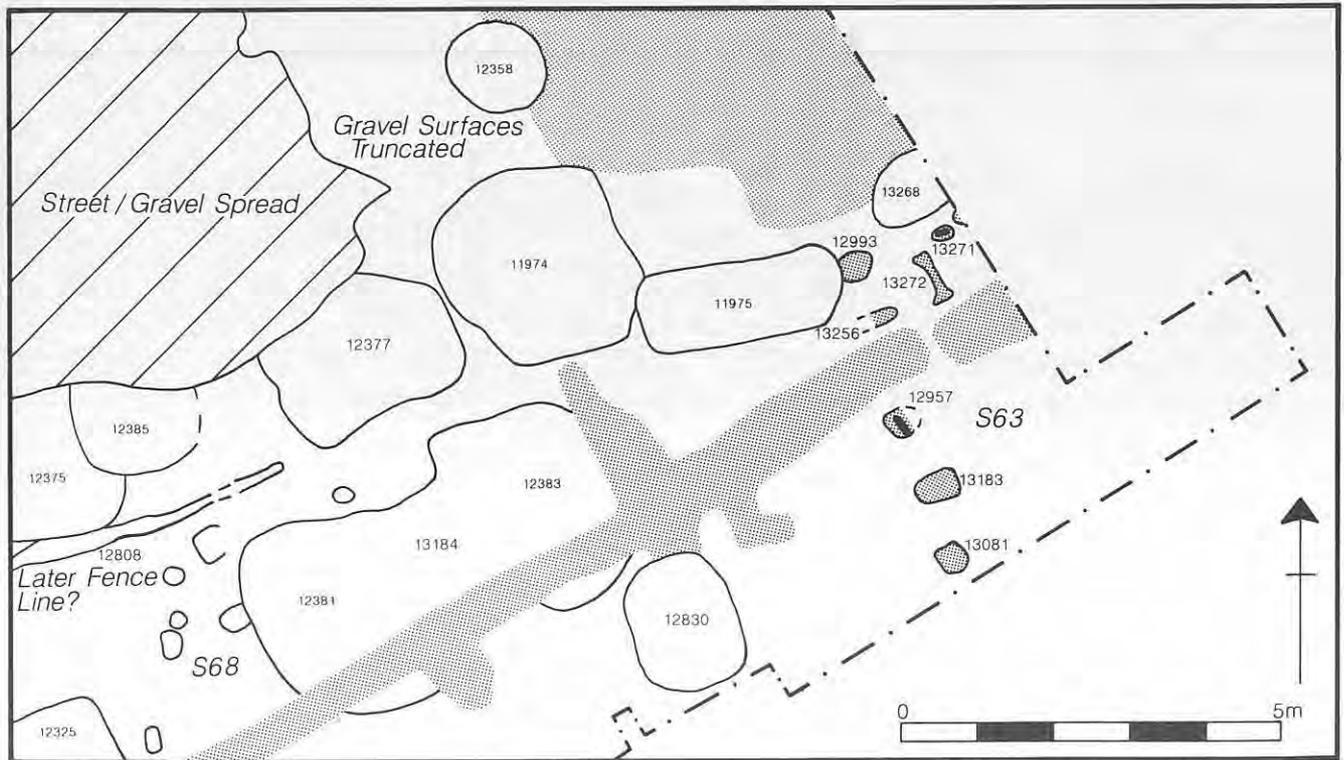


Figure 72 Structure 63 and extension to east-west street I (SOU 169 T3). Scale 1:100.

the west side. Only one of these contained a plank-impression. Only a short length of the northern wall line was exposed: it appears to have been marked by smaller post-holes.

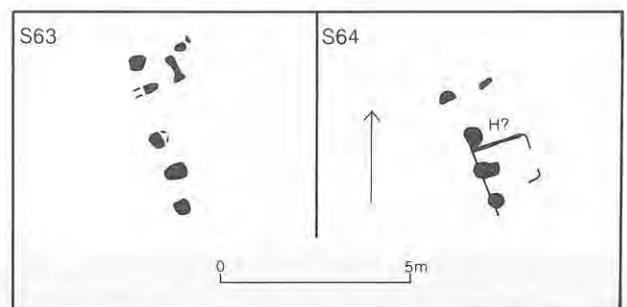
In the north-west corner the remains of two shallow slots, 13256 and 13272, may have been part of some internal arrangement. There were no other internal features, but a discontinuous layer of redeposited brickearth up to 0.08m thick and overlying the earlier charcoal and slag deposits was probably the remains of a floor surface. Above this were one or more ashy layers up to 0.08m thick which extended outside to the west of Structure 63. These most probably postdated the building, but could conceivably have been contemporary with its use or subsequent destruction, though no burnt daub was found. No yard surfaces were present in the limited area investigated.

Pits contemporary with Structure 63 might have included 13184, and possibly also 12377 and 12830 to the west, though others almost certainly lay outside the excavated area to the south. Pit 13184, which contained the dump of iron slag, was the only early feature, probably dating to the first half of the 8th century, and the others were probably dug towards the end of that century. Pit 13184, which had been extensively cut away by pits 12381 and 12383, was a fairly irregular feature, whereas 12830 was oval in plan with vertical sides and a rounded bottom (see Fig 79). Although only 1m deep, the latter appeared to have been used as a cess pit, as probably had 12377, a larger but more irregular pit partly sealed by a later remetalling on

the extension to east-west street I.

Structure 63 is difficult to date closely, but is likely to have been built during the first half of the 8th century, probably nearer the middle than the beginning, and to have perhaps remained in use until towards the end of that century. The ashy spreads overlying the probable floor surface associated with Structure 63 may have reflected a period prior to the building of Structure 64 when the area was given over to some other, possibly industrial function. However, the latter structure appeared to have been built on more or less exactly the same site as its predecessor, and there may not therefore have been such an intervening period of use.

Structure 64 (Fig 73)



Structure 64 was post-built like Structure 63, and replaced the latter on almost exactly the same site so that again only the north-western corner lay within the excavated area.

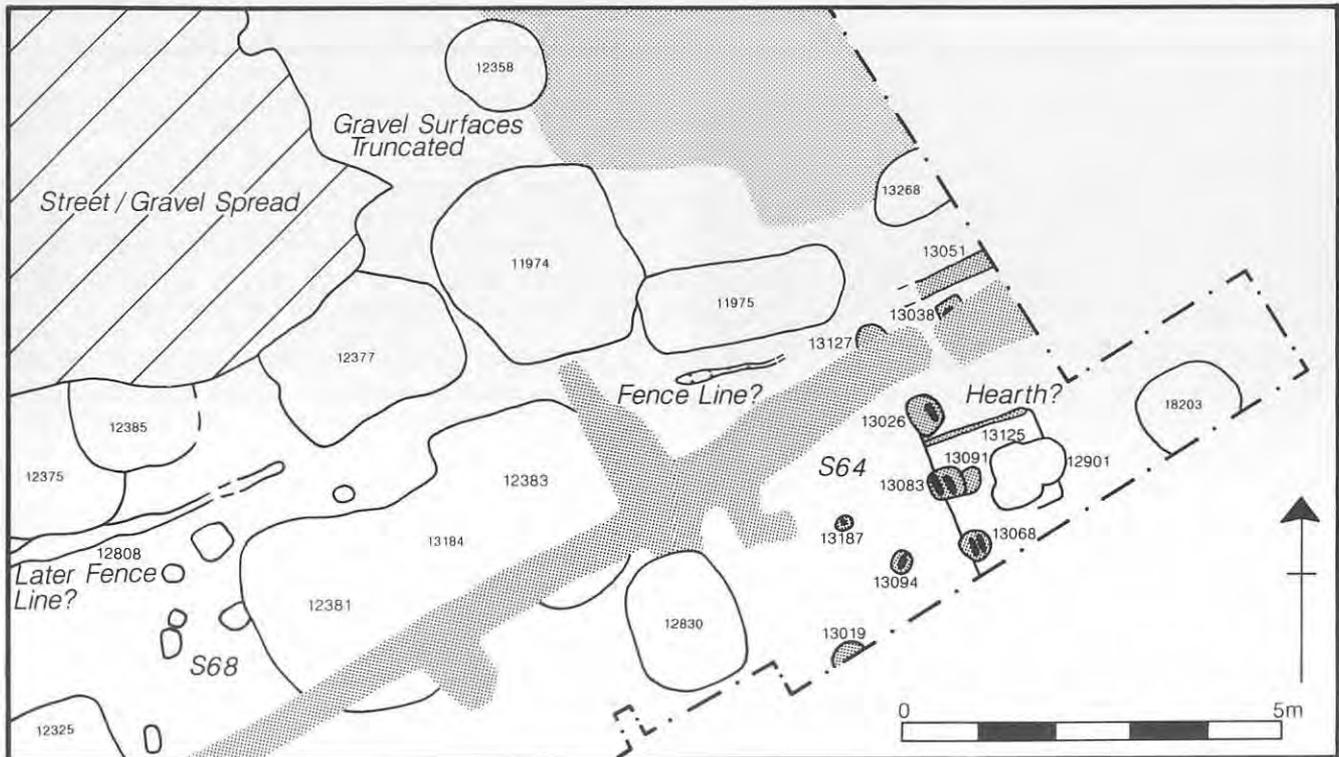


Figure 73 Structure 64 and extension to east-west street I (SOU 169 T3). Scale 1:100.

Post-hole 13127 marked the north-west corner, with a line of three substantial, subcircular post-holes spaced at intervals of 1m along the west side. These were up to 0.5m in diameter and 0.4m deep, and all contained single or double plank-impresions up to 0.4m long and 0.1m wide. Although only a short length of the northern wall line was exposed, there was evidence that this too was marked by fairly substantial post-holes similarly spaced. Immediately north of the northern wall line, and parallel to it, was a narrow, shallow gully, 13051, which may have been an eaves-drip gully.

No brickearth or clay floor surfaces were found within Structure 64, but a thin spread of dark charcoal-rich soil clearly delineated by the wall lines was probably an occupation deposit. This overlay the ashy layers associated with or postdating Structure 63, and several thin, discontinuous layers of burnt soil and charcoal. The probable occupation deposit extended across the entire exposed area except for a rectangular area adjacent to the west wall which may have been the location of a hearth. This area, measuring approximately 1.5m by 1.2m, comprised a discontinuous pad of clay or brickearth with a very narrow, shallow slot along the north side. There was no *in situ* burning, but pit complex 12901/13125 which comprised possibly three shallow, later features contained broken-up hearth lining. No other features were found in Structure 64 which – like Structure 63 – was most probably a domestic building.

No associated surfaces survived to the west except in pits 12381, 12383, and 13184, where the

remains of a fairly substantial and probably originally more extensive gravel yard surface were preserved. Three post-holes, 13019, 13094, and 13187, whose function remains uncertain, were possibly also contemporary. A narrow, shallow slot which may have marked a fence line continued the line of the north wall of the building to the west. Pits contemporary with Structure 64 were 12381 and 12383 to the west; others are likely to have lain outside the limit of excavation to the south. It is unclear how far any property associated with Structure 64 or its predecessor extended to the west, but pits 12381 and 12383 may both have lain within this area. These appear to have been a pair of subrectangular cess pits, somewhat eroded around the top, but 1.5m deep with steeply sloping sides and flat bottoms. The lower fills were sealed by layers of brickearth overlain by gravel which may have been the remains of a yard surface associated with Structure 64. Above this were deposits of domestic refuse sealed by a layer containing much burnt daub possibly derived from Structure 64. Although no other concentrations of burnt daub were found in the area, the occupation layer within the building was covered by a spread of brickearth mixed with some burnt clay which was possibly a destruction level rather than a floor surface.

As with Structure 63, dating of Structure 64 is somewhat problematic, though a date of construction and use from the late 8th into the 9th century is likely; this is broadly the date suggested for pits 12381 and 12383.

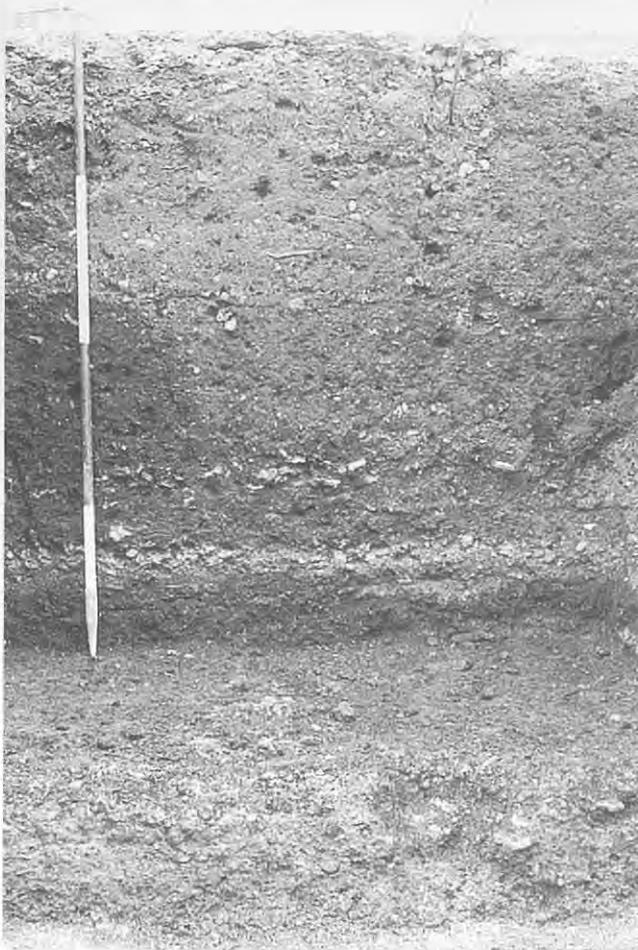


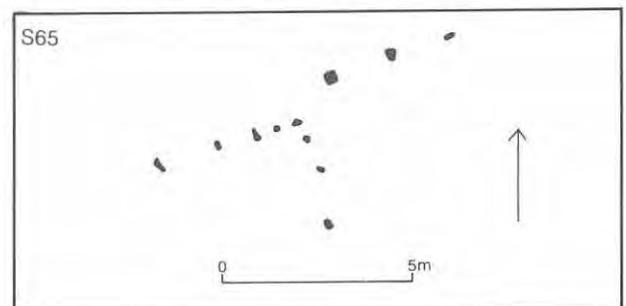
Plate 23 Post-Middle Saxon build-up of 'dark soil' above north-south street surfaces on SOU 31 T4. Photographed from the east (scale in 0.5m units).

The demise of Structure 64 did not mark the end of occupation or activity on the site, though what form this subsequently took could not be determined from the surviving evidence. Several post-holes and stake-holes (not illustrated) clearly had been cut from a higher level and were presumably associated with one or more later structures. They formed no coherent arrangement. In addition were pits 13125/12901 and 18203, which were small and shallow, and lay within the area covered by the earlier buildings. They produced insufficient pottery to enable them to be dated, but were likely to have been dug during the 9th century and are perhaps best interpreted as internal features. To the north and west were several larger pits which almost certainly postdated Structure 64 and may have been associated with later structures on the site. Pit 11975 was markedly narrow, being more than 2.5m long but only 1m wide. It was 1.2m deep in the middle, but up to 1.5m deep at either end. Its shape may have been related to a particular use or else reflected its location, possibly constricted by the extension to east-west street I to the north and a building or fence line to the south. Its fills gave no

clue as to any such specific function, though like many others it may have served for both cess and rubbish disposal, and it contained a concentration of presumably redeposited smithing slag. Immediately to the north-west of pit 11975 was a larger, irregularly shaped pit, 11974, which although not fully excavated appeared to have been used for cess. The upper fills contained much gravel, though this did not appear to have been part of any remetalling on the extension to east-west street I. Unfortunately any direct relationship between the pit and the street had been destroyed, but it is considered probable that the pit was later. Patches of gravelly soil were noted to the south extending over earlier pits and the surrounding area, and were potentially part of the gravelly layer in pit 11974. This layer was the last in that part of the site not to have been disturbed by 19th-century activity, and may have represented the remnants of a yard surface possibly associated with one of the last Saxon structures in the area. Two smaller pits, 12358 and 13268, remain undated; 13268 may have been relatively early, but 12358, lying centrally within the projected line of the extension to east-west street I and containing no gravel, was probably late.

Dating of the last phase of Saxon activity in the area is dependent on the pottery from pits 11974 and 11975. Together these indicate at least a 9th-century date, perhaps as late as the later 9th or the early 10th century, with a similar date suggested by other pits to the west (see Structures 67 and 68 below). The very limited amount of structural evidence surviving indicates that some occupation continued along the east-west street frontage at least, possibly into the late 9th or early 10th century.

Structure 65 (Fig 74)



This was a unique structure which lay to the north of the extension to east-west street I, but was partly sealed by the earliest metallings. It comprised an approximately T-shaped arrangement of limestone lumps which may have been utilised as post-pads. Two elements to this arrangement were apparent, though what form the structure took and whether other elements lay outside the excavated area to the north remains uncertain.

Although Structure 65 apparently predated the street, it took the same alignment. Furthermore, it

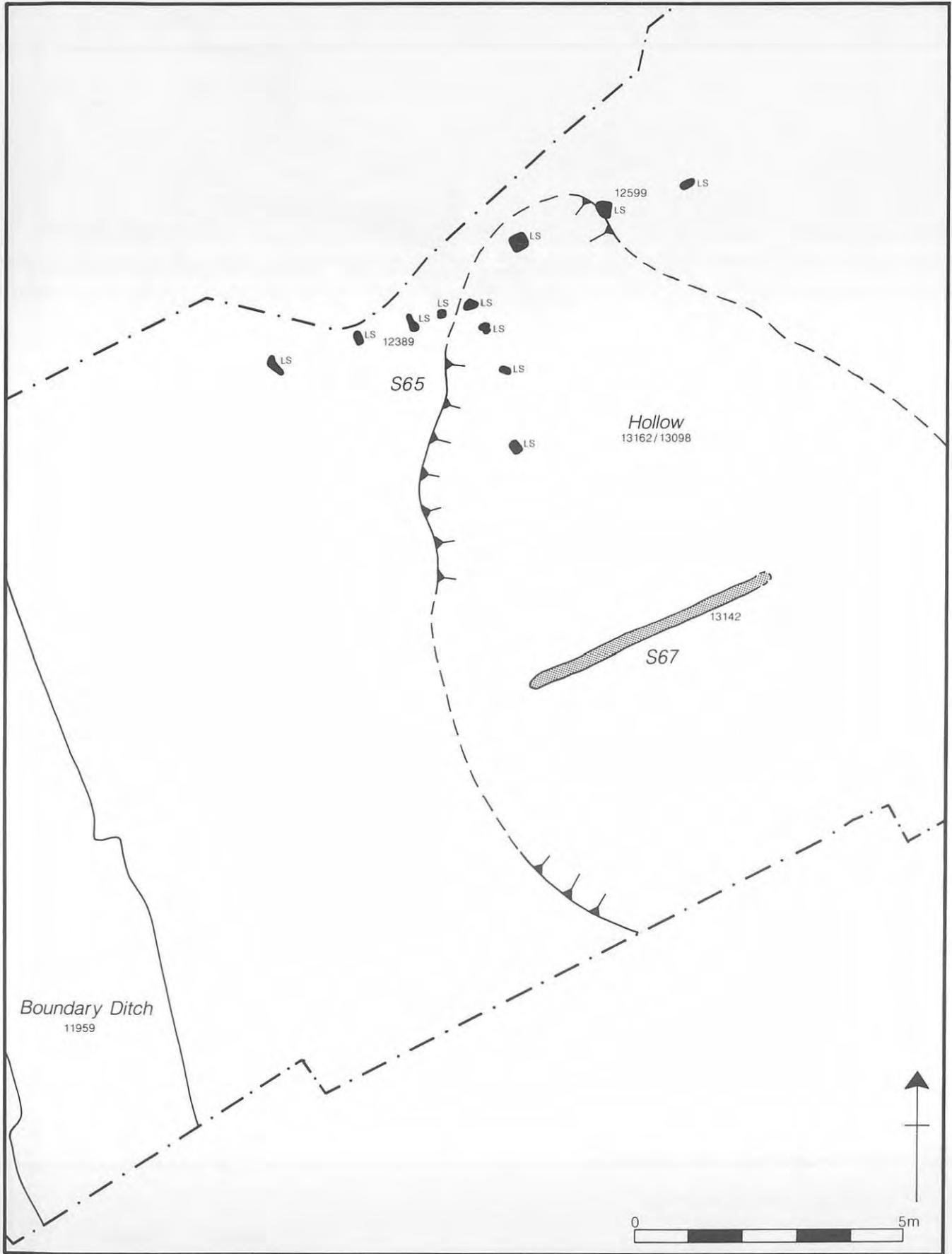


Figure 74 Structures 65 and 67 with natural hollow 13162/13098 (SOU 169 T3). Scale 1:100.

was not the earliest feature in the area for several of the stones had been set into the top fill of an infilled shallow hollow, 13162/13098. This was a natural feature crossed by Roman ditch 13146, but not apparently completely infilled until the Middle Saxon period. It may have been levelled then to enable the construction of Structure 65 and the subsequent laying down of the extension to east-west street I. Hollow 13162/13098 was an irregularly shaped oval, in plan up to 10m across and at least 12m long, though it became shallower and less well defined to the south. It was up to 0.5m deep, and although not fully excavated appears to have had fairly steeply sloping sides and a level bottom. The lower deposits mainly comprised layers of redeposited brickearth, some of it possibly washed in, but there were some thinner layers of more loamy soil containing small amounts of Middle Saxon material (see Fig 19). Above these was context 12000, a more substantial layer of brown sandy soil, up to 0.2m deep. This contained rather more material and perhaps represented domestic debris mixed with soil which had been scraped together from the surrounding area and used for the final levelling of the hollow. Several of the stones comprising Structure 65 were set in the top of layer 12000, and the earliest metalling on the extension to east-west street I directly overlay either this layer or the natural brickearth in the area outside the hollow.

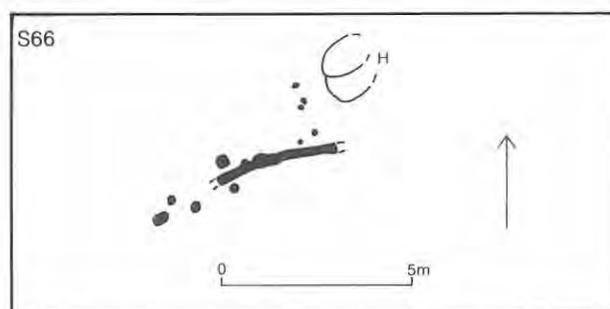
The western part of Structure 65 comprised context 12389, eight irregularly shaped lumps of limestone, up to 0.25m in size, which had been laid to form a right-angled arrangement. The sides of this measured 4m by 3m with the open side facing south-west. Spacing between the stones increased from 0.5m at the corner up to 1.5m at the ends, with the largest lumps at the corner and ends. All appeared to have been pressed into the top of layer 12000 or the natural brickearth and had not been placed in any form of construction trench.

The eastern part of Structure 65 comprised context 12599, three larger lumps of limestone, up to 0.3m in size and laid in a line offset slightly from the north-east corner of the western part. These were 1.7m apart and had clearly been placed with their flattest face uppermost.

No floor surfaces, features, or structures were found which could have been associated or contemporary with Structure 65. Both its form of construction and layout remain unique in Hamwic, though some evidence for the use of stone was seen in a possible successor to Structure 61 at Six Dials. However, in the latter case the stones were probably not used as post-pads as appears likely here, and they were a late rather than early feature. It seems certain that Structure 65 was not a domestic building, but neither is it clear how it may have functioned as a shed or shelter. Structure 65 was also unique in that it was the only structure other than possible fence lines which predated any of the street, albeit not part of one of the main stretches.

Structure 65 was early, postdating the infill deposits in hollow 13162/13098, but clearly predating the earliest metalling on the extension to east-west street I. A date probably some time during the first quarter of the 8th century is most likely for its construction, but it perhaps did not remain in use long prior to the metalling of the street. The fact that it did predate this metalling, but was nevertheless similarly aligned, suggests that some form of boundary was in place by this time. In this area it seems to have reflected the alignment of the boundary ditch, less than 10m to the west, rather than the slightly differently aligned north-south street, some 15m to the east, both of which were almost certainly in existence then.

Structure 66 (Fig 75)



This lay to the north of the extension to east-west street I, which it paralleled and postdated; in broadly the same area as Structure 65, though it cannot be interpreted as a replacement building. More than half of the building lay outside the excavated area and deposits at the east end had been truncated by a 19th-century basement or cellar. Structure 66 was at least 6m long and more than 3m wide, and was probably succeeded by at least one further building, though only slight evidence for this survived.

The southern wall line was marked by an irregular arrangement of small post-holes and a very shallow gully, 12369, not all of which may have been contemporary and associated. At the eastern end this line was cut by well 11999, and to the west it was overlain by a later metalling on the extension to east-west street I. Post-hole 12501 beneath this may have marked the south-west corner. It is possible that post-hole 12317 may have been centrally placed at the east end, and if so would indicate a building approximately 8m long and 5m wide.

Two superimposed hearths, 12314 and 13282, may also have lain in a central position towards the east end, though the later of these, 12314, may have belonged to a subsequent building. Hearth 12314 was oval in plan and hearth 13282 was circular; both were up to 1.4m across and comprised pads of clay or brickearth burnt red. Immediately to the west of these hearths, and perhaps 3.5m from the east wall, was a line of at least five small post-

holes which probably marked an internal partition. Slight traces of a brickearth floor surface survived within the building, but any subsequent deposits or surfaces had been destroyed. The location of a doorway was not apparent.

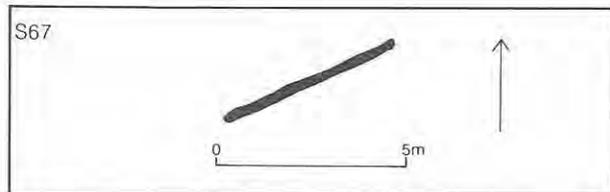
Pit 13056 to the east may have been contemporary. Only the top of this feature was excavated, but it may have comprised as many as three intercutting pits in a line. This perhaps marked a property boundary between Structure 66 and buildings fronting the north-south street to the east, though no evidence for these survived within the restricted area excavated in the north-eastern corner of SOU 169 T3. To the west, pit 12575 may have been contemporary, but 12327 (dated to the late 9th or early 10th century) was probably later, as was well 11999 which cut the line of the south wall. It seems likely that contemporary and associated pits lay to the north outside the limit of excavation.

Structure 66 is difficult to date closely, but was perhaps constructed and in use during the second half of the 8th century. It may have fallen into disuse in the 9th century, and the west end been subsequently covered by a remetalling on the extension to east-west street I. It appears to have been a domestic building. Deposits of daub, most notably in the upper fill of the boundary ditch towards the north end, and less on the extension to east-west street I, may have derived from the destruction of Structure 66 or a successor.

Structures 67-8 (Figs 72-5)

This house site lay to the south of the extension to east-west street I, with Structures 63 and 64 some 10m to the east and the boundary ditch 8m to the west. Structures 67 and 68 were both set back approximately 2m from the street with the layout and function of neither being particularly clear, especially Structure 67. Both were aligned to the east-west street, though Structure 67 may have predated it.

Structure 67 (Fig 74)

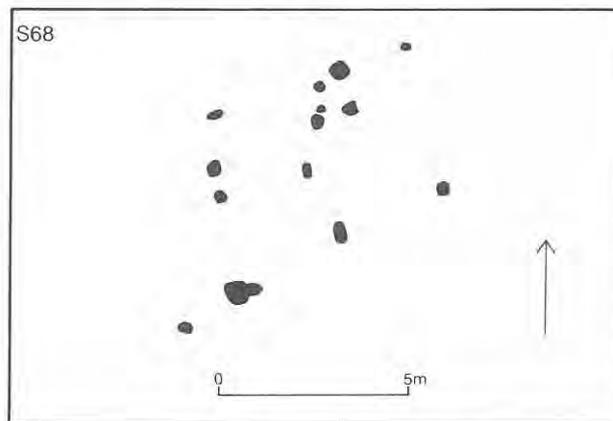


This comprised a single feature, gulley 13142, which may have predated the earliest metalling on the extension to east-west street I. The gulley was fairly straight, 5m long, up to 0.25m across, and 0.2m deep. It contained a uniform fill and no post- or plank-impressions were present. No other clearly

associated features were found, and there is a strong possibility that it formed part of a fence line rather than any more substantial structure. It was clearly a fairly early feature, probably dating to the first half of the 8th century if not before, and broadly contemporary, possibly even associated, with Structure 65 to the north. Two pits, 12331 and 12336, which both lay little more than 1m to the west, may have been contemporary (see Fig 75). Both were early features, two of perhaps only three early pits on SOU 169 T3 (13184 being the other). Pit 12336 was a large feature just over 3m square and 1.35m deep, which was very probably a cess pit. It was almost entirely filled with layers of redeposited brickearth interleaved with thin lenses of grey soil containing only a small amount of residual Roman pottery and some animal bone. The latter was identified as almost certainly Middle Saxon rather than Roman (Jennifer Bourdillon pers comm). Pit 12331 was a more typical subrectangular cess pit, 1.4m deep, and containing substantial deposits of brickearth and greyish-brown soils of varying hue. Both lay to the east of gulley 12916, a shallow, sub-V-shaped feature which ran parallel to the boundary ditch and some 3m to the east of it. This may have been a feature associated with a bank, possibly delimiting its extent to the east.

Whether or not the pits were contemporary with Structure 67, it is likely that the latter should be assigned an early date, some time towards the beginning of the 8th century.

Structure 68 (Fig 75)



Although a number of post-holes have been attributed to this structure, the layout remains unclear and it is not certain that all of these post-holes belonged to the same structure. Indeed, the pit dating would suggest that occupation may have continued in this area into the late 9th or possibly early 10th century, and therefore it is quite likely that more than one structure was represented here.

Whatever form this structure initially took, it probably encompassed an area of at least 6m by 5m, but of uncertain orientation. Post-holes 12537 and 12847 may have marked its limit to the east, and

12847 and 13281 the limit to the north (all were fairly insubstantial features). However, the absence of any preserved floor surfaces in pit 12381 which may have been earlier, might indicate that 12562 and 12829, two relatively large post-holes, marked its extent to the east; if so the structure may have been less than 4m wide. Post-hole 12544 suggests some extension to the west beyond 12592 and 13281, and the structure quite possibly extended further south than post-holes 12537 and 12592, the latter being the most substantial feature of the entire group. Several of the post-holes contained single plank-impressions up to 0.3m by 0.12m, mostly aligned north-south, with 12816 and 12819 possibly forming a pair. However, no other regularity in layout or spacing was recognised; nor any internal features or arrangements, though some of the post-holes were probably internal features.

Given these uncertainties, it is impossible to categorise Structure 68 or to date it closely. The dating of pits in the vicinity might suggest that it stood in the late 8th century or the early 9th. Pits 12331 and 12336 to the west were both almost certainly earlier, as 12381 to the west may have been, if it lay outside Structure 66 as has been suggested above. Pits 12325 and 13004, discussed further below, lay within the area of Structure 68 and were almost certainly later. Other pits were grouped together around Structure 68 and appeared generally to respect it, with one cluster of between eight and ten pits (broadly dated to between the 9th and early 10th centuries) lying to the west, and a further group of three intercutting and similarly dated pits to the north alongside the street (pits 12365, 12375, and 12385). The fact that the southern edge of the last metalling on the extension to east-west street I extended over and into this latter group of pits suggests that this surface was late metalling and that the area may have been maintained in use either as a street or as a yard well into the 9th century. This, and the general absence of rubbish deposits on these surfaces, contrasts with the extension to east-west street II to the south which appears to have gone in and out of use before finally being 'decommissioned'.

Most of the pits were fairly large, subsquare or subrectangular, and probably initially dug as cess pits. The group to the north of Structure 68 occupied the gap between the building and the street and so can be ascribed to Structure 68 or to a

successor. The earliest of these pits, 12375, is dated to the 9th century, possibly nearer the middle than the beginning; and 12365 and 12385 are dated to perhaps the early 10th century. The relationship between the pits and gulley 12808 to the south was unclear. This was a slightly curvilinear, irregularly shaped feature, at least 6.5m long, which probably marked a fence line. It may have been contemporary with Structure 68, or been later, but it was perhaps not coincidental that it lay between this structure and the pits to the north. Of the pits in the cluster to the west, 12329, 12338, 12340, 12484, and 12533 are all broadly dated to the 9th century, and are thus likely to have been contemporary with or later than Structure 68. Pits 12327, 12342, and 13046, along with 12325 and 13004 within the area of the building, belonged to the later 9th and possibly early 10th centuries, and therefore almost certainly postdated Structure 68. Stratified deposits did not survive in this area, and whether any of the structural features excavated were associated with this very last phase of activity remains unknown. However, the location of pits 12325 and 13004 in the area previously occupied by Structure 68 suggests that any later building lay further to the south, beyond the limit of excavation.

No pits were dug through the metallings on the extension to east-west street I in this area, a fact that indicates its continued existence at least as a yard surface; and only a single pit, 12484, was dug through the infilled boundary ditch, with no further pits exposed to the west. Taken together with the dating for some of the pits, this evidence suggests the persistence of a property over a long period, though the apparent absence of 8th-century pits may hint at a hiatus in occupation in the area at that time. The line of the infilled boundary ditch and the extension to east-west street I almost certainly marked the limits of this postulated property to the west and north respectively, with pits 12377 and 12381 possibly reflecting its extent to the east. A fairly substantial deposit of smithing slag in pit 12338, one of the cluster to the west, might indicate an association with smithing in the 9th century, though no other evidence for this was found.

There is little doubt that this area provides good evidence for a small 'pocket' of occupation, possibly continuing into the second half of the 9th and perhaps even the early 10th century.

Pits

Form and function

Pits are a common feature on nearly all sites within Hamwic (Pl 24). Excavations at Six Dials have uncovered in excess of 500 examples – the exact number depends on how one interprets certain negative features. Post-pits and shallow depressions have not been categorised here as pits.

Pits are discussed within the main text where their construction and use can be related to particular buildings or properties, where they are of chronological significance, or where their use is associated with industrial activities. Pits which are not discussed in the main text are included in the microfiche, where details of all the pits recorded at Six Dials (apart from SOUs 331, 332, and 412) are to be found on the pit-summary sheets. The wells are discussed separately in the text, but details are also included on the pit-summary sheets.

One important fact which has emerged from work on the Six Dials pits is that some may have remained intermittently open for a considerable length of time, possibly for a century, even if only as shallow hollows that appeared as the pit contents subsided and compressed. Six Dials and indeed much of Hamwic would thus have come to have had a rather pocked appearance with large numbers of pits in various stages of being infilled. It also seems likely that some spreads of refuse extended over more than one pit, and therefore resulted from indiscriminate dumping rather than from discrete disposal into individual features. Whether middens of domestic refuse were a feature of Hamwic remains uncertain, but the stratigraphic and faunal evidence would tend to suggest not. Overall, there appears to have been comparatively little redeposition of material, and residuality has not proved a major problem in the interpretation of the site.

Whereas many pits were dug and used by individual households, it is clear that others were shared by more than a single household. This was most evident from some of those which lay on property boundaries and often formed extensive alignments of intercutting pits.

The vast majority of pits appear only to have been used for the disposal of domestic and industrial refuse, but other types including internal pits, industrial features, and pits of uncertain function have been recognised. Although pits were dug for a variety of purposes, ultimately most became filled with domestic or industrial rubbish. It is not always clear what the original function of a pit may have been, but the size, shape, and infilling may provide a useful guide in this respect.

The most common type of pit found at Six Dials, and in Hamwic generally, is relatively large and deep, and was apparently primarily intended for the disposal of cess or domestic refuse, though storage was a possible function. Some of the pits of this type penetrated the valley gravels below the brickearth, or were dug down as far as them. The deepest (14891: see Fig 54) was 3m deep and extended about a metre into the gravels. Perhaps it had originally been intended to make this pit into a well, as pits are rarely found to penetrate far into the gravels. In most pits, the gravel would have provided a convenient level at which to stop digging as it would have been more difficult to dig through than brickearth, and at certain times of the year may have been at or below the level of the water table. Deeper pits were also more likely to have suffered from collapse. Gravel exposed in the bottoms of pits would have allowed a more rapid seepage of the liquid element in cess and other waste deposited in these pits.

These larger pits can be subdivided into those which were generally rounded in plan and section, and were up to 3m in diameter and 2m in depth (Fig 76); and ones usually of slightly smaller dimensions, but markedly square or rectangular in plan and section (Fig 77). The former appear never to have had any form of lining and often show evidence of weathering around the top, as well as partial collapse resulting from undercutting around the bottom. The latter may have had either plank or wattle linings which preserved the original plan and profile of these pits.

No *in situ* linings have yet been found, though vertical timber impressions were recorded on the walls of a pit at SOU 34 (Pallister nd1, 5).

The irregular, unlined pits appear to have been used for the disposal of cess, and it seems likely that in most cases this was their original purpose. There has been considerable debate about the function of the regular pits in the last 25 years, but all interpreters of the evidence have acknowledged their high degree of 'finish'. Most (Addyman and Hill 1968, 83; Barrett and Holdsworth 1980, 37–9) have interpreted them also as cess pits, and a few (principally Morton 1992, 45–6) have favoured other interpretations. This writer is persuaded by the cessy fills of both regular and irregular pits that few if any of the lined examples were used for storage. Although timber linings would have afforded some protection against damp, they would not have prevented periodic flooding such as that encountered during excavation on some parts of SOU 24 and SOU 169 T3. Furthermore, deep pits



Plate 24 Pit complex on SOU 31 T2, with Structures 9-13 to the bottom right of the photograph and Structure 15 to the top left. Photographed from the west (scale in 0.5m units).

restricted in size do not seem to be ideal places for the storage of goods whether or not they were contained within casks or similar containers. The bottom fills of many examples of this type of pit found at Six Dials have been interpreted as cess, though this may not necessarily indicate their original function. However, cess pits lined with timber or stone are common in later periods and there is no reason to suppose that similar pits were not in use at an earlier period in Hamwic. Some of the multitude of stakeholes which often lie in close proximity to the pits may mark the lines of fences around them or insubstantial shelters or covers over them, but the existence of such cannot be attested with any certainty.

If some of the lined pits were cess pits, then the time and effort expended on their construction may have been to facilitate their periodic cleaning out. Careful excavation has failed to provide any evidence for this, but it is possible that residual material from earlier infills could not be clearly recognised, or that the pits were fairly thoroughly cleared. There is no indication that any of the unlined pits had been partially cleared or recut. Both lined and unlined pits often had bottom fills which contained very few finds and are interpreted as cess. This interpretation is supported by the presence of a pale grey or green staining of the

brickearth around the sides of many of these pits, most probably cess or perhaps nitrate staining due to the presence of decaying organic matter. This indicates either the levels to which they were originally filled prior to settling or the height to which this material was squeezed around the edges after the deposition of sealing layers or other layers on top. Whatever the original function of these pits, almost all seem to have been subsequently filled with domestic or industrial refuse. In areas where surface stratigraphy did survive, or where there were series of interconnecting pits, there is evidence that rubbish may not have been deposited only in single discrete pits, but was spread over areas outside of pits, as well as across adjacent pits which were still open. Such layers of rubbish may have been derived from middens which were cleared into surrounding pits, though the low rates of erosion and chewing on the animal bone argue against this interpretation (see below). It seems unlikely that middens would have been created in the relatively restricted confines of the yard areas, when convenient large holes in the ground were either readily available or could easily be dug; but the occurrence of layers in pits extending across adjacent surface areas does indicate that some rubbish was spread around and was not always disposed of into discrete pits. It is probable that some refuse may have been

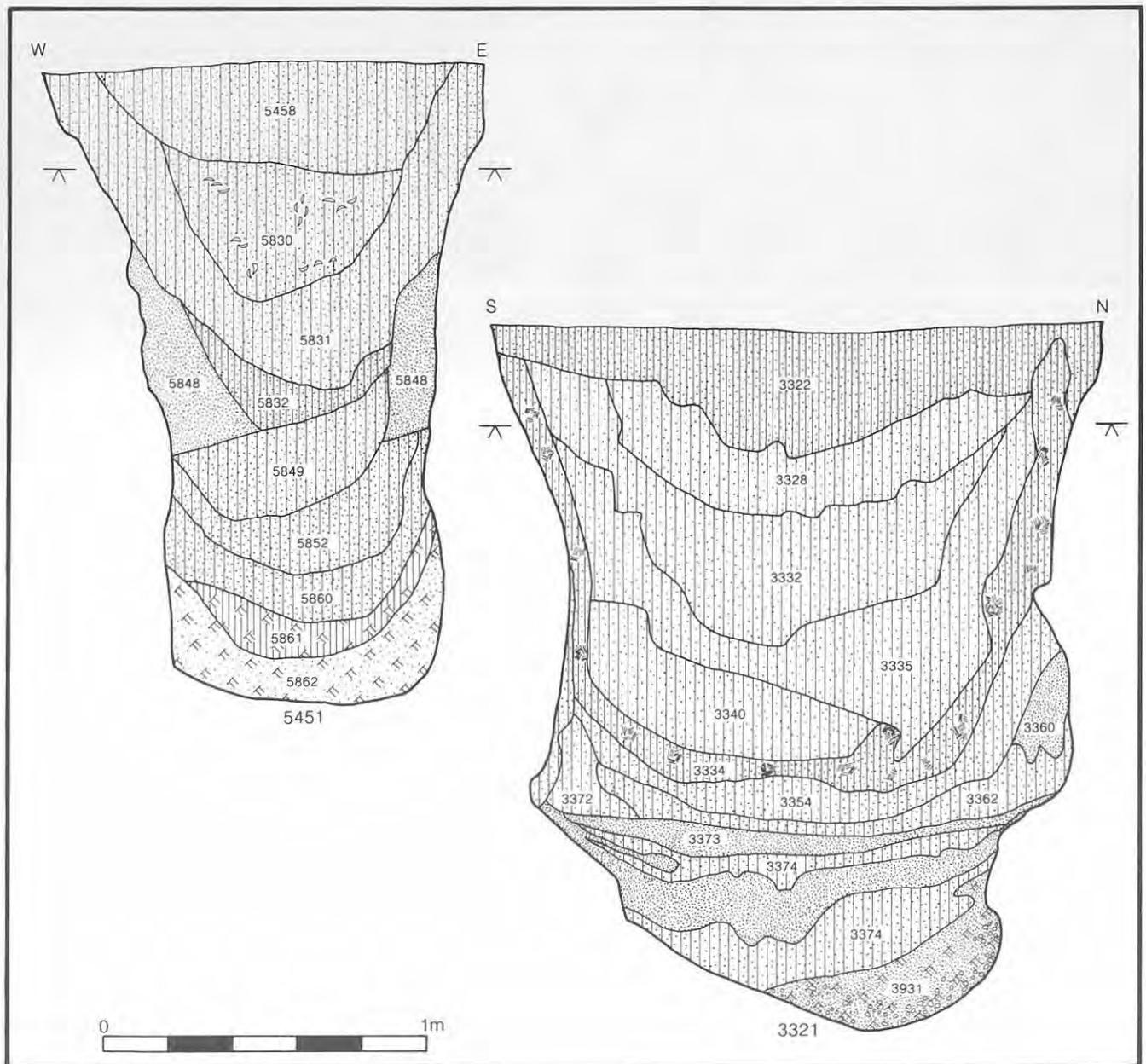


Figure 76 Pits 3321 (SOU 30) and 5451 (SOU 31 T3). Scale 1:20.

disposed of outside the settlement, in the river, in the marsh, or as manuring on fields. The deposition of refuse away from the settlement, whether directly or from the clearing of pits, may explain why relatively small numbers of complete pottery vessels have been recovered from sites within Hamwic (Timby 1988, 119). This point must remain unclear while the waterfront remains unexcavated, and very few sites immediately outside Hamwic have been investigated.

It is clear from the sequence of fills observed in most pits that the infillings do not represent single events, but are the result of a series of events which in some cases may have taken place over several decades, and perhaps up to a century or longer.

Excavators in the past have sometimes exca-

vated pits as single contexts without realising the complexity of activities which might be represented in the sequence of fills, or the long period of time which may have elapsed between the pit being dug and its final infilling. Staining of the brickearth around the sides of many of these pits may indicate that they had originally been filled to a high level with cess or other organic material. Subsequent draining and compaction of this material has resulted in it being reduced to only a small fraction of the original volume. This settling might have taken place over a long period with continual additions of cess to the pit. Often, either periodically during this infilling, or when the pit was finally full, natural brickearth was deposited to seal off the noxious contents. Charcoal may also have

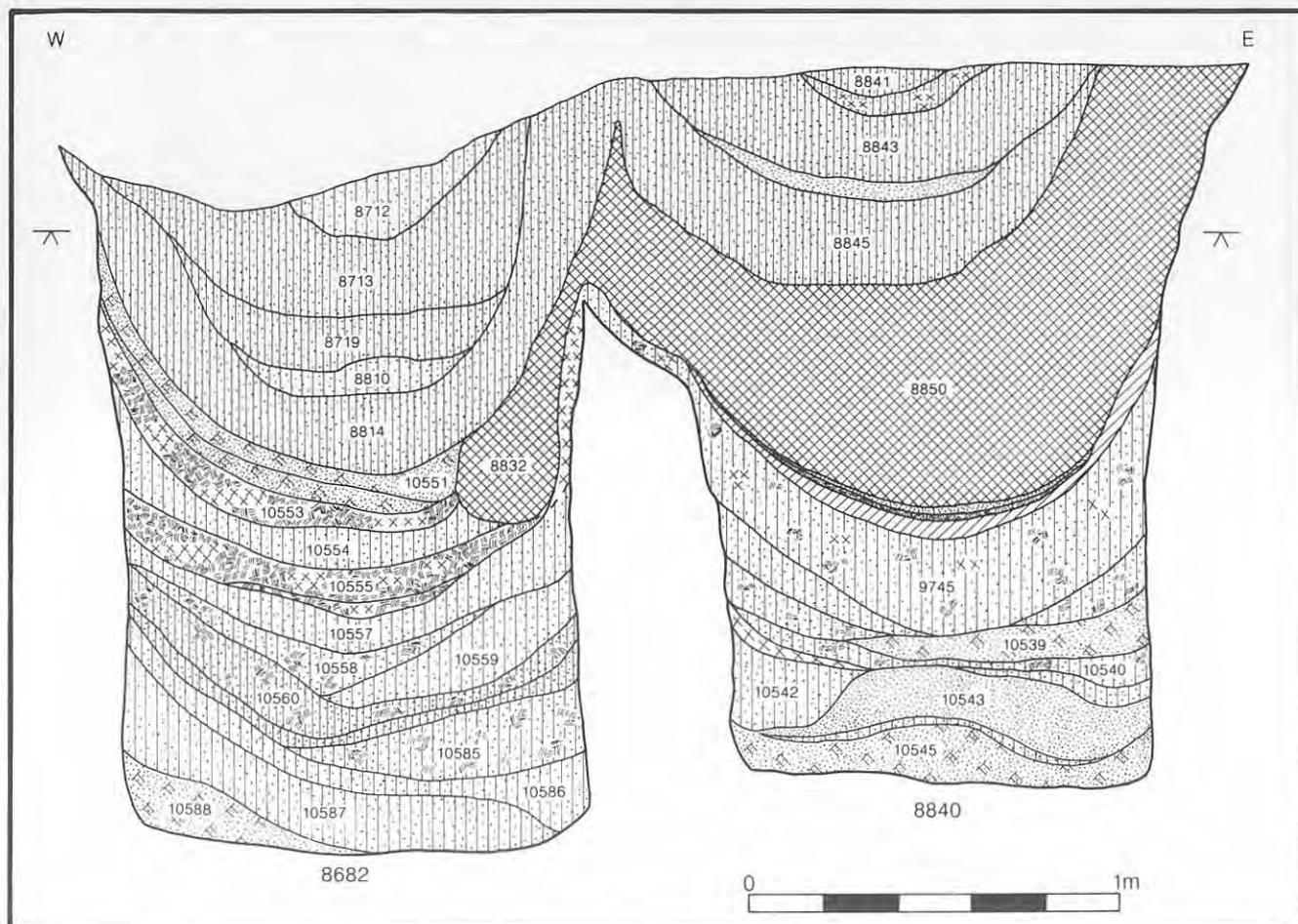


Figure 77 Pits 8840 and 8682 (SOU 169 T2). Note that burnt daub 8832/8850 is shown as a solid mass rather than as individual pieces. Scale 1:20.

been deliberately used in this fashion. Several pits had layers of charcoal as well as brickearth sealing the deposits of cess.

Sometimes when pits were full or near-full, and before final settling had taken place, floor or yard surfaces were laid over the top. Subsequent settling of the pit contents has led to these later surfaces subsiding into the pits. In some examples, such as pit 8739 on SOU 169 T2 (see Fig 63), the surfaces were replaced several times in an attempt to level the surface as settling continued. Where the subsidence was very pronounced, as in 8739, layers within the pit had become detached from the same or equivalent layers outside. The vertical discontinuity which resulted can prove misleading; in the chosen example, pit 8739 appeared to cut a series of floor surfaces (10403/10728, associated with Structure 57), but these floor surfaces actually sealed the earliest deposits in the pit. In some areas, where no horizontal stratigraphy had survived above the natural brickearth, small pockets of stratigraphy had been preserved where layers had subsided into earlier pits. An example of this is pit 8585, where the floor levels of Structure 58 were preserved only where they had subsided into this pit.

Although the use of some pits may have been restricted to single households, the findings of the Pit Project (described below) would suggest that certain pits may have been shared by more than one household, particularly if they were dug on a boundary between two properties. It is difficult to be certain whether such pits were used concurrently by more than one household, or whether their use was exclusive to individual households in succeeding phases of occupation.

The distributions of particular types of industrial refuse can be useful in indicating the extent of properties, and in showing groups of pits which were being used for disposal of refuse at any one time. Bone- and antler-working waste, slag, and burnt chalk deposits have all been used to demonstrate this.

The bone and antler waste considered to have been associated with Structure 15 on SOU 31 was spread through a group of pits to the south of this building. Very small quantities came from the earliest fills of these pits, and most was concentrated in the upper layers. This distribution would seem to represent the opportunistic disposal of waste in convenient pits, all of which appear to

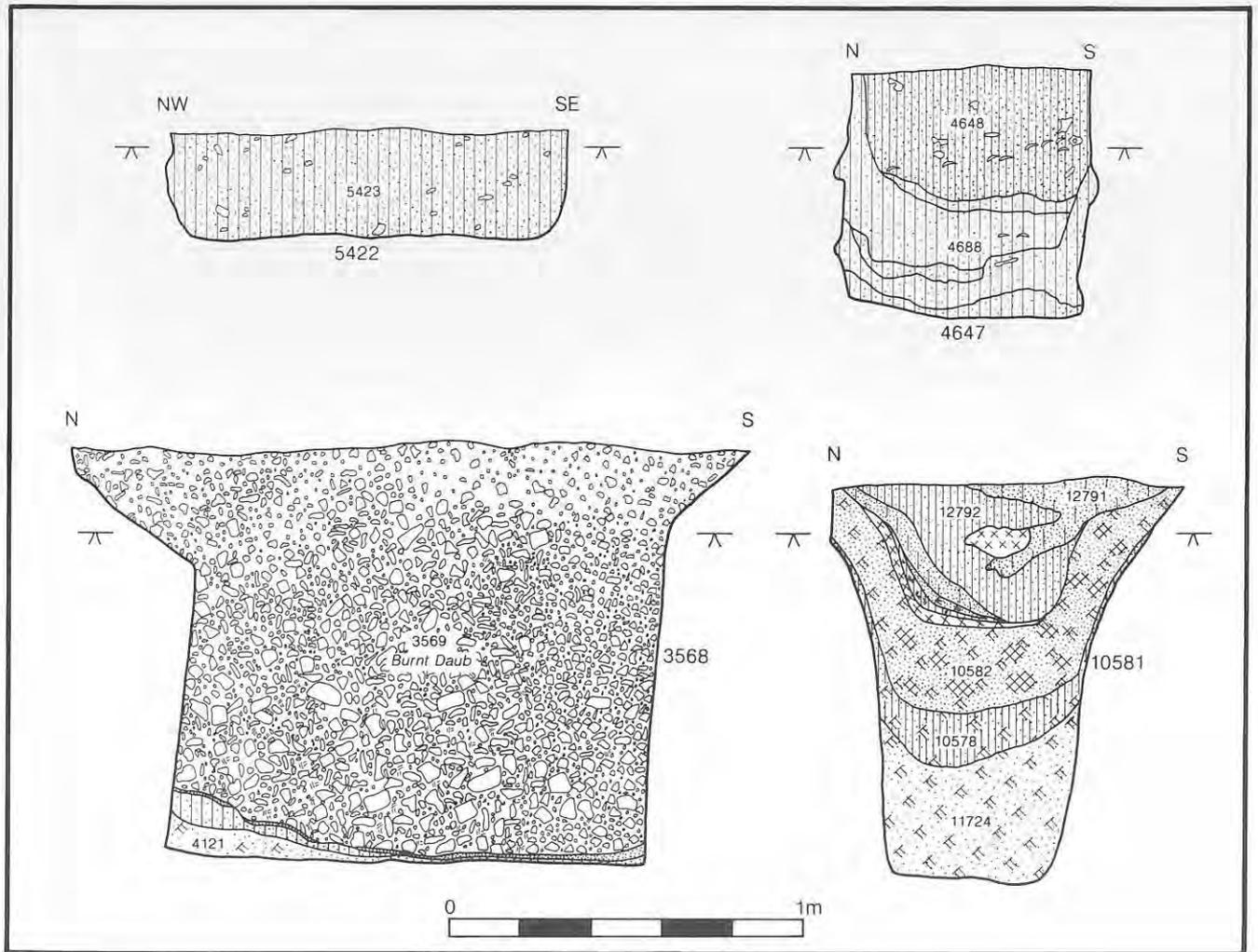


Figure 78 Internal pits 2010 (Structure 15), 2027 (Structure 29), 2062 (Structure 14), and 10581 (Structure 48). Scale 1:20.

have been partly or nearly full at the time. Horizontal stratigraphy did not survive to any great extent in this area, and it is possible that the waste material was indiscriminately strewn over the ground as well as into pits. The spreads of burnt chalk on SOU 169 T2 would tend to support this possibility. Here, spreads of waste presumed to have come from leather processing were found in pits 8723 and 8739, and also scattered over the surrounding surface. This might indicate that refuse was not deposited directly into pits, but that some may have been spread over surrounding areas. However, there is no clear evidence for refuse having been heaped into piles to form middens.

The large numbers of pits dug throughout Hamwic may reflect both pressure on the available land resulting from a high density of occupation, the need to dig out brickearth for such uses as making daub, and also the extent to which rubbish was disposed of within the settlement rather than outside the town. There appear to have been very few areas within the town which were not subject to pit digging, streets being perhaps the main excep-

tion. Areas or properties which fell into disuse appear to have been given over to pit digging soon after they had been abandoned. The area occupied by Structure 16 is an example of this; following its abandonment, pits 5589, 5736, 5750, and 5855 (perhaps associated with Structure 17, immediately adjacent) were dug through the earlier building lines. The area occupied by Structure 15 is the only example where a cess or rubbish pit was never dug through a building plot, either before the building was constructed or after it was abandoned.

The smallest pits which have been recognised have generally been either subrectangular, oval, or circular in plan; measured between 0.5m and 1m along their maximum length; and were up to about 1.3m in depth. Their main characteristic is that they were all dug within buildings and, with the exception of a few examples which had specific industrial associations such as iron smithing, are interpreted here as internal storage pits. Examples are illustrated in Fig 78. Pit 4647 had possible wattle impressions surviving in the brickearth around the sides and bottom which would suggest

that it had had some form of lining – a parallel might be drawn with the wattle-lined internal storage pits at Dorestad (van Es 1969, 194–6). None of the pits in this category had clay linings. The pits were dug in various locations within buildings; some were centrally located, others were set close to the walls or adjacent to hearths. There was no clear indication from the locations of the pits as to what may have been stored in them. If this interpretation is correct, it is not surprising that there was nothing in the nature of the infillings which might help in this respect, as the final fill of the pits would have postdated their original use.

A second group of small pits can be distinguished from the others. They were not internal pits, and were generally slightly larger, being up to 1.5m in diameter and 1.5m deep. In plan they varied from subrectangular to subcircular to triangular. Fig 79 illustrates examples of this type. It is difficult to identify their original intended function. Some (for example, 4378 and 5437) were shown to be early, contained few finds, and in some cases gave the impression of having silted naturally rather than having been deliberately infilled. One explanation is that they were originally dug to extract brickearth for making pots or small amounts of daub. Other pits in this group were larger and deliberately infilled, and some of the more regular ones (for example 3347 and 13046) may have been lined. These may have been a smaller variety of cess pit. Possibly some were used for storage or perhaps some industrial function, but no evidence of this survived or was recognised, and whatever their original function most ended up being used for the disposal of domestic refuse. Four pits have been identified which seem clearly to have been dug for specific industrial purposes.

Pits which were dug for an industrial purpose include possible weaving pits, hide-soaking pits, and iron-working pits. Weaving pits have been recognised from their morphology, though occasionally complete or fragmentary loomweights have also been found in them (see Fig 93). The hide-soaking pits contained layers of burnt chalk (see Fig 95), and the iron-working pits yielded quantities of smithing slag (see Fig 98). Several pits were reused, and contained sequences of hearths possibly for hide smoking, though originally they had been dug for cess and rubbish disposal (see Figs 96–7). Other pits, particularly those which may have been timber-lined, might have been dug for a specific industrial purpose, for example tanning, but if this were so none has been recognised. It is also possible that some activities such as tanning may have been carried out in containers such as barrels or casks. No clay-lined pits have been found either at Six Dials or elsewhere in Hamwic.

Few sunken-featured buildings have been found in Hamwic as a whole, and only one that was perhaps a domestic structure (Morton 1992, 198–9). Nothing similar has been found at Six Dials.

Pit alignments

Continuous lines of intercutting pits have been recorded at Six Dials and elsewhere in Hamwic. At Six Dials, the pit lines were almost all either parallel to or at 90° to the streets, and most commonly reflected the alignment of the east–west streets. The longer of the lines would appear to have marked property boundaries, and been dug along or adjacent to them. Dating evidence from the pits would suggest that some of these boundaries may have been maintained for a century or longer after they were established, probably early in the 8th century. The longest line of pits at Six Dials was on SOU 24 where a series of thirteen intercutting pits extended over a length of almost 20m, and a further six pits on the same alignment, though not intercutting, increased this length to at least 30m. This line was parallel to, and approximately 12.5m to the south of, east–west street I. It separated Structures 16, 37, and 38, adjacent to the street to the north, from Structures 15 and 34, set further back from the street to the south (see Fig 20). The dating evidence from these pits would suggest that the earliest was dug in the first decades of the 8th century, and the last early in the 9th century. Infilling of some of these pits probably continued until at least the middle of the 9th century, by which time the pit line may have appeared as a linear hollow of variable depth.

Similar, but shorter lines of three or more pits are common elsewhere at Six Dials, and at other sites in Hamwic. For example, a line of five pits on SOU 169 T2, comprising 8456, 8541, 8682, 8840, and 10675, apparently separated buildings and their associated properties or yards to the south from other buildings to the north, although one early building (Structure 49) and one late building (Structure 58) straddled this line (see Fig 65 and Pl 25). The line perhaps continued further to the west, where six pits on SOU 169 T1 (three intercutting pairs: 8429, 8430, 8890, 10220, 10350, and 11221) lay on approximately the same alignment (Fig 80). If the line did continue here, it was almost 40m in length. (The apparent straddling of the line by two buildings on SOU 169 T1 might be explained simply as a false impression caused by slight shifts in the position of the boundary. Otherwise, it is possible that the line had not been established during the earliest phase of occupation, and had fallen into disuse in the later period.)

Two other east–west pit lines were excavated on SOU 169 T1, both of which lay to the north and were aligned approximately parallel to the line described above (Pl 26). One of these lines comprised three intercutting pits, 8881, 8882, and 8888, with an additional pit, 8431, further to the west. The other line differed from the others in that it comprised a double line of pits made up of a series of six pairs of pits and one singleton. The most easterly pairs, 8861 (which was probably two pits), 8435 and 8855, 8433 and 8605, and 8646 and

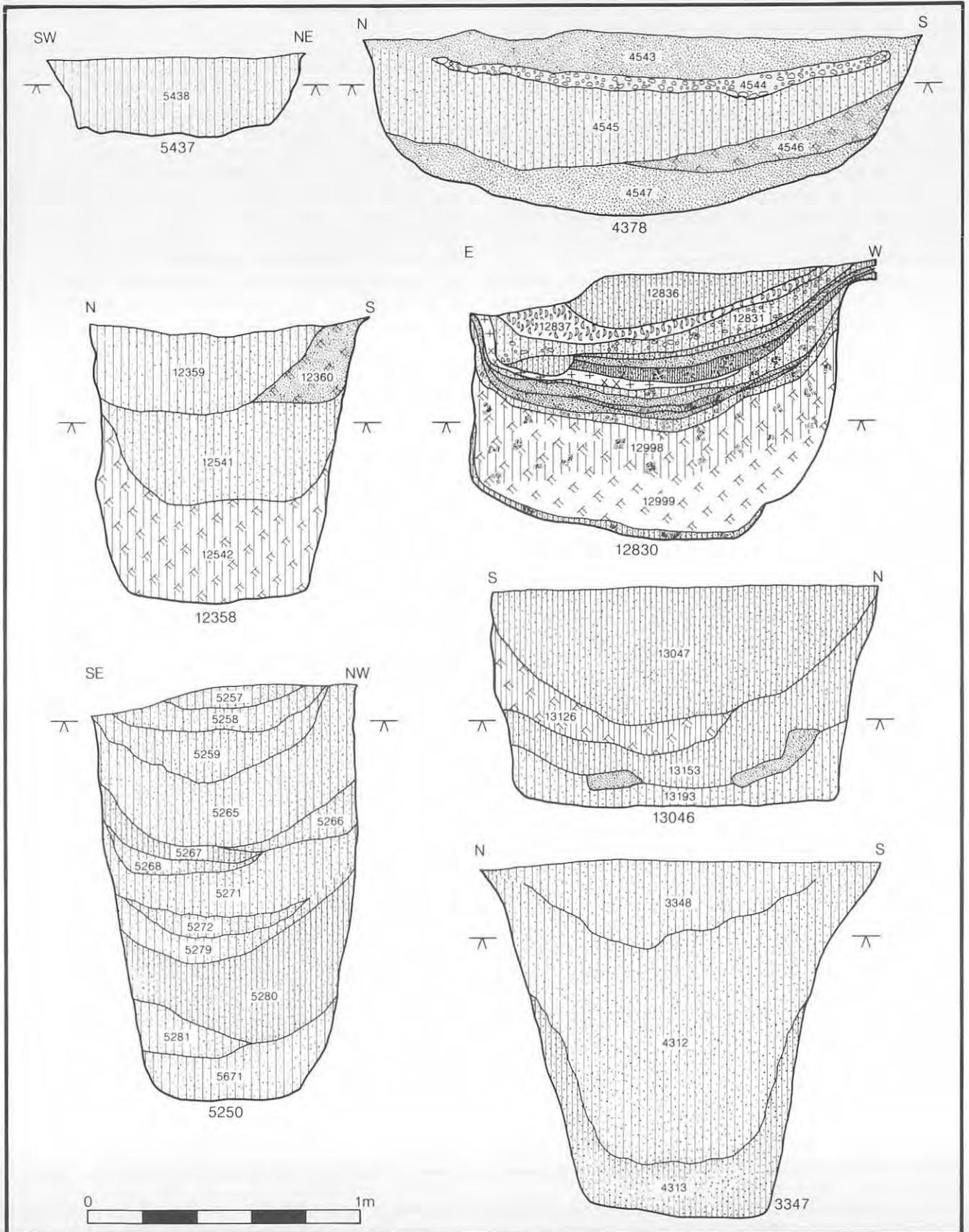


Figure 79 Small and medium-sized pits. 3347 (SOU 30), 4378 (SOU 30), 5250 (SOU 31 T2), 12358 (SOU 169 T3), 12830 (SOU 169 T3) and (SOU 169 T3). Scale 1:20.



Plate 25 An east-west alignment of at least five pits marking a property boundary on SOU 169 T2 lies across the centre of the photograph. Photographed from the south (no scale).

12132, each comprised two intercutting pits. Further to the west on the same alignment were two further pairs of pits, 11791 and 12110, and 11796 and 11797, which did not intercut, and a singleton, 11794. Two small, irregular pits, 11792 and 11793, which were little more than shallow scoops, had also been dug within this pit alignment. There was a gradual divergence to the west between the paired pits. At the eastern end, there was effectively no gap: 8861 was probably two pits, the later having been cut in almost exactly the same place as the earlier one. At the western end, there was a gap of just over 0.5m between 11796 and 11797. The only anomaly in this divergence was between 11791 and 12210 where the gap was 1.7m. However this might be explained by the positioning of 11792, a shallow pit or scoop which may have predated either or both of these pits. Where stratigraphic relationships did exist between pits forming a pair (in four cases out of a possible six), it would seem that the most northerly in each pair was the later, though both would have probably been open at the same time. This alignment of paired pits extended beyond the western edge of the excavations, further west than either of the two alignments to the south.

One other pit alignment may have existed to the north; 8410, 8450, 8756, 8791, and 11419. These pits lay close to the northern edge of the excavated

area, and it was not possible to determine whether they belonged to a similar alignment as those to the south. If they did, they also possibly extended beyond the western limit of excavation.

All of the lines cut across the earlier, partially infilled boundary ditch, approximately at right angles to it. There was an absence of associated buildings in the excavated area to the west of the ditch. The more plausible explanation is that the pit alignments developed on the periphery of Hamwic where there were no buildings; but it cannot be ruled out on the evidence available that the pits were associated with buildings which lay outside the area exposed in excavation.

It is not clear, for instance, why gaps of between 0.5m and 2.0m should have been left between each pair of pits in the paired-pit alignment, and why a continuous single intercutting line of pits did not develop as elsewhere. There seems to be no reason why spaces should have had to be left for access between the pairs of pits, nor why pit digging should have been restricted to particular discrete plots in an area on the edge of the settlement. Although the pits lay to the west of the known limits of building and extended beyond the infilled boundary ditch into a space where more indiscriminate digging might be expected to have occurred, it appears that controls continued to be exercised;

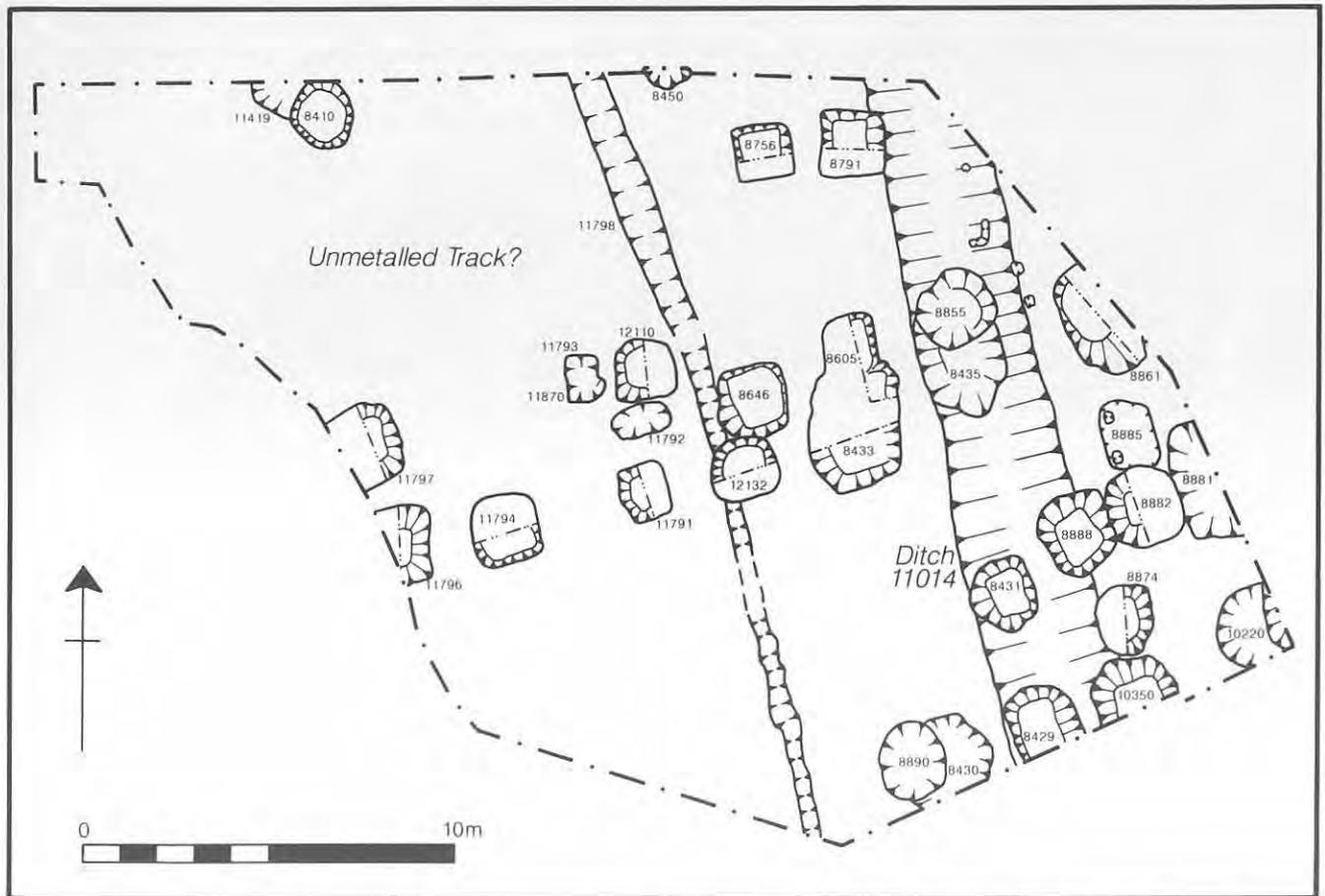


Figure 80 Pit alignments extending across infilled boundary ditch on SOU 169 T1. Scale 1:200.

which might be explained in part by the extension of properties to the west after the ditch went out of use. The spatial relationship between the pairs of pits might suggest the existence of a property to the south, and perhaps some form of physical division between the pit-pairs – though there was no archaeological evidence for this.

For another example, the space between the three southernmost lines of pits varied between 1.5m and 3.0m, though lines drawn through the centre of each alignment would place them between 4m and 5m apart. Two pits had been dug in the spaces between the three pit alignments. One of these, 8885, has been interpreted as a possible weaving pit, which may have predated the other pits in the area; the other, 8874, was a cess pit which occupied an uncertain position in the chronological sequence.

The paired-pit alignment was separated from the possible pit alignment to the north by an open area that might be interpreted as an unmetalled track leading out of the settlement to the west. This possibility is discussed above (p 27). The open area may originally have been approximately 4m wide at the east end between pits 8435 and 8791, widening to perhaps 10m towards the west between pits 8410 and 11796. This would have been later narrowed to approximately 3m and 7m

respectively with the digging of the northernmost pits in the alignment of paired pits. The extent to the west of the two alignments might then have resulted from their location adjacent to a track out of the settlement which would have afforded easy access for rubbish disposal.

The relative dating of features in the area adds to this picture of developing lines of pits. Stratigraphically the boundary ditch was the earliest feature in the area, and the ceramic evidence would suggest that it started to silt up early in the 8th century. It seems unlikely that any of the pits in the vicinity predated it. The earliest pit, with the possible exception of 8885, was 10220 in the south-eastern corner of the trench, which was probably dug in the first half of the 8th century. Pit 8890 in the same alignment may also have been early, but this is difficult to ascertain as most of it had been removed by pit 8430. The dating of the other pits in this alignment would suggest that the line of pits may have been extended further to the west immediately after the infilling of the ditch. Pits 10350 and 8429, which both cut through the infilled ditch, and 8430 beyond it, may represent further development of the pit alignment during the middle of the 8th century. The southernmost line in the alignment of paired pits may also have developed at about this time in the 8th century, though it is not clear from the



Plate 26 East-west pit alignments extending beyond the boundary ditch on SOU 169 T1. The alignment of paired pits lies diagonally across the photograph from top left to bottom right. Photographed from the south-east (scale in 0.5m units).

ceramic evidence whether the line developed progressively from east to west, or whether the pits were dug contemporaneously. The complete absence of intercutting among any of the pits in this alignment might suggest that they were all in use contemporaneously, possibly even by different households. The ceramic evidence does, however, suggest that the later, northern pits in the pairing were infilled only slightly later than the southern pits. (It has already been pointed out that there may have been restrictions on where the pits could be dug, with a property to the south, and perhaps some physical division between the pit-pairs.)

It can also be pointed out as a general rule that the pits which lay outside the boundary ditch on SOU 169 T1 contained increasingly fewer finds in their middle and upper fills, the further away from the ditch they were. The upper fills in those furthest from the ditch were very homogeneous and generally brown in colour, and contained very few finds – normally only a few fragments of animal bone. These top fills probably represented material which had slowly accumulated naturally after the pits had ceased to be used for their original purposes. Unlike virtually all of the other pits, they were not utilised for rubbish disposal to their full capacity, and were perhaps in use for only a very short period.

The pit alignment comprising 8431, 8881, 8882, and 8888 lay midway between the pits along the southern edge of the trench and the line of paired-pits. The location and dating evidence from this pit alignment would suggest that it was a late-8th- or early-9th-century development, perhaps responding to an increased density of occupation which may have led to an extension of earlier pit lines and to a development of new ones. This particular pit alignment may reflect the subdivision of a property, which itself had been earlier extended to the west over the infilled boundary ditch.

Seasonality and pit fills

There was no indication from the nature or sequence of any pit fills, or from the environmental evidence, that the settlement was occupied on a seasonal basis. Thin lenses of brickearth, perhaps derived from weathering and collapse, were often found in the pits, but these may simply reflect inevitable exposure of the sides of pits to rain and frost.

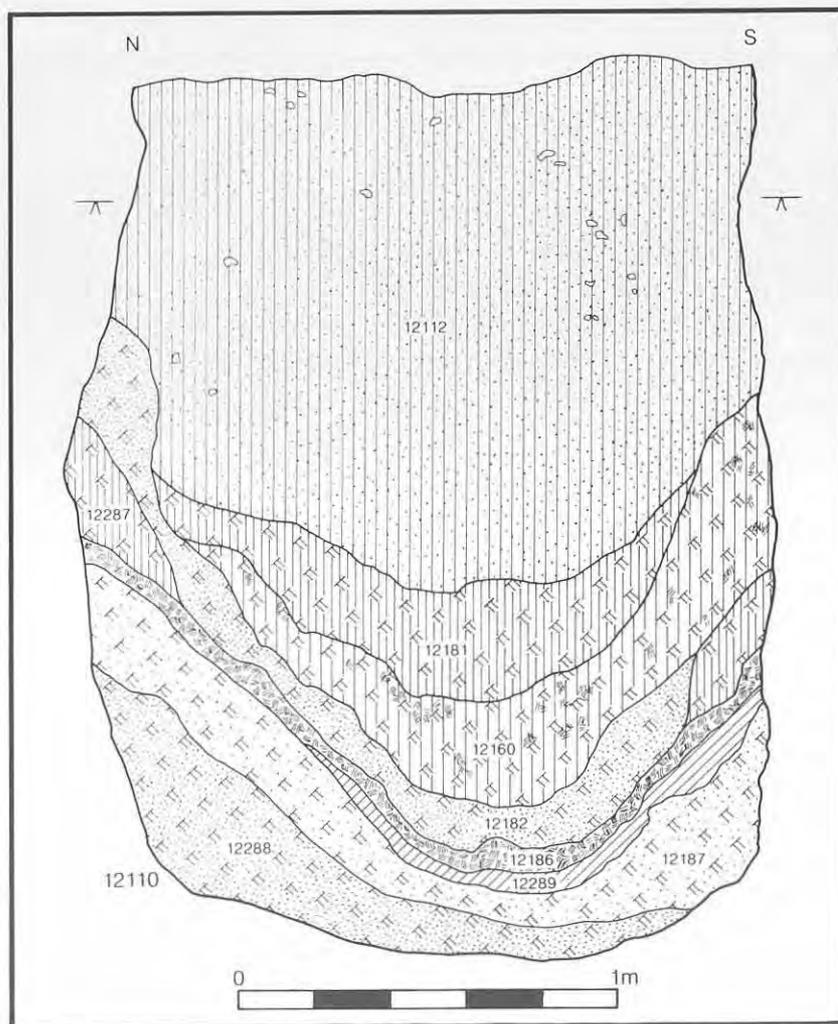


Figure 81 Pit 12110 (SOU 169 T1). Scale 1:20.

The pit project

By the beginning of 1981, over 100,000 animal-bone fragments from Hamwic had been studied by Bourdillon and Coy (1980) and Bourdillon (1983), who established the basic nature of Hamwic's animal economy. More detailed work was precluded by (among other things) the way the Hamwic bones had been excavated and the lack of computerised recording and data handling. Bourdillon and Coy questioned how rubbish disposal and the excavation and sampling techniques employed (for instance the excavation of only half the pit fills) might have affected the composition of animal-bone assemblages recovered from pits; and questioned also the conclusions that could be drawn from the data.

The overall ratio of species and skeletal elements across the settlement appeared to be very similar. Conjoins in both pot sherds and animal bone fragments from different pits indicated that some pits may have been filled with rubbish concurrently, and Bourdillon (1983, 181-5) suggested that rubbish disposal was communal. There was no evidence that individual households disposed of

their own rubbish in their own pits, within the confines of individual properties. Evidence from single pits alone might therefore be of limited use in identifying the function of individual buildings or assessing the social status of their inhabitants. Furthermore, there was a need to try and distinguish between what has been termed primary and secondary refuse. The meaning of these terms can vary, but here primary is taken to mean where the remains of one or more activities were rapidly disposed of into a nearby pit, and quickly buried. Secondary disposal refers to a situation whereby the remains of one or more activities were moved, disturbed, separated, subject to destruction and decay, or mixed with the remains of other activities, before final deposition in a pit. Such a situation might arise if the rubbish was dumped onto a midden, perhaps burnt and raked over, and disturbed by animals before being deposited in a pit. These differing methods of disposal would possibly result in similar overall assemblages, but there should be marked differences in the character and distribution of the material between and within individual layers.

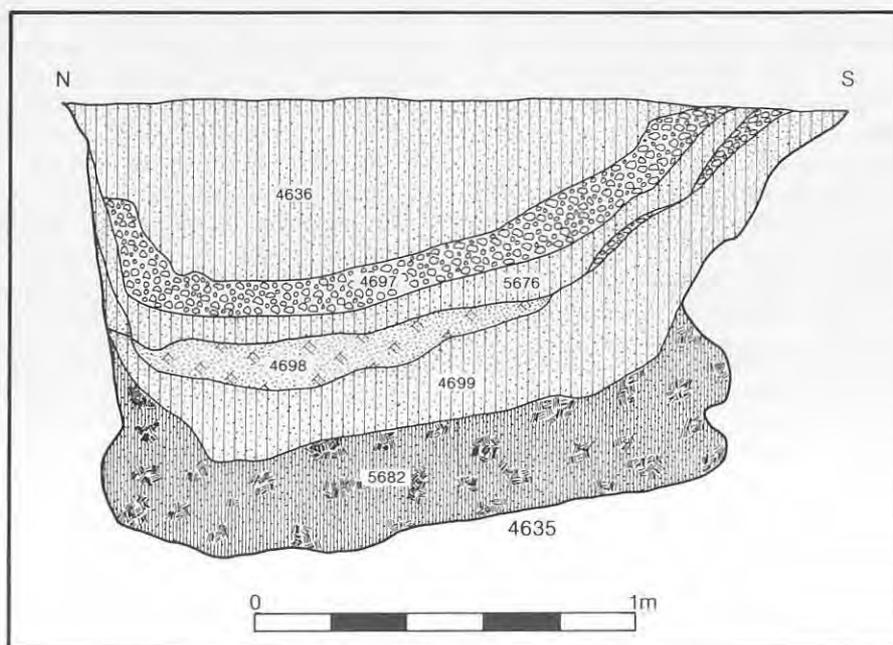


Figure 82 Pit 4635 (SOU 31 T2). Scale 1:20.

Against this background the Faunal Remains Unit based at the University of Southampton proposed that a research project should be set up to excavate, record, and analyse in detail the contents of a single Hamwic pit, with particular attention to be paid to the faunal remains. Some preliminary work was undertaken in 1980 but the main phase of fieldwork was carried out over several weeks beginning in April 1981, supervised by Sarah Colley of the Faunal Remains Unit. Originally it had been hoped to select a pit associated with a particular building. This can rarely be done with certainty, and even then it is usually only possible following post-excavation analysis. The pit eventually chosen was 4635 on SOU 31 T1. This pit was one of a number broadly datable to between 750 and 850 and concentrated in what appears to have been a backyard area shared by several buildings, probably at the western end of an east-west pit alignment marking a major property division (see Figs 20 and 32 - top centre). Pit 4635 was oval in plan, measured approximately 2m by 1.5m, and was 1.2m deep (Fig 82). This was somewhat shallower than the majority of Hamwic rubbish pits which are often around 2m in depth. Nevertheless, the seventeen layers identified did represent a good range of fill-types commonly found in other Hamwic pits. The pit was completely excavated in plan rather than in two half-sections. The three-dimensional position of every bone fragment more than 10mm in length, and of every piece of pottery, burnt clay, shell, or other find was recorded. Variations within and between layers might provide evidence for the sharing of pits, or perhaps their use by different households at different times. In addition, the strike and dip of 568 bone fragments 60mm-260mm long were recorded: it was hoped that these would

indicate the direction from which a particular group of material was deposited in a pit. The coarse-particle fraction of the various pit fills was also measured to ascertain whether any differences in the depositional regimes of the fills existed.

When the Pit Project commenced in April 1981 it was planned to analyse the information using AML software. However, the project was brought to the attention of the IBM UK Scientific Centre at Winchester who agreed to fund work utilising their computer facilities. Using an in-house linked Database-Graphics system, different approaches were employed to investigate the recorded contents of the pit (Colley *et al* 1986).

It has not proved possible to link the pit with a particular structure, and its fills may have come from different households at different times. However, using information derived from the bone orientation, the particle-size analysis, and the work on the faunal assemblage, a possible sequence in the infilling of pit 4635 can be put forward.

The earliest deposit, 5682, appeared to comprise a series of small discrete dumps of material forming a layer up to 0.25m thick. It is not certain where this material was derived from, but it did not resemble the cessy deposits which are characteristic of the initial fills of many pits. It was a black soil containing up to 30% charcoal flecking, as well as some small pieces of burnt brickearth. It might have been the result of clearing domestic hearths, and it contained the highest percentage of charred bone in the pit. The high proportion of *in situ* bone articulations, the good state of preservation, the mixed orientation and dip of the bone, and the relatively low fine-material fraction all indicate that the deposit was thrown quickly into the pit without being allowed to lie around on the surface.

Layer 4699 above this, a dark greyish-brown soil with little charcoal or other burnt material showed similar bone-orientation and -dip characteristics to 5682, though it had probably been affected to some extent by post-depositional slumping. It may have been domestic refuse, perhaps mixed with cess; the marked lack of burnt material compared with 5682 indicates a different type of deposit. Layer 5680 was probably part of the same fill. The irregularity of the pit sides towards the bottom indicates that some undercutting and collapse of the edges had taken place, probably the result of either the lower fills being in a semi-liquid state, or perhaps due to water standing in the pit after heavy rainfall which caused undermining of the edges.

Layer 4698 sealed 4699 and 5682. It was yellowish-brown redeposited brickearth which might be interpreted as upcast from the digging of a nearby pit, or as a deliberate capping or sealing layer, or both. Given the common occurrence of this type of deposit in other pits, usually above the bottom fills, it is probably best seen as a sealing layer.

Layer 5679 is a more easily definable event, comprising a discrete dump of oyster shell sealed by a thin layer of gravel, perhaps the food waste from a single meal.

Subsequently, layer 5676 accumulated. It produced a small amount of animal bone which, along with the relatively large fine-fraction in the soil, might indicate a slow silting of the pit as the contents settled, with perhaps a small addition of domestic refuse.

Layer 4697, a gravel deposit approximately 0.1m thick, almost certainly had been part of a yard surface laid down over the area, remnants of which were also found in several of the surrounding pits. This had gradually subsided into the pit. The interpretation as a yard surface receives further support from the concentration of eroded bone immediately overlying it. No soil differences were detected in any of the material above this gravel surface and normally this would have been excavated as a single context. The separation of material during excavation of this pit enabled this horizon of eroded bone to be subsequently recognised and interpreted as the build-up of material over a yard surface.

It was only layer 4636, the top layer, which provided conflicting evidence as to the nature of the formation of this deposit. The bones here were strongly directed to the north and south with less than 5% east and west. There was a relatively high number (17%) of vertical orientations. The data could be interpreted as suggesting a final rapid infilling of the pit, with a very strong north-south component. Both these interpretations seem to contradict the archaeological and faunal evidence which indicates that these top fills represented a gradual infilling of a developing shallow hollow, created as the contents of the pits settled. Perhaps the final fill in this pit was the result of a rapid

levelling of the area using material scraped up from the surrounding surface – although a more likely explanation is that later medieval and post-medieval ploughing had changed the orientation of the bones.

The apparently random spatial distribution of the majority of items in the pit suggests that they represent the mixed remains of a large number of different types of activity. It seems likely that some material which is consistently present in small quantities in most layers, and apparently distributed randomly within them, could already have been mixed with soil on the surrounding ground surface which was then used for backfilling. This explanation might account for the small quantities of slag, burnt clay, bone-working waste, and chewed and eroded animal bone found in several layers. A lead brooch and two bone needles found in the bottom layer, 5682, may have been casual losses, perhaps dropped directly into the pit, or more likely lost elsewhere and accidentally incorporated with other material before being thrown away as rubbish.

Nevertheless, the majority of the animal bone, shell, and other finds were probably deposited in the pit directly. The animal bone data appear to present a contradiction in this respect. Although the clean breaks, the good preservation of the bone, and the marked absence of chewing and erosion suggest that the material was thrown away fairly quickly before it had had time to decay, be subjected to weathering, or be attacked by scavengers, the random distribution of bone and other finds suggests that the remains of several different activities were mixed together before being thrown into the pit. However, much of this mixing could have taken place as the rubbish was being thrown away and through post-depositional disturbance. Various factors could have caused disaggregation of the material when it was thrown away; these include the height of the fall, pit topography, quantity of rubbish, shape and weight of the items of rubbish, and the force and method of throwing. Children or dogs might cause post-depositional disturbance, and water standing in the pit might result in the separation of material according to its varying density.

From this detailed work on a single pit more than a decade ago, a better understanding of site-formation processes in Hamwic is developing. It is possible to see the fill of a Hamwic pit as not in most cases representing a single sudden event, but rather a series of events over a period of time. For example, the initial use of a pit for cess disposal might be followed by single discrete events, such as the deposition of a layer of brickearth as a cap to seal the underlying contents. Subsequently, the use of the pit for the disposal of domestic refuse in a series of small discrete events might be terminated by the laying down of a gravel surface. The orientation of material within individual layers can help indicate from which direction pits were filled, and in the absence of other information, suggest which

structures they may have been associated with. The ability to recognise discrete activities within various layers of the pit, and the nature of most of the deposits which are considered to be primary refuse argues against the widespread use of middens. It is argued on the basis of the pottery

evidence that not all domestic rubbish ended up in pits, and at least some must have been spread on the surrounding surface or disposed of elsewhere, for instance incorporated into manure spread on fields.

Wells

Twenty-one wells were identified at Six Dials, though there may have been others not recognised amongst the non-excavated features (Fig 83). The siting of the wells may have been related to local variations in the water table, in addition to the obvious requirement of households for a convenient source of water. This may partly explain the uneven distribution of wells across the area excavated, though the location, chronology, and function of buildings are likely to have been the major factors affecting their distribution. Local variations in the water table may also have affected the distribution of wells on other sites excavated within Hamwic, and not just in the area of Six Dials (Morton 1992, 44).

It is difficult to ascertain what the original level of the water table may have been, but it was probably in the order of a metre higher than it is today. During excavation it was noted that the water table towards the northern end of SOU 24 and on SOU 169 T3 was at least 0.3m higher than elsewhere on the site, and after heavy rainfall considerably more. This is probably the result of a localised subsurface flow of water related to a geological variation in the substrata. It may be the reason why the pits in this area were dug to a lesser depth generally than elsewhere on the site. It may also have provided a more suitable area in which to dig wells, though this is not clearly reflected in any greater concentration, except perhaps in a group along the western edge of SOU 24.

Four wells grouped along the western edge of SOU 24 were in close proximity to the north-south street, though there were none to the south of this on SOU 31, where they were dug further back from the street. This concentration of wells on SOU 24 contrasts with the lack of any immediately adjacent to the east-west streets. Indeed, none was recognised on the whole of SOU 26, which straddles a length of more than 40m of east-west street I. The reasons for this absence of wells are not clear. It was not lack of space because the north-south street frontages were as densely built up as those along the east-west streets, and the occupation spanned a greater period of time. Dating evidence from these four wells would suggest that perhaps none was contemporary, and therefore the concentration may be somewhat illusory. It may have reflected a continuity of occupation in the vicinity, with one particular area being utilised for the digging of wells. The possibility should also be considered that the wells were dug immediately adjacent to the street in order to provide a communal source of water. Elsewhere, wells seem

generally to have been located in backyard areas at varying distances from the buildings.

In all, there were approximately twice as many buildings as wells within the area excavated at Six Dials. Unfortunately, it is difficult to associate particular wells with individual buildings. It is not clear whether a single well had served one or more buildings, and whether some had been maintained in use over a longer period than the buildings with which they may originally have been associated, although both possibilities seem likely. It is a feature of all the wells excavated in Hamwic that their primary fills, which accumulated while they were in use, contain few finds, and rarely anything which might date their use as wells. After they went out of use, most appear to have served for the disposal of refuse. Some may have been in use for several decades prior to this, and periodically cleared out. In rare examples, timber linings have survived which can be dated using dendro-chronological or radiocarbon dating procedures.

The technique of digging wells in Hamwic has been explained by Morton (1992, 43), and is only summarised here. It involved the digging of a large pit – the plan shape of which seems to have had more to do with personal preference than with available space or chronology. The density of pit digging meant that it was not always possible to dig a well in virgin ground, but this seems to have been done as far as possible. In section the shape of pit dug also varied, again for no obvious reason. Most had straight sides, though some had gently sloping sides or were funnel-shaped. At Six Dials, the usual depth was between 3.5m and 4m from the top of the brickearth. This penetrated the underlying gravels, and presumably in the order of a metre below the water table. Occasionally, shallow pits were dug, and a narrow shaft extended down to the required depth. The next stage was to build up the lining of the shaft from the bottom, backfilling around it as construction proceeded upwards to ground level. Apart from one square timber-lined shaft, the shafts were circular, and presumably lined with barrels, staves, or wattle. The linings rarely survive, except in the deepest wells where the lower parts have remained waterlogged. In most examples all that survives is a thin dark stain between the backfill of the well pit, and the later infilling of the shaft. The backfill of the pit normally comprises redeposited brickearth and gravelly brickearth derived from the digging of the pit. Occasionally, particularly in the later examples, small quantities of domestic refuse had also been thrown in.

Only three of the wells at Six Dials were fully

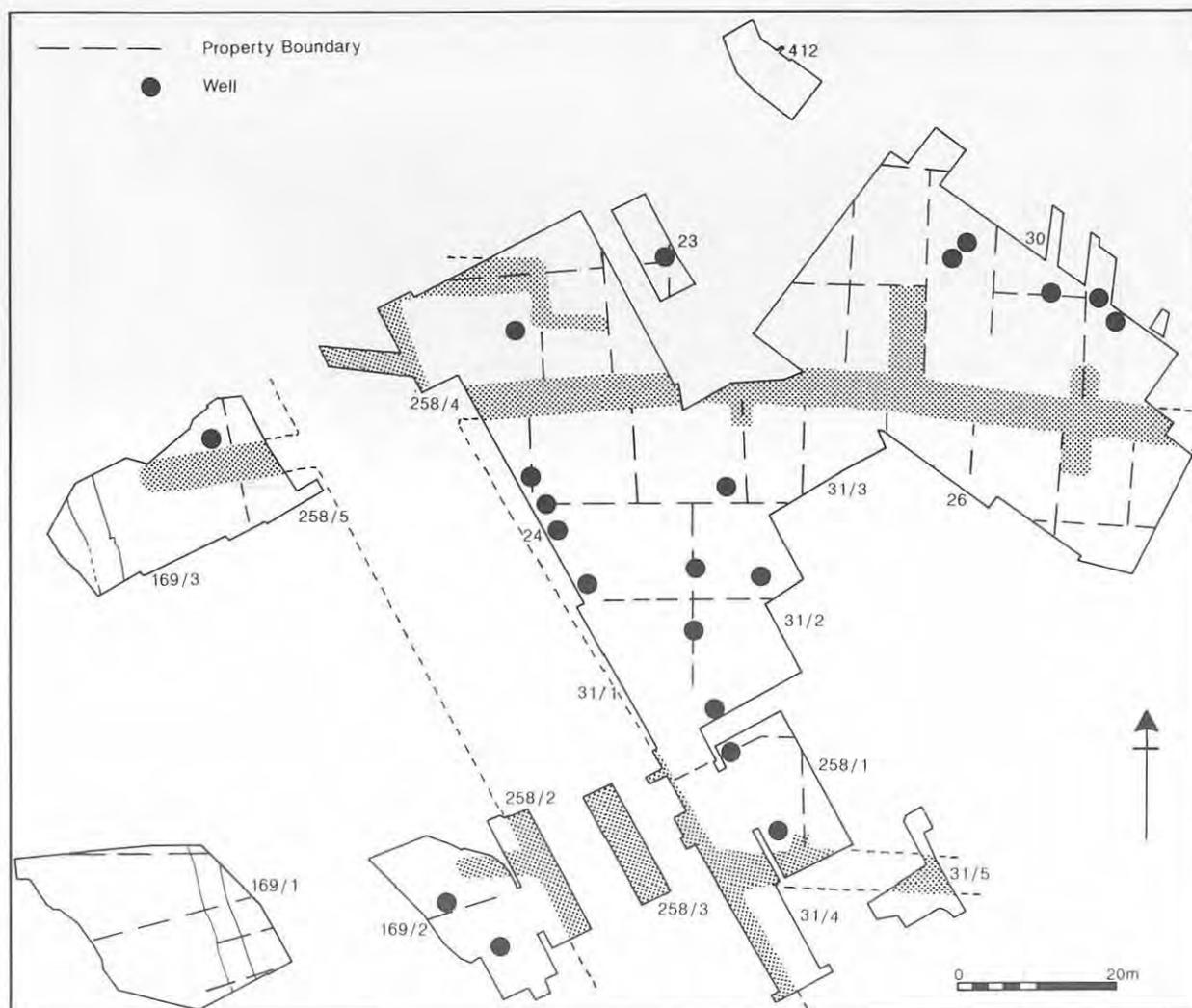


Figure 83 Six Dials: plan of wells. Streets and alleyways are shown stippled. The boundary ditch is shown in outline. Scale 1:900.

excavated, though several were taken down to a depth of 2m–3m. The bottom fills contained very few finds – normally no more than a few fragments of animal bone. Only one well, 3299, contained a substantial quantity of waterlogged deposits.

Well 3299 (Figs 84–5)

On SOU 30, two adjacent wells formed part of a stratigraphic sequence possibly spanning the entire occupational sequence in the area, and so they were fully excavated (Fig 49). It also became apparent during excavation that well 3299 was unusual among Hamwic's wells in its method of construction, and warranted complete excavation. Although such a feature has not been discovered elsewhere in Hamwic, a similar well or cistern was excavated at North Elmham, Norfolk, and is dated to about a century after the Six Dials example (Wade-Martins 1980, 83–118).

Well 3299 was not the earliest feature; it cut a

shallow pit, 4378. The well pit was subsquare in plan and measured approximately 3.5m by 3.3m. It tapered towards the bottom where it cut through the brickearth into the underlying sands and gravels. At the bottom it was cut to an approximately square shape, a little over 1m square. Here, timbers survived *in situ*: the shaft had been constructed with large horizontal planks held in place in the bottom corners by four posts (Pl 27).

The posts had been driven into the corners of the well pit. They were made from radially split timbers approximately 0.2m by 0.06m square. The ends had been adzed to points. One face on each of the posts had also been adzed so that when the posts were driven into the ground they would be forced into the corners of the pit.

There was no evidence for the prefabrication of any of the surviving sections of the horizontal planks that were held in place by the posts, nor for any use of sophisticated joints in the construction. The timbers were not dowelled together, but had been simply wedged in place. (Some bracing and

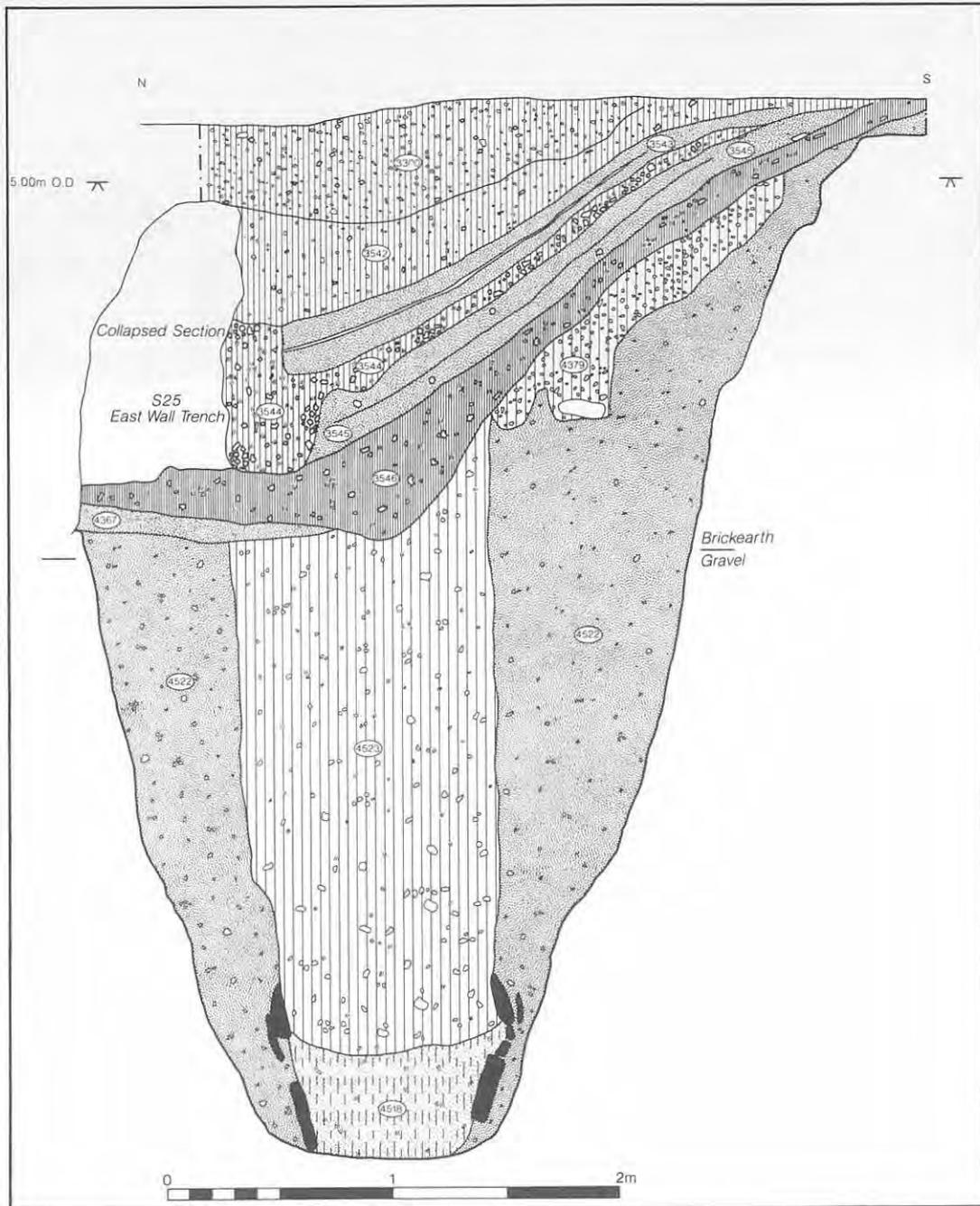


Figure 84 Well 3299 (SOU 30). The timber 'partition' is not shown. Scale 1:30.

jointing of the upper timbers may have been used higher up the shaft, in the parts that were not preserved.) The largest were up to 1m in length, 0.2m to 0.3m wide, and approximately 0.05m thick. The uppermost surviving planks on the north and south sides were longer than those used elsewhere. The longer timbers extended slightly beyond the corners of the wall into the backfill of the well pit, and this would also have served to hold them more firmly in position. The surviving timbers were not of a standard size, and there were between three and five timbers on each side. This variation may be the result of having had a

range of timber sizes available for use, rather than a stock of regular-sized planks. Alternatively, but perhaps less likely, the lining may have been repaired and various timbers replaced.

At a later date, an east-west 'partition' was inserted across the bottom of the well. This comprised four planks with their ends adzed to points, driven into the underlying gravels. They had apparently been driven through the bottom fill of the well, though from what level was not clear. It is also uncertain how high these planks originally extended, and the function of the 'partition' remains a mystery. The planks could not have acted as any

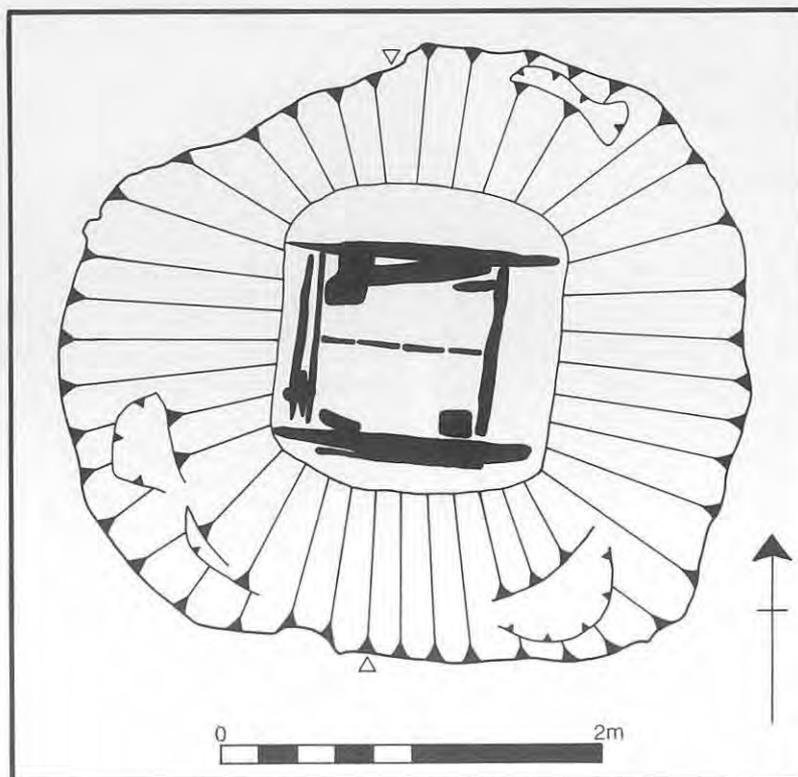


Figure 85 Well 3299 (SOU 30). Note possible post-holes in slope around edge. Scale 1:40.

form of bracing, and division of the well into two halves seems the only explanation. However, the fills from either side of the 'partition' showed no differentiation in their characteristics or contents.

The square shaft lining originally extended to a higher level, though it survived only as a thin dark stain between the backfill of the well pit and the infilled shaft to a height of 3.5m above the bottom of the well.

The construction of the upper part of the well was different from any others yet excavated in Hamwic. The square shaft did not extend up to the surface, but became funnel-shaped. At the top, it was as wide as the well pit, approximately 3.5m in diameter, and the sides sloped at around 45°. Cut into the slope 1m below the top were three equidistantly spaced hollows approximately 0.6m deep. These may have been post-holes which held timbers supporting a timber platform or other superstructure above the well. The reason for this unique form of construction is not clear. The funnel-shaped profile had been deliberately made, and was not any form of weathering cone; it was very regular, and showed no signs of erosion.

The peculiar characteristics of this well (its depth, the square timber lining, the 'partition', the funnel-shaped profile, and the possibility of a platform or superstructure) suggest that it may have had an alternative function rather than simply that of a domestic well, though what this may have been remains obscure.

The earliest fill of the well was a dark grey silty

clay with occasional charcoal flecking. This fill, 4518, contained no datable finds and only a few fragments of animal bone. Environmental analysis showed the preservation of seed remains to be comparatively good, though the deposit was quite clean. The species represented indicated that the surrounding area was open ground populated by weed species, probably reflecting the nature of the backyards of surrounding buildings. The small quantity of preserved material may be a result of comparatively little vegetation in the area, along with the possibility that the well was covered when not in use.

The bottom fill, 4518, was approximately 0.5m deep. No layers or lenses were detected within it, and it probably represents the gradual accumulation of material in the shaft while it was in use. Layer 4523, above 4518, was similar, but slightly sandier in texture, and had a higher stone content. As with 4518, it may have accumulated while the well was in use. However, although it was quite uniform in character, it was in excess of 2.5m deep, which would assume a water table of at least 2m above what it is today. This, and the lack of evidence for any clearing out of the shaft perhaps indicates that 4523 represented a deposit which accumulated after the well had fallen into disuse. There was no evidence for the timber lining of the shaft ever having extended above this level, though it is possible that an upper section may have been subsequently dismantled and reused. The deposits above 4523 belonged to a separate phase of occupation during which a building was



Plate 27 Detail of timber lining in well 3299 on SOU 30. The 'partition' has been removed. Photographed from the north-west (scale in 0.5m units).

constructed partly over the disused and infilled well. The sequence of occupation related to this building, Structure 29, is discussed above.

Why this well went out of use is not clear; there was nothing to suggest that the timber lining to the shaft had collapsed or fallen into disrepair. Neither can its disuse be attributed to any abandonment of the area since the well belongs to a date early in the occupation sequence, and there is evidence for occupation continuing on the site for perhaps at least another century or more.

The timber well lining

Richard Darrah

Thirty-three pieces of timber were recovered from well 3299, of which 29 formed part of the shaft lining. Three of the other pieces belonged to a possible wooden yoke. The well timbers have individual sample numbers (1–33), and AML numbers (812241–73). All the timbers from the lining, with two possible exceptions, were of oak. They were constructed entirely from sections of large-diameter trees. Some of these had been radially split, some tangentially, and some were further shaped into parallel-sided planks. Few tool marks could be clearly discerned, though there was evidence for the

use of both narrow- and broad-bladed axes. One timber (sample 19) has an auger hole, though this does not certainly imply some structural function or that the sample had been reused. One other example, the uppermost surviving timber from the south side (sample 17), had lap joints present. It is possible that this is the only surviving example of a form of jointing which may have been employed in the lost upper section of the shaft lining.

The planks from the partition were the only ones which showed clear evidence of having been reworked, and it has been suggested above that they formed a later division within the shaft. Each of the four had been worked to a point at one end, and two had clearly rotted before they were reworked. The edges of the cuts were relatively fresh, and showed signs of a series of short tool marks which might indicate that the wood was seasoned, and not fresh. This contrasts with the longer tool marks recorded on other timbers which are characteristic of working new wood, rather than seasoned or reused material.

All the timbers used in the shaft lining are of very high quality and represent parts of at least six large, slow-grown, straight-grained oak trees.



Plate 28 Well 3299 on SOU 30 showing the surviving timber lining and 'partition'. The fill of the well pit has been fully excavated. Photographed from the north-west (scale in 0.5m units).

Dendrochronological report

Jennifer Hillam

Samples from twelve of the timbers were submitted to the Sheffield Dendrochronology Laboratory in 1983. In addition to the provision of precise dating information with which to elucidate the stratigraphic sequence, it was hoped to extend the relatively poor coverage of reference chronologies for the Saxon period. This dendrochronological analysis was originally reported on in 1984, but has now been reprocessed using modern software and reference chronologies.

The samples were prepared and analysed using standard dendrochronological techniques (Baillie 1982; Hillam 1985).

All twelve timbers were suitable for measurement since they contained well over 50 annual growth rings, which is the currently accepted minimum number usually required for reliable dating (Hillam *et al* 1987). Details of the timbers are given in Hillam 1984. The ring patterns of eleven of the samples cross-matched (Hillam 1984, fig 1). Although there is no precisely defined limit, studies on modern samples suggest that those which match with t values greater than about 10 are likely to have originated from the same tree.

The ring-width data from timbers 15 and 32 ($t=19.8$) were averaged to produce a single sequence so as not to bias the master curve. The data from timbers 24 and 26 ($t=12.5$) and 22, 28, and 29 (t values exceeding 27.0) were also combined to produce single sequences. The t values produced between timbers 22, 28, and 29 are exceptionally high, which suggests that they were probably cut from the same length of radially split timber.

The sequences 15/32, 24/26, and 22/28/29 were then combined with the data from the other matching patterns to produce a 253-year site master curve. A master curve is used for absolute dating purposes whenever possible as it enhances the common climatic signal and reduces the 'background noise' resulting from the local growth conditions of individual trees, and hence maximises the dating potential.

The rings of the Hamwic site master curve were dated to the period AD 458–710 by comparison with the two available reference chronologies from Tamworth (Hillam 1981) and REF8 (Fletcher 1977). The network of reference chronologies spanning the Saxon period has now been widely extended. This subsequent work has confirmed the AD 458–710 date originally produced.

Once a date has been established for the site master curve, it is possible to assign precise

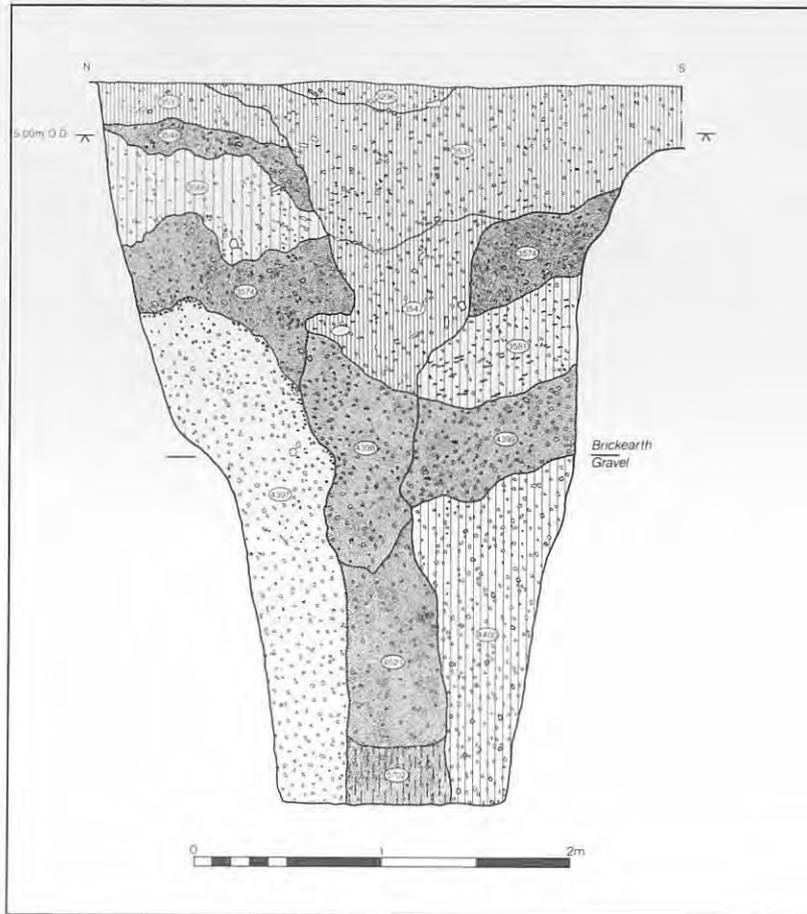


Figure 86 Well 3295 (SOU 30).

calendrical dates to each of the individual sequences included in that master curve. However, the results date only the rings present in the timber and therefore do not necessarily represent the felling date. In the absence of bark surface, the felling date is calculated using the sapwood estimate of 10–55 rings (see Hillam *et al* 1987 for details). In the total absence of sapwood, the addition of 10 rings (the minimum number of sapwood rings) produces a probable *terminus post quem* for felling.

The results suggest that the eleven dated timbers are probably contemporary, with the possible exception of timber 12. Five of these timbers have retained some sapwood. Thus, by applying the 10–55 sapwood ring estimate, a felling date range of AD 695–733 at 95% confidence is obtained for the timbers used in the construction of the shaft of well 3299. Sample 12 had no trace of sapwood and was therefore felled after AD 720. It is possible that this timber was associated with the primary felling phase, but it could also be part of a slightly later phase of repair.

The tree-ring analysis of the timbers therefore suggests a construction date for well 3299 in the late 7th or early 8th century. This agrees with the stratigraphic evidence, which indicates an early-8th-century date. A radiocarbon sample of the timber is calibrated to cal AD 620–890 at 95% confidence (see above).

Well 3295 (Figs 86–7)

After well 3299 went out of use and became infilled, Structure 29 was built across the top. Subsequently, this building burnt down and the area was cleared. Later, well 3295 was dug, partially cutting the construction pit associated with well 3299. The well pit for 3295 was circular in plan with a diameter of approximately 2.7m at the top (Pl 29). It tapered towards the bottom, being 1.2m in diameter at a depth of 3.90m below the ground surface. The bottom of the well pit penetrated approximately 2m into the underlying gravels, but was quite flat with no further excavation in the centre to extend the depth of the shaft. The shaft was circular, and the lining extended up to the surface. At the bottom, the shaft was 0.55m in diameter, but had become distorted higher up due to collapse, apparently while the shaft was still open. Because of this it was difficult to distinguish the fill of the well shaft from that of the well pit. A thin, dark, organic stain marked this division in some places, but it was discontinuous and not always clear.

A small section of the lining did survive. A total of seven staves was recovered, five of which were *in situ*; these were confined to the bottom of the west side of the shaft. Each was approximately 0.15m in width and 0.03m thick, and survived up to a

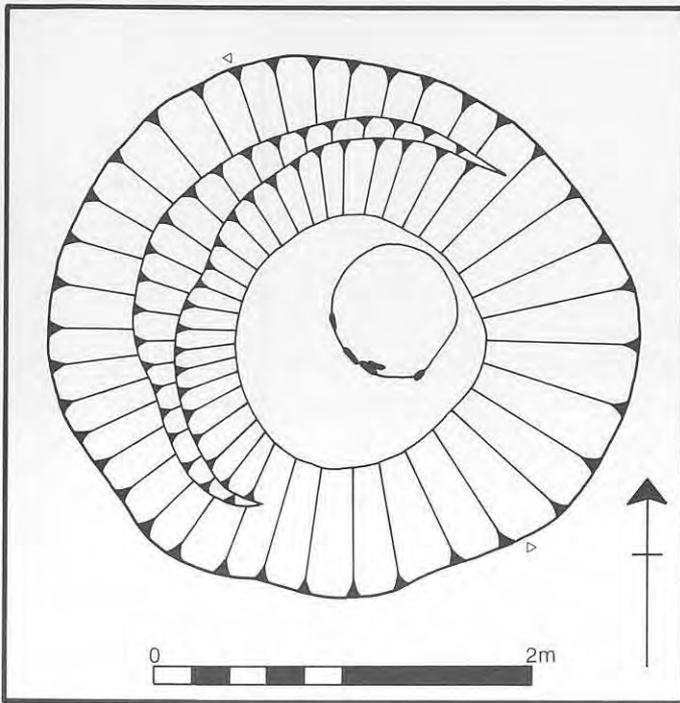


Figure 87 Well 3295 (SOU 30). The innermost circle marks the location of the stave or barrel lining in the bottom. Scale 1:40.



Plate 29 Well 3295 on SOU 30. the fills of the well shaft and well pit have been fully excavated. Photographed from the north-west (scale in 0.5m units).

maximum height of 0.25m. The two loose pieces each had a single dowel hole, one of which had been stopped with a small bung. It is possible that all of these pieces are the remains of a barrel with its ends removed which had been used to partly line the shaft, or alternatively a specially fabricated stave lining. None of the staves had a groove to hold the top or bottom to the barrel, though it may have been constructed by dry cooperage. Good surviving examples of barrel-lined wells were found at SOU 7 (seventeen staves) and at SOU 36 (fourteen staves). In both cases, the staves had a horizontal groove (Morton 1992, 81-4 and 197).

The small size of the surviving timbers in well 3295 rendered them unsuitable for dendrochronological dating.

The well pit was filled with a series of layers of mixed redeposited brickearth and gravel derived from the excavation of the well pit. Mixed with this was some domestic refuse, more than is normally found in the backfill of well pits which are generally quite sterile. One explanation for this might be that the well was late in the sequence, and a certain amount of occupational debris which had accumulated on the ground surface may have been incorporated within the backfilled material.

The primary fill of the shaft, 5702, was a dark grey silty clay containing some small stones, and was approximately 0.35m thick. There were no layers or lenses discernible within this deposit and, like the bottom fill in well 3299, it is interpreted as a layer which accumulated in the shaft while the well was in use. It contained a few flecks of charcoal, some fragments of animal bone, but no datable finds. Samples taken for sieving proved to be quite clean. The fill of the shaft above 5702 was a dark greyish-brown to yellowish-brown silty

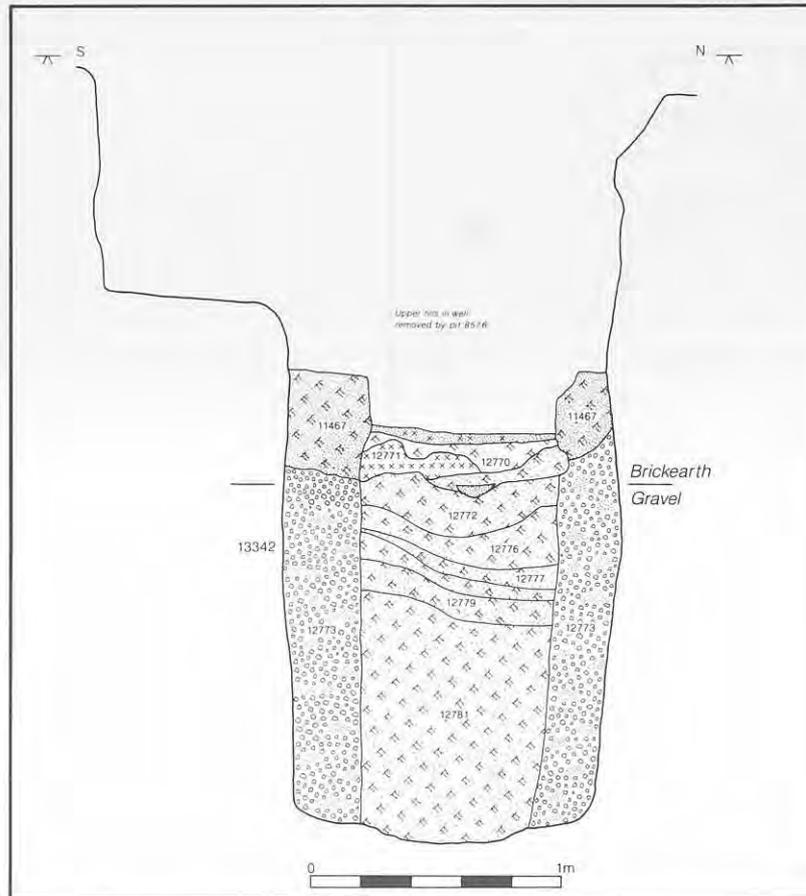


Figure 88 Well 13342 (SOU 169 T2). Scale 1:20.

clay (contexts 4398 and 4521). The clayey texture might indicate that the deposit accumulated naturally after the well went out of use, though the presence of a quantity of animal bone, and in particular the substantial parts of two horse skeletons, showed that there was some deliberate infilling. The uppermost fills, 3296, 3531, and 3547, contained a far greater abundance of finds than lower down in the shaft, and were probably deliberate infills of domestic refuse.

Well 3295 was the final feature in the sequence of occupation in this area. Its construction and use might be dated to the first half of the 9th century on the basis of a coin of Ceolnoth minted c 860 (coin 142) found in context 3531 – one of the upper fills in the partly collapsed shaft. A radiocarbon date (HAR-5106; 1430 ± 60 BP) calibrated to cal AD 530–680 at 95% confidence (Stuiver and Pearson 1986) obtained from the wood lining is of little help in this respect. The anomalously early date would be explained if the sample were of heartwood or if the wood had been reused – possibly from a barrel, as is discussed above.

Well 11342 (Fig 88)

Well 11342 belonged to a sequence of occupation deposits on SOU 169 T2. When this feature was initially exposed it was not recognised as a well, for a rubbish pit, 8576, had been dug into the top of the well after it had gone out of use. This pit had removed the upper fill of the shaft and part of the well pit to a depth of 1.5m below the surface.

The well pit measured 2m square at the top, and had vertical sides down to a depth of 0.9m, at which point the pit was levelled off; a smaller rectangular pit measuring 1.5m by 1.25m was dug in the north-west corner leaving a shelf around the south and east sides. This pit was dug down a further 2.2m to a depth of 3.1m below the surface, penetrating approximately 1.4m into the natural gravel. The backfill in the well pit comprised sterile, redeposited gravel with some brickearth.

The shaft was circular with a diameter of about 0.7m. No lining survived, though a thin dark stain marked its original position. There was no evidence of the lining having collapsed, and it was clearly visible in plan to its uppermost surviving level. Whether it was a barrel or wattle lining was unclear.

The primary fill, 12781, was a mottled brown silty clay which filled the bottom metre of the

shaft. It was virtually stoneless and no variations could be distinguished within it. This layer was similar to the primary deposits in the other wells, and contained characteristically few finds. A natural accumulation of material again seems most likely, and it is probable that the shaft was kept covered in order to prevent rubbish entering the well. The layers above 12781, namely 12772 and 12776-9, were all silty clays and ranged in colour from pale brown to dark grey. Again, they contained few finds, and probably represented deposits which had accumulated naturally, perhaps after the well had fallen into disuse. The silty clays are likely to have been deposited in water or by it; they may have been washed into the shaft during heavy rain and settled in temporary standing water.

There is no evidence for the well ever having

been cleared out, though if the operation had been very thorough, no easily distinguishable trace would necessarily have been left. None of the finds from well 11342 could be used to provide even a general date for its construction. However, stratigraphically it was an early feature, probably associated with Structure 47. It is suggested that this building was the earliest structure in the area, dating perhaps to the first quarter of the 8th century. If so, this well may have been broadly contemporary with the rectangular, timber-lined well, 3299. The techniques of construction used in 11342 are similar to those from later examples at Six Dials, and this again serves to emphasise the unique character of 3299 which was probably a function of its purpose rather than chronology.

The Cemetery

Human skeletal remains were recovered from several graves and pits within a small area on SOU 31 T4 and an adjoining area on SOU 258 T1 (Fig 89). Eleven articulated skeletons and three non-articulated bone groups were identified representing a total of nineteen individuals. A report on these is included in the microfiche supplement, MF6 K5-L2. Articulated skeletons survived only where they had subsided into pits, or where the undisturbed stratigraphy was deep enough to preserve the burials. It was clear from the surviving skeletal material that some human bone had been removed by post-depositional disturbance, and that some burials survived as very small amounts of bone (see especially burials 5942 and 6119, described below). This was almost certainly due to the construction of houses with basements during the latter half of the 19th century. However, although Middle Saxon finds were recovered from the area at the time, there is no record of any human bone having been found.

The burials (Fig 90)

Sharon Pay

In the following descriptions, the stated depth of a grave is its surviving depth, and the alignments are relative to OS north, which is taken to be 0°.

5902. Although it was not apparent at the time of excavation, examination of the bone from burial 6071 (described below) showed two individuals to be represented. Burial 6071 had cut away most of an earlier burial, 5902, which mainly survived as the fragmentary, but *in situ* remains of the lower legs of an adult male. In addition, there were a few cranial fragments, ribs, and vertebrae, and a complete mandible from the same individual, though all had been disturbed and were clearly not *in situ*. Burial 5902 was aligned east-west, and was the only clear example from this cemetery of an early inhumation cut by a later grave.

It is possible that 5902, 6071, and 6074 were part of an east-west line of burials (Pl 30). Unfortunately, the stratified deposits either side of these burials had been removed by the construction of basements during the 19th century.

5942 consists of a single proximal phalange probably not belonging to any of the other burials listed here.

5946. Only the lower legs and feet survived of this burial, the rest having been removed by post-depositional disturbance. It was an adult and the

alignment was approximately 81°. A grave cut could not be defined.

5948. Only part of the lower legs survived of this burial and no grave cut could be distinguished. Burial 5948 was an adult and was aligned approximately east-west. It may have been adjacent to and in line with 5946, and it is possible that 5946, 5948, and 6004 (or 6095) all belonged to the same line of burials.

6004. This burial was in a shallow grave, 0.2m deep, cut into pits 5903 and 15042. The grave cut was clear only along its southern edge and where it cut the pits. Burial 6004 was a young adult male and the overall alignment was 61°. The burial was flexed with legs drawn up. The skull faced the opposite direction to that of the legs, and the arms were flexed and drawn up either side of the body. This was the only burial in this position, and the alignment was the furthest off from an east-west alignment of any recorded. Although flexed, the burial was parallel-sided and the body may therefore have been tightly constrained.

6008 and 6011. These burials were adjacent to and in line with each other. Both had been placed in shallow graves, 0.15m–0.2m deep, cut into the top of pit 5909, a charcoal- and slag-filled feature associated with iron working. The grave cuts were extremely difficult to define since the fill of the graves and the soil they were cut into were virtually identical. The burials were extended and prone with the hands crossed above the pelvis. Both had subsided slightly into the underlying pit. Burial 6008 was an adult male and the alignment was 69°. Burial 6011 was an adult female and the alignment was 70°. There was no clear evidence that these burials had been in coffins. However, the position of the bones might be described as parallel-sided indicating that the bodies had originally been tightly constrained. Although the two burials were laid out together, no other burials were found in the same line.

6071. This burial was adjacent to and in the same row as burial 6074 and to the east of burial 6118. It was in a shallow grave, 0.2m deep, cutting north-south street surface 6147. The burial was extended and prone with the hands crossed above the pelvis. It was a juvenile male, and had an alignment of 90°. In contrast to 6074, burial 6071 was complete and had suffered little fragmentation. To judge from the position of the bones, it would seem unlikely that this burial had been in a coffin. Burial 6071's grave had been cut through most of burial 5902.

6074. This burial was in a shallow grave, 0.15m

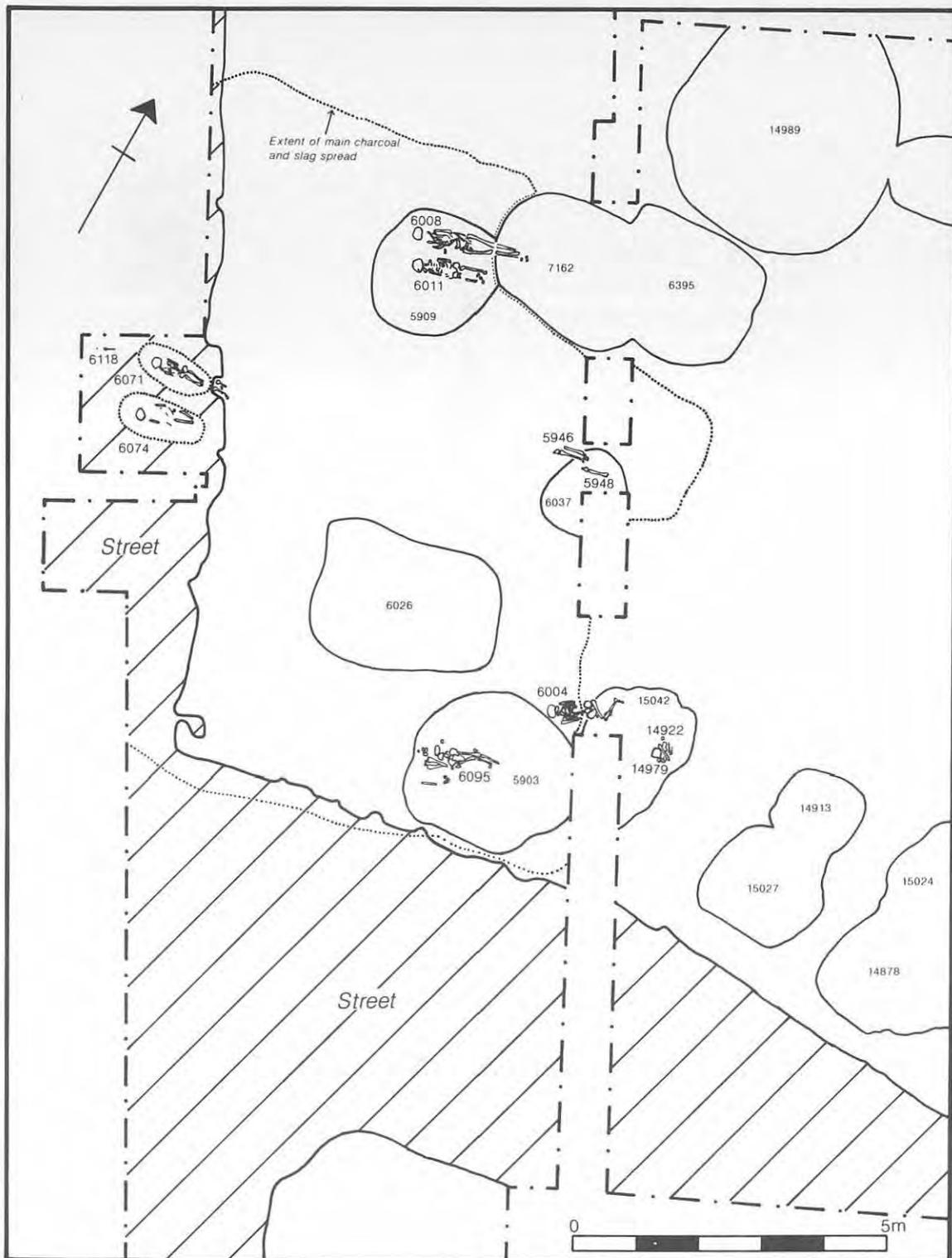


Figure 89 Plan of cemetery on SOUs 31 T4 and 258 T1 at the junction of the north-south street and east-west street II.

deep, cutting north-south street surface 6147 and adjacent to burial 6071. The grave was oval in plan with sloping sides. The burial was incomplete and badly fragmented. It had not been disturbed, and the absence of tibia, pelvis, and vertebrae might be explained by the differential survival of skeletal material. It was a young female, and such differen-

tial survival has been recorded in young female burials elsewhere (see, for instance, Wells 1980, 249). The alignment was 71° . The burial was not parallel-sided.

6095. Pit 5903 contained a quantity of human bone representing a total of six individuals. Initially, the excavation strategy was to half-section

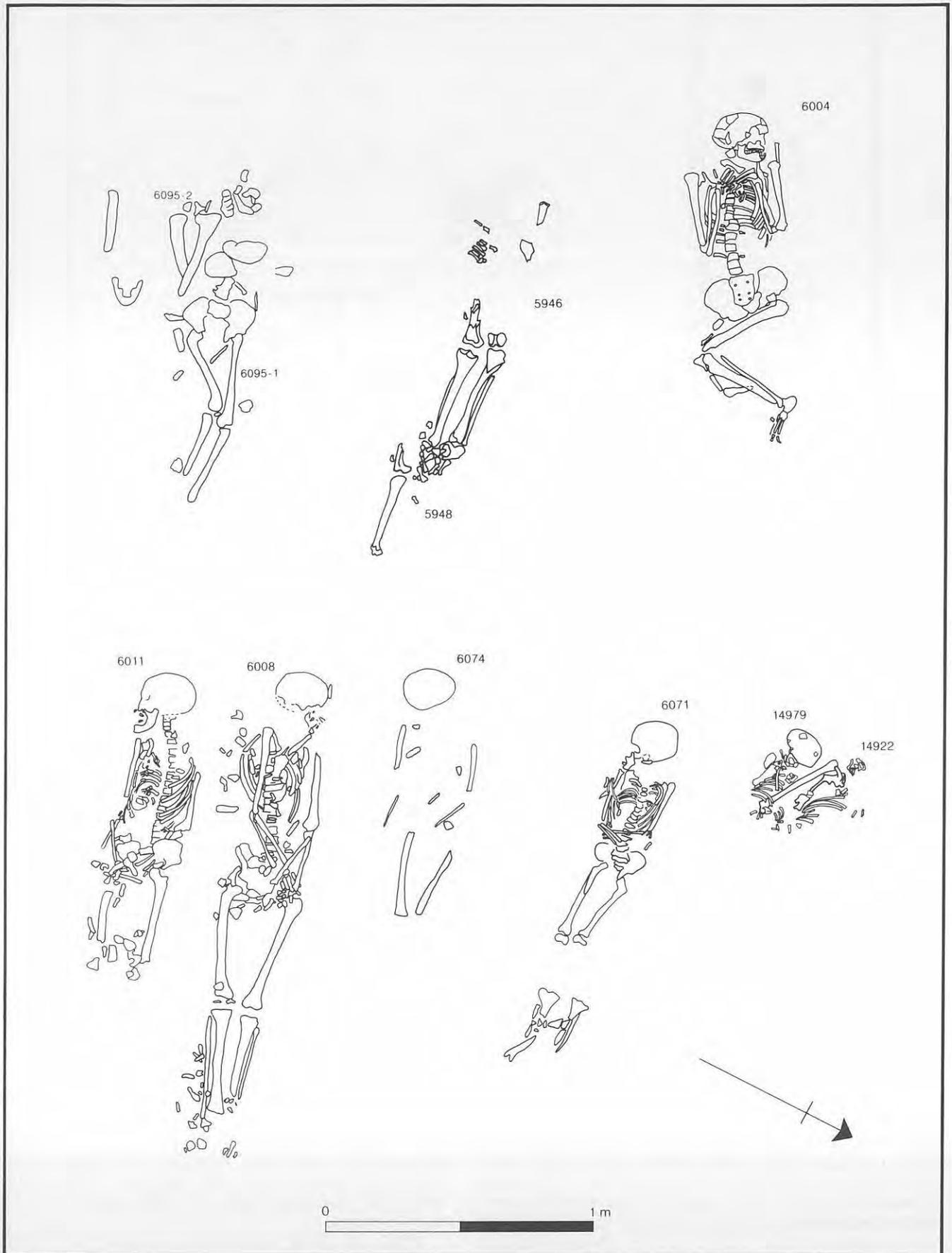


Figure 90 Individual burial plans. Scale 1:40.



Plate 30 Burials 6071 and 6074 cutting metallings on the east side of the north-south street on SOU 31 T4. Photographed from the east (scale in 0.1m units).

this pit. As a result, some *in situ* skeletal material was removed before it was recognised as human bone. Subsequently, the pit was excavated in plan and the position of all human skeletal material recorded. Some of the bone was articulated but had been affected by the subsidence of the pit contents. If the burials had been interred horizontally or nearly horizontally across the top of the pit, they must have subsided by at least 0.6m. The pit was not fully excavated, though it is estimated to have been approximately 2m deep. All the human skeletal material was in 5907, a dark greyish-brown slightly gravelly soil with some charcoal. No grave cuts could be distinguished within this layer. The six individuals represented were as follows:

6095-1. The lower half of an articulated skeleton. Most of the upper part would have lain outside the pit and had been removed by post-depositional disturbance. The burial was extended and prone with the hands crossed above the pelvis. It was an adult male (aligned approximately east-west. This burial was the earliest in pit 5903 as far as could be ascertained.

6095-2. This was the secondmost complete burial in the pit, and overlay 6095-1. The pelvis lay on the western edge of the pit, the legs within the pit. The upper part of the burial had been removed by post-depositional disturbance. It was extended and prone, and was an adult male aligned

approximately east-west. This burial was the last in the pit as far as could be ascertained.

The other human bone in the pit was of very incomplete and fragmentary nature, and it was not possible to establish whether it belonged to burials in pit 6094 which had been disturbed by subsequent inhumations, or whether it came from disturbed burials outside the pit. Four individuals are represented amongst this assemblage. (In addition to those listed below, there were some bones which could not be assigned to particular individuals, but which probably belonged to 6095-1 and 6095-5.)

6095-3. An infant represented by some cranial fragments, a radius, tibia, humerus, one rib, and one sacral vertebra.

6095-4. A juvenile represented by cranial fragments and a femur.

6095-5. An adult female represented by a fragmented femur, a pelvis, vertebrae, and a mandible.

6095-6. An adult represented by a pair of femurs.

6118. To the west of 6071 was an incomplete and poorly preserved skeleton of an infant. No grave cut could be identified, and the burial appears to have been lying on north-south street surface 6147. The surviving bones were aligned east-west, though the exact orientation could not be determined.

6119 comprises a few cranial fragments, possibly

belonging to a juvenile. They probably do not come from any of the burials listed above.

14922. The upper right part of a disturbed burial, most of the surviving bones of which were *in situ*. The burial was aligned east-west. It postdated the infilling of pit 15042 and was next to burial 14979. Recovered on SOU 258, and not yet studied by an osteologist, the bones appear to be those of an adult.

14979. The upper part of a disturbed burial, most of the surviving bones of which were *in situ*. The burial was aligned east-west and postdated the infilling of pit 15042. Two ribs overlay the right humerus of burial 14922. Recovered on SOU 258, and not yet studied by an osteologist, the bones are those of an adult.

Extent of the cemetery

No physical boundaries to the cemetery were recognised. It is possible that some of the many stake-holes and small post-holes which have not been assigned to any buildings or associated structures might have marked the line of a surrounding fence, but this is unclear. However, there are several indicators of its original extent. No human skeletal material was found north of the probable property division between Structures 5-8 and 9-13. This suggests that this division may have survived over a relatively long period of time, from perhaps early in the 8th century until possibly the late 9th. To the south, the group of burials in pit 6067 may have lain close to the southern limit of the cemetery. No human skeletal material was found to the south of east-west street II, and it seems likely that this street, perhaps still in use, marked the southern boundary to the cemetery. The eastern limit was not marked by any clearly definable physical boundary, though it does not appear to have spread onto the area earlier occupied by Structure 31. Burials 5946, 5948, 6004, 14922, and 14979 lay along the eastern edge of the cemetery and appear to have represented the eastern limit. Burials 6071, 6074, and 6118 lay along the western edge of the site in an area where relatively deep stratigraphy survived. They had been placed in shallow graves cut into the last surviving metalling on the north-south street. At the time of burial, this gravel surface would have been partly covered by a layer of soil, and would not have been in use as part of the street at the time. It was not possible to determine whether any burials lay immediately to the west of these, since the relevant area (under a public footpath) could not be excavated. SOU 258 T3, which was excavated along the middle of the north-south street, and which lay 5m to the west of SOU 31 T4, produced no human skeletal material either as articulated remains or as isolated bones. It is probable, therefore, that the north-south street did mark the western limit to the graveyard.

The surviving burials were restricted to a rela-

tively small area measuring approximately 10m by 10m which reflected the limits of the earlier properties on the site (see Fig 20). Because of the incomplete survival of stratified deposits, one cannot rule out the possibility that there were later buildings there, or property boundaries, none of which has survived. Nevertheless, according to the extant evidence, none of the buildings recognised either to the north or east of the cemetery was contemporary with it, and the constraints on the cemetery do not appear to reflect the smallness of the area available for burial.

Except in the earliest phase, the earlier properties were associated with iron working, almost certainly smithing, and the area was covered with substantial deposits of slag and charcoal. It is likely that these deposits were clearly visible when the bodies were buried, and there is a close coincidence between the limits of slag and charcoal and the extent of the burials. It therefore seems likely that the area was chosen as a cemetery because of these deposits and that the inhumations were charcoal or pseudo-charcoal burials.

Charcoal burials have been recorded from an increasing number of Late Saxon and early Norman cemeteries in the country, of which Hereford remains at present the most completely published (Shoesmith 1980). In the usual practice, charcoal was placed in the graves either inside the coffins or around the outside. The purpose may have been ritual, the interpretation favoured by Kjølbe-Biddle (1992, 231), though it may also have been a sanitary one - which is one of the possible uses that Shoesmith (*ibid*, 49) argues. If the Six Dials cemetery contained charcoal burials, it was unique in that the bodies had been taken to the charcoal rather than the charcoal to the burials.

Burial practices

As already pointed out, some burials probably had been removed by post-depositional disturbance. This makes it difficult to be certain about the detailed layout of the cemetery.

At least some of the surviving graves may have once belonged to two or more rows of burials. The most likely examples are burials 6008 and 6011; 6071 and 6074; and 5946, 5948, and 6004 (or 6095, the skeletal material from pit 5903).

There was some evidence for intercutting graves. Burial 5902 had been disturbed by an overlying burial, 6071; and pit 5903 contained the bones of five or six individuals, suggesting that in this area at least there may have been more than one phase of burial.

With such a small number of surviving burials, it is difficult to attempt any groupings according to age or sex. However, the proximity on the western side of the cemetery of the two juveniles, 6071 and 6074, and the neonate, 6118, should be noted.

No grave markers were found. It is likely

however that the graves would have remained visible for some time after burial as low, elongated mounds of soil.

Where grave cuts could be distinguished, the burials were in shallow graves up to 0.4m in depth. Although there has been some truncation of deposits in this area, it is still possible that some graves had originally been so shallow that their contents had become exposed. The skull, mandible, and left humerus of burial 6008 were badly eroded, suggesting that it had been exposed at the surface for some time.

Where the evidence survived, it was found that, with the exception of 6004, all of the burials were laid out in an extended, supine position with the head to the west. Burial 6004 was partly flexed, but was also orientated in an east-west direction. There were few burials for which accurate alignments could be measured. Those which could be measured varied by as much as 29°, with a range from 61° to 90°. Burial alignments can be affected by various factors. However, it is not possible with such a small group of burials to isolate any factor which might have influenced the orientation of these particular examples.

The evidence for burial in coffins is not conclusive. No coffin stains were identified, though several nails found in the vicinity of the burials may have been coffin nails. It is possible that coffins had been held together with wooden pegs rather than with iron nails or fittings. Several of the burials can be described as parallel-sided, that is restricted within lines drawn either side through the head of the humerus and the edge of the pelvis. This arrangement might indicate that the bodies had been tightly constrained within coffins. Other burials may have been wrapped in shrouds, though no shroud hooks or shroud pins were found associated with the burials.

No grave goods were found associated with the burials, and the occasional small find from the fill of a grave should almost certainly be regarded as residual, derived from earlier contexts redeposited in the grave fill.

Associated structures

No structural features could be clearly assigned to this phase, and there is no direct evidence for any structure such as a small church or chapel, which might be expected to have been associated with the cemetery. However, the absence of any burials cut or slumped into the top of pit 6026 might be significant as the surrounding pits (5903, 6037, 7162, and 15042) all contained burials. The upper fills of these pits were all broadly contemporary, and there is no apparent reason why pit 6026, which lay centrally within the area of the cemetery, should not also have contained burials. This might be explained if the area was occupied by a structure which prevented burial. The location and orienta-

tion of the burials suggest that, if there was a structure here, it was aligned east-west and was up to 3m in width. It is not possible to determine what the length might have been and no evidence for a floor has survived.

Three of the other cemeteries found in Hamwic have probably been nearly fully excavated. These were on SOUs 13, 32, and 254. SOU 13 probably dated to the 8th century and the other two to the first half of the 8th century respectively (Morton 1992, 122-38 and 171-9; Garner 1994, 84-91 and 122). SOU 13 produced evidence for a small, post-built timber church measuring approximately 4m by at least 13m. A similar structure on SOU 32, measuring approximately 5m by 8m, might also have been a church. They were both set towards the centres of the respective cemeteries, but both were larger than that postulated at Six Dials.

Dating

The pottery from the layers of slag and charcoal into which the graves were cut suggests a date of deposition of between 750 and 850 for this material. There was no evidence for any accumulation of soil which might indicate a period of disuse before the burials were interred, though this might be difficult to detect. Perhaps most crucial was the subsidence of several of the burials into various rubbish pits, particularly in 5903. This indicates that the pit fills had scarcely subsided before the graves were cut into them, and therefore that the bodies were buried quite soon after the pits had been filled. Pottery from these pits gives a date range of 750-850. No 10th-century or later wares were present in the upper layers of pit 5903, which sealed the burials, but this might simply reflect a lack of later occupation in the immediate vicinity.

The cemetery at Six Dials seems likely to have been in use some time during the second half of the 9th century, but perhaps not later than 900. If the burials were charcoal or pseudo-charcoal burials as has been suggested above, this would also support a late dating for the cemetery. This burial practice is generally assumed to be a Late Saxon introduction (Kjølbe-Biddle 1992, 228-33); and if the Six Dials examples are regarded as such they represent an early example of the practice.

The Six Dials cemetery is probably the last Middle Saxon cemetery to have been found so far in Hamwic. The other examples were all relatively early, and most probably dated to before 850.

It is thought likely that most burials from the second half of the 8th century would have taken place in a central burial ground thought to underlie present-day St Mary's Church (Davies 1883, 329; Crawford 1945, 148-9), and that the various small, dispersed cemeteries elsewhere fell into disuse. Why a small group of individuals should have been buried at Six Dials perhaps a century or so later is unclear. The pathology of the skeletons shows no

evidence either for violent death or of disease, both of which might provide reasons for them not to have been buried at St Mary's. The graveyard may be a sign that settlement persisted later in this north-western part of Hamwic, perhaps with an associated church. Its location towards the edge of the town and adjacent to a major thoroughfare, which in this area may have functioned as a market, could be another significant factor. In Winchester, a larger cemetery occupying a similar position has been found at Staple Gardens. It represents burial outside the cemeteries of the great minsters and was established in the 9th century. Charcoal burials were a feature (Kjølbe-Biddle 1992, 224).

Whatever interpretation we choose to put upon the small cemetery at Six Dials, all that can certainly be said is that it is so far unique in Hamwic because of its very late date.

After the cemetery went out of use, a gravel surface was laid down over the area. It survived as a discontinuous spread, up to 0.12m thick, varying in consistency from a gravelly soil to a fairly compact surface. It may have been contemporary with the last surviving Saxon metalling on the north-south street, though there was no direct stratigraphic link between the two. This gravel surface appeared to have been restricted to the area of the cemetery, and perhaps was meant to signify that it was no longer in use. No associated features were recognised. In pit 5903 this surface was sealed by layers which contained no pottery dated to later than the second half of the 9th century, though it is not certain whether these deposits represented an accumulation of residual material. However, there was a concentration of bone-working waste, more than can be explained perhaps as residual material. This provides a hint, albeit a rather small one, that some occupation continued in the vicinity after the cemetery fell into disuse.

Infant burial in pit 5736

Apart from the cemetery on SOU 31 T4, the partly articulated remains of an infant were recovered from pit 5736 on SOU 31 T3. The skeleton (5804) comprised a fairly complete skull, a pair of femurs, scapulae and radii, one tibia, one humerus, one ilium, and a few ribs. The bone was well preserved and probably belonged to an infant no more than a few weeks old, perhaps newly born. It is not certain whether the body had been disposed of directly into the pit, or whether it had been redeposited from elsewhere. The bone was scattered in the upper part of layer 5804, the bottom layer in the pit. This layer of brown soil mixed with redeposited brick-earth may have been a deposit of cess. It is not inconceivable that the body of an infant thrown into this pit would have decomposed and become disarticulated over a fairly short period of time. This would have been accentuated by the dumping of further rubbish into the pit. Differential survival of skeletal material might explain why some bones were missing from the assemblage.

The infilling of the pit has been dated to the later 8th century, earlier than the cemetery. The body was therefore probably disposed of in isolation, away from any regular burial ground. The disposal of another infant in this fashion has been recorded elsewhere in Hamwic at SOU 36; and it has been suggested that irregular burial was due to the fact that the infant had not been baptised or perhaps had been killed (Morton 1992, 52). Crawford (1993, *passim*) has drawn attention to peculiarities in Saxon approaches to the death of infants and to the disposal of their corpses. It is possible that at times burial in Hamwic's rubbish was a superstitious alternative to burial in a cemetery.

Finds, Crafts, and Industries: Summaries and Syntheses

Virtually all of the crafts and industries for which evidence has been found in Hamwic are represented at Six Dials. Perhaps only silver refining (at SOU 349) and the casting of copper-alloy objects (at SOUs 32 and 254) were carried out elsewhere but not at Six Dials, though evidence for the former was found on a site only 50m to the north. Excavation of Six Dials has therefore added little to the range of crafts and industries discussed by Addyman and Hill (1969, 62–77), although the scale and distribution of these activities is now more clearly understood. Nevertheless, there are still problems in assessing the evidence. Undoubtedly, much has not survived: above-ground features such as hearths and kilns are likely to have been destroyed; tools were not often lost, and at least some are likely to remain unrecognised among the large assemblage of ironwork which has yet to be studied in detail. In addition, raw materials, waste, and finished products of wood, leather, horn, cloth, and other organic materials rarely survive. However, there is often indirect evidence for some of the latter industries, though this may not reflect their relative importance.

The industries are discussed in detail below, and the products catalogued and discussed in other published or forthcoming volumes. Here, some consideration of the nature and distribution of the industries is attempted.

It seems likely, even allowing for some dispersal of industrial waste, that the concentrations which have been found at Six Dials largely reflect the actual locations of particular activities. A distribution map (Fig 91) demonstrates their widespread occurrence across the site, though no account is taken there of chronological differences.

Industries were not certainly concentrated along street frontages, though evidence for one or more was found in all but one of the postulated properties along the north–south street frontages. Furthermore, it seems that the two smithies were deliberately located on preferred sites at street junctions. The anomalously wide north–south street at Six Dials has been remarked upon earlier, and although there is no material evidence which might suggest that it functioned as a market place, the possibility cannot be discounted. It was undoubtedly a major thoroughfare in Hamwic, and probably the most important land route out of the settlement. Therefore it may have provided a focus for various crafts and industries.

Evidence for copper-alloy working was widely

dispersed with perhaps only one or two concentrations discernible. Only slight evidence of gilding, lead working, and glass working was recovered, all of which occurred to the west of the north–south street, though the significance of this is uncertain. Bone and antler working, spinning and weaving, and hide preparation were all more widespread across the site, and have left much more substantial evidence both in terms of industrial debris and as tools and equipment.

The evidence from Six Dials as elsewhere in Hamwic seems to demonstrate fairly clearly that there was no zoning of particular industries, but that different industries were pursued in individual, often adjacent properties or buildings, sometimes contemporaneously. The impression gained is of a patchwork of different crafts and industries across Six Dials (as also across the settlement). It is clear that this was a feature of Six Dials from an early date, and that, with the possible exception of iron working, a single property did not remain associated with a particular activity.

The activities discussed here are variously and somewhat indiscriminately referred to as crafts or industries, terminology which to some extent reflects their scale. Perhaps individually they should all be referred to as crafts, though collectively the number of iron smiths, for example, working in Hamwic at any one time might be considered as an industry. The scale of production, however, is difficult to assess; 5000 fragments of sawn bone and antler, for example, would over a ten-year period represent fewer than ten fragments per week. It is likely that at least some debris would have been disposed of elsewhere, possibly outside the town though at present this assumption remains hypothetical in the absence of evidence from outside the settlement. Perhaps some of the activities were seasonal, but this cannot be demonstrated and is considered unlikely (Morton 1992, 57). If Hamwic was permanently occupied by a comparatively large number of people, it might be expected that there was a sustained demand by the inhabitants for various goods and equipment throughout much of the year. How many items were produced for distribution outside Hamwic is not known.

The evidence from the smithies would suggest that these were permanent, long-lived industries, though in the southernmost example not apparently established in the very earliest phase of occupation. Other industries appear to have had

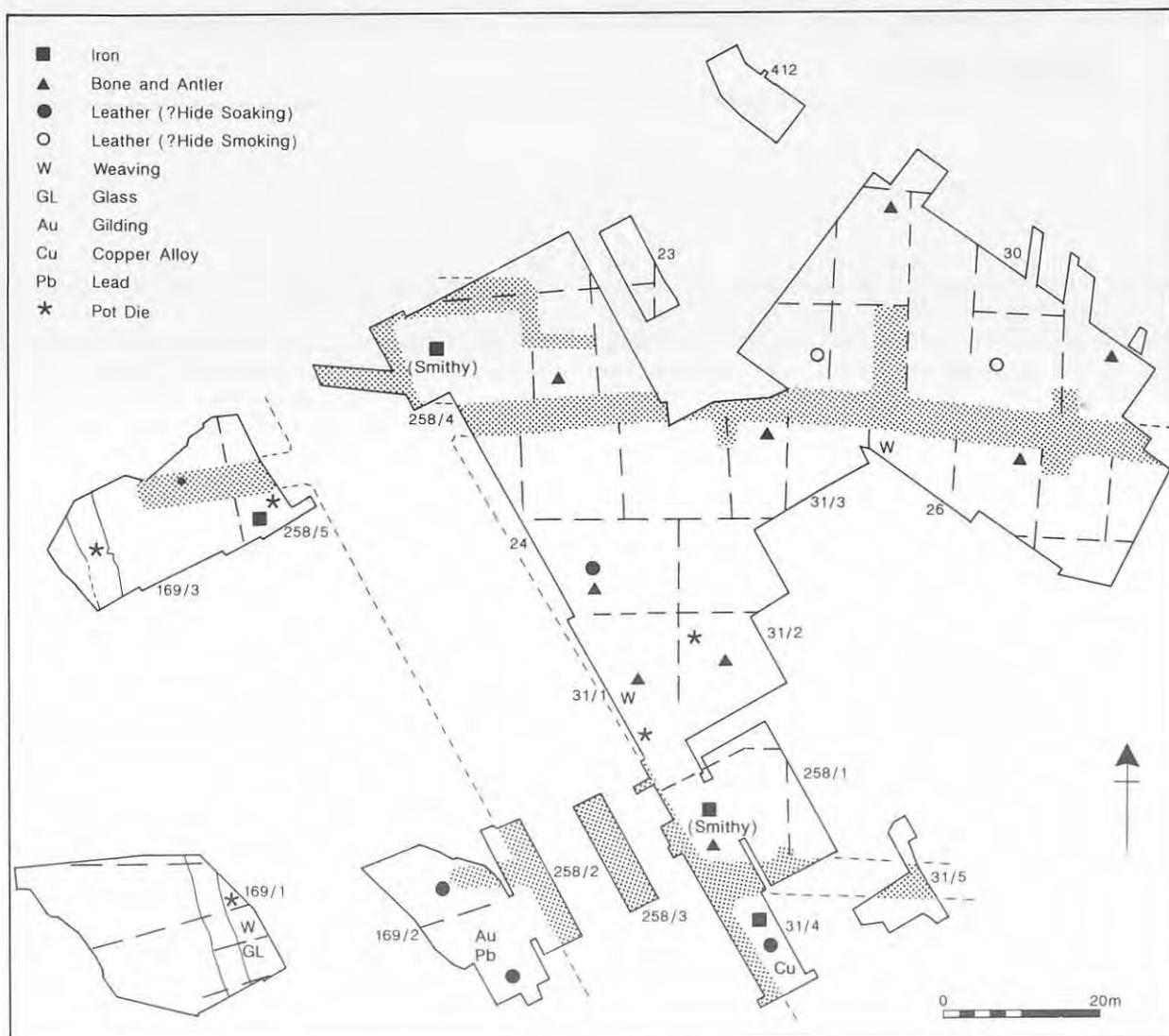


Figure 91 *Six Dials: distribution of industries. Streets and alleyways are stippled, the boundary ditch is shown in outline and property boundaries as dashed lines. Scale 1:900.*

less permanence within individual properties. The hide-soaking activities in two separate properties on SOU 169 T2 provide a good example of this: there is evidence for an early phase of activity in the southernmost property, a second phase in that to the north, and a final phase in that to the south. Some industries such as the possible glass working may have had only a comparatively short period of activity within a single property. Whether the single gilding stone represents similar activity or possibly the equipment of an itinerant craftsman cannot be known.

Both iron smithing and hide preparation were often done within one or more small sheds or shelters which were associated with larger domestic buildings or houses. There is no evidence that this was the case with some of the other industries such as bone and antler working, which seem to have been carried out within the house. It is possible

however, that some of the larger buildings which appear to have contained no hearth may have been workshops or been used to store materials.

The chronological evidence indicates that industrial activity was a feature at Six Dials throughout the 150 or more years of Middle Saxon occupation there. Iron-smithing slag, and burnt chalk debris probably from hide preparation, occurred in some early contexts, and sawn bone and antler in some very late contexts. Furthermore, there is no evidence for certain industries having been earlier and others later; there was also iron working at a comparatively late date, and some sawn bone and antler has been recovered from early contexts. It would seem therefore that industrial or craft activity was an important feature of occupation at Six Dials, and probably throughout the rest of Hamwic, from an early date until the second half of the 9th century.

The Pottery

J Timby with P Andrews

Introduction

It is not the object of this summary to give a full report on the Middle Saxon pottery recovered from Six Dials as this information is published elsewhere (Timby 1988). Rather, the aim is to provide the reader with a general discussion of the Hamwic pottery with particular reference to the ceramic assemblage from Six Dials, making use of the data assembled and interpreted by Timby. At the time of writing, the material from SOUs 258 and 412, the most recently excavated of the Six Dials sites, had not been studied and quantified and is not taken into account here.

Excavations at Six Dials have produced approximately 270kg of pottery, almost doubling the quantity previously available. Furthermore, the work at this site has led to a better understanding of site-formation processes and of the nature and chronology of occupation in this area of Hamwic, thereby enabling a more detailed discussion of the pottery to be attempted.

Hodges's work (1981) provided a comprehensive discussion of the imported wares found in Hamwic, but gave only a cursory description of the local wares. There was no attempt to quantify the amount of pottery, though this has subsequently been rectified by Timby's work which has also given due attention to the local wares.

The imported wares can be traced to sources principally in northern France and Belgium, with no pottery from the Rhenish kilns further to the west. Continental imported wares make up 18% of the total assemblage in Hamwic, though the actual percentage varies from site to site. At Six Dials they comprise approximately 12% of the assemblage. The Continental imported wares can be easily distinguished from their local counterparts since the latter, with one possible exception, are hand-built, though sometimes finished on a slow wheel; the imports are made in much finer fabrics and fashioned on a fast wheel.

Pottery has been recovered from a variety of features, but the greatest amount has come from pits, which, whatever their original functions, invariably finished as repositories for domestic refuse. What has become clear from the excavations at Six Dials is the necessity to differentiate between material from the lower fills of the pits and that from the upper fills. The upper fills represent material, often residual, which has accumulated in the tops of the pits as the contents have settled. These fills may contain material up to a century or so later than that in the lower fills.

From studying the pottery it is clear that much of this material might be regarded as secondary or tertiary refuse, since only a small percentage (often less than 10%) of the original vessel is usually present in a single pit. Taking into account sherds from surrounding pits, many of which may not have been fully excavated, it is still clear that in most cases a substantial amount of each vessel must have been disposed of elsewhere – perhaps nearby, on surrounding fields or along the waterfront.

Chronology

Close dating of the Middle Saxon pottery assemblage from Hamwic is difficult. It has not been possible to establish any absolute dating for the range of locally produced and imported wares, though a relative chronology has been established. There is little change in style over time among the locally produced wares; the Continental imports cannot be closely dated; and apart from some examples at Six Dials there is a lack of good stratified sequences of deposits outside pits. Many of the pits, from which most of the pottery comes, are discrete features which can be fitted only broadly into the occupation sequence. However, certain trends have become apparent from studying the Six Dials assemblage.

During the early period of occupation in the first half of the 8th century, organic-tempered wares predominate in the local assemblage. These carry on the tradition of the Early Saxon wares and show no clear differentiation from them, rendering them unsatisfactory for dating the beginning of occupation at Six Dials. It is also difficult to discern a pattern among the imports, though the blackwares dominate the greywares early on. It is important to note that imports are present in the earliest deposits, where they invariably make up a larger percentage of the total assemblage than at any subsequent period. Furthermore, they often occur in larger quantities by sherd number and weight in the earlier contexts than in the later contexts. At present it is not possible to quantify accurately the overall amounts of pottery according to whether they are from early, middle, or late contexts, due to the difficulty of closely dating features (which is itself often dependent on the pottery, and is complicated by the likelihood of at least a degree of residuality).

Some time around the middle of the 8th century the sandy-tempered wares – previously present in small quantities – come to dominate the

assemblage. Also characteristic of this period is the presence of chalk-tempered wares. It is about this time that mixed-grit-tempered fabrics began to appear, but it is not until later that they form a major part of the assemblage. Various Continental imported groups are also significant, but they do not make up as large a proportion of the assemblage as they did earlier. Also in contrast to the earlier pattern, greywares become more numerous than blackwares.

The decreasing proportion of Continental imported pottery may or may not indicate that less pottery was being imported from the Continent. As a result of an increased density of occupation in Hamwic, particularly in the northern part, by about the middle of the 8th century, a steady number of imports (or a slowly increasing number) would have formed a smaller proportion of the whole assemblage. Whichever interpretation proves to be correct, it would appear that the fewer, earlier inhabitants preferred Continental imported pottery or could obtain it more easily than their successors could – and it is evident that its use was not restricted to the waterfront area. Perhaps demand came to outstrip supply later on, and perhaps to some extent the later inhabitants largely made do with the local products available.

Probably towards the end of the 8th century and during the first half of the 9th century, a change in the composition of the ceramic assemblage took place. The mixed-grit wares come to completely dominate the assemblage, accompanied by small quantities of shell-tempered and flint-tempered fabrics. The locally produced stamped wares also appear to belong to this later phase of occupation. A small quantity of imports are present, but there are very few sherds of recognisably late types, such as Beauvais Ware, which might be attributed to the later 9th or 10th centuries (there are only four sherds from Six Dials).

Distribution

The relative quantities (by weight) of each fabric from the three different, though somewhat arbitrary, phases at Six Dials show that some pottery is datable to the early period (before *c* 750), some to the late (after *c* 850), but by far the greatest quantity belongs to the middle period of occupation (*c* 750–*c* 850). The relative proportions (of the total assemblage by weight) of different fabric groups at Six Dials are similar to other sites in the northern area of Hamwic, but differ from sites in the southern area and in the vicinity of the waterfront. In the waterfront area there is a higher percentage of organic-tempered wares and imports, and a lower proportion of mixed-grit fabrics (Timby 1988, figs 22–4). The higher percentage of imports may reflect a topographical difference; in an area close to the waterfront, more imported wares might be expected since that is where goods were being

offloaded and occasionally damaged or broken. Another possibility is that foreign merchants may have temporarily resided in this area, and used their own pottery vessels in preference to the comparatively crude local forms (Hodges 1982, 57–8; Morton 1992, 67–8). Another factor, which is potentially of considerable importance, is chronology; but at present it is not clear how the distribution of various imported fabrics might have been affected by this (see above). It may yet prove that there was early and comparatively dense occupation in the vicinity of the waterfront.

However, taking all these factors into account, the evidence from Six Dials does suggest that deposits containing a relatively high proportion of organic-tempered wares, as well as a high percentage of imported wares, should be regarded as chronologically early.

The significance of the higher proportion of mixed grit wares from sites in the north of Hamwic is not yet clear, but it is not simply a reflection of the comparatively small amounts of organic-tempered and imported wares. The mixed-grit wares are present in larger proportions by weight and number than is the case elsewhere, particularly on sites in the waterfront area. This distribution might be interpreted as indicating a shift in focus away from the waterfront area by the 9th century; perhaps the densest occupation now was concentrated in the vicinity of the major north–south street that was to become St Mary Street and St Mary's Road, particularly towards the north at Six Dials.

Forms and production

The range of forms in the locally produced wares is very limited. Most vessels are simple, round-bottomed cooking pots. There is a lack of table wares, though this may have been supplemented by a variety of imported vessels which included spouted pitchers, mortars, jars, bowls, and wooden vessels which have not survived.

The availability of a variety of suitable clays in and around Hamwic meant that most of the pottery could have been produced within the settlement itself, though it is likely that a number of the local fabrics were not actually manufactured within the town, but were imported from the surrounding area or further afield. Among these are the igneous-rock-tempered wares which represent a small percentage (<1%) of the assemblage by weight and sherd number, but which are a significant group of wares from a geologically quite different area from southern England.

No kilns or kiln sites have yet been identified in Hamwic. However, most local pottery was evidently fired in reducing conditions and oxidised examples are rare. It is likely, therefore, that most local pottery was fired in clamp or bonfire kilns that did not require below-ground flues or stoke pits, and which would have left little or no distinctive trace.

Some burnt areas, generally interpreted as hearths, may have been the remnants of simple pottery kilns, but none can be positively identified as such. (Fabric 90, a shell-tempered ware, is perhaps the only locally made wheel-thrown pottery, and its firing may have required a somewhat more sophisticated kiln structure. It is chronologically late.)

The apparent lack of wasters is more surprising than the missing evidence of kilns, and it is not readily explained. In contrast, seven possible pot dies made from antler have been recovered, six of red deer and one of roe deer (Riddler 1988, 129 and fig 18). From Six Dials there are five examples. These were recovered from a variety of contexts on SOUs 31 and 169, but were not found associated with any features or other items which might indicate pottery production in the vicinity. Two of the dies produce simple, open circles which have parallels among the Hamwic pottery assemblage, but the others have no parallels and their identification as pot dies must remain open to question: it is possible that they had been used as leather stamps.

Many of the simple hand-made cooking pots could have been quite easily produced by individual

households. No great skill or sophisticated technology would have been required to produce these vessels, and with little need for change, a continuity of style might have persisted; something which is a common feature of the local Hamwic assemblage. Certain fabrics and the decoration of some pots might be taken to indicate the emergence of a more specialised mode of production. With the growth of Hamwic during the early decades of the 8th century, a greater market would have developed for pots and thus perhaps provided the impetus for a few specialists to establish workshops. They may not have been within Hamwic itself; the clay source for the Group II, chalk-tempered wares is located somewhere in the Reading Beds which outcrop 15km–25km north of Hamwic. These wares, which appear around the middle of the 8th century, have also been found at Portchester, Gosport, and Chalton, and may all represent the output from one or more workshops sited at a location convenient for the assemblage of raw materials and the distribution of finished products. Whatever the mode of production, the local potters made little attempt to emulate imported forms or to adopt the potter's wheel.

Introduction

A full catalogue and discussion of the Roman and Middle Saxon coins has been published (Metcalf 1988), though this does not include the three most recently excavated examples from SOU 258. The summary of the evidence given here derives from Metcalf's work. Each coin referred to below is given a number which is Metcalf's catalogue number.

Excavations at Six Dials have yielded a total of 101 coins (including the three from SOU 258). All of these are single finds, and the total must be far fewer than the number of coins lost on the site since most of the rubbish pits, from which many of the coins came, were only half-excavated. The 70 Middle Saxon sceattas and pennies and a single Islamic dirham represent almost half of the total of 153 8th- and 9th-century coins found in Hamwic during modern excavations. If the Kingsland hoard (SOU 36) of 23 specimens is excluded, the Six Dials finds represent just over half of the total (55%).

Sceattas

The earliest sceattas, that is Series A, B, and C, which may date to the last two decades of the 7th century and the first decade of the 8th century, are absent from Hamwic as a whole. There are two Series C coins from SOUs 13 and 36, but at least one, and probably both, are imitative and may therefore be a little later. The earliest coins appear to be those of Series E, the so-called porcupines, and in particular the 'plumed bird' variant, and also Variety G of the same series. Of the six examples from Hamwic, all but one are from Six Dials. Their date of issue may be as early as 695–710. In addition, there is one coin of Series D from Six Dials, and two of Series W, one of which comes from Six Dials. Both series may have been minted during the first decade of the 8th century. The Series W coins may have originated in the Hampshire Basin, possibly antedating the foundation of Hamwic (Metcalf 1993, I, 153–7). There is a potentially early coin of Series G, also from Six Dials, but it is probably imitative and may not have been minted earlier than the second decade of the 8th century. A coin of King Aldfrith of Northumbria (685–705), which is of particular interest among the assemblage of early coins from Six Dials, is discussed further below.

One of the earliest sceattas from Six Dials, a coin of Series D(3), came from pit 4314 on SOU 30 (context 4317) some distance from the north–south

street which it is suggested was the earliest part of the site to be occupied. This coin was probably minted during the first decade of the 8th century, but the date of loss, which is of more significance, is not known, and it may have been redeposited from elsewhere. Furthermore, it is not inconceivable that a rapid expansion of the settlement took place following initial occupation of the area *c.* 700, and that this extended to cover the entire area of Six Dials perhaps within a single decade. One other early sceat, unique in Hamwic, is the coin of Aldfrith mentioned above (125). This is the only Northumbrian coin to have been found at Hamwic, and one of very few from southern England. It was found in an occupation level (context 6184) associated with the earliest phase of a building adjacent to the north–south street, and immediately to the south of east–west street II (Structure 1 on SOU 31 T4). Prior to the recovery of this coin the attribution of the type was not certain. It had variously been attributed to Aldfrith of Northumbria (685–705) and to Aldfrith of Lindsey (*fl.* *c.* 786–96). The stratigraphically early layer in which this coin was found and its high silver content render it extremely unlikely that it should be dated to the end of the 8th century, and hence it must certainly be a Northumbrian issue of a century earlier (Metcalf 1988, 51).

There are eleven coins of Series E, the so-called porcupines, from Six Dials, but probably only five of these belong to the earliest phase of minting of this issue (coins 5–8 and 10). Series E had a long period of minting (perhaps from the last years of the 7th century) which continued for four decades or more. In addition to these five examples, another (coin 9) might also be added, though its variety is uncertain. The distribution of these coins across the site does not show any concentrations in the vicinity of the street frontages. Three of the coins are from stratigraphically early contexts; coin 7 from the top of the natural brickearth (context 7768), coin 8 from a shallow hollow – perhaps a post-hole (context 5323; Structure 10), and coin 9 from a post-hole (context 7420; Structure 34). Coin 5, which came from a disturbed layer directly overlying brickearth (context 517), and coin 6 from the middle layer of pit 4614 (context 5289), may also have been in early contexts, though this is not certain. Coin 10 is from the later pit 7234 (context 7393) and is most likely to have been redeposited.

Five later sceattas belonging to the intermediate and secondary porcupines show a more intriguing distribution. With the single exception of coin 11, which came from an upper layer in a large pit

(context 3325), all the other examples are from SOU 31 T4, the area adjacent to the north-south street and south of east-west street II. Two of the coins came from street surfaces: coin 19 from the second metalling on the north-south street (context 6050), and coin 13 from the earliest metalling on the east-west street (context 6055). Two other coins came from occupation layers in adjacent buildings: coin 16 from Structure 1 (context 6318), and coin 18 from Structure 2 (context 6180) which replaced it.

In addition to the above-mentioned coins, there are a further fourteen examples from Six Dials which may have been minted during the second decade of the 8th century. These are of various Series comprising J, N, U, V, W, and X. The most common are those of Series X of which there are six examples. A previously widely held view maintains that they should be attributed to Frisia, and that their date of minting was towards the end of the first half of the 8th century (Malmer and Johnson 1986, 66-71). However, the high proportion of coins found in Denmark make it very likely that Ribe was the minting place, and the dating evidence is consistent with a minting period in the first decades of the 8th century (Metcalf 1986, 110-20; 1993, II, 226 and 275-9). The distribution of these coins at Six Dials does indicate a trend towards a concentration in the vicinity of the north-south street, and the find spots suggest an earlier rather than a later date for their minting. Crucial to this argument are the two coins from SOU 169 T2 (116 and 121). Coin 116 (Series X, var d) came from an occupation deposit (context 11286) which was the earliest layer in a sequence some 0.4m deep in an area occupied by a sequence of buildings fronting the north-south street (Structures 47, 48, 54, 57, and 61). Though there was little pottery from this layer, the presence of a spiral-headed pin in the immediately overlying layer (context 11283) might be used to support an early attribution, as would the presence of the coin of Aldfrith (125) in a stratigraphically equivalent context to the east of the north-south street. The overlying layer (context 10966) produced a Series X imitation (coin 121). Two other Series X coins are also from fairly early contexts though it is impossible to be precise; coin 118 is from the backfill of well pit 14800 (context 13668), and coin 123, an imitative coin, is from a spread of slag and charcoal on the eastern edge of the north-south street which did not belong to the very earliest period of activity in this part of the site. The two other coins (115 and 120) are from stratigraphically late contexts (9585 and 8925 respectively), and both should probably be regarded as residual.

Other coins which might have been minted during the second decade of the 8th century include examples of various series. There are two of Series J, one of Series N, two of Series U, one of Series V, and one of Series W. Series J has previously been interpreted as the earliest Mercian coinage, but is now regarded as Northumbrian. It was subject to widespread copying, however, probably in the

Rhine-mouths area. Neither of the two coins from Six Dials is from a clearly early context. Coin 95 is from a spread of slag and charcoal (context 6201) associated with the smithy on SOU 31, and not likely to be earlier than the first quarter of the 8th century. Coin 92 is from the middle/upper layer of pit 4031 (context 4032), a context which is again unlikely to be early. In addition to these two coins, there is an eclectic imitation (?Frisian) of possibly earlier date: Coin 93 is from a post-hole (context 14790; Structure 42) which has been provisionally assigned a date in the second quarter of the 8th century. There is a single example of Series N (103), a rare group which probably has a southern source, though the coin from Six Dials is an imitation. It comes from the upper layer of pit 12484 cutting the boundary ditch (context 12504), a context unlikely to be earlier than the first half of the 8th century. Of the two coins of Series U, one (coin 111) is a plated forgery - a rare example of a counterfeit coin from Hamwic, and the only sceat to have been found outside the boundary ditch at Six Dials. It came from the surface of the natural brickearth (context 8409), and so it is not possible to assign a date to the find spot. The other coin (107) came from the middle/upper layer of pit 13492 (context 13947). It is a superb specimen which probably belongs to the beginning of the series, though its late context would suggest that it was redeposited. A single coin of the rare Series V (112) may also have been minted during the first quarter of the 8th century. The coin came from a slag and charcoal spread associated with a smithy on SOU 31 T4 (context 6123), and it is unlikely that it had been redeposited (see also coin 123).

There are four coins which may have been minted during the third decade of the 8th century - two of Series K and two of Series O, Type 40. The place of minting of both series is uncertain. Of the two Series K coins (96 and 98), one came from just above the surface of the natural brickearth (context 10275), and the other from the upper layer of pit 8249 (context 8251), the latter perhaps redeposited. The two coins of Series O, Type 40 (104 and 105) were found within 14m of each other on SOU 24; 105 may be an imitation. They come from the upper layers of pits 8925 and 7289 (contexts 8917 and 7295 respectively), and it is possible that both have been redeposited.

The last sceat finds (excluding Series H, the local issues which are discussed further below) are those of Series L. They are thought to have been minted after 730, perhaps in London. One (100) is from the upper layer of pit 11975 (context 12306), a context which probably dates on the pottery evidence to around the middle of the 9th century. The very worn appearance of this coin is not inconsistent with its possible date of deposition. The other example (101) presents a problem. The coin, of BMC Type 22, was previously assigned to Series U, with a date of minting in the second or third decades of the 8th century. However, on the basis of

the low silver content it has been suggested that it belongs to Series L. This conflicts with the archaeological evidence which would indicate that it should be earlier. It was found on the earliest surface of the north-south street (context 6061), and a date of deposition nearer 710 than 730 would seem more plausible. At present the coin remains a puzzling anomaly.

Among these non-local issues found at Six Dials, some of which may have had a Continental origin (Series E and X), there is a single Merovingian coin (126) – one of only two from Hamwic. It comes from a middle/upper layer in the boundary ditch on SOU 169 T1 (context 10469), and although fairly corroded it may be an early coin.

Types 39 and 49 of Series H occur in such quantity in Hamwic and so rarely elsewhere, that it is scarcely conceivable they were minted anywhere but in the town. The relatively small number of Series H Type 48 coins found in Hamwic, coupled with an increasing number of find spots outside Southampton does suggest that this type was minted elsewhere, but this has not yet been established with certainty. From Six Dials, there are 25 Series H coins, almost half of the total assemblage of sceattas recovered from the site. These comprise twenty of Type 49, three of Type 39, and two of Type 48. The date of minting of this series, in particular Type 49, has recently come under discussion. Types 39 and 48 probably belong to a period of minting during the second and third decades of the 8th century, with Type 49 representing a later issue, perhaps after an interval. It has been proposed that Type 49 may have been a tertiary issue, perhaps current as late as 790 (Andrews and Metcalf 1986, 175–9), rather than a secondary issue from the latter decades of the first half of the 8th century (Blackburn 1984, 171).

On the previous reading of the numismatic evidence it might be suggested that the chronological distribution of the coins (based on their dates of minting rather than on their dates of loss) indicates a large number of coins in use up until c 740, after which there was a virtual blank of half a century or so until c 790, and then a modest revival until c 840. By extending the period during which sceattas were being minted, the apparent gap in coin finds datable to the second half of the 8th century would be closed. The pattern of losses during the 9th century might then be interpreted as reflecting a continuing decline in the town's fortunes, rather than a later revival.

The archaeological evidence on which this argument has been based is dependent on a detailed contextual analysis of all the coins from Six Dials. Although the argument is by no means watertight, the absence of Type 49 sceattas from early occupation layers, pits, and street surfaces (which have yielded nine other secondary-phase sceattas) does lend some support to this proposition.

Pennies

Only eight Middle Saxon pennies and a single Carolingian denier have been found at Six Dials. The comparatively large size of the pennies might have resulted in a lower loss rate, and therefore the number of finds of sceattas and pennies may not accurately reflect the actual numbers of each that were present. Nevertheless, the proportion is much the same at Six Dials as at other modern excavations in Hamwic (21 pennies to 130 sceattas, if one excludes the Kingsland hoard from the reckoning). These proportions differ considerably from what is known of the 19th-century finds, mainly from brickearth digging (28 pennies to 22 sceattas), but the earlier proportion may reflect the fact that the smaller sceattas were overlooked during non-archaeological excavations.

The earliest penny is a coin of King Offa of Mercia (131), one of only three from Hamwic (one of which is an imitation). This came from above the surface of the natural brickearth (context 8409) just inside the boundary ditch. The scarcity of Offa's coins at Hamwic might be explained if Type 49 sceattas were a tertiary issue, perhaps minted by King Cynewulf of Wessex (757–86). Cynewulf and Offa were opposed to each other, and if Cynewulf were minting sceattas, coins of Offa may have been deliberately excluded or compulsorily reminted in Hamwic. Such methods may be mirrored by what seems to have been a deliberate scratching of Offa's portrait on the Six Dials coin: see the enlarged illustration in Metcalf (the two other specimens are non-portrait varieties).

Only one other penny is a Mercian issue; a coin of King Burgred (852–74) which came from pit 14891 on SOU 258 T1. It is one of only two coins found at Six Dials issued after 850 (see also a coin of Ceolnoth below), and because of its chronological importance some details are presented here.

The coin is unpublished, but has been examined by Michael Metcalf. It is in a very fretted condition, but +BVR can be discerned at the beginning of the king's name, Burgred, thus ruling out Aethelred and Alfred who struck coins of the same general design.

Obv +BVR[][]ED RE[]. Bust right.

Rev [][]/MON in three lines.

Six of the other pennies are Kentish issues, four of which date to the end of the 8th century and the first quarter of the 9th century. One of the four is of King Cuthred (798–807) from the upper layer of pit 13782 (coin 137; context 13785). Two were struck in the joint names of Archbishop Aethelheard and King Coenwulf (798–805) – these similar coins (140 and 141) were found 3m from each other in the upper layers of pits 12381 and 12383 on SOU 169 T3 (contexts 12819 and 12553 respectively). The fourth, an anonymous issue struck in Canterbury c 822–3 (139), came from a site layer (context 7503). From the second quarter of the 9th century there is a coin of King Aethelwulf (839–58) minted at

Rochester (146); this probably belongs to phase I of his coinage (839–c 843?). It came from a middle/upper layer in pit 7765 (context 8328). There is one later coin of Archbishop Ceolnoth (833–70) (142), which is considered to be of a late type issued c 860. This is possibly the last Middle Saxon coin from Six Dials and was recovered from an upper layer in well shaft 3295 (context 3533).

There is only one penny minted in Wessex: of King Ecgbeorht (802–39) from the bottom layer of pit 5240 (coin 143; context 5407).

A Carolingian coin found at Six Dials (149) is one of three from Hamwic. It is of Louis I (814–40); its condition is so decayed that it is difficult to adduce parallels. It came from a lower layer in pit 5238 (context 5633), and it is considered that its loss may well date to later than 850. None of the coin losses at Six Dials can certainly be attributed to the Viking raid which took place in 840, nor to the raid that may have occurred in 842 (Morton 1992, 76).

Roman and other coins

In addition to the Middle Saxon sceattas and pennies, there is a surprisingly large number of Roman coins. Eighteen of the coins from Six Dials are Roman, mostly on small flans not much larger than sceattas. It is very unlikely that they are residual. There is evidence for later Iron Age and early Roman occupation in the vicinity, and several ditches probably forming part of a field system have been found at Six Dials. However, most of the coins are 3rd- or 4th-century issues and are not contemporary with activity here. They were probably collected from elsewhere and brought into Hamwic. The preponderance of small coins seems to suggest that larger coins, which would have been found plentifully, were rejected.

A large number of 3rd- and 4th-century coins have been recovered during excavations at Bitterne Manor, the site of the principal Roman settlement in Southampton (see, for instance, Cotton and Gathercole 1958, 135–6), and it is possible that this site was the source of some of the coins found at Six Dials. It was probably visited periodically to retrieve building material for reuse (stone that may have derived from the settlement, and Roman brick and tile, are found in small quantities all over Hamwic), and it is just possible that coins were opportunistically collected at the same time. Two sceattas, one found within the Roman settlement, and one found perhaps just outside (Metcalf 1984, 262) may have been casual losses at this time: they are unlikely to indicate Middle Saxon occupation within this area, since there are no other Middle Saxon finds recorded from there.

It should not be assumed that any of the Roman coins found in Hamwic were used as coins in the settlement, but there is an argument for them having had some exchange value; the

presence of several coins on or near streets and alleys might support this possibility (see Fig 92). An alternative view is that the coins had been reused as weights, but there is no evidence for this (Hinton 1996, 58–61).

The sceattas, pennies, and perhaps the Roman coins appear to have had a monetary or exchange value in Hamwic, but there are two coins which might have been more of a curiosity. A Byzantine decamummium of Justinian I (187) was found stratified in a middle layer of pit 127 on SOU 26 (context 143). The coin was minted in Carthage in 540/1. As it is in good condition it would not have been in circulation for almost two centuries. This is almost the only coin of the Carthage mint to have been found in a securely stratified context in Britain. It should perhaps be assumed that the coin was lost and later found, though the route by which it found its way into a Middle Saxon pit at Six Dials is not clear. It may have been brought into western Britain during the 6th century with A and B wares from North Africa. However, 6th-century coins of the Carthage mint have been dredged from the harbour of Bordeaux, and among the rare Carolingian coins found in Hamwic there is one minted at Toulouse (150). These may point to a westerly sea route, though the evidence is very tenuous.

A further coin which may have reached Hamwic by a similar route is a fragment which comprises approximately half of an Islamic silver dirham (216). The coin appears to have been deliberately cut in two. On grounds of style it should be attributed to Cordoba, and dated after 765, but no later than 814 (Brown 1988, 25–6). Spanish coins of the first three centuries of Islam found in western Europe are few. The coin was well stratified in a layer of brickearth sealing a primary fill of cess in rubbish pit 8605 (context 8891). The date of deposition is uncertain, but a date in the second quarter of the 9th century is considered most likely. A later layer in the same pit contained several fragments of forest glass, which is thought to have been introduced no earlier than the late 9th or the 10th century (Biddle and Hunter 1990, 362).

Besides the coins noted above, all of which were almost certainly lost during the 8th or 9th century, there are just two later coins. One (193) is a penny of William II (1087–1100). It was in a fragmentary state, and was recovered from the surface of the surviving Middle Saxon levels on SOU 31 T4. This area lay adjacent to the north–south street which on the excavated and documentary evidence seems to have continued in use as a thoroughfare from c 700 until the late 1980s. It is likely therefore that this coin represents a casual loss of the late 11th or early 12th century. There is also a medieval Spanish coin from Leon and Castille which was found on the surface of a pit (context 362). The date of loss cannot be established, and it may have found its way to the site during manuring of fields; it lay some distance from the north–south street, and a small assemblage of rather abraded, high medieval

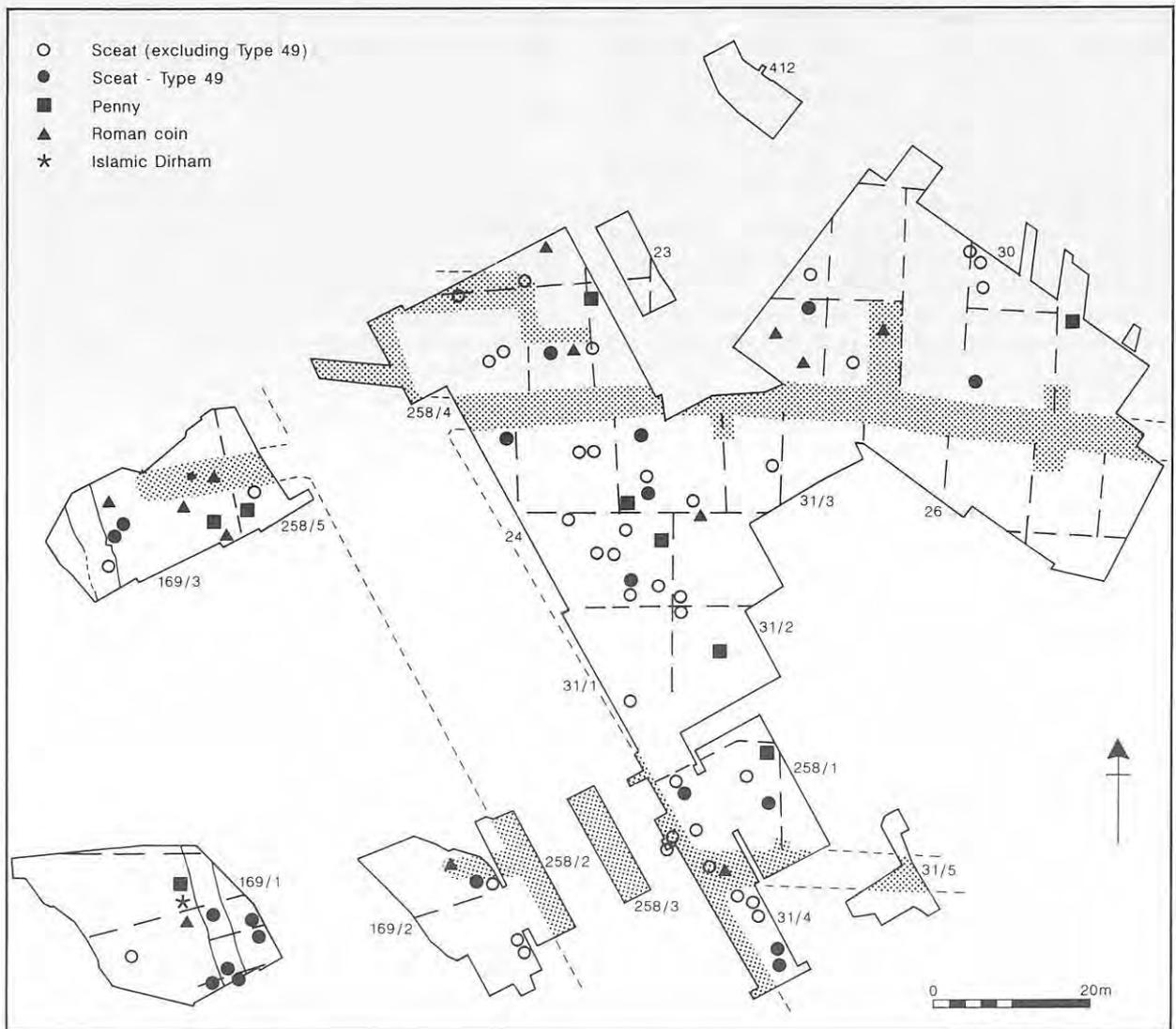


Figure 92 Six Dials: coin-distribution plan. Streets and alleyways are stippled, the boundary ditch is shown in outline, and property boundaries as dashed lines. Scale 1:900.

pottery has been recovered from across the site.

It should be noted that the Late Saxon period, during which Southampton was a mint-place, is totally unrepresented in the finds.

Distribution and discussion

Extensive excavations at Six Dials, which have revealed a boundary ditch, three streets, more than sixty structures, and approximately 500 pits, have provided the opportunity to look at the distribution of coins over a large area. What is immediately striking about the distribution at Six Dials is the widespread nature of the find spots, all of which are single finds (Fig 92).

Coins have come from all over the site, and from a variety of context types. As with other types of find, coins were most commonly recovered from pits. Approximately 57% (55 coins) are from pits, and

this must represent an absolutely minimum number since the excavation strategy adopted resulted in most of the pits being only half-excavated; some were fully excavated, but this is balanced by a number that were left unexcavated. Fine sieving of more than 700 5dm³ bulk samples for environmental analysis produced only one coin suggesting, perhaps rather surprisingly, that few coins have been missed by normal recovery methods. However, most of these samples represent only a small percentage of the total volume of each context.

Most of the coins found in pits come from the upper, so-called tertiary fills (41 coins; 75%), with some from the middle or secondary fills (eleven coins; 20%), and only a few from the lower or primary fills (three coins; 5%). The depositional sequence in the pits can be complex, and several decades might have elapsed between the digging of a pit and its final infilling. The bottom primary fill, for example cess, is often followed by a secondary

fill of household refuse, and an upper, tertiary fill derived from material left lying around on the surface which has accumulated in the top of the pit as the contents settled. It is likely that a number of the coins from these upper fills may have been redeposited, or at least may have entered the pit up to several decades after its digging. Other contexts in which coins have been found include general site layers (eighteen coins), the boundary ditch (three coins), floor/occupation levels (eight coins), post-holes (three coins), and street surfaces (five coins). Those from floor/occupation levels and street surfaces are of especial interest and value as they are least likely to be residual, and are therefore most useful for providing a reliable guide to the date of deposition of the context, as well as in helping to refine the sceat chronology.

The distribution of coins across the site shows a fairly even spread, taking into account the variations in excavation strategy. There is no clear evidence for any concentration of coins along the street frontages, except possibly on SOU 31 T4. However, SOU 258 T2 on the opposite side of the north-south street produced no coins, though the area and depth of deposits excavated was much the same. Nor are there any chronological groupings in the distribution of the coins.

It might be concluded from this that coins were lost throughout the area of Six Dials, as well as perhaps over Hamwic as a whole. Furthermore, there are no clear chronological patterns of loss discernable within the settlement; for example, early or foreign coins do not appear to be concentrated within a particular area or complex of buildings, though large-scale excavations should be carried out elsewhere in the town, particularly in

the vicinity of the waterfront, to investigate this further. The 19th-century coin finds from SOU 47, some 200m to the south-east of Six Dials, do however appear anomalous and this area might repay further investigation; at least six post-840 coins including two 10th-century issues were found there. Pagan (1988a, 63-70) records other late coins, including two hoards, lost or deposited after 840, whose exact provenance is unknown, but which may have come from broadly the same area. It remains debatable whether the 19th-century workmen at SOU 47 overlooked a great many sceattas or plundered only the upper infillings of pits, or whether the preponderance of later coins accurately reflects the evidence in this particular area (compare Morton 1992, 70-1).

It seems clear that all of the excavated coins found at Six Dials, and most within Hamwic, excepting those which belong to the Kingsland hoard, represent accidental losses. The sceattas were not apparently used as jewellery, and rarely as grave goods in Hamwic, and the distribution suggests that they were used principally as a medium of exchange rather than as a store of wealth. As Metcalf (1988, 17) states:

Since we must assume that many coins changed hands safely for every one that was accidentally lost, the finds offer evidence of a very large number of transactions. It should be noted that this is a more direct and a stronger argument concerning the existence and extent of a monetary economy in Hamwic than the arguments from the volume of output of the local mint or from the size of the the total stock of coinage that was to be found within Hamwic at any particular moment.

The Glass

Introduction

The glass from Hamwic will shortly be published (Hunter and Heyworth forthcoming). This section summarises some of the arguments.

Previous excavations in Hamwic have already made an important contribution to early glass studies (Hunter 1980), and the new material from Six Dials now serves to extend a growing awareness of glass forms and techniques in the Middle Saxon period.

Research carried out over recent years has begun to indicate that glass of this period was a much more common artefact than had originally been thought. However, the interpretation of the material is another matter and it is an incautious assumption to consider that individual vessel fragments (particularly on known trading sites) represent original complete forms at the place of excavation. Broken glass had many uses, not only for reworking into beads, best illustrated at Ribe, Denmark (Bernard *et al* 1978), but also in the manufacture and repair of jewellery (reviewed by Evison 1983, 8–9), and there is much evidence to believe that cullet was a marketable commodity. Although Hamwic's trading status and range of contact is fitting for the introduction of complete items, it is equally appropriate for the import of those which were already broken. The precise location of the sites that supplied Hamwic with glass remain unknown. Glass vessels apparently were not produced within the town and only a small number of production centres have been identified in north-western Europe, for example at Cordel near Trier, and at Torcello, Italy.

The material assemblage

Excluding material from SOU 258, which has not yet been catalogued, 916 individual Middle Saxon glass finds were recorded at Six Dials. The fragments fall into two broad groups: those diagnostic of general or inferred vessel types, and those which cannot be ascribed with reasonable certainty to known forms. The former consist predominantly of palm-cup and funnel-beaker types. A quantity of decorated pieces not belonging to rim or base areas could also be assigned to this group, although with less confidence.

Non-palm/funnel forms were also identified although these constitute a relatively minor proportion of the material as a whole, as does a quantity of small decorated fragments whose size

excluded them from any accurate association with specific types.

Vessel fragments not falling into these categories were denoted as 'simple' fragments.

The few remaining pieces are five possible window fragments, nineteen beads, fifteen wasters, and eight examples of non-durable glass.

The rim forms of the palm/funnel series can be divided into three, possibly sequential groups: the thick tubular examples containing a cavity, the tubular rim without a cavity, and the finer rounded rim. The apparent development in rim form in the three groups is wholly in keeping with observed development which sees the refinement of the original palm form of the 7th century into the tall elegant funnel beaker of the 9th century.

The extensive excavations at Six Dials which included a large number of pit groups broadly dated on the basis of the pottery, coins, and stratigraphic relationships, enabled the proposed sequence of rim forms to be examined in further detail. The contextual evidence does support the typological sequence, though there are a few contexts where all three rim forms were found together. However, allowing for the possibility of residuality or an overlap in the periods of manufacture and circulation of different forms, we might suppose that the progression from rims with cavities to rounded rims had taken place by the early 9th century.

The base areas of the palm/funnel series are the thickest and most durable part of the vessels, and as such are those regions most likely to survive and be identified. The group as a whole could be reduced to a minimum number of fifteen individual vessels. In contrast, a minimum number of 118 vessels was calculated from the rim fragments. This difference prompts some questions about the nature of distribution of the fragments and the function of glass on the sites excavated, which is discussed further below.

Although the palm/funnel fragments showed evidence of base and rim forms indicative of complete vessels, the majority of the coloured fragments did not, and there seems a strong possibility that the latter may have been imported as cullet.

Five fragments of possible window glass were identified, but it is extremely unlikely that any of the structures at Six Dials were glazed. Three of the fragments came from pits which each contained at least a dozen other fragments of glass, and so it is possible that these groups may represent cullet.

A small number of beads were recorded and they vary greatly in both form and decoration. Evidence for possible bead-making at Hamwic was postulated

previously on the basis of a twisted glass rod from Melbourne Street (Hunter 1980, 71), and two poor-quality, badly finished examples here offer a modicum of support for this theory.

Nine examples of glassy deposits or similar residues were identified which might indicate the presence of glass-working processes on or in the vicinity of the sites excavated. Several suggested that glass melting had occurred, notably two droplets or globules and a partially formed trail, perhaps significantly all from the same site (SOU 24). Further fragments (all from SOU 169) may indicate the presence of other glass-related processes, several showing green vitreous deposits on Roman brick, stone, and on well fired imported pottery. The significance of this material is discussed further below.

Glasses of the Roman and early post-Roman periods were normally durable products, defined as high-soda-lime glasses in contrast to the less durable 'forest' glasses of the medieval period which relied on a variety of organic alkalis as a raw material component. Recent research has shown that these 'forest' glasses appear in Winchester as early as the late 9th or early 10th century (Biddle and Hunter 1990, 362) and might therefore be expected at Six Dials. Only eight examples were recorded, none of which contains specific typological qualities, but their presence at least reaffirms the availability of this compositional type within the later period of occupation at Six Dials. (Only three other examples have been found elsewhere in Hamwic.)

The 'forest glass' fragments from Six Dials came from the same context in a pit whose infilling probably dated to somewhere between the middle of the 8th century and the middle of the 9th century (pit 8433, just outside the boundary ditch on SOU 169 T1). They were found in an upper layer in the pit and thus belong to the end of this suggested range.

Discussion

The preponderance of diagnostic palm/funnel pieces (to which many of the 'simple' fragments must be added) tends to support the view of complete vessels in the first instance. Fragments of these vessels have been recovered across virtually all of Six Dials – and Hamwic as a whole – in considerable numbers, mainly from rubbish pits. The presence of cullet, typically highly coloured and in small fragments, was presumably for the purposes of reworking into other glass items. A small number of beads together with obvious wasters may conceivably belong to such a process, and it is perhaps no coincidence that other major trading stations from this general period (for example Helgö, Hedeby, and Kaupang) have produced similar brightly coloured collections. The cullet here may be extended to include the few items of possible window glass recorded. If they do not represent cullet they are

difficult to interpret in a secular occupation context. The same must be said for two probably Roman fragments identified in the material, though there is a possibility they may be residual.

The discrepancy between the minimum numbers of vessels calculated from the numbers of bases and rim sherds of the palm-cup/funnel-beaker series might be resolved if the excavated glass represents the remains of complete vessels which were in use and broken within the settlement. When they were broken or damaged, the fragments were collected as cullet, though some pieces were overlooked. The excavated material would thus represent the fragments which had been missed. Larger pieces are less likely to have been overlooked than smaller pieces, and the more substantial bases seem usually to have remained intact whereas the more fragile rims would have broken into a number of pieces. Hence it is more likely that one or more small fragments of rim would have been overlooked than a single base. This would account for the discrepancy in minimum numbers calculated using rim sherds on the one hand and bases on the other.

Some highly ornamented pieces, notably fragments of reticella rods and applied arcaded trails, appear to have been deliberately trimmed from body sherds. This may represent deliberate de-selection related to cullet collection.

Evidence for glass working (but not glass making) is represented by the reuse of pots as possible crucible bases containing glass residues, deposits, or other concretions. There are two possible crucible fragments from Six Dials; both are fragments of bases from imported pots. In addition to these, there are three pieces of brick and stone with glass residues or deposits adhering to them. The pottery vessels may have been deliberately selected since the imported fabrics were of better quality than their local counterparts and would more easily have withstood high temperatures. The base of an imported vessel containing a similar glassy deposit to those at Six Dials was found on SOU 33 (Thomson 1970; Morton 1992, MFI:G5). It was suggested at the time of discovery that the vessel had been imported with the deposit already in it, and that it therefore has no significance for glass working in Hamwic. In view of the material from Six Dials, this interpretation may not be correct, and the possibility that the vessel had been reused should be considered. It is also relevant to note that at Coppergate, York, Roman cremation urns had been reused for glass working (Bayley 1982, 494). Presumably the lack of contemporary local or imported wares in suitable fabrics necessitated this unusual expedient, though the pottery vessels would have required trimming or otherwise modifying for reuse. Whatever their function in the glass-working process, it seems clear that suitable purpose-built vessels were not made locally or imported from elsewhere.

The significance of the brick and stone fragments with adhering glassy deposits is not clear,

but they could have formed part of a furnace structure. However, the pattern of deposits on them gives no good indication of where they might have lain within any furnace structure. A heavily burnt hearth, possibly with a superstructure, at least partly constructed using reused Roman brick and tile as well as limestone, was excavated on SOU 31 T4 (Pit 6067; see Fig 25). However, this lay approximately 75m to the east of the items found on SOU 169 T1, and none of the brick, tile, or stone had any similar glassy deposits on it.

The possible crucible fragments, brick, and stone came from three pits, 8882, 8435 and 8855, the latter two of which cut the boundary ditch (see Fig 80). Pits 8855 and 8882 both produced two fragments, and 8435 a single piece. The items were found up to 8m apart in middle and upper layers of these pits which contained mainly domestic refuse. Because the items were found in fairly close proximity, and because no similar fragments have been recovered from elsewhere on Six Dials, it seems that they came from the one source, which probably lay quite close.

The glass fragments were found in a general scatter across the whole of the area excavated at Six Dials, with most of the variations probably explained by the incomplete excavation of some areas, particularly SOU 26. There appears to have been a concentration on SOU 169 T1, in the vicinity of the boundary ditch, and there was a marked decline in the number of fragments in pits outside the ditch. There was another concentration at the south end of SOU 24 and the adjacent area on SOU 31. In contrast, SOU 30 seems to have had relatively little material, and this cannot be explained by incomplete excavation since many of the features were fully excavated. Whether the variations reflect differences in social or economic status between households, whether they are related to some glass-working process, or whether they simply reflect patterns of rubbish disposal cannot be ascertained. (There are very few fragments from occupation

surfaces within buildings, though a small number survive, and those that were found had probably been kept quite clear of domestic refuse.) There may however be some variations which are related to chronology.

The comparatively few features that can be certainly ascribed to the first half of the 8th century or the latter half of the 9th century had very little glass in them. The lack of pieces in the early features is difficult to explain. The absence of glass is in marked contrast to the occurrence of imported pottery which is proportionally greatest during this early period. It may therefore reflect different sources and different trading patterns. The few fragments in the later features could mainly be residual.

The widespread distribution of glass fragments across the site at Six Dials may, like the distribution of slag, result from patterns of deposition and redeposition of a resistant and readily identifiable type of material. For example, many pits have at least one or two pieces of slag in them, though it is not claimed that smithing was carried out in every household. Similarly, the presence of glass fragments in most pits does not mean that every household had one or more glass vessels. However, slag was not apparently reused in Hamwic, whereas broken glass, being a valuable commodity, almost certainly was.

The very few fragments of 'forest' glass compared to the relatively common high-soda-lime glasses may not simply be a reflection of chronology, though the most likely explanation is that 'forest' glass was a later-9th-century development and therefore postdated the main period of occupation at Hamwic. An alternative explanation is that by this time the status of Hamwic had declined to the extent that luxury items such as glass vessels were rarely found in the settlement. It is perhaps relevant to note that no fragments of 'forest' glass have been found in any Late Saxon contexts in the area of later occupation on the south-west of the peninsula.

The Non-ferrous Metallurgical Remains *J Bayley with P Andrews*

Introduction

A full study of the non-ferrous finds and metallurgical remains from Hamwic has recently been published (Hinton 1996). The following is a short summary of the evidence from Six Dials.

Metal working

Thirty crucibles and crucible fragments from Six Dials were examined by the Ancient Monuments Laboratory, and there are at least thirty more, including some very small sherds, which have not been studied. Examination was carried out under a low-power microscope, and any metal-rich deposits they contained were analysed qualitatively using X-ray fluorescence (Bayley 1986 and 1996).

Most of the crucible fragments seem to come from the same form as the complete vessels, that is small, hand-made thumb-pots with rounded bases and of variable thickness. The complete and near-complete vessels have external diameters of between 30mm and 40mm, and would have held 10ml–15ml of molten metal. There are exceptions to this which include similar hand-made vessels, but with walls only a few millimetres thick and much more uniform. Two sherds from SOU 30 are quite different from the rest in both form and fabric. They come from larger wheel-thrown vessels whose form is reminiscent of some Roman crucibles (Bayley 1984).

A single sherd from SOU 31 appears to be a knob or lug from a crucible which could have acted as a handle. Crucibles of this type are rare in Britain except in the Highland zone, though 8th-century examples are known in north-east England (see, for instance, Bayley 1993), but are known on the Continent from at least as early as the Viking period.

In addition to these metal-melting crucibles, several shallow cupel sherds were recovered. The examples from Hamwic have diameters in the range of 50mm–70mm.

Analytical results, interpretation, and discussion

The crucibles from SOU 31 were used to melt tin-containing copper alloys, namely bronzes or gunmetal (gunmetal also contains a significant amount of zinc). Those from SOU 169 were used for brass, and bronze or gunmetal. From the analyses it is clear

that lead was never a major component, and this would indicate that many of the items produced are likely to have been wrought rather than cast.

Evidence of small-scale copper-alloy working has been found at several other sites in Hamwic, but particularly on SOU 8. Two pits on SOU 8 produced an assemblage of crucibles and crucible fragments, several possible small-ingot moulds, and a variety of scrap copper alloy and partly finished objects (Morton 1992, 94–5). Recent excavations at SOU 254 have produced fragments of clay moulds for casting flat (possibly decorative) objects (Bayley 1994). There is also one half of a marl ring-mould from SOU 32 and a broken half of a limestone mould from SOU 169 which would have produced several smaller rings, but both are from contexts that were not certainly Middle Saxon. Apart from these exceptions, moulds have not been found; and this fact tends to support the argument that finished objects were wrought. Scrap copper alloy would have been cut up, melted down, and cast into small ingots which could then be cut, hammered, or drawn into shape.

No ingot moulds have been found at Six Dials, and the lack of any clear concentrations of copper-alloy-working debris and associated equipment would suggest that copper-alloy working was probably carried out there only on a very small scale. Pit 6067 on SOU 31 T4 (which is described in more detail above) did produce five fragments of crucible, of which four come from the same context – 6068. This was the uppermost layer in the pit and it also contained two cupel sherds. The pit from which this assemblage came had a hearth set into the top which probably had some form of superstructure built from limestone and reused Roman brick and tile (see Fig 25 and Pl 31). The clay floor to the hearth had been heavily burnt and partly vitrified in the centre. The function of this feature is not known, though it clearly was more sophisticated than a simple domestic hearth, and the possibility that it was associated with metal working should not be overlooked.

The range of copper alloys detected in the deposits on the crucibles from Six Dials is consistent with the results obtained from analysing a large range of objects from the same site (Wilthew 1984 and 1996). However, from the analytical work carried out, it is clear that not all of the crucibles had been used for melting copper alloys. Some crucible sherds from SOUs 24 and 30 had relatively high levels of silver in them, as well as traces of



Plate 31 Hearth set into the top of pit 6067 on SOU 31 T4. Photographed from the south (scale in 0.1m units).

gold which was almost certainly present as an impurity. Silver has been detected in the larger wheel-thrown pots as well as in some of the ordinary hand-made thumb-pots.

Cupels are not uncommon, particularly during the later Anglo-Saxon period, but until recently they had not been widely recognised on metal-working sites (Bayley 1991). The examples from Six Dials have a vitrified upper surface that is rich in lead, and contains droplets of either silver or copper alloy. These small, shallow dish- or disc-shaped vessels were used in the small-scale refining or assaying of precious metals (Bayley 1988).

Several lead 'runners' have been found at Six Dials, particularly on SOU 169 T2. They appear to be pieces of lead which have been melted and then allowed to cool and solidify on the sides of a vessel, thereby forming finger-like runners. At least one of them has had a piece cut from it. There is no correspondence between the find spots of these items and the find spots of the cupels. However, given the extreme rarity of lead objects from Hamwic, the possibility that this lead was used in the cupellation process should be considered.

Items of silver, excluding coins, are extremely rare in Hamwic, and Six Dials is no exception. The striking of coins is likely to have been subject to strict royal controls and to have been carried out at specific localities. No such locality has yet been identified in Hamwic: it may only be recognised if coin dies, trial pieces, or scrap silver are found, perhaps in association with silver-melting crucibles, litharge cakes, and cupels. The finding at Six Dials of a few fragments of cupels and crucibles containing silver residues may be significant; as may the discovery of a small dump of litharge (cupellation debris derived from silver refining) on SOU 349 approximately 50m to the north of Six Dials (Michael Smith pers comm).

There is a cupel from SOU 169 T3 which appears to have been used in a different way. A small area of vitrification with a circular outline containing traces of gold suggests that the cupel had been used to melt gold filings and scrapings to produce a coherent, re-usable piece of metal.

Further evidence for gold working is provided by a stone with a hemispherical hollow recovered from a small pit, 10272, on SOU 169 T2. The pit lay inside and was probably contemporary with Structure 61. Analysis of the contents of the hollow using X-ray fluorescence and emission spectroscopy showed the presence of gold and mercury along with a number of other elements. This suggests that the hollow in the stone was used as a mortar for preparing an amalgam for use in mercury gilding (Hook and Tite 1983 and 1996). The amalgam would then have been painted onto the object to be gilded, and the mercury driven off by heating to leave a thin surface deposit of gold. A relatively low temperature is required to drive off the mercury, and it is likely that a hearth rather than a furnace would have been used. A complex of superimposed hearths, 10081, was found in the building only 2m from the pit in which the gilding mortar was found. It cannot be proved that the association of hearths and gilding mortar demonstrates that Structure 61 was used as a workshop by a metal worker, but the possibility cannot be discounted. Possibly of equal significance is the association, in the one site layer on SOU 169 T3, of a small quantity of metallic mercury and the cupel containing traces of gold. At the time of excavation the mercury was considered to be intrusive since it was found just below the machined surface and adjacent to a backfilled 19th-century cellar. It is possible however, that it should be regarded as further evidence of gilding. (Very few gilded objects have yet been found at Hamwic, and none in association with any of the items mentioned above.)

The mortar from Six Dials is the only example of Dark Age gilding equipment so far identified, though fire gilding became the standard process for gilding copper and silver from about the 3rd century AD (Lins and Oddy 1975; and Oddy 1996). The contexts in which the mortar, heating tray, and mercury were found at Six Dials have been dated to

around the middle of the 9th century on the basis of the pottery they contained and their stratigraphic relationships. Oddy (*ibid*) has noted the discovery of metallic mercury at several Continental sites of about the same period or later, and all may be associated with fire gilding. In Britain, a site at Facombe-Netherton in Hampshire produced evidence for gold working in the 9th or 10th centuries, with at least one fire-gilded object (Fairbrother 1990, 263-4).

Finished objects

A large number of objects have been recovered, most of which would have been functional rather

than purely decorative. Objects of silver are rare. A few items have inlay or show traces of gilding. Pins are by far the most common category of object; distributors and separators, strap ends, buckles and buckle fittings, finger rings, hooked tags, and brooches also occur in varying numbers. Other items include mounts, studs and attachments, hooks and handles, rings and loops, spoons and 'forks', tweezers, pendants, and so on. What is perhaps most notable about the assemblage is the absence of high-quality decorative objects and styli which are characteristic of 'non-urban' (probably monastic) sites such as at Flixborough (Leahy 1991).

Iron Working

Introduction

Evidence for iron working most commonly occurs in the form of slag which is widespread on sites in Hamwic in varying quantities. Other indicators almost always occur in association with slag. These might include iron ore, hammerscale, fuel ash slag and other waste products, charcoal, remains of furnaces, hearths and associated structures, tools, and raw iron in the form of blooms, bars, rods, or scrap. The existing evidence from Hamwic demonstrates almost without doubt that all of this derives from or was associated with iron smithing, and that it is unlikely that any smelting took place in the settlement. Romsey, some 14km to the north-west of Hamwic, is a likely source for at least some of the raw iron. Very substantial deposits of post-Roman smelting slag have been found there in a form characteristic of a certain type of Early and Middle Saxon smelting furnace in this country (McDonnell 1988). Smelting slag and particularly tap slag is conspicuous by its absence in Hamwic, and the small amount of material which cannot certainly be identified is more likely to be smithing slag. Furthermore, iron smelting would have produced substantially larger quantities of slag than has so far been recovered. Only occasional, disparate fragments of possible iron ore have been identified. Furnaces would probably have left heavily burnt and vitrified remains in the ground: none of this sort has been discovered. The identification of a group of features on SOU 16 as a smelting furnace/smithing hearth complex (Holdsworth 1976, 42-3) is almost certainly incorrect, and the features may in fact have had no association with iron working (Morton 1992, 162-4). Virtually all of the slag recovered is characteristic in its shape and structure of smithing, and includes a considerable number of roughly hemispherical buns of slag termed 'hearth-bottoms' which formed in the bottom of smithing hearths. These hearth bottoms commonly exhibit a shallow dimple in their upper, flat surface resulting from the air blast from bellows. In addition, where soil samples have been taken from associated or nearby deposits, they have produced large amounts of hammerscale in the form of small flakes or beads of slag derived from hammering iron. However, iron-working tools have rarely been found or recognised, though it is unlikely that few of these relatively uncommon and valuable items would have been lost. The same is true for raw iron, but it is quite probable that some scrap or offcuts from rods and bars may be present among the large assemblage of ironwork that

remains to be fully studied. Furthermore, prior to excavations at Six Dials, no features could be confidently assigned an iron-working function.

The smithies

Excavations at Six Dials have produced several hundred kilograms of iron-working debris, mostly smithing slag, and uncovered two groups of features set within structures and associated with large quantities of slag and charcoal. Both complexes lay immediately to the north-east of junctions between the north-south and east-west streets, and have been interpreted as smithies. The southern smithy, adjacent to east-west street II and associated with Structures 6-8, lay approximately 65m to the south of the northern smithy, adjacent to east-west street I and associated with Structures 45-6. The structures associated with these smithies are fully described above; they appear to have been respectively an open-fronted shed or shelter and a rather more substantial building, in both cases represented by two structural phases. Both smithies were located at important junctions on the major north-south street and were long-lived. Both were established apparently early in the 8th century (that to the south was preceded by a probable domestic structure unassociated with iron working). Both remained in use probably until the first half of the 9th century. Except for a single pit, there was no evidence for any later occupation or activity on the site occupied by the northern smithy; the southern smithy had several later pits and a well dug in the area which was subsequently used as a cemetery.

The coincidence of the smithies' locations, at junctions on the north-south street, is so remarkable that one can suggest that these sites or properties were selected preferentially because of their advantageous positions.

The existence of iron working was initially indicated during excavation by substantial and well defined spreads of slag and charcoal, subsequently shown to be associated with timber structures and a number of small pits which lay within them. The spread of debris associated with the smithy to the north covered an area approximately 10m by 10m, and that to the south 12m by at least 16m at its maximum extent, presumably reflecting the limits of the associated properties, but in both cases spreading onto the north-south street. Here, there had been little truncation of these deposits, and they were up to 0.2m thick. The iron-working

activity would appear to have centred around one or more small pits in each of the smithies, though any above-ground hearths and related structures did not survive (Fig 93).

In the southern smithy, a sequence of pits was recognised which could be broadly assigned to two groups and equated with Structure 6 and its enlarged successor, Structure 7. Their function remains uncertain, but some of these pits may have been used as smithing hearths, one perhaps replacing another (but this could not be determined even where they intercut). They varied in shape and size; most were small, subrectangular or subcircular, up to 0.4m across and 0.4m deep, with near-vertical sides and flat or rounded bottoms. There was one larger, bowl-shaped pit, 5909, 2m in diameter and 0.75m deep, which lay within Structure 7. All of these pits were characterised by fills of charcoal and slag, and in some cases by thin layers of unburnt yellow clay or brickearth. In one example (6382) a hearth bottom was found, possibly *in situ*, in the top of the pit. In none was there any evidence of the sides having been burnt or scorched, nor of any direct association with the small amount of hearth or furnace lining and occasional fragments of tuyère found in the vicinity. A small, circular hearth, 6684, with several pieces of hearth or furnace lining lying around the edge also appears to have been linked with iron-working activity. There was no evidence for any floor surfaces, though a small area of gravel yard lay outside the open, eastern side of the shed or shelter. These structures and features were succeeded by a final, more extensive phase of iron working. No related structural remains were found, but the spreads of slag and charcoal were associated with several small pits similar to the earlier examples, and at least six circular, lightly burnt areas, perhaps hearths (not illustrated).

In the northern smithy there was a single large, slag- and charcoal-filled feature, 14534, set within a more substantial two-phase timber building represented by Structure 45 and its successor, Structure 46. Feature 14534, which apparently remained in use throughout both phases, was irregular in plan, up to 2m by 1.5m across, and 0.5m deep (Fig 93). It had vertical sides with slight undercutting, and a level but irregular bottom. Careful excavation showed it to comprise a series of recut smaller pits, perhaps dug into an originally rectangular feature. These pits were difficult to define, but they appear to have been broadly similar in size to those in the southern smithy, and likewise there was no trace of burning or scorching of the brickearth around the sides. Substantial remains of a clay or redeposited brickearth floor surface survived around feature 14534, and in some places extended over the edges of it, partly sealing several of the earlier pits. This floor surface was approximately rectangular, and had clearly defined edges on all but the south side (which had been cut away), though what defined these edges remains uncertain. Slag, charcoal, and burnt clay fragments had been impressed into this

surface, and again it is clear that these pits were a focus of activity and perhaps were used as ground-level smithing hearths. A series of at least three superimposed, bowl-shaped hearths was set in the top of an earlier pit, 13567, towards the south end of the smithy (Fig 94 and Pl 32). These hearths, each comprising a clay pad on a base of flint cobbles, were contemporary with the earliest phase of the smithy, but not the later, and whether they had any direct association with iron working remains uncertain. There was nothing in the interleaving deposits which indicated an industrial use – nor in their construction, which was the same as that of normal domestic hearths. However, the number of hearths and their location within the smithy would argue for them having had more than simply a domestic function.

In neither smithy was there any evidence for waist-level hearths. If they had existed, some indication of their location might have remained in the ground, in the overlying deposits of debris, or in the presence of materials used in their construction. The occurrence of small quantities of hearth or furnace lining, occasionally with tuyère holes, clearly indicates the existence of hearths; on the basis of the available evidence these are thought most likely to have been small pits at ground-level, filled with charcoal.

Other features associated with smithies have left no trace. For example, no stone anvils have been identified, and iron anvils are likely to have been set in a log or other timber; quenching was probably done in wooden troughs or barrels, which are unlikely to have survived. However, a large fragment of a circular grinding stone came from the northern smithy; and a fragment of a Roman beehive quern, possibly reused as a sharpening stone, from the southern smithy. A smith's punch came from the slag and charcoal deposits associated with the southern smithy. No other tools have been recognised from either smithy, nor any raw iron. However, two possible smith's punches and a possible hammer came from SOU 31 T2, less than 40m to the north of the smithy there. It may be that further items will be identified when the iron assemblage from Six Dials is fully studied.

In addition to these two smithies, there was a small charcoal- and slag-filled pit containing a fragment of hearth lining with a tuyère hole, in a shed or shelter associated with Structure 1. This lay immediately to the south of the junction between the north-south street and east-west street II, and may have been a small-scale, perhaps short-lived, precursor of the smithy to the north of that junction. No other iron-working features were identified elsewhere on Six Dials though several concentrations of slag were recovered. The most notable was on SOU 169 T3, the opposite side of the north-south street from the northern smithy, perhaps again significantly at the junction of the north-south street and the extension of east-west street I to the west. The slag was mixed with

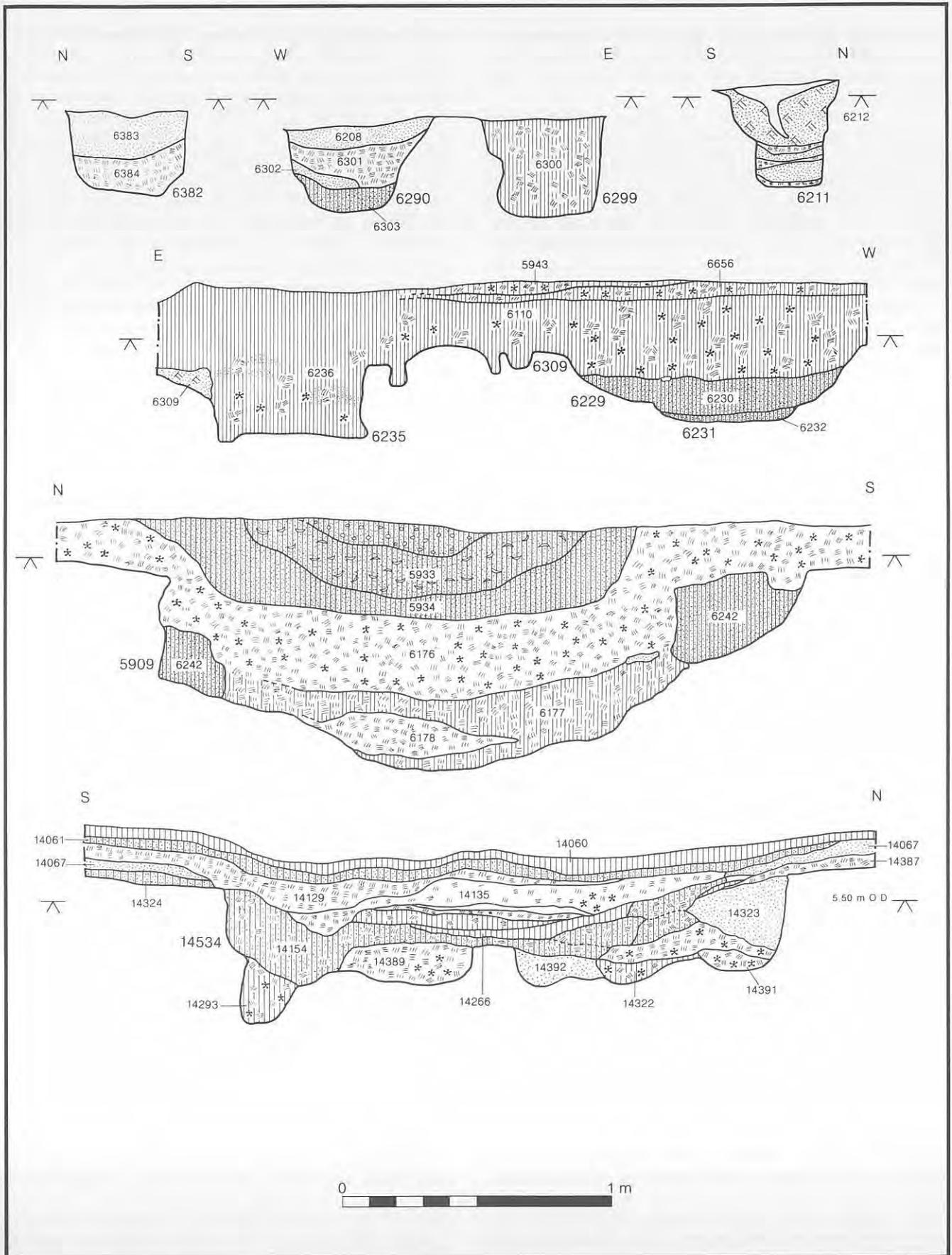


Figure 93 Iron-working features. The lower section is from SOU 24, the remainder from SOU 31 T4. Scale 1:20.

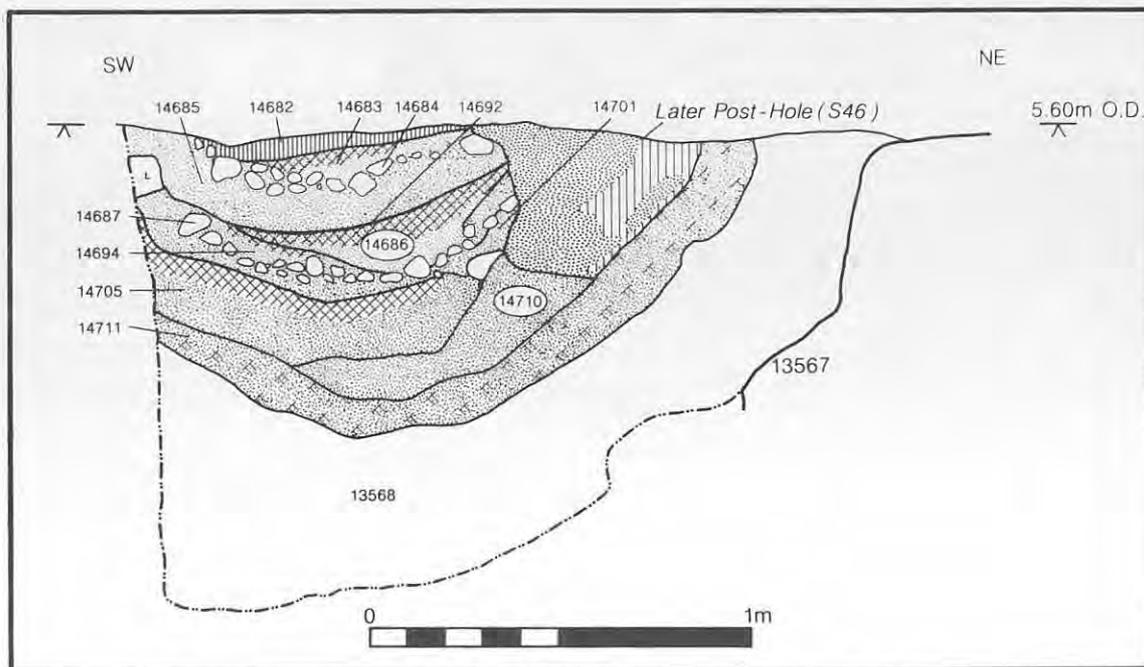


Figure 94 Hearth sequence in pit 13567 (SOU 24). Scale 1:20.

charcoal and confined to an area within and around Structures 63-4, and a possible smith's chisel was found in the vicinity. The complete ground plans of Structures 63-4 were not exposed and the spreads of slag and charcoal extended beyond the limits of excavation. However, on the available evidence it would seem reasonable to assume that either or both of these structures may have been associated with smithing. Elsewhere, the concentrations of slag occurred as occasional, discrete deposits or dumps in pits and the boundary ditch, though rarely mixed with charcoal. The material in the lower part of the boundary ditch was an exception to this in that there was a considerable amount of charcoal present, possibly a result of different conditions of preservation. None of these larger deposits appeared to have been derived from either of the excavated smithies, and would have been some distance from any that lay beyond the limits of excavation. The resistant nature of iron slag means that much of the general scatter was residual material which became dispersed, an explanation to some extent supported by the fact that it was generally absent from early pits. However, the larger deposits in the early fill of the ditch and from elsewhere represented deliberate dumping, either carried there directly from a smithy (as seems probable for the material in the ditch) or perhaps collected and disposed of later as part of a clearance operation (as may have been more likely for some of the other deposits which were not mixed with charcoal). There is no evidence at Six Dials that slag was deliberately used as a metalling on streets, yards, or paths, and SOU 99 remains the only site where an example of this has been found; there it was mixed with flint cobbles

and gravel, and animal bone. One likely reason for this is that smithing, unlike smelting, did not produce slag in sufficient quantity or often enough to make its use for metalling worthwhile.

The question of regularity of production raises the problem as to whether iron working, in particular smithing, was carried out by itinerant smiths perhaps on a seasonal basis. The evidence from Six Dials would suggest not: the established locations, apparent longevity, and quantities of debris associated with the smithies on Six Dials all indicate that they were permanent. Furthermore, it would seem reasonable to assume that a settlement the size of Hamwic would have provided a ready and constant market for a range of utilitarian as well as more specialised items, and there is no evidence of the smithies or associated properties having been used for any other craft or industrial process. Both smithies could also be shown to have been linked with domestic structures, that to the south with Structure 8, and perhaps also with Structures 30 and 31, at different times; and that to the north with Structures 45 and 46, which may have served both industrial and domestic functions.

Finished objects

The products of the smith are ubiquitous in Hamwic, though they await a complete study and publication. In all, there are some 3600 iron items from Six Dials which include a large number of broken or damaged objects and numerous unidentified fragments of strip, rod, and bar. The identified objects include a wide range of knives, many of which show a high level of technological



Plate 32 Upper hearth linings in pit 13567 on SOU 24. Flint cobble bases 14684 (upper) and 14687 (lower) are partly exposed and excavated. The post-hole cutting them to the right belongs to Structure 46. Photographed from the south-east (scale in 0.1m units).

skill in having steel, butt-welded cutting edges. These would have served a variety of purposes, but there are a number of more specialised tools including several punches and chisels probably used in smithing, a wood-shaping axe, numerous wool-comb teeth, a variety of awls and needles probably used in leatherworking, shears, and a billhook. Building ironwork and fittings include numerous nails, staples, roves, hinges and strap fragments, hasps, barrel-padlock parts, and keys. Among the household ironwork are hooks, strike-a-lights, chain links, and rings; some of the plate fragments may

be the remains of the cauldrons. Other, less common objects include buckles and strap-ends, bucket handles, bells, a spur, and a sword pommel. A variety of these have been plated, and a very small number of the knives have been decorated with copper-alloy inlay.

Many of the iron items recovered must represent accidental losses as it is unlikely that they would have been deliberately disposed of with domestic refuse; if objects could not be repaired, it is likely that they would have been collected as scrap and recycled.

Bone and Antler Working

I Riddler with P Andrews

Introduction

Several sites in Hamwic other than Six Dials have produced concentrations of bone- and antler-working debris, notably SOU 14 (Morton 1992, 149–52). Excavations at Six Dials have produced several spatially and chronologically discrete groups of debris which show varying characteristics. This material is still being studied, and along with the finished objects will be the subject of a forthcoming volume (Riddler forthcoming). The following section summarises some of the arguments of work in progress.

The pattern of deposition of bone- and antler-working debris is not like that of domestic bone refuse. This presumably reflects the specialised nature of the industry which is likely to have been carried out in only a small number of properties by a few individual craftspeople. There was a thin scatter of offcuts over most of the site, with many pits producing only a very few fragments, but this should be regarded as 'background noise' related to patterns of rubbish disposal, and probably due in part to an element of residuality; the occurrence of smithing slag showed a similar widespread distribution over the site.

For brevity, the term bone working is often used below to describe this activity, although bone and antler working is a more appropriate phrase since some of the assemblages show that red deer antler was the predominant raw material used. For example, the large number of offcuts from pit 5238 on SOU 31 are mainly from red-deer antler (more than 1790 fragments). This pit also contained an above-average number of post-cranial red-deer bone, some of which had also been worked.

Among the very few roe-deer bones found in Hamwic, only the antler shows occasional evidence of working. There is a single pot die made from roe-deer antler from Six Dials (Riddler 1988, 125).

Pit 4717 on SOU 31 contained a large number of antler offcuts, though it was not as prolific as 5238. The bone and antler assemblage from pit 4717 has been looked at in detail (as part of the animal bone Variability Study, described below): from the half that was excavated, a total of 1349 antler fragments were recovered, not including material from sieving. In pit 4717, antler makes up by far the largest percentage of the assemblage by fragment number, as it does in pit 5238, though worked bones from other species are also present. Very few antlers have cranial bone still attached; which probably indicates that in most cases the animals had not been killed and their antlers cut off, but that the

antlers were collected after they had been shed. Various bones from other species were also selected for working, but this is not true to the extent that every bone of a particular type or size was used. It is not certain whether this was because they were less suitable than antler, or were less readily available in sufficient quantity, or were only required for specific items. Individual assemblages probably reflect a combination of various factors.

Of the animal bone available, those of cattle were the most commonly used in Hamwic. Cattle bones are prominent among several of the Six Dials groups, and in a few smaller groups make up almost the total assemblage. Pig bones were used, but again seem to be prominent only among a few of the smaller assemblages. Sheep bones were sometimes used for working, but apparently only rarely in comparison to the large numbers of bones that were available. They constitute only a small percentage of any of the worked assemblages. Horse bones were also worked occasionally, but on Six Dials they were not used to anywhere near the same extent as on SOU 14. On the latter site, although cattle bones still constituted the largest part of the worked assemblage, worked horse fragments were recovered in large quantities. Little antler was present.

Other species were occasionally used, but appear only sporadically in individual assemblages. The most noteworthy is whale bone. Several small concentrations of less than a dozen fragments have been recorded, and its occurrence is presumably related to the occasional stranding of whales. Whale bone would have provided a reasonable source of material for some aspects of bone working.

Various individual bones from different species would have provided suitable sources of raw material for working. Antler apart, the preferred bones were the straighter limb bones – the metapodia, radius, and tibia. The larger bones, such as those from horse, presumably would have been most useful since their radii and tibiae have large, flat surfaces. There is evidence that certain bones were selected for size among these preferred groups. This does not appear to be true for radii, and it is questionable for tibia, but for metapodia, and in particular cattle metatarsals, the evidence appears to be unequivocal. It seems that the larger metatarsals have been deliberately selected for working, though as Bourdillon (forthcoming) rightly points out, there is a possibility that more extensive working of the smaller examples may have left little measurable evidence. Other bones that were also occasionally used included cattle ribs, cattle and horse mandibles, and pig fibulae.

In sum, the different bones making up individual assemblages might reflect various factors including the type of finished item being produced, the preferred raw material, or the availability of particular raw materials. All of these may have varied over time.

Selected assemblages

A range of items made from bone and antler was produced, with combs (including handled examples) being the most common. Spindle whorls, needles, and thread pickers have also been found in some number. It is not always clear what a particular assemblage of bone and antler offcuts represents in terms of either the type or the number of finished items. In some cases this may be more easily inferred by the presence of semi-manufactured pieces or discarded broken components, but these are comparatively scarce.

Several assemblages from individual pits at Six Dials have been studied in detail; three as part of the work on the animal bone, and others as part of the study of the worked-bone assemblage. These include pits 361, 3295, 4005, 4717, and 5238. Pits 4717 and 5238 provide what are probably the two largest assemblages from individual pits so far excavated within Hamwic.

The largest assemblage of bone- and antler-working debris came from pit 5238 (SOU 31 T2). This pit was not large, measuring approximately 2m in diameter, and with a maximum depth of 1.3m. On the basis of the pottery and a very worn Carolingian coin of Louis I, the infilling has been provisionally dated to early in the second half of the 9th century (see above), making it one of the latest features identified at Six Dials. Its original function is not clear, but it may initially have been used for the disposal of cess. The two primary layers contained a few offcuts, with most material coming from the overlying layers of general domestic rubbish. The upper layers, which probably accumulated as the contents of the pit subsided, were also rich in debris. However, unlike many of the other pits at Six Dials containing bone-working debris, the majority of the offcuts from pit 5238 came from the rubbish layers, rather than the top infilling in the pit. A total of 3020 unworked fragments was identified (not including sieved material), plus 2724 worked offcuts, 1790 of which were of antler. In addition, there were 2377 unidentified unworked fragments and 184 unidentified offcuts. Sieving produced a further 181 identified unworked fragments, plus many very small, mostly unidentified fragments, which showed signs of working.

There was little unidentifiable material among the sparse bone finds from the primary layers, but generally there was more fragmentary, unidentifiable material in this pit than in others studied. Only 4717, another pit containing bone-working waste, matched 5238 in the abundance of small unidentifiable

material. For the main identified species too, the fragments were generally smaller and lighter than those studied from elsewhere at Six Dials, again with the exception of pit 4717.

The worked offcuts appear to be better preserved than the unworked material, which may reflect rapid disposal of the bone-working waste in the pit.

Pit 5238 was rich in antler, particularly by weight. All the antler identified came from red deer, though there were a very few fragments of post-cranial roe deer present in the assemblage. There were seven worked fragments of post-cranial red deer, the only examples so far recorded from Six Dials.

Antler was not the only material present in pit 5238 that had been worked. The bones of cattle, sheep, and horse were also used, of which cattle bones were the most abundant. Unworked cattle bones were relatively scarce, but this is probably because so many had been worked. The pattern of distribution over the body of cattle offcuts shows an overwhelming bias to metacarpus and metatarsus, and most of these bones must have been deliberately selected for working (see below). The pit did contain a large number of sheep bones, though only eighteen out of a total of 1361 fragments showed evidence of working. A surprisingly large number of the mandibles came from young adults, which may reflect particular husbandry practices, or perhaps some industrial use, though the concentration does not appear to have been linked with bone working. Unworked fragments of horse are also well represented, though later contexts at Hamwic are generally richer in horse bones than earlier ones. The pattern of distribution over the body makes it clear that the abundance of unworked horse bones reached the pit in association with the bones intended for working, for there were many side metapodial bones to match the high concentration of metapodial offcuts. This use of horse bones for working stands in contrast to the complete absence of worked horse bones from pit 4717, the most comparable pit in terms of number of offcuts at Six Dials. It is interesting that the pattern of horse-bone working from pit 5238 shows a preference towards the bones of the feet and tibia; this contrasts with the preference for the radius seen on SOU 32. This difference in selection may be a function of chronology, though the material from SOU 32 can be only broadly dated to the middle or later Middle Saxon period (Riddler 1992, 182–4); equally, it may be the result of other factors which cannot be determined.

The cattle bones were present in sufficient numbers to make it feasible to investigate whether there was any selection for size. For radii there appeared to be no such selection, though there may have been a certain selection of tibia. However, it is the cattle metatarsus which shows the greatest differences between worked and unworked bones, and here the evidence for selection is quite clear. Perhaps the difference between bones of the front and back legs is due to the respective widths of the

bones; the radius and metacarpus are generally wider and flatter and might provide a more suitable working surface without the need for selecting those of larger size. However, the narrower shafts of the tibia and metatarsus might have made selection of the larger bones more desirable. One further possibility is not that the larger bones were taken for working and the smaller ones rejected, but that the larger ones were worked in such a way as to leave measurable offcuts, and the many smaller ones were worked so extensively that few measurable offcuts are left.

Although pit 5238 contained the major concentration of bone-working debris, several pits in the vicinity also contained large quantities of probably associated material. All the deposits were in the upper layers of the pits, whose infillings are broadly dated to the first half of the 9th century. The spread of material lay within the area formerly occupied by Structure 14, immediately to the south of Structure 15 which was probably still standing when the debris was deposited. This building is a possible candidate for the source of the waste, and was perhaps therefore a bone worker's house or workshop. However, no bone-working debris was recovered from within this structure, though no floor or occupation surfaces had survived.

The assemblage of waste material from pit 361 (SOU 26) shows a similarity to that from pit 5238 (Ian Riddler pers comm). They lay more than 55m apart but were of a similar date, both perhaps having been infilled during the second half of the 9th century. Pit 361 was not fully excavated, but the main concentration of debris was in the top fill. Earlier layers contained much smaller amounts of material. The bone-working assemblage from this pit contained offcuts mainly of antler and cattle, as well as eight unworked fragments of red deer.

One other late assemblage of bone-working debris has been studied. This is from well 3295 on SOU 30 and may be the latest material examined from Six Dials, dating probably to the third quarter of the 9th century. All the worked fragments came from the upper fill of the well shaft, with antler again dominating the assemblage. Most of the antler fragments are offcut tips and pedicels. Metapodia are the most common cattle bones worked, though there is a higher ratio of other bones to cattle metapodia than elsewhere (1:4 compared to 1:82 in pit 4717). The assemblage is also noteworthy for the four offcuts of horse, rare in other contexts.

Pit 4717 (SOU 31 T1) produced the second largest assemblage of worked bone from Six Dials. A total of 1217 fragments of worked bone and antler was recovered from the upper fills of this pit. The antler fragments are mainly from the midshaft, often very thin, and sawn in more than one place. In addition to the sawn fragments of antler, there were a further 362 small, unsawn fragments (mostly chips), and a few shavings which must also be debris from working. It seems that most of this

waste was derived from the making of handles and tooth segments for combs. Of a total of 225 cattle offcuts, only seventeen are not metapodia. The only other species represented was sheep, of which there are five worked pieces. The high ratio of sawn metapodia to other cattle bone, and the lower incidence of antler than in the groups discussed above, might suggest that this assemblage represents a rather different process of bone working. It is possible that there is a chronological difference between the groups, with 4717 perhaps slightly earlier than the others, before rather than after 850.

Although pit 4717 lay on the edge of the excavated area immediately adjacent to the north-south street, it was not the only pit in the area containing bone-working debris. Pits 5250, 5292, and 5297, approximately 7m to the east, also contained notable concentrations of material in their upper fills. However, it is possible that this latter material may have been contemporary and perhaps associated with the major deposit in pit 5238.

One other pit which contained large amounts of bone-working debris has also been studied in some detail – pit 4005 on SOU 30, a large feature apparently used initially for cess disposal. This pit proved unusual in two respects. First, it was one of the few features containing worked bone which can be fairly securely dated to the 8th century; this contrasts with most other assemblages of bone-working debris which are later in date. Furthermore, the majority of the material came from the middle and lower layers in the pit and on that basis may belong to the earlier part of that century. Secondly, the assemblage comprises a large number of sawn cattle ribs which had been prepared for use as comb connecting plates. The use of ribs as a source of bone-working material is comparatively rare in Hamwic, and such a concentration is also rare (a similar assemblage was found at SOU 34: see Morton 1992, 194). Sawn antler was also present, but in relatively small amounts. None of the surrounding pits contained any comparable quantities of worked material, and none contained cut or sawn ribs.

Discussion

The overall impression gained from the distribution of worked-bone and -antler debris across the Six Dials sites is of a number of concentrations of material probably associated with individual workshops – though none, with the possible exception of Structure 15, has been identified. Most of the material occurred in the upper fills of pits, with a small number of offcuts in the primary and middle layers of some pits – the exception being pit 4005. Most of the debris, again with the outstanding exception of that in 4005, was deposited in the 9th rather than the 8th century. The early groups of waste from that pit can be tied directly to the manufacture of single-sided bone composite combs. These parallel

antler comb manufacture and represent the earliest phase of bone working in Hamwic.

The comparatively small amounts of antler in pit 4005 should also be noted. Similarly, the assemblage from SOU 14 (most of which was probably deposited between the mid 8th and the early 9th centuries) contained around ten times

more worked cattle and horse bone than antler; and it may therefore be the case that antler became the more commonly used raw material during the later period. Whether this was because it was the preferred material for many items, and became more readily available (perhaps from the later 8th century) is uncertain.

Leather Working

Although hides may have been brought into Hamwic already tanned from tanneries outside the town, the existence of burnt chalk deposits, described below, suggests that some hides at least were initially prepared in Hamwic. There is no certain evidence for tanning in Hamwic; but the evidence for such activity would not yet have been discovered if tanning had been carried out close to the river or a stream, and it might have disappeared if it had been done in wooden vessels such as barrels which stood on the ground and therefore have left no recognisable archaeological trace. Furthermore, if individual tanneries in Hamwic were on a small scale, the evidence for them may be comparatively slight.

The burnt chalk deposits

Introduction and analysis

Neil Campling

Thin spreads and more substantial, localised deposits of a white or pale grey calcareous material have been recorded at Six Dials and elsewhere in Hamwic. This substance superficially resembles wood ash, though it has a less 'soapy' feel and has variable quantities of soil and charcoal mixed with it. In order to ascertain its origin, samples from a variety of contexts at Six Dials were selected for geochemical analysis.

Examination using a petrological microscope showed that about 80% of the material was composed of aggregates of a very fine-grained carbonate material, though the actual mineral could not be identified. The remainder consisted of charcoal and other minerals. Infra-red gas analysis to determine the quantities of organic carbon and carbonate carbon showed that 16%–70% of the material was calcium carbonate. Samples subject to x-ray diffraction analysis had an elemental composition, indicating the presence of calcite, quartz, and apatite. Calculations from the XRD data indicated that 50%–70% of the material was calcite, similar to the infra-red gas analysis data. All the analyses confirm that the Hamwic calcareous deposits are characterised by an unusually high content of fine-grained calcite.

The calcite in these deposits is almost certainly derived from chalk, as crushed limestone or shells would have produced a more coarsely grained and identifiable substance. The high magnesium content of the deposits probably results from the

incorporation of wood ash into the material. The inclusion of numerous charcoal fragments, and the red to yellow colouring of some samples, almost certainly result from burning.

The evidence confirms the identification of the calcareous deposits as burnt chalk or 'burnt lime'.

The burnt chalk probably has its origin in the production of alkali. Alkalis are required in a number of industrial processes, and possible uses for the burnt chalk in Hamwic would have included the manufacture of limewash for covering and protecting daub and the preparation of leather. The use of lime or alkaline solutions on hides facilitates the removal of hair and epidermis by accelerating their decay.

In order to convert the chalk into burnt chalk or quicklime, it would have had to be burned or calcined so that the calcium carbonate is turned into the oxide. Hodges (1964, 171) notes that early lime and gypsum plasters were prepared using 'rather crude kilns' and that 'a certain admixture of charcoal was unavoidable'. This would account for the charcoal and other inclusions in the burnt chalk found in Hamwic. It is not certain whether the calcining was carried out within Hamwic, though it is perhaps more likely that it was done where the chalk was quarried. Very few pieces of chalk have been found in the settlement, and there is no evidence as yet for any kilns, though they may have left little recognisable trace.

The analysis of the burnt chalk shows phosphorus and sulphur concentrations of 1%–1.5%, and 0.14%–0.18% respectively. In order to achieve these levels, some additional substance rich in both elements would have to have been added to the burnt chalk either on purpose or accidentally. There are several possible sources for these minerals. Bone, particularly calcined bone or bone ash, has a phosphorus content of between 10% and 18%, though it has a low sulphur content. Wood ash has a phosphorus content of about 3%, but again the sulphur content is low. A more likely source is urine, which is rich in both phosphorus and sulphur. The mixing of burnt chalk, urine, and perhaps wood ash would have produced a strongly alkaline slurry.

It is certain that some lime was used for limewash, as a number of fragments of burnt daub have been recovered with limewash on the surface. However, the composition of the material that was sampled for geochemical analysis suggests that it had been prepared and used for the soaking of hides as part of the leather-working process.

Distribution

The major concentration of burnt chalk at Six Dials was on SOU 169 T2 and on the immediately adjacent site, SOU 258 T2. There were deposits over other, widespread areas of the site, but it is not certain whether all of these can be associated with leather working. It is quite likely that at least some may have been associated with the production of limewash for use on buildings.

A small extension to SOU 169 T2 which was excavated to locate the south end of Structure 48 uncovered a pit unique amongst those so far excavated. Pit 11675 was subrectangular in plan, measuring 1.75m by 1.5m, and was approximately 1m deep (Fig 95). The edges of this pit had been undercut by up to 0.1m. The bottom layers, 11690 and 11692, were dark greyish-brown clay loams containing approximately 30% burnt chalk inclusions, with charcoal flecking throughout. They were separated by a thin layer of redeposited brickearth. Above these was a series of six layers of whitish burnt chalk with a uniform distribution of charcoal flecking throughout. Most of the layers were tinged pinkish, particularly on the upper surfaces. Each was separated by a thin, charcoal-rich layer no more than 2mm thick. The burnt chalk layers varied between 0.04m and 0.13m in thickness, with each being virtually horizontal and extending to the edges of the pit. These layers were sealed by a succession of three brickearth floor surfaces (9908, 10709 and 10978) associated with Structure 48. The floors had not slumped into pit 11675, a fact that reflects the compact nature of the burnt chalk deposits in the pit.

Structure 48 belonged to the second phase of activity in this part of the site, and was constructed after pit 11675 went out of use. It was therefore early, and was probably contemporary with Structure 47. The small area excavated allowed no certainty about whether or not the pit was located within a structure.

The horizontal nature of the burnt chalk deposits within the pit suggests that they accumulated in a liquid medium, probably a slurry, as has been suggested above. The pinkish, possibly burnt nature of the upper parts of the layers is difficult to explain; perhaps it resulted from the differential settling of burnt and unburnt material. The thin layers of charcoal-rich soil may have settled out in the same way. None of the layers shows any evidence of disturbance, which is perhaps surprising if each layer of burnt chalk represented a reuse of the pit. Nor was there any evidence for the contents of the pit ever having been cleared out. The undercutting and shape of the pit would suggest that it had never had any form of lining, which is also surprising if it was dug to hold a burnt chalk slurry. It is difficult to envisage how this pit might have been used for hide soaking unless hides were laid flat in the pit, a slurry poured over them, and perhaps water or urine periodically added to keep

the mixture moist. After a certain time the hides would have been removed, and the slurry scraped or washed off.

There were no other burnt chalk deposits contemporary with pit 11675 on SOU 169 T2, though it is possible that associated features and deposits lay further south. No pits which might be interpreted as tanning pits were recognised in the immediate area, nor indeed anywhere else on Six Dials (with the possible exception of the smaller pit 7865 on SOU 24 – described below). If 11675 was an isolated feature, it would point to the preparation of hides on a small scale.

There was much evidence for the use of burnt chalk during a later phase of occupation in the same area, and also to the north, though no pits similar to 11675 were found. The later deposits of burnt chalk were up to 0.3m thick.

Extensive spreads of burnt chalk lay at the north end of SOU 169 T2, and on the adjacent area of SOU 258 T2, where they spread onto the western edge of the north-south street. Stratigraphically, these deposits were earlier than those at the south end of the site, and there may have been a southwards shift in the location of activity.

The burnt chalk covered most of the area to the north of the line of pits 8456, 8541, 8682, 8840, and 10675, which probably marked a property boundary. The spreads obscured what has been interpreted above as a westerly extension to east-west street II, which was not maintained during this phase. Structures 49 and 50, which were standing in the area, were probably sheds or shelters associated with the industrial activity. Contemporary with or slightly later than these was Structure 52, a rather enigmatic structure to the east of Structure 50. In plan it appeared as a shallow, angled slot no more than 0.07m in depth, with a total length of 3.4m. To the south of this was a deposit of burnt chalk which appeared to have been piled up against it, giving the impression that there had been some sort of retaining structure, perhaps constructed using horizontally laid planks.

Although no pits could be associated with these northern deposits of burnt chalk, their extent and depth, and the possibly contemporary structures, would support the suggestion that this area was given over to hide preparation during at least one phase of occupation, during the 8th century.

At the south end of the site, the spreads covered much of the area previously occupied by buildings, though the posts of the rear (west) wall to Structure 54 were apparently still in position when these spreads were deposited. It seems likely that the area had been given over to industrial activity, with only the derelict remains of Structure 54 still standing. The deposits were thickest where they had accumulated in pits 8723 and 8739, which were still open at the time (see Fig 63). The pits also contained layers of red sand immediately above the burnt chalk. This was found nowhere else on the site, but it is tempting to associate it with leather

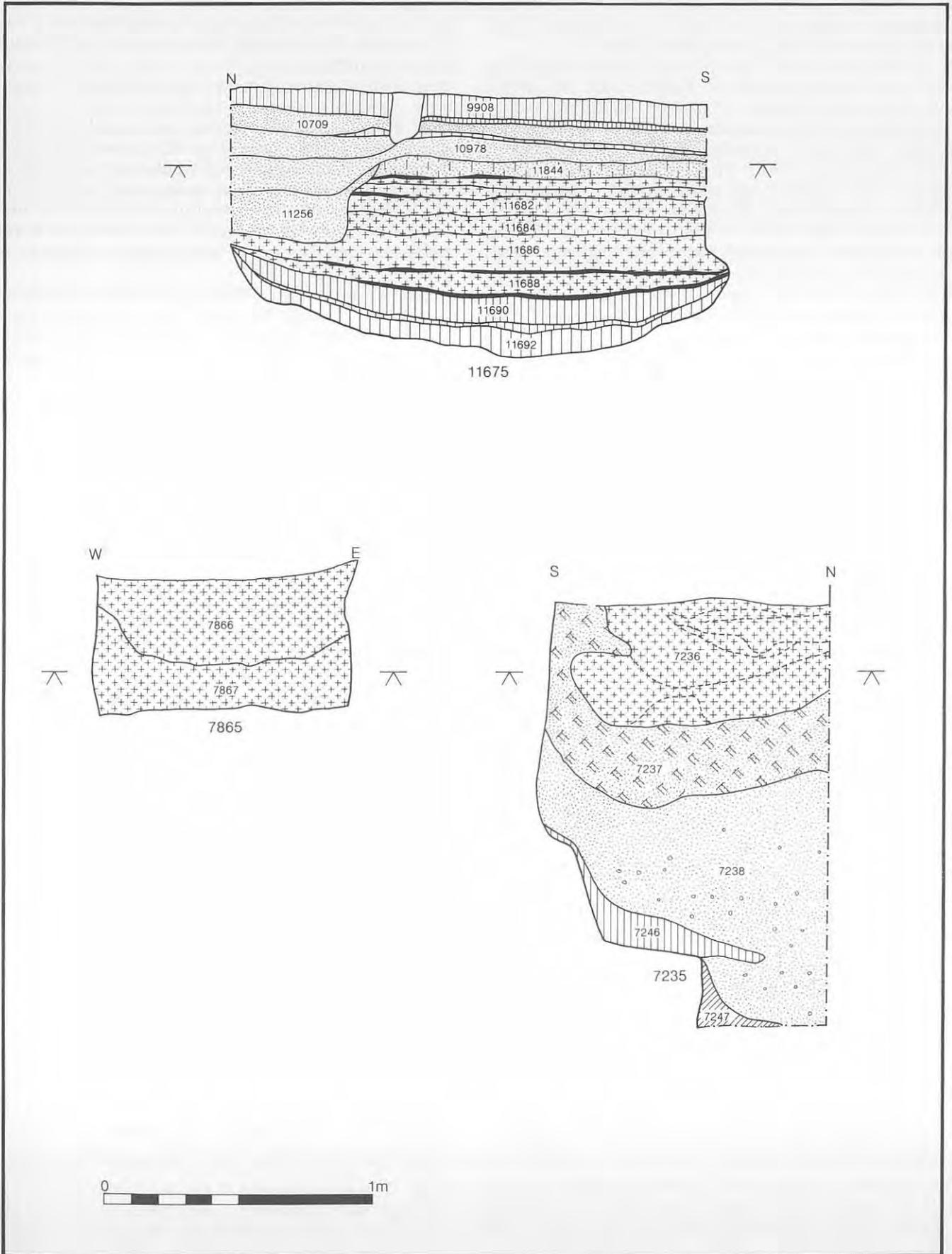


Figure 95 Pits containing burnt chalk: 7235 (SOU 24), 7865 (SOU 24), and 11675 (SOU 169 T2). Scale 1:20.

working. Its function however is not known, and analytical work could not clarify matters.

To the east of the north-south street on SOU 31 T4 were other spreads of burnt chalk. Although these deposits cannot be linked stratigraphically with those in the areas excavated to the west of the street, they were probably broadly contemporary. The deposits on SOU 31 T4 covered most of the area to the south of east-west street II within the rather limited area excavated, and extended onto the eastern edge of the north-south street. No pits or structures associated with the deposits were found. The widespread nature of the deposits on this street-frontage area would suggest that an entire property was given over to industrial activity during this phase.

The other main area where burnt chalk deposits survived was on SOU 24. Towards the southern end of this site were extensive spreads of burnt chalk and a pit which may have been associated with them. It was a small, subrectangular feature measuring approximately 1.5m by 1m, and 0.5m in depth (Fig 95). The bottom was slightly irregular, with several possible stake-holes set around the edge or vertically within the steeply sloping sides. There was a fill of white (10YR72) burnt chalk with some charcoal flecks, subdivided into an upper deposit, 7866, and a slightly darker lower fill, 7867, though the two were not clearly differentiated. A very small amount of pale yellow medium sand in discrete pockets was noted in 7867. This association may be as significant as the deposits of sand found in pits 8723 and 8739 (described above). Pit 7865 was smaller than pit 11675 on SOU 169 T2, and did not contain a comparable sequence of burnt chalk deposits. Nevertheless, the fairly homogeneous fill of burnt chalk suggests that it may have had a similar function, perhaps associated with the preparation of hides. Many of the possible stake-holes may have developed 'naturally' as a result of water action. Others may have held a wicker or timber lining, and though there was some undercutting of the sides, this was not to the same extent as in pit 11675. The irregular bottom might provide evidence for the clearing out of the pit.

Several pits in the vicinity of 7865 also contained varying quantities of burnt chalk, though none seems to have been dug specifically for any purpose associated with leather working. These pits seem simply to have been used as convenient places to dump burnt chalk after it had been used.

Pit 7235 is noteworthy in that it appears to have been dug for a specific purpose other than cess or rubbish disposal (Fig 95). The upper fills contained considerable quantities of burnt chalk, though the original function of the pit would appear not to have been associated with leather preparation. One of the burnt chalk deposits contained a complete antler comb, presumably lost and discarded with this material. Only a quarter of the pit lay within the excavated area, and this was not bottomed for reasons of safety. Pit 7235 was subsquare to circu-

lar in plan with a diameter of approximately 1.8m. At a depth of 0.8m below the top was a shelf which extended around the inside of the pit, and was up to 0.5m wide. Cutting this were seven shallow, irregularly spaced, possible stake-holes, each no more than 20mm deep. The lowest excavated fill, 7247, was a 'hard mineralised' layer. This was sealed by a thick deposit of redeposited brickearth and gravel, 7238, and a layer of clear redeposited brickearth, 7237. The top fill, 7236, was up to 0.5m thick, and comprised a series of layers and lenses of burnt chalk varying in colour from white (10YR81) to pinkish (7.5YR72).

The purpose of the shelf and possible stake-holes is not clear, though they may have held some form of lining in the upper part of the pit. The substantial amount of redeposited brickearth and gravel suggests that 7247 may have been a noxious deposit, though it does not closely resemble the clayey deposits in other pits which have been interpreted as cess. The combination of pit shape and fill suggests that it did have a specific, perhaps industrial function, but what this was remains unclear.

Well 7804, 1.5m to the west of pit 7865, was broadly contemporary and may have provided a source of water for leather preparation. Small quantities of burnt chalk were present in the upper fills of the well shaft, but this was probably redeposited material.

Several other pits to the south of 7865 contained varying amounts of burnt chalk in their upper fills; including 4703, 7217, 7234, 7283, 7506, and 7898. The pottery recovered from them suggests they were infilled during the later 8th and 9th centuries.

These pits and spreads of burnt chalk covered an extensive area at the southern end of SOU 24. The pits cut earlier building lines, but the spreads appeared to respect pre-existing property boundaries associated with Structures 33-5, where these could be defined (see Fig 55). It is clear however that a fairly extensive area was given over to this activity probably in the late 8th and 9th centuries, and may have been contemporary with similar activity on SOU 169 T2 to the west of the north-south street.

Other smaller deposits of ashy material were found elsewhere on Six Dials, but have not been chemically analysed. It is not certain therefore whether they had any association with leather working, and they may have been associated with other uses including the preparation of limewash.

Following soaking, the hides would have been washed and further prepared by soaking in an alkaline or acidic solution; this would make them more porous so that the tanning could be carried out more easily and quickly. Various ingredients such as dog droppings or barley might be used to produce such a solution. After further washing the hides were ready for tanning. Tanning or curing of the hides might be done by several methods. Vegetable tanning involves the hides being soaked in a solution of tannin derived from oak or other

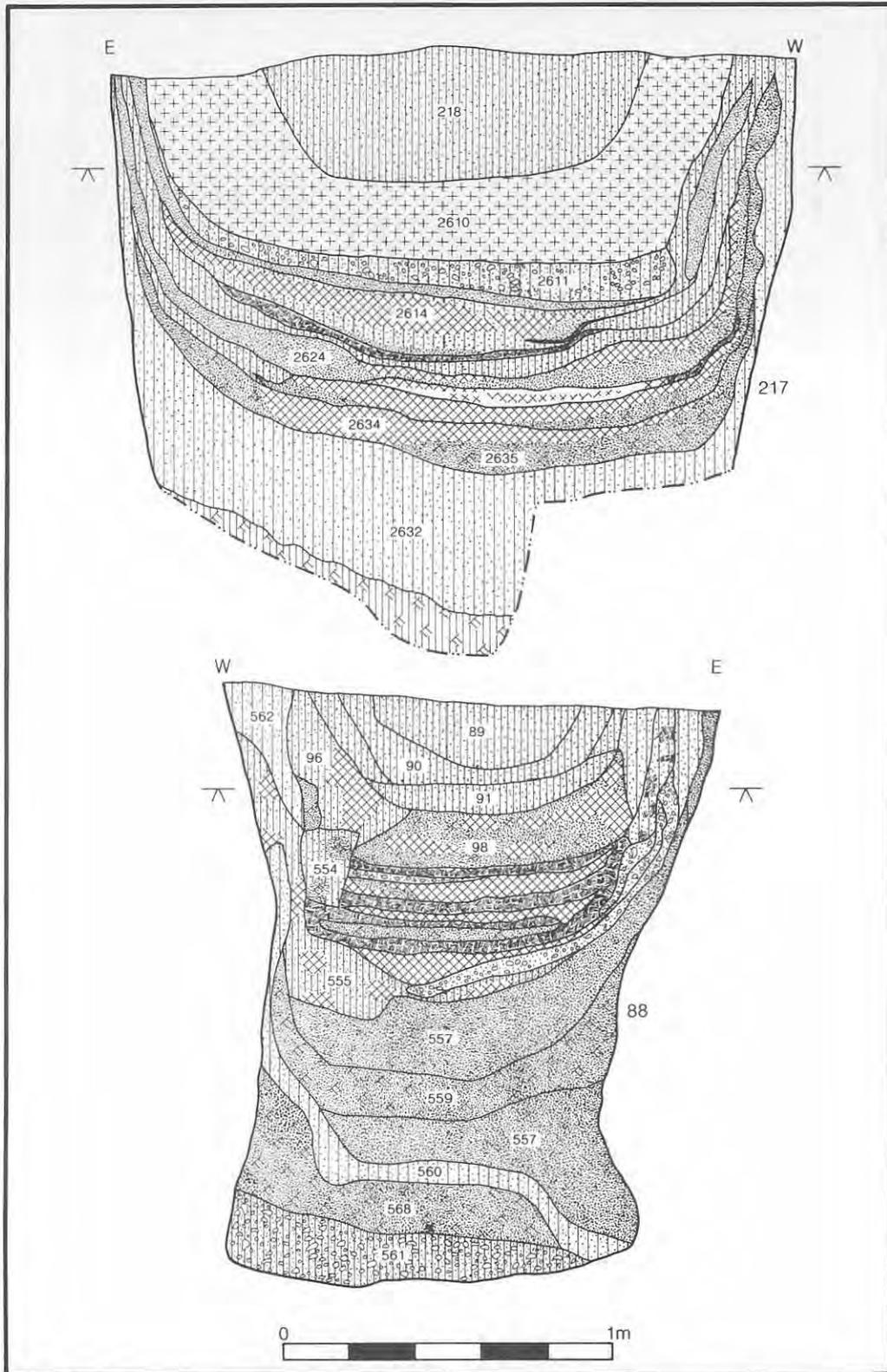


Figure 96 Possible hide-smoking features. Pits 88 and 217 (SOU 26). Note hearths/burnt layers. Scale 1:20.

tree bark – this is the best method for any quantity of larger skins. Other methods include smoking, or rubbing oils, fats, or mineral salts into the skins. The only possible evidence for any of these being carried out at Six Dials are three pits

which might be interpreted as smoking pits (see below). It is possible that some other pits which were lined may have been used as tanning pits, though this remains conjectural. There were no groups of pits such as those found in the post-

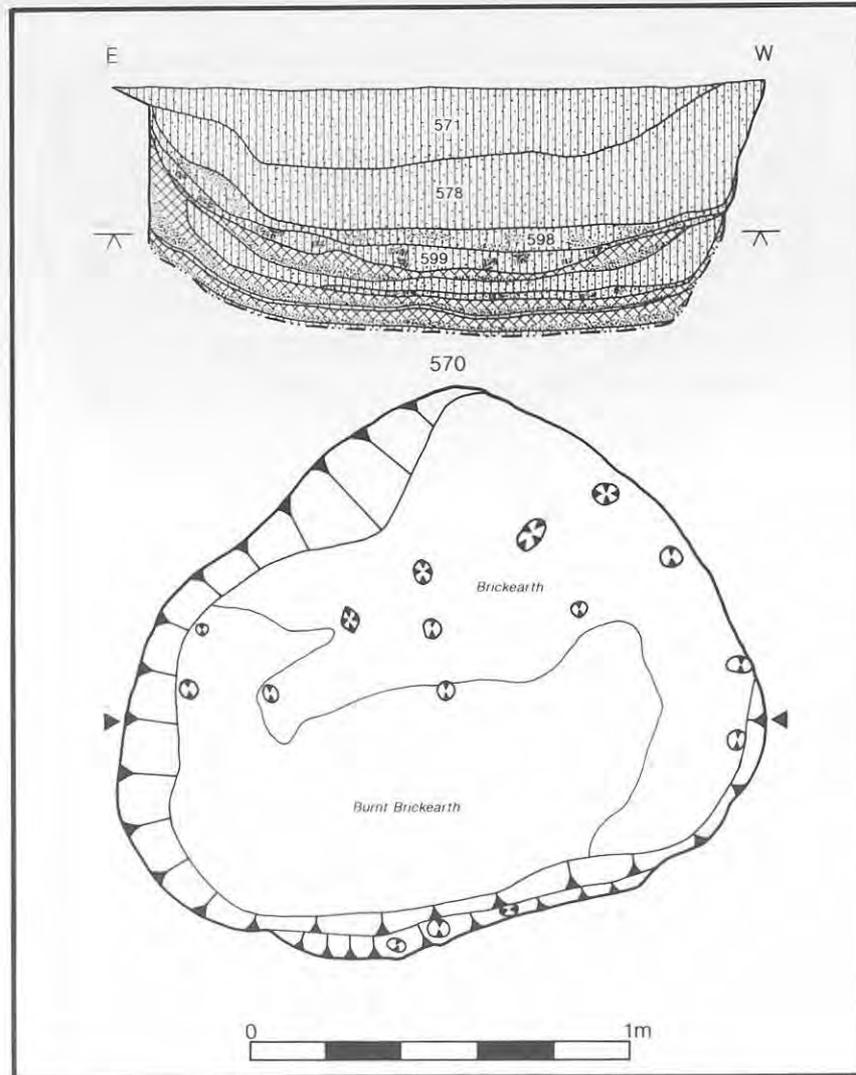


Figure 97 Possible hide-smoking feature in pit 570 (SOU 26). The plan is of the middle of the three hearths or burnt layers. Scale 1:20.

medieval tanning complexes in Northampton (Williams 1979, 98–103; Shaw 1987, 43–7). Another possibility is that wooden barrels or tanks were used which have left no trace.

The possible hide-smoking pits

Tanning is the best method of preserving skins, but smoking can provide a less permanent alternative. There are several possible explanations for the failure to identify any tanning pits among the large number of pits excavated at Six Dials and elsewhere in the town, either from their typology or from any environmental residues left in them. One explanation would in part be that some hides had been preserved by smoking.

Three features which have been tentatively interpreted as hide-smoking pits were found on SOU 26, some distance from the burnt chalk deposits. In each case, an earlier pit had been

reused by setting a hearth into the top of the infilled pit which had formed a bowl-shaped depression in the ground as the contents settled. The three pits, 88, 217, and 570, all lay to the north of east-west street I (Figs 96–7). Pits 88 and 570 were 3m apart, with 217 approximately 18m to the south-east. Pit 88 was half-excavated. Only the upper layers in the other two were removed. All three pits showed a similar sequence of layers in their upper parts. The primary deposits in pit 88 appear to have been cess (contexts 560 and 561), and were sealed by redeposited brickearth (context 557). Subsequently, a series of clay linings was inserted into the top of the pit. The earliest of these was approximately 0.85m below the top of the pit, though it may have subsided from its original level. Above this were at least four later linings, separated by deposits of charcoal up to 60mm thick. The clay linings varied between 20mm and 60mm in thickness, and showed varying degrees of burning. Pits 217 and 570 contained similar sequences

of clay linings and charcoal deposits, though 570 differed in that the last lining, 796, was cut by a series of stake-holes which seemed to have been sealed by the overlying charcoal layer. Each of the clay linings in pit 88, as well as in 217 and 570 showed varying degrees of burning, though not to the point of vitrification.

The function of the three sequences of hearths remains conjectural. All three pits held bowl-shaped hearths up to 1m or so in diameter, and each had been relined with clay or brickearth on several occasions. They were not contained within any form of structure as far as could be ascertained (but evidence for less substantial buildings did not survive well in this part of the site). It is possible that various of the numerous small stake-holes and shallow post-holes in the vicinity of pits 88 and 570 were associated with the hearths, and perhaps belonged to some sort of cover or other structure. Besides hides, meat and fish might also have been cured in this manner.

The construction and use of the hearths was broadly contemporary, and belonged to a late phase

of activity in this part of the site. The pottery from the three pits indicates that all were infilled probably between 750 and 850, and that the hearths therefore dated towards the end of this range. All may have lain within the property associated with Structure 25.

Artefactual evidence

De-hairing and fleshing knives would have been needed to remove the loosened flesh and hair after soaking; but none has been recognised so far. Only a single piece of leather has come from excavations in Hamwic, from well 3299 on SOU 30. It is an offcut, perhaps from the manufacture of a shoe. Apart from this, various iron knives, awls, and needles have been found which were probably used in leather working. However, there are no surviving deposits of leather-working waste, and no assemblages of tools have been identified which might indicate that a particular property or structure was associated with this important activity.

Textile production

The evidence for textile production in Hamwic is commonly found. Virtually all excavated sites have produced spindle whorls, loomweights, and pin beaters or threadpickers, all of which are often found scattered through various deposits. As a result it is difficult to be certain if individual households were specifically engaged in textile production, or whether this was a widespread, and perhaps secondary or part-time activity.

Several structures which may be weaving pits or sheds have been identified, but they have rarely been found in association with groups of loomweights or other weaving equipment. At Six Dials there were possibly two such structures, as well as several other features which may have been associated with textile production.

Pit 448 on SOU 26 was subrectangular in plan, and measured approximately 1.8m by 1.3m (see Fig 41). It was 0.4m deep and had a fairly level bottom. In the north-east and south-east corners were the charred remains of two posts approximately 1.3m apart surviving to a height of no more than 30mm–40mm. These posts had not been set into the ground, and it seems likely that they formed part of a free-standing structure resting upon the ground within the pit. The earliest fills in the pit were two layers of fine to medium gravel which were restricted to the east side. These were contemporary with gravel surface 859 which spread around the pit to the south. The gravels abutted the remains of the charred posts, and may have been laid down as a floor or working surface in and around part of the pit. Above these gravels was a thin deposit of silt which may have been washed into the pit. This was sealed by layers which contained large quantities of burnt daub and charcoal. These probably derived from the destruction of a structure which may have been built over the pit, though no structural features clearly associated with it have been identified. Pit 448 cut the west wall of Structure 18 and therefore postdated it.

Pit 448 is interpreted here as a weaving pit, with the charred timbers possibly representing the remains of a vertical warp-weighted loom. Two complete loomweights recovered from the pit add further support to this suggestion, though more might have been expected if the loom was still in use and had been destroyed by fire. It seems certain that the loom would have been enclosed within a structure, perhaps a small shed, though there was no evidence for this.

Dating of the construction and use of this postulated weaving shed is subject to some doubt. It postdated Structure 18, an early structure, though

the pottery recovered from the pit suggests an early date for this also. An early date – that is some time in the first half of the 8th century – is not incompatible for both, though on the limited stratigraphic evidence surviving it seems more likely that the weaving shed was associated with Structure 17 standing immediately adjacent to the west. This building is considered to have been built later, perhaps between 750 and 850.

Pit 8885 on SOU 169 T1 may also have been a weaving pit (Fig 98). It was of similar dimensions to pit 448, measuring 1.8m by 1.3m with a maximum depth of 0.53m. It was flat-bottomed, and had two substantial, circular post-holes set 1.15m apart in the north-west and south-west corners. These were up to 0.3m in diameter and 0.4m deep, with pointed profiles that were inclined slightly to the east of vertical. The post-holes were filled with a loose soil, and sealed by 9894, a layer of redeposited brickearth. This sealed 9895 and 9896; thin layers of soil with variable amounts of charcoal flecking which may be contemporary with the initial use of the pit. It is suggested that this pit was a weaving pit, though there is no evidence among the finds to support such an interpretation. There were several small, possible structural features in the vicinity which may have been associated with this pit, perhaps holding posts of a shelter or shed, but this is not certain.

The similarities between pits 8885 and 448 suggest a comparable function, though if the post-holes in the former did hold the upright posts for a vertical loom, it differs in that respect from 448 where a free-standing loom is postulated.

There was insufficient pottery from pit 8885 to suggest a date for its use. It was cut by pit 8882 which was probably infilled during the 9th century. It lay approximately 1.2m to the east of the boundary ditch, which had probably been substantially infilled by the time 8885 was dug. A date for its use some time during the second half of the 8th century seems most likely.

In addition to pits 448 and 8885, there were others which may also have functioned as weaving pits. Interpreting 448 as a weaving pit would have been more difficult had it not been for the survival of the charred timbers, as well as the two loomweights. It is likely therefore that other pits which were used for the same purpose have not been recognised due to the lack of similar evidence. Among the possible candidates is 5311 on SOU 31 T1. This was a shallow, irregular hollow with a maximum width of 1.5m, and a maximum depth of 0.35m. It lay within Structure 12, with which it was

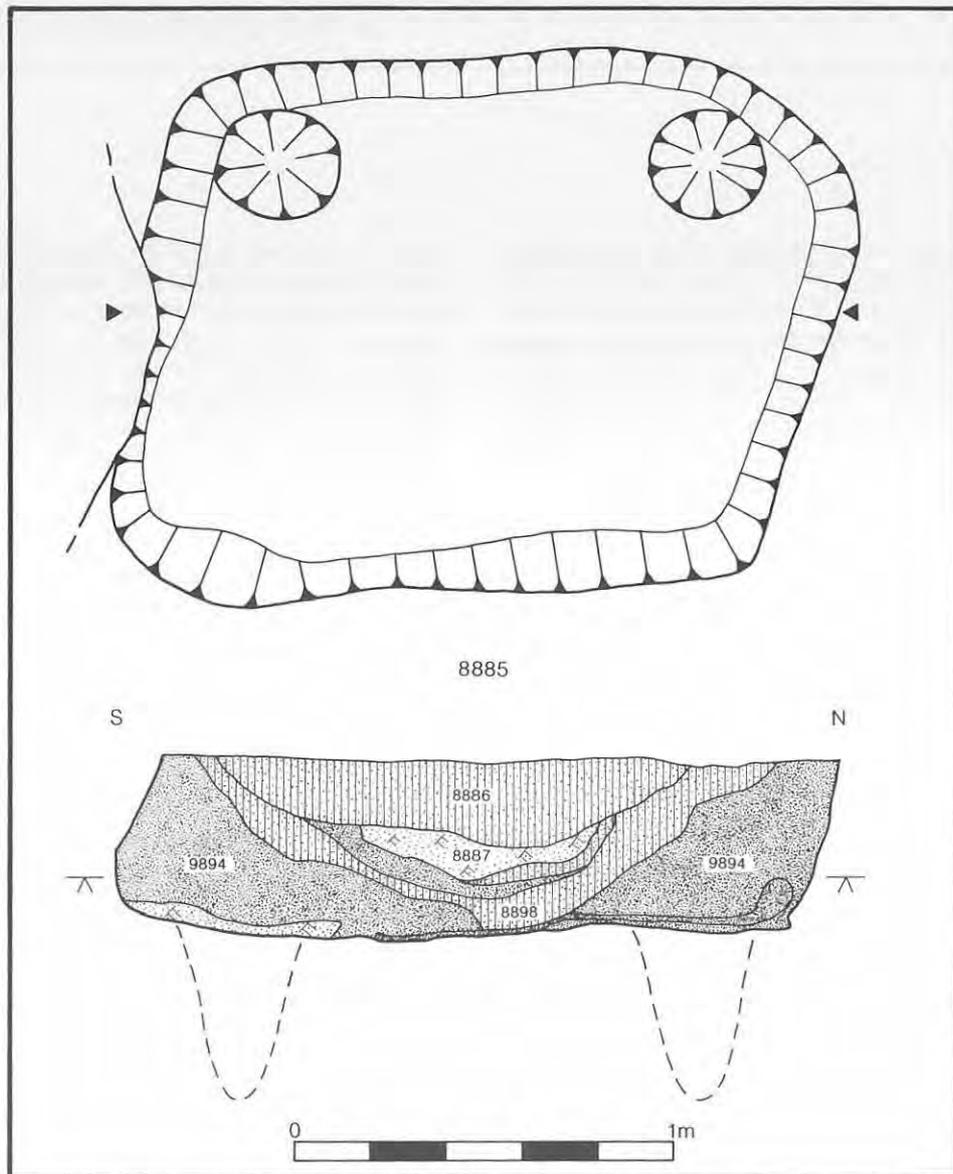


Figure 98 Pit 8885 (SOU 169 T1). Scale 1:20.

probably contemporary. It was centrally placed against the north wall of the building, and contained a thin layer of dark greyish-brown soil which may have accumulated during use. There were no post-holes which may have been associated with its use, though a slot to the west may have served some function. Two loomweights from layer 6613 are the main evidence for its possible use as a weaving pit.

Pit 10675 on SOU 169 T2 contained a line of several complete and fragmentary loomweights. This was a substantial pit in which no evidence for a loom was found, though it is possible that the floors of a later building constructed over the pit had subsided into it. The alignment may suggest that the loomweights had been part of a loom set up in the hollow created by the subsiding pit; it is less likely that they had been discarded into the pit from a loom nearby.

Elsewhere in Hamwic there is no certain evi-

dence for weaving pits. One feature on SOU 16 interpreted as a fulling or weaving pit (Holdsworth 1975a, 203-4) has subsequently been reinterpreted as a possible storage pit (Morton 1992, 160-2). It seems likely, given the widespread evidence for weaving, that looms set up in pits or hollows were the exception, and that normally they may have been free-standing and therefore have left no archaeological trace. The sunken-featured buildings sometimes used for weaving found on Early Saxon sites (Wilson 1976, 76-9) appear to have been uncommon in the later period.

No evidence has survived for fulling or dyeing of cloth, though the possibility should be considered that these may have been carried out in wooden containers such as casks or troughs rather than in pits dug into the ground. In either case such vessels or linings have not survived.

Much of the stone found at Six Dials, as well as elsewhere in Hamwic, is of types which can be identified as having come from sources no more than a few kilometres from the town, within the Hampshire Basin. It is quite likely that at least some of this stone was reused, brought from the abandoned Roman site at Bitterne Manor on the east bank of the River Itchen. Limestone and sandstone would have been readily available from this source.

The use of stone for building in Hamwic is extremely rare, and then only in very small quantities. Two examples of its use for this purpose are known, both from Six Dials. Structure 66 had several stone post-pads, and the final phase of Structure 61 had some stone used in at least one of its walls. Some of this stone, all of which was limestone, may have been reused material, but none shows any evidence of further working.

Occasional unworked pieces of limestone and sandstone have been recovered from a variety of contexts, though it remains uncertain as to what most of this stone may have been used or intended for. None has been identified as waste material from working.

The most common worked stone objects are querns and hones. Among both groups are items imported from outside the Hampshire Basin, as well as from further afield in Britain, and from the Continent. It is not known whether the hones were brought into the town ready for use, or whether they required further preparation. However, there is evidence that at least some of the quernstones were imported as blocks of stone which were subsequently fashioned into finished items. Quernstones were most commonly made from either limestone or lava from the Eifel region in Germany. The vesicular lava does not survive well, and weathering often renders the stone extremely friable. Complete or near-complete quernstones made from lava are extremely rare in Hamwic, and often survive only in a very fragmentary state. Among fragments from pit 448 on SOU 26 were some wedge-shaped pieces which may have come from working rough blocks of lava (perhaps imported as ships' ballast) into finished quernstones. Similar 'offcuts' have been found in greater numbers at Dorestad (Parkhouse 1976, 185). Fragments of limestone querns, some almost complete, have also been recovered from Six Dials, but there is no evidence to suggest that they were manufactured within the town.

In all, 33 hones have been found at Six Dials (excluding SOU 258), four of which were of mudstone, thirteen of sandstone, twelve of limestone, and four of other types of stone (Phillips 1988).

There were none made of mica-schist, nor any other type of metamorphic rock, though there are a very few examples of the former from elsewhere in Hamwic. Ellis and Moore (1990) distinguish between 'primary' and 'secondary' hones. The former are defined as being 'specially quarried for their honing qualities, possessing a reputation for effectiveness and consequently traded over long distances'. The latter were made from stone which originally had some other purpose, and include reused fragments of masonry, for example. Probably about one third of the examples from Six Dials could be classified as 'primary' in that they appear to have been fashioned deliberately for use as hones, rather than simply being available fragments of stone which were reused without any further shaping. About half of all the hones, except for those made from sandstone, had grooves of varying size which were probably created by sharpening points on needles, awls, and so on. Only one of the sandstone examples had a groove, which might indicate that these were used predominantly for sharpening edged tools such as knives.

The sources of many of the types of stone lie within the Hampshire Basin, and perhaps the majority of these should be considered as 'secondary' as the term is defined above. Some of the mudstones, sandstones and limestones have been provisionally provenanced to sources in northern France and the West Country respectively (Peacock and Williams 1985).

It is very difficult to identify any chronological trends from the contexts in which the hones were found. The mudstone, sandstone, and limestone examples would seem to have been in use throughout the 8th and 9th centuries, though the mudstone and limestone types may have had a slightly more restricted chronological range than the sandstone examples. The four hones of miscellaneous stone were all from contexts which might be dated to the 9th century. Given the relatively small number of hones, and the difficulties in dating accurately the contexts in which they were found, it is not certain whether there is any significance in these differences. The use of miscellaneous stones as 'secondary' hones alongside other types may have been characteristic of the later period, perhaps because the other types were less readily available. Of greatest significance is the lack of mica-schist hones, which may be of some chronological as well as economic relevance, for it is unlikely that hones of this type were imported into Britain much before the middle of the 9th century. Their almost complete absence from Hamwic may also have reflected on the econ-

omic decline of the town, as well as its distance from the source. At Winchester, mica-schist hones were present in contexts from the later 9th century, though they did not become predominant there until the 13th century (Ellis and Moore 1990).

A study of the distribution of hones at Six Dials showed them to have been broadly concentrated in the vicinity of the north-south street, particularly on SOU 31 and SOU 169 T2. Though they seem not to have clustered around either of the two iron-working complexes on SOUs 24 and 31 at the junctions of the north-south and east-west streets, a unique, circular grindstone did come from a pit

within the SOU 24 smithing complex, and is likely to have been associated with the iron-working activity in that area. A fragment of a Roman beehive quern was found in one of the pits in the SOU 31 smithy, but shows little evidence of having been reused in any way.

Other objects of stone are extremely rare in Hamwic, and only two have come from Six Dials. The gilding mortar from SOU 169 T2 (described above) is made from a small slab of Pennant Sandstone from Bristol/Mendip area. There is also half a limestone mould for casting small rings, though this is not certainly Middle Saxon.

Environmental Evidence: Summaries and Syntheses

The animal bone

Jennifer Bourdillon with Phil Andrews

Introduction

Excavations at Six Dials have produced an abundance of animal bone from a variety of context types. There were also some well stratified deposits which enabled certain assemblages to be confidently assigned to the early, middle, or late phases of Middle Saxon occupation. Prior to the work at Six Dials over 100,000 bone fragments had been recorded (Bourdillon and Coy 1980; Bourdillon 1983), but most had come from unphased pits. This material provided a mass of data on the economy of Hamwic as a whole, but the contextual information was lacking to make any finer distinctions. For example, little could be said about the variability of assemblages from different types of deposits, and it was not possible to make any clear statements about changes over time. The large assemblage appeared rather unusually homogeneous.

The Variability Study was set up in order to investigate these problems using the wealth of newly excavated material from Six Dials. An important aim of the study was to make a full and detailed computer archive to serve as a reference for assemblages recovered from sites both within Hamwic and outside. This involved the individual bone being the unit of recording, rather than the assemblage from a single layer within a pit, or even the total assemblage from the pit.

With an estimated 250,000 bone fragments available for study, there was clearly a need to be selective in the material examined. Approximately 20% of this assemblage has now been recorded, and although at present there are no plans for any further work to be done, this should not preclude any future study.

From some context types which are rare or unique, such as the primary fill in the boundary ditch, the whole of the assemblage has been recorded; for other types such as the typical cess/rubbish pits, the figure is less than 20%. When the Variability Study was commenced in Spring 1983 excavations were still in progress at SOU 169, and after they were finished the scope of the study was extended. Once the study had been completed, material from some other contexts under-represented in the study were looked at – this particularly included groups of material from SOU 26, which had largely been ignored. Although all the structural features had been dug on this site, very

few pits were even half-excavated. However, to maintain a reasonable sample over the whole of Six Dials, a selection of material was recorded from these and also from SOU 24. Finally, in 1986 the last major excavation at Six Dials was carried out on SOU 258. This site comprised several areas which were excavated in order to investigate specific details about the layout of the settlement at Six Dials. As a result, a further assemblage of material was recorded. The Variability Study and subsequent work will be published in detail in a future volume (Bourdillon and Morton forthcoming).

In addition to this work, there has been a detailed investigation of the contents of a single pit (Colley forthcoming). This study, discussed further above, has led to a better understanding of site-formation processes and the functioning of pits. The pit study and Variability Study together should help either to confirm or modify interpretations based only on part of the whole assemblage, and will help to shape the strategy by which groups of animal bone might most usefully be studied in the future.

The material

In the initial Variability Study, material was chosen from SOUs 30, 31, and 169, together with the bone from one context on SOU 99, which was a separate excavation some 450m to the south of Six Dials. Subsequently, further material was chosen from SOU 169, together with groups from SOUs 24 and 26. Finally, a substantial assemblage was selected from SOU 258. All material was selected in consultation with the excavators, with the main criterion being to provide a range of context types. Secure phasing was also regarded as being important, particularly if the material could be ascribed to early or late periods of occupation.

Most of the bones recorded were recovered by normal hand-excavation methods. In addition, material from soil samples was available from 75 of the contexts studied, mainly from SOUs 30 and 169. Few samples were available from SOUs 24, 26, and 31, and the relevant samples from SOU 258 had not been sieved by the time the bone assemblage was studied.

Material was examined at the Faunal Remains Unit based at the University of Southampton. All identifications were made by Jennifer Bourdillon, except for the bones of wild bird which were identified or checked by Jennie Coy, and the fish bones which were identified by Sarah Colley. The recording included establishing precisely the location of a fragment, similarly locating any

butchery marks, and distinguishing between those marks made by cutting, chopping, or sawing.

The initial and major part of the Variability Study was undertaken using this very detailed system of measurement and recording of individual bones. During the latter part of this and throughout the subsequent studies, a more rapid but less detailed system of recording was employed. This system is termed 'scanning'. In contrast to sampling, which aims to select the maximum information from a particular group of material, scanning selects certain information only and does not include details of butchery. The broad advantage of scanning over sampling is that one can look at more individual fragments within a given time, and as long as a vigorous pattern of recording is established, these specimens can be set within the context of the assemblage as a whole. The great range of possible bone fragments, with variety by species, age, sex, and distribution over the body, means that for any statistical analysis one needs to be able to draw from a large number of fragments. Scanning allows the study of different assemblages at different levels of complexity, thereby retaining a fair potential for comparisons within those groups even where scanning was quite cursory. The procedure for scanning is set out in a report to the Ancient Monuments Laboratory (Bourdillon 1984). It is fully compatible with the computerised Variability Study, so that any comparisons would be easy and valid.

Following the recording, data sheets were produced with the aim of comparing and contrasting the assemblages between broad groups of feature types such as pits, wells, yards, the ditch, and streets, as well as others which included occupation surfaces and a pit containing bone- and antler-working debris. From this it was possible to check for variation within and between each feature type, and also to look for changes over time.

Almost one third (32.3%) of the material by fragment count was unidentified. The proportion from the sieved samples was almost double this (63%). However, the results by weight are well within Kubasiewicz's (1975) parameters for reliability on large urban sites. The percentage by fragment count was somewhat affected by the assemblage from pit 4717, which contained a large number of tiny offcuts from bone working (which, nevertheless, provided much information on bone-working techniques).

Most of the bone was in good, clean condition, though a variable degree of staining was recorded which is almost certainly a reflection of the soil matrix. Bone from the ditch for example was very dark; that from pits, and particularly the wells, was much lighter; that from yards varied. Very few fragments were burnt, with a slight increase in the material from yard surfaces. There was little variation in the rate of chewing – overall about 4%. The material from the primary fill in the ditch and from shallow gully 5506 was heavily chewed, and

this might reflect the likelihood that the contents of both had remained exposed for some time. Surprisingly, the degree of chewing on bones from yard surfaces was low, and very similar to that from other groups, with the exception of the ditch and gully. This might suggest that it was rarely left lying around for long enough for a great deal of damage to be done. This perhaps argues for the rapid disposal of much household refuse directly into pits which were relatively inaccessible to dogs.

High levels of chewing are normally matched by a high incidence of erosion. This is particularly apparent in the primary ditch-fill material, though the bone from the upper fills of some of the late pits also shows an above-average rate of erosion. The cause or causes of erosion are not fully understood, though exposure is likely to have had a significant effect. The rate of erosion on the small amount of bone from east-west street I is particularly high at around 85%. This could be explained by relatively long exposure coupled with the effects of passing traffic. This contrasts with the material from SOU 258 T2, along the western edge of the north-south street. Deposits of probable domestic refuse from here, though sandwiched between gravel surfaces, show low rates of erosion which probably reflect their peripheral location at the extreme edge of the street.

The degree of disintegration of material based on the percentage of loose teeth may provide a guide to any post-depositional disturbance of a deposit. The low incidence recorded, particularly in pits, confirms the impression of undisturbed preservation in these features, with no evidence for their periodic cleaning out.

Species present

Wild food mammals were limited to red deer and roe deer, but the scarcity of post-cranial fragments seems to confirm that antler was brought into the town specifically to meet industrial needs. Wild bird fragments are also few in number despite the inclusion of all mallard as wild. It has been found in earlier Hamwic excavations that wild material was generally poorly represented in the pits, though the low incidence in the primary fill of the ditch and other early contexts at Six Dials is perhaps surprising.

Small mammals were rare, and little material came from sieving. There are only a few bones of mouse and a single mole, the latter considered not to have been a later intrusion in pit 4717.

Amphibians were similarly scarce; a few fragments came from the bottom layer in a pit, one from a well, and five from the primary fill of the ditch.

Fish however, have been found in greater abundance. A total of 2135 fish bones have been examined (Colley forthcoming), mostly recovered from soil samples. It was clear that certain samples produced the highest concentrations as well as the widest range of species, though this was apparently

unrelated to context type. Some of this may be the result of differential preservation, and some due to soil-sampling procedures which may have failed to detect concentrations of fish bone. The overall impression is of a number of discrete concentrations of fish bone, though most contexts contained a few fragments. This is consistent with the distribution of oyster shell discussed further below. The Six Dials study indicates the presence of several species such as eel, flatfish, bass, and salmon or trout which could have been caught in the local estuarine conditions using a hook and line, nets, or traps. Other species such as mackerel, conger eel, sea bream, and herring, which are common in slightly deeper waters, may also have been taken from the shore, but a net is perhaps more likely to have been used, particularly for herring. Fish seem to have been exploited on a consistent, though probably small scale, to supplement and add variety to the diet.

Domestic poultry appears to be fairly common in the pits, and it is only very small assemblages which have no domestic fowl or goose. In contrast, the primary fill in the ditch produced few fragments, and the whole of the ditch is generally low in this respect.

Goat shows a reverse trend to domestic poultry. It was common in the primary fill of the ditch, but mostly as horn cores. Horn cores are again the major component of the other concentration of goat from well 3295. Generally, however, goat was rare in pits. The disproportionate abundance of horn cores, many of them sawn, suggests that they may have been deliberately selected, and horn used in preference to bone or antler for knife handles; microscopic analysis of the tangs of several iron knives has shown traces of horn (Jacqui Watson pers comm).

Horse is not common generally, though a few contexts are outstanding. Well 3295 produced the remains of two individuals. These were mature adults and had not been butchered. This would indicate that they were used for traction, but not subsequently as a source of meat. Of particular interest was a group of horse bones on east-west street I. All the main bones of a horse's leg from the distal femur to the first phalanx had been laid down very neatly on the street, apparently as part of a metalling. The arrangement of the bones indicated that the tendons must have been cut before the bones were laid down. The bones were securely set within this metalling, and their upper surfaces show a series of parallel scrapes and scratches which have been interpreted as the result of traffic. Similar marks have been found on the large assemblage of bones incorporated within a cobbled track on SOU 99. These differ however in that the marks appear on more than one side, perhaps the result of being relatively loosely packed within the metalling. The use of bone in this quantity as part of a metalling is so far unique to SOU 99.

Dog is relatively rare. A single individual was represented in the primary fill of the ditch, and at

least three other virtually complete skeletons were recognised during excavations, though none of the latter are included within the Variability Study. Cat is also rare among the material looked at.

The overwhelming proportion of the identified fragments come from cattle, sheep and pig, if antler offcuts are excluded. The relative representation for each species by fragment count is 53.5%, 32.1%, and 14.4% for cattle, sheep, and pig respectively; and by weight it is 74.2%, 13.9%, and 11.9%. These figures are remarkably similar to the results from Melbourne Street with no variation of more than 2% (Bourdillon and Coy 1980, 83). Assemblages from individual features showed some variation, but no pattern could be discerned. There could be several explanations for the variation, such as the differential disposal of butchery and food waste, or localised bone-working activity which may have included sawn bone as well as unused material selected for working; such selection would also result in an under-representation of certain skeletal elements in other assemblages. Sheep percentages show most variation which may reflect some economic cause; it has been suggested that sheep were important at Hamwic primarily for their wool (Bourdillon 1983, 107). Fluctuations in their number are likely to have reflected this rather than any dietary changes.

Evidence of butchery

Calculations of mean fragment weight and the location of the larger fragments over the body may show differing concentrations of wastage or meat bones, and so serve to locate areas of prime butchery as distinct from those of food remains. The results from Six Dials confirmed those from Melbourne Street in that the various parts of the body seemed to be represented in reasonable proportions throughout the assemblage as a whole. There was no shortage of mandibles such as might suggest that cattle had been killed and trimmed away from the settlement itself. Concentrations of cranial fragments which may be linked with butchers' trimming have not been found, and it seems that as yet no area of prime and specialised butchery has yet been located in Hamwic. The percentages of cattle cranial fragments from pits and from the ditch turned out to be identical, with no such differentiation as was recorded by Maltby in the ditches and pits of Roman Exeter (Maltby 1979, 4). There is a slight increase in some wells and yard surfaces, but the evidence is not convincing. There were no concentrations like those from bone and antler working, and it might be concluded that animals were butchered within Hamwic, but that butchery of the carcass was extensive, with perhaps few if any elements regarded as waste.

Butchery at Hamwic appears to have been rough and ready. Cuts have been recorded in many different places on the bone and in many different directions, with evidence for rough breaking

particularly on heavy cattle bones. Although nearly all butchery cuts were rough, a few examples were noted where the style of cutting seemed more controlled and neater. Some may even have been sawn. This style of butchery, termed smooth butchery, was noted predominantly in cattle. It occurred sporadically in all context types, but the most notable concentrations in pits 3349, 4614, and 5506 would suggest that it is characteristic of the later Middle Saxon period during the mid to late 9th century.

Variability and metrical analysis

In the main part of the Variability Study comparisons were made between bone assemblages from different features, both singly and in groups. There was also a search for differentiation between contexts within individual features. In many pits, broad distinctions could be recognised in the sequence of fills which indicated differing modes of deposition. A primary infilling, often cess, can often usually be distinguished from the remainder, and is sometimes sealed by layers of brickearth or less often gravel. Above this, there is usually a sequence of deposits of domestic and sometimes industrial refuse. Finally, there is often a layer filling the top of the pit, which accumulated as the contents gradually settled. These final deposits may be spread quite widely over the surrounding ground surface.

Three pits, 3292, 3349, and 4637, were studied to see if there were any variations in the bone assemblages. It might be expected that the bone from the bottom layers would be least eroded and that from the exposed layers at the top would be more so, but such a pattern was evident only in 3349. A similar trend might be expected with chewing, but in 3349 and 2013 chewing was found more often in the middle, rubbish layers. The incidence of erosion and chewing was overall quite low, and these results suggest that disposal may have been quite rapid; even the top layers do not appear to have been exposed to the elements or animals for a very long time. There were nevertheless some ways in which the upper layers could be distinguished from the rest. They contained a high proportion of unidentifiable material, and the mean fragment weights give an indication of the generally small size. There are also greater numbers of loose teeth which reflect the probability that the material had been lying around for some time before ending up in the tops of the pits. Although in some pits there appeared to be larger fragments of bone in the bottom fills, this was not true for the three pits here where the majority of whole or near-whole bones were in the middle, rubbish layers. It is clear however, that the bottom fills generally produced a comparatively small amount of material, and thus they seem not to have been originally used for the disposal of domestic rubbish. Cess disposal is considered to have been the initial function of most.

The measurement of fused bones from a variety of context types belonging to the early, middle, and late phases of occupation was carried out as part of a programme of wider metrical analysis. This has shown that both cattle and sheep were of good sizes from the first decades of the 8th century when Hamwic was established, and it was not until the Late Saxon period that their sizes declined. The ratios of the main food mammals appear to have remained fairly constant over time, though there is a hint that there may have been proportionally more pig during the early phase of occupation, and a general increase in the proportion of cattle over time. Ageing of the animals indicates that most of the major food animals, namely cattle and pig, were mature when slaughtered. This suggests that the cattle were kept for their living uses – traction and milk – and as a source of meat only when mature. There are very few young animals, surprising for pig. For sheep, which may have been kept principally for wool, the pattern is similar, though among the large assemblage of sheep mandibles from pit 3292 there are a surprising number of young animals represented.

This study, which is presented in full in the Southampton Environmental Volume (Bourdillon and Morton forthcoming), helps to provide insights into the uses of particular features, into more general context differences, and into site-formation processes. Most importantly, however, it provides information on animal husbandry, the provisioning of the settlement, the relationship between town and country, and how these various factors changed over time.

The seed remains

Brian Biddle

A study of the seed remains was undertaken to complement the animal-bone work of Bourdillon (forthcoming). The contexts chosen were for the most part the same as for the animal-bone Variability Study (Biddle nd1). In addition to these, certain other contexts were looked at either because they had produced large numbers of seed remains, or because it was hoped that the seed remains might have some significance for the archaeological interpretation of a particular feature (Biddle nd2).

Monk (1977; 1980) and Biddle (nd1) had indicated that most 5dm³ soil samples contained a few seeds which might be considered to be background noise. Usually these comprised several charred cereal grains (*Triticum* sp and *Hordeum* sp), and one or two smaller charred seeds, usually either from the Chenopodiaceae or Polygonaceae. However, some samples produced larger quantities and more varied seed remains, particularly if mineralisation had occurred or if conditions had remained anaerobic. Unfortunately, anaerobic conditions have been encountered rarely in Hamwic, and only the very deepest pits and wells sometimes contain waterlogged material. Anaerobic

preservation at Six Dials was found only in two wells (3295 and 3299) and a very few pits. Mineralised seeds were found chiefly in pits, and particularly in layers interpreted as cess deposits. Charred material was fairly evenly spread, though that from the boundary ditch is biased by a single sample which contained a greater variety of weed seeds, and may represent the remains of a bonfire rather than domestic refuse.

Crop plants consist chiefly of cereals and pulses. The cereals were mostly preserved by charring, while most of the pulses are mineralised, being chiefly fragments of testa which have survived digestion.

Garden or gathered plants are those which were probably being used on the site, and may have been grown or gathered locally. These include hazel (*Corylus*), various soft fruits (*Rubus*, *Prunus*, and *Sorbus*) and herbs (*Brassica*, *Thymus*, and *Allium*). This group does not include the edible members of the *Chenopodiaceae*, though these may also have been gathered.

Imported species include walnut (*Juglans regia*), grape (*Vitis Vinifera*), and coriander (*Coriandrum sativum*), although it is possible that coriander at least was grown in Britain by the 9th century.

Wild plants are those which were probably growing on the site, or which were brought in as contaminants along with food crops. The bulk of these, comprising nettle (*Urtica dioica*), fat hen (*Chenopodium album*), and broad-leafed dock (*Rumex obtusifolius*), came from the waterlogged fill of well 3299. All three of these plants produce large numbers of seeds, and it is likely that seeds were shed directly into the well by plants growing in the vicinity.

It is difficult to identify any chronological trends in the species and relative quantities of seeds present in the different types of feature examined. The small quantities of material and differing preservation conditions probably mask any variations.

Most of the Six Dials site lay just within the north-west of Hamwic, though it was possible to examine a small area outside the boundary ditch. It is unlikely that there were any low-lying or marshy areas in the vicinity, and although pits and ditches would have periodically flooded during heavy rain, it is probable that they rarely contained standing water for any length of time. It remains uncertain what the vegetation in this area immediately surrounding Hamwic would have been, but the brickearth would have provided a fertile soil and it is quite likely that the land to the west of Hamwic would have been given over to agricultural production.

The boundary ditch, considered to have been dug around 700, was an early feature, but unfortunately produced very few plant remains; these provide no clue as to the nature of the vegetation in the vicinity at this early date. There is a slight hint, but no more, that the later pits contained a higher propor-

tion of wild species than earlier ones, perhaps reflecting a changing character and gradual abandonment of the area. Perhaps more notable is the higher proportion of wild to crop and garden and gathered species from pits outside the ditch than from those inside. This may reflect their location away from occupied areas and their proximity to more open, possibly cultivated ground.

Two samples were of particular interest because of the comparatively large concentrations of seeds they contained. From pit 5452 came a large number of charred cereal grains mixed with a few other seeds. Barley (*Hordeum vulgare*) was the dominant cereal and was all of the six-row, hulled type, with the embryo intact in most cases. The wheat, however, was in many cases sprouted, suggesting that it had spoilt. The remaining seeds were probably arable weeds. The small quantity of weed seeds and lack of chaff fragments suggests that the grain had been fully processed prior to being charred. The presence of both wheat and barley might indicate separate crops which had been stored together. The context of this deposit suggests that it represents a small quantity of discarded material, and not the pit having been used for the storage of grain.

The other large sample was different in that it produced a variety of charred weed seeds that outnumbered the cereal grains. Stinking Mayweed (*Anthemis cotula*) was particularly conspicuous. The sample may be waste discarded from a stage of cereal processing and if so, represents the only evidence so far for this activity in Hamwic. It formed a small localised deposit in the boundary ditch, and presumably represents a dump of burnt material.

From the bottom of a pit on SOU 24 (pit 13595) came several discrete lumps of burnt straw from within a layer of redeposited brickearth. Each lump comprised a honeycomb-like arrangement of straw, with individual pieces aligned in the same direction and showing no sign of compaction. There were no charred grains in the material, which is interpreted as burnt thatch from the roof of a building, most probably Structure 41.

Samples producing mineralised remains are more common than those producing only charred remains (which usually and mainly comprise cereal grains) and probably represent cess deposits. Mineralised material tends to contain rather more soft fruit and pulse remains than charred deposits. (Seeds preserved by mineralisation are often partly digested and incomplete, and therefore harder to identify than those preserved by charring or water-logging, but edible seeds and fruits occur, and also pieces of partially digested vegetable material.) Fragments of rushes (*Juncus* sp) are common among the mineralised remains. It is possible that rushes were used as floor covering and periodically cleared out and deposited in rubbish pits.

Oyster and other marine molluscs

Jessica Winder

The oyster and other marine molluscs from the animal-bone Variability Study contexts, as well as from some additional contexts, were examined to determine whether variation existed between the marine shells from different context types, and between samples from different phases of occupation. (Full details of this work are published as Winder 1992.) Oyster shells (*Ostrea edulis* Linnaeus) were by far the most common marine mollusc, though winkle (*Littorina littorea* L), mussel (*Mytilus edulis* L), cockle (*Cerastoderma edule* L) and whelk (*Buccinum undatum* L) were also recovered.

The numbers of oyster and other shells differed greatly from context to context. Of the 104 samples examined, only thirteen had a minimum number of individual oysters greater than thirty. The small numbers in most contexts might be interpreted as representing the remains of individual meals. Very occasionally, quite large deposits occurred as in pit 8454 where more than 650 individuals were represented in a layer that was only half-excavated. Such concentrations were rare, however, and the high bulk of shell-to-meat weight (at least 5:1), may give a misleading idea of the importance of oysters in the diet.

Winkles showed a similar distribution, though they are much less common than oysters. A few contexts (of which 10990 in pit 8576 was outstanding, with 2164 individuals) produced marked concentrations, but overall winkles occurred in small numbers. There appears to be no clear correlation between the occurrence of oysters and winkles; most contexts which contained winkles also produced some oysters, though the large deposit of oyster shell in pit 8454 had no winkles at all.

Other marine molluscs, notably mussels, cockles, and whelks, occurred sporadically, but in very small numbers. The few mussel shells may be misleading in that the shell is comparatively fragile and does not survive well. In several pits, layers or lenses of very finely fragmented mussel shells were recorded, but the shells had disintegrated to such an extent that they could not be recovered. A single context (10379) from pit 8723 produced 232 shells, though this incidence of survival was unique. Other species such as saddle oysters (*Anomia ephippium* Linnaeus) and carpet shells (*Venerupis* sp) did occur very infrequently, but they are likely to represent

accidental inclusion with the more edible species, and almost certainly have no dietary significance.

Nearly all oyster and non-oyster species were found in pits, with only a single oyster valve from the primary fill of the ditch and little from any subsequent deposits. Other non-pit contexts generally produced small amounts of material, but from the recent excavations at SOU 258 there was a substantial deposit of oyster shell on one of the later surfaces of the north-south street.

Metrical and infestation analysis of the oyster shells found at Six Dials and elsewhere showed some variability. The samples from two contexts on SOU 99 (context 896, the backfill of a well pit) and SOU 169 (pit 8474, context 9901) have been shown to be distinctly different in size from the other samples, the former being larger and the latter smaller. It has also been shown that the shells from 896 have a distinct pattern of infestation. Considering all samples, a possible trend has been detected which indicates a change in size from larger to smaller oysters over time. Furthermore, there was a noticeable reduction in infestation from the early to late phase.

Although age composition of the samples could account for the size variations in a couple of instances, growth rate was clearly a significant factor, with three distinct groups of growth rate being measured. Growth rate is thought to be linked to temperature change.

On the evidence afforded by shape, available substrate, cultch, and associated molluscs, the oysters from Hamwic couls have come from a variety of locations in the Solent and Southampton Water; depending on people's ability to exploit oyster beds in various depths of water. Harder clay substrates and shallower water habitats in the Weston Shore and Hamble Spit areas may have provided rounder oysters from intertidal areas that could have been collected by hand. Longer oysters with certain kinds of infestation damage may have originated in the deeper waters of the west Solent on relatively soft substrates; their collection would have involved the use of boats and fishing equipment such as dredges.

Overall, the number of marine mollusc shells recovered would indicate that shellfish did not constitute a significant part of the diet during the Middle Saxon period. They probably provided a small and occasional supplement to the more plentiful supply of meat, cereals, and vegetables which made up the bulk of the diet.

Late Middle Saxon Occupation at Six Dials

Although there are problems in determining an approximate date for the beginning of occupation at Six Dials in the Middle Saxon period, there are greater difficulties in assigning a date to the end of this period of occupation. Discussing the evidence for later occupation in Hamwic as a whole, Morton (1992, 70–7) cautiously proposes that the settlement had largely disappeared by the middle of the 9th century. The more coherent evidence from Six Dials (interpreted in a similar way, though not precisely the same way; see the arguments above about chronology) extends and amends the earlier arguments. One finds a reasonable amount of positive evidence for occupation at Six Dials in the first half of the 9th century, and comparatively little for after c 850 – and some of that is difficult to interpret. Even so, it seems that some occupation persisted well into the second half of the 9th century, and possibly longer.

Late Middle Saxon evidence is defined here as features or artefacts broadly datable to the second half of the 9th century and the first quarter of the 10th century. Identifying occupation or activity which might be attributed to this period depends on the recognition and dating of relevant finds, and a close scrutiny of the contexts in which they were found.

Among the ceramic assemblage are certain fabrics which have been recognised as late, though it has not been possible to date them in absolute terms. Of the local wares, the mixed-grit groups, along with the shell-tempered and flint-tempered groups, fall into this category. Only Fabric 61 (mixed-grit-tempered) and perhaps Fabric 90 (shell-tempered) seem to continue into the Late Saxon period, but it is possible that these fabrics were manufactured over a comparatively long period of time with little modification (Timby 1988, 114). Locally made stamped wares are also present. These are considered to be late, with this tradition becoming widespread in the south of England during the 9th and 10th centuries (Cunliffe 1974, 127–36). Among the imported assemblage there are also small groups of chronologically later material. Tating Ware has been ascribed to the late 8th or early 9th centuries, while the introduction of Beauvais and other red-painted wares is generally thought to have taken place in the 9th and 10th centuries (Hodges 1981, 62). In addition to these local and imported groups, there is a small collection of wares which were initially considered not to belong to the Middle Saxon assemblage, but which might be Late Saxon types. These are predominantly flint-tempered and shell-tempered wares.

However, with few exceptions they show little affinity with any material from the Late Saxon town, and for the most part should probably be included as part of the Middle Saxon assemblage (Duncan Brown pers comm). No Late Saxon or later wheel-made wares have been found in the occupation assemblages either from Six Dials or Hamwic as a whole; there is nothing comparable to Winchester Ware (Biddle and Barclay 1974, 137–65) or Portchester Ware (Cunliffe 1976, 187). This absence is probably of little significance, however, as there is only one sherd of each fabric in the pottery assemblage from the Late Saxon town. The Late Saxon pottery assemblage has been the subject of a recent study, and although this was based on a comparatively small amount of material, the results would seem to suggest that there was little or no chronological overlap between the ceramic assemblages of the Middle Saxon and Late Saxon towns. However, comparison of certain wares from the two assemblages perhaps provides some evidence of continuity between the 9th and 10th centuries. Flint-tempered wares are a later type in Hamwic; their domination of the Late Saxon assemblage suggests the continuous development of this tradition into the 10th and 11th centuries (Brown forthcoming). If one could be more certain in the dating of the ceramic assemblage from the Late Saxon town it would help to place a *terminus post quem* on the material from Hamwic. But the pottery cannot yet be closely dated, and all one can say is that the bulk of it is 10th century.

Extremely few coins minted later than 850 have been found on excavations in Hamwic, and Six Dials is no exception (Metcalf 1988; Pagan 1988). There are probably only two examples from Six Dials. One is a coin of Archbishop Ceolnoth (833–70) which is considered to have been struck between 850 and c 862, and probably around 860 (Metcalf 1988, Coin 142); it was found near the top of an infilled well shaft on SOU 30. The other is a coin of Burgred (852–74) which came from a pit on SOU 258 T1 (see above, p 212).

Other than these coins, there are only two specimens whose date of minting can be firmly attributed to the second quarter of the 9th century. One is a coin of Ecgbeorht, probably struck in the period c 825–8, and found in the bottom layer of pit 5240 on SOU 31 (Coin 143). The other is a coin of Aethelwulf, probably struck in the period 839–c 843, and found in the middle/upper layer of pit 7765 on SOU 24 (Coin 146). Another specimen might be attributed to this period of minting; a denier of Louis I (814–40) which came from the

lower layer in pit 5238 on SOU 31 (Coin 149). It is so decayed that a place or date of minting cannot be ascertained. Clearly, four or five coins, only two of which were minted later than 850, does not provide much support for occupation continuing at Six Dials much beyond the middle of the 9th century. However, a general absence of coins may reflect a change in the nature of occupation, not an absence of occupation.

There are a few other finds which might be dated to the latter half of the 9th century or later. Among these is a small quantity of 'forest' glass, eight fragments in all (though probably from a single vessel), from an upper layer in pit 8433 on SOU 169 T1 (see above). Recent research has shown that these 'forest' glasses appeared in Winchester as early as the late 9th or early 10th century (Biddle and Hunter 1990, 362), though it remains a possibility that they were being manufactured at an earlier date. In addition, there are a number of rim fragments belonging to the palm-cup/funnel-beaker series which show a pronounced inward curve on the lip which (it has previously been argued) reflects the ultimate stage of the funnel sequence in the late 9th or early 10th centuries (Hunter 1980, 69).

Amongst the metalwork there is a single copper-alloy split-end tag (SOU 24, item 809) which came from a surface layer on SOU 24. It may date to the 9th or 10th century (David Hinton pers comm), but there is nothing among the copper-alloy assemblage which is certainly 10th-century in date. The iron-work has not been looked at in detail yet, but a prick spur (Item 2184) from pit 13004 on SOU 169 T3 merits attention. It is of the basic Viking and Carolingian form which had a tubular point, and this example has been plated (London Museum Medieval Catalogue, Fig 28, 1). The spur was introduced into England during the Viking incursions, and the example from Six Dials is typologically early. Pit 13004 was one of several in the area to contain later Middle Saxon pottery.

The depth of surviving stratified deposits immediately adjacent to the north-south street suggests that occupation continued over a longer period in these areas than elsewhere, but in itself provides no evidence for a late-9th- or early-10th-century date. Indeed, there is a possibility that the last occupation may have lain elsewhere on the site, and did not reflect the earlier pattern of settlement. This is discussed further below.

The small cemetery on SOUs 31 and 258 was stratigraphically late, though it cannot be closely dated. On the evidence which is presented above, a late-9th-century date is preferred. Even if this were so, its significance in terms of late occupation at Six Dials would remain uncertain.

The somewhat scanty material evidence for the possibility of late-9th- or early-10th-century occupation at Six Dials having been presented, it is now necessary to examine the contexts in which this material was found.

The distribution of pottery in pits may reflect two phases of later activity, one around 850, the other possibly nearer 900. The earlier of the two groups of pits was concentrated in several areas, but most clearly on SOU 24, SOU 30, SOU 31 T2, and SOU 169 T3 (Fig 99). Some of the pits contained later pottery throughout their fills, along with varying quantities of residual earlier material. Others had later material restricted to the upper fills only.

The later of the two groups of pits contained very small ceramic assemblages, which included a few sherds which are similar in fabric and form to some wares from the Late Saxon town (Duncan Brown pers comm). Although tiny, this group should not be discounted. There are no pits which contained only this material, which is restricted to surface layers and the tops of a few pits on SOUs 30, 31 T2, 169 T2, and 169 T3 (Fig 99).

None of the structures excavated at Six Dials, with the possible exception of Structure 15, can be shown to have been associated with the very late ceramic assemblages, though it is possible that the last phases of structural activity on SOU 31 T1 (Structure 13) and SOU 169 T2/SOU 258 T2 (Structure 61) might also be candidates. In other areas evidence may have been lost through subsequent ploughing.

Structure 15 on SOU 31 T2 is unique in that it was the only building excavated at Six Dials which was neither built across earlier pits nor cut by later pits (see Fig 37). Given the density of pits on Six Dials, it would seem to be more than coincidence that none occupied the area of this building. This may indicate that the building was constructed early in the 8th century and stood for a comparatively long period of time. The structural features (discussed above) suggest that in several other ways it was different from any of the other excavated structures. Stratified deposits in the area surrounding Structure 15 did not survive to any great extent, and so it has not been possible to phase the building. However, the fill of a small internal storage pit produced a few sherds of pottery provisionally dated to between the mid 8th and mid 9th centuries, and several pits to the south of the building produced later 9th-century pottery, some from the lower layers. That these pits appear to have respected the building would strongly suggest that it was standing at the time they were dug, and that the property earlier occupied by Structure 14 had been taken over by Structure 15. If it stood for a long period of time, possibly even a century or more, then Structure 15 may also have been unique in that most of the buildings at Six Dials are thought to have stood for no more than three or four decades. It is also worth noting here that two of the surrounding pits, 5240 and 5238, produced coins of Ecgbeorht and Louis I respectively, two of the five latest coins from Six Dials (see above).

No function can be clearly assigned to Structure 15, but many of the surrounding pits which contained later pottery also contained large quantities

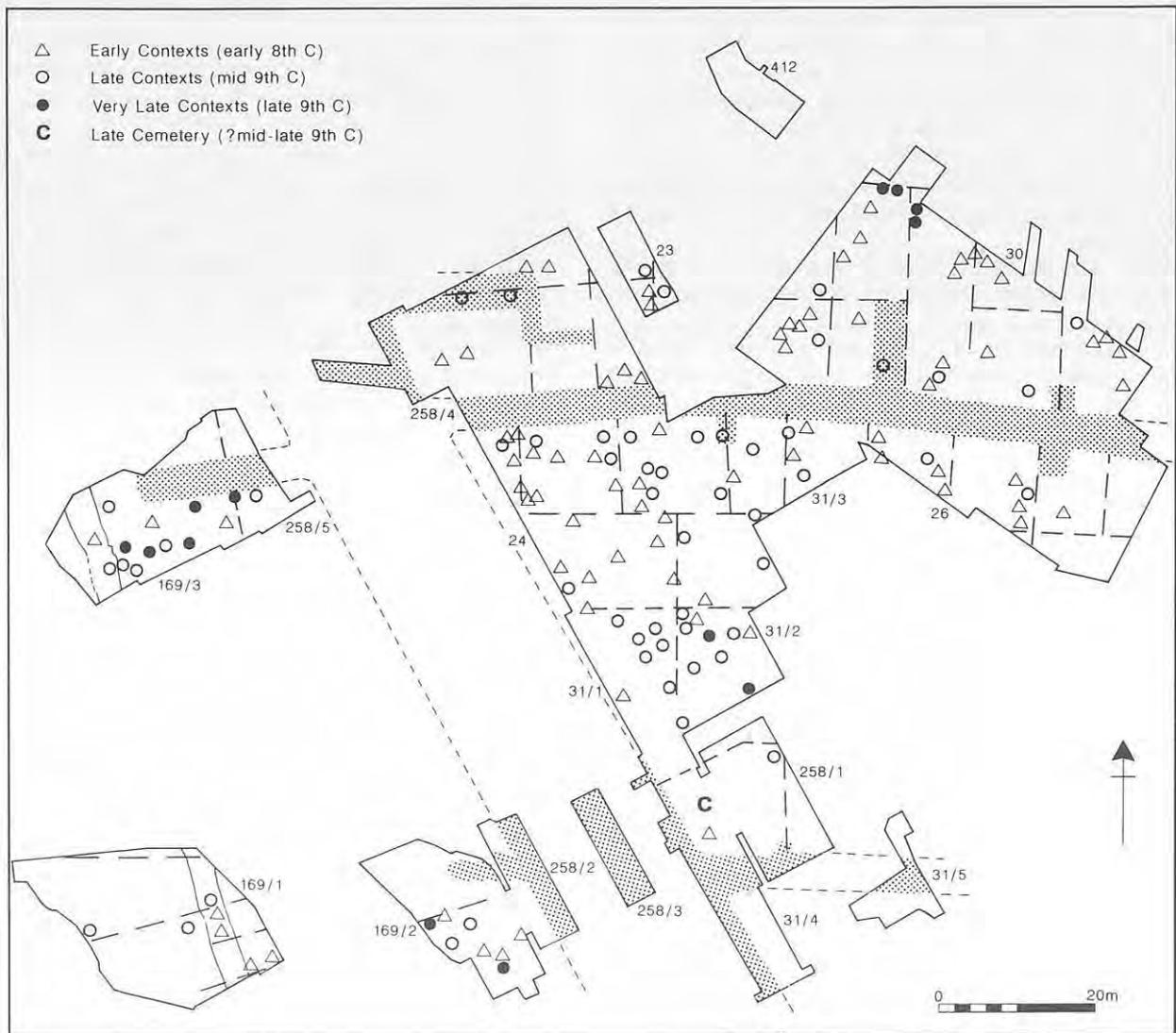


Figure 99 Six Dials: early and late features. Streets and alleyways are stippled, the boundary ditch is shown in outline, and property boundaries as dashed lines. Scale 1:900.

of bone- and antler-working debris, notably 5238. The distribution of this waste material might suggest that Structure 15 was the source, and raises the possibility of this building having been occupied by a bone and antler worker at a date well into the 9th century.

Although the features containing later material suggest that occupation may not have continued along the street frontages, it is possible that practices of refuse disposal changed, and that with more space available the opportunity was taken to dispose of rubbish further away from the buildings than had earlier been possible. Furthermore, the existence of buildings, alongside the north-south street in particular, would have prevented the digging of pits in those areas. Therefore, the location of features containing later material may not reflect closely where contemporary structures stood. The absence of layers containing later material in the vicinity of the north-south street may

also reflect several factors apart from the obvious that they never existed; floor levels and other occupation surfaces contain relatively little cultural material, and if they did exist, the likelihood of them having been ploughed away is quite high.

In conclusion, the latest datable artefacts from Six Dials, excluding medieval and later material, are two coins minted in the third quarter of the 9th century. Several other finds are of a potentially late date, but this cannot be demonstrated with certainty. The comparative lack of late finds, including pottery, may reflect a gradual change in the character of occupation rather than a widespread and rapid abandonment of the site. The concentrations of very late contexts shown on Fig 99 might represent a rather dispersed pattern of occupation, not apparently clustering in the immediate vicinity of the streets, and thereby contrasting with the comparatively dense occupation along the street frontages during the main period of occupation.

There is no evidence to indicate when any of the streets at Six Dials finally went out of use. The north-south street continued to be remetalled throughout the Middle Ages, and it is likely that it remained in use during the intervening Late Saxon period; none of the metallings could be certainly dated to that period, but there was no evidence of disuse. The route may have continued, perhaps as a trackway, linking the Late Saxon town to the south-west, the church at St Mary's, and places to the north. Although there was no clear indication of when the two east-west streets fell into disuse, it is clear that they did, and failed even to survive as field boundaries. Subsequent agricultural activity had disturbed the later metallings and any deposits which may have accumulated upon them, but there was no doubt that disuse was not followed by indiscriminate pit digging as was often seen elsewhere when buildings went out of use and their properties were sometimes subsumed into those of adjacent buildings. A date of abandonment some time during or soon after the late Middle Saxon period is likely, when the decline in occupation effectively rendered them redundant; at this time they may have served only to provide access to a few scattered buildings and properties. There is no evidence for later buildings and properties being laid out on different alignments or across boundaries which had been established earlier.

It is useful to compare the evidence for late occupation at Six Dials with the arguments about Hamwic as a whole. Morton (1992, 70-7) discusses in some detail the evidence and arguments for later occupation in Hamwic, but a short summary is provided here.

Crawford (1942, 46) drew the conclusion from the small amount of evidence available to him that the site was not occupied to any great extent after the Norman Conquest. Addyman and Hill (1968, 77), using the numismatic evidence including the 19th-century coin finds, suggested that the Saxon site declined until *c* 940, and that there was little occupation in the St Mary's area after 970. Keen (1975, 186) considered that the archaeological

evidence showed that the settlement was unlikely to have been occupied after the late 9th or early 10th century. Holdsworth (1976, 60), with much the same evidence available to him, thought that the decline of Hamwic was well advanced by the end of the 9th century. Cherry and Hodges (1978, 306) postulated a significant decline in Hamwic early in the 9th century. And, as already stated, Morton argued that there is little evidence for continued occupation of the site after *c* 850 – though he points out that it has never been entirely abandoned.

Excluding Crawford's rather generous allowance, the dates given above span at least a century, ranging from early in the 9th century to perhaps the middle of the 10th. The series of dates demonstrates a continuous trend towards an earlier suggested date for the end of Hamwic, and current opinion would seem to set this between *c* 850 and 900. It is important to note, however, that not all of these dates refer to the same thing. The earliest date, proposed by Cherry and Hodges, discusses the end of Hamwic as a major international trading centre, rather than the end of the settlement, and indicates serious decline rather than an end of occupation. This does not conflict with Keen and subsequently Holdsworth who both consider the end of Hamwic as a large settlement, and a subsequent move to a new site. Only the dates given by Addyman and Hill seem a little out of line with this, perhaps because they attached over-much importance to the existence of a relatively few late coins, whose significance as far as Late Saxon occupation is concerned is unknown. (Between four and fourteen 10th-century pennies, the latest minted in the reign of Edgar (959-75), were found during the 19th century (Pagan 1988a 70); the majority probably came from SOU 47, and were recovered during brickearth digging.)

According to his dating of the evidence, especially from Six Dials, this writer prefers the *c* 850-*c* 900 date range for the virtual end of occupation, but would allow for the possibility of dispersed settlement continuing, along with the survival of a few elements from the earlier town (Fig 100).

The Six Dials Evidence in a Wider Context

Adequate reference has been made, in the relevant chapters, to parallels between the buildings and activities of Six Dials and those found elsewhere, especially in the rest of Hamwic; and it is not necessary to repeat those points here. It is useful, however, to put other parts of the evidence into a wider context.

Hamwic was unlikely to have been a uniform whole. At Six Dials the wide north-south street, probably the most important land route out of Hamwic and a major focus of activity for much of the period of occupation, is a rare if not unique feature. Furthermore, the proximity of a substantial boundary ditch is also likely to have had some special effect on the layout of the settlement in the vicinity. Just as relevant is the fact that Six Dials lies several hundred metres from the presumed site of the waterfront, and from St Mary's Church, the latter a site at the junction of three major streets (Morton 1992, 72). These places are also likely to have been responsible for local variations in the nature and perhaps the layout and chronology of the settlement.

On the other hand, there are many similarities between the Six Dials evidence and the evidence recovered from other sites at Hamwic. Had more been exposed or excavated at these sites, in most cases it is probable that basic elements of the layout would have conformed to the Six Dials pattern.

Beginnings and growth of Hamwic

Although there was some Romano-British occupation in the immediate vicinity of Six Dials, there was no evidence for any further activity until around 700. This seems to have coincided with early occupation elsewhere in Hamwic. On the present evidence, it is likely that occupation in the settlement began around 700, in the reign of King Ine (688-726), and nothing points unequivocally to a 7th-century origin (see Morton 1992, 26-9).

It is possible that Six Dials was one of several nuclei of early occupation which expanded and coalesced (see Morton 1992, 39-40 for related arguments). However, the evidence of the streets, properties, and structural alignments at Six Dials would also be consistent with a rapid but controlled development from a single, early nucleus. The southern part of the settlement, in the vicinity of St Mary's Church, or the waterfront, or both, has been favoured by many commentators as the site of this nucleus (see, for instance, Timby 1988, 116-8).

According to that interpretation, within the confines of the river, marshes to north and south, and the western ditch, occupation quickly expanded to the north; with Chapel Road and St Mary Street/St Mary's Road providing the east-west and north-south axes from which this occupation developed. Cemeteries including those found at SOUs 34/43/48, 20, and 32/47 may have been established at different times on the edge of a progressively expanding settlement. These cemeteries appear to have been built over as the settlement grew (Morton 1992, 38-9 and 53-4). If chronological differences could be discerned between them, they might provide a clue as to the rate and direction of growth of the settlement. The fact that this cannot be done is perhaps another indication of a very rapid expansion of Hamwic during the early decades of the 8th century.

Perhaps the most significant point to be made about the ditch, or the boundary it defined, is that although the settlement expanded, the limits may largely have been predetermined by this early boundary feature to the west, the river, and the marshes. One may therefore argue at least that a land area was established at a very early point, which was later almost entirely built over. It remains a further possibility that a large settlement had been envisaged from the outset. If so, this was a remarkable vision given the comparatively small size of Anglo-Saxon settlements up to that time.

It is clear that at Six Dials there were no features other than stake-holes sealed beneath the earliest metallings on the streets. The streets, perhaps initially existing in an unmetalled form, were primary features from which all of the properties, structures, pit groups, and even individual pits took their alignment. No groups of structures and features showed any differing alignments which might indicate that they predated and were unrelated to the street system. Crucially, excavation of the junction between the north-south street and east-west street II showed that, although the latter was slightly later, it was established before the adjacent buildings. This would seem to indicate a degree of advance planning, which is also demonstrated by the broadly parallel nature of the east-west streets throughout Hamwic. There are variations such as in the distances apart of the east-west streets, but the general arrangement and regularity demonstrated by the street system is not what one might expect if growth of the settlement had been organic and uncontrolled.

Properties were established at an early date, and

although there was some evidence for subdivision and later amalgamation, they seem to have persisted with little change in shape or size throughout the duration of Middle Saxon occupation. This may not have been the case over the whole of Hamwic however. The proximity of the north-south street at Six Dials may have made it a 'preferred' location. This may have resulted in a denser pattern of smaller properties, as may the depth of brickearth in the area. Morton (1992, 47) considers the possibility that 'in order to equalise the exploitation of brickearth [for daub and other purposes], properties were wider in areas of thinner brickearth'. The greater depth of brickearth at Six Dials may have resulted in smaller properties. In the south of Hamwic, where brickearth was thinner, there is also some evidence for early, large, and open properties associated with complexes of structures that may have been farm buildings. There is no evidence for comparable complexes at Six Dials.

When all pits at Six Dials are considered, there is on average one per 10m² or so. This is approximately twice the overall density recorded from excavations elsewhere in Hamwic (Morton 1992, 42), though greater densities were present on some of the more northerly sites (notably on SOUs 32 and 36), closer to Six Dials. The high density of pits at Six Dials may in part be explained by the greater density and longevity of occupation in the vicinity of the north-south street, but may also be a characteristic of the northern area of Hamwic, with for instance a decline of occupation and activity in the waterfront area. There is some evidence from the pottery studies to support this contention (Timby 1988, 117).

The population of Hamwic

Between 45 and 180 people may have lived at Six Dials during the height of Saxon occupation. These figures can be seen as the full range of likely estimates of population in the period of intense occupation.

The maximum is simply calculated. Perhaps 30 of the 68 buildings known from excavation had been occupied at the same time, and each had housed on average perhaps six people.

The minimum is arrived at when certain other factors are taken into consideration. Having noted that settlement at Mucking is variously thought to have lasted 200 or 300 years, Dixon (1993, 126) proposed that 'only a quarter of the total known buildings. . . can have been in use at any one time.' If the same allowance is made for the settlement at Six Dials, which lasted probably more than 150 years, 17 of the Saxon buildings identified there will have been contemporary with each other. Some 85% of these would not have been sheds or shelters; 14 may therefore have been 'houses'. An extra allowance must be made for the fact that there would have been more buildings standing during

the period of densest occupation than at other times, but on the other hand it is not certain that all of the buildings identified as 'houses' were occupied. On balance, it seems reasonable to suggest that about 15 buildings were occupied, this figure being half the proposed maximum. Nor is it certain that the houses were occupied by families of a predictable type and size. Evidence on this matter derives from the excavated graveyards. It is admittedly little more than a snapshot of the town's inhabitants, and most of it comes from one site, SOU 13. Nevertheless, in many respects the burial data are familiar, apart from the adult sex ratio which is found to be 2:1 in favour of males (Morton 1992, MF1:C1). If there actually was a surplus of males in Hamwic, it is unclear how they were housed, and what effects this had on average numbers per house. Given this uncertainty, the proposed average of six people per house should perhaps be halved.

Six Dials represents about 1% of the area of Hamwic. Simply multiplying up the population estimates for Six Dials, one might assume that between 4500 and 18,000 had lived in Hamwic at its most populous. However, the minimum figure could again be differently calculated. Comparison of the site plans published in Morton 1992 show that occupation in the northern half of Hamwic (including Six Dials) tended to be more dense or more protracted than in the southern half. The difference is clearly not a hard rule, but the argument has recently been strengthened by the publication of evidence of only light occupation in the south-west corner of Hamwic (Garner 1994, 124). Allowance should therefore be made for the possibility that the population of Six Dials was more numerous than at many other parts of Hamwic. In addition, there is a good chance that the greatest intensity of occupation did not coincide throughout Hamwic. Even disparities of a decade (which would not easily be recognisable in the archaeological record) might affect the calculation. It is therefore proposed that the evidence from Six Dials could be multiplied by 50 rather than 100; in which case, at its most intense, Hamwic was occupied by no less than 2250 people.

A population estimate ranging from 2250 to 18,000 is of restricted value. Recognising these difficulties, Morton (1992, 55) suggested that the largest populations of Hamwic and of the medieval walled town were comparable in size; and he argued from the records of the later town that Hamwic had housed at most 2000-3000 people.

The functions of Hamwic

The location of Hamwic suggests that it was established for the purpose of trade. Morton (1992, 59-68) discusses this at some length and some of the salient points are repeated here. The evidence indicates that local and long-distance trade was a

feature of its economy, and that it relied on a well established and organised hinterland to supply it with foodstuffs and building materials. Bourdillon (1983, 179) proposes that it was treated by the king as another of his estates, albeit an unusual one, which would have provided a steady source of income through tolls.

Hamwic's location provided a sheltered, easily accessible riverside site. It faced the Continent, and it may have been possible to sail directly across the Channel to the mouth of the River Seine and thence to Rouen. Although Morton disagrees, Quentovic may also have been within direct sailing range.

There is a single surviving reference to Hamwic as a *mercimonium*, mentioned in Huneberc's *Hodoeporicon*, written in the 8th century; but this in itself provides no clue to the scale of commercial activity which took place there. It may have begun as no more than a seasonal beach market. Excavation of a large waterfront site would help to elucidate the nature and chronology of mercantile activity and occupation in that area.

A few Series H sceattas are the only objects certainly distributed from Hamwic which have been recognised outside the settlement. They have been found in west Wessex, the Thames valley, London, the Abbey of St Wandrille near Rouen, and Domburg, though not all are well provenanced. Even if large-scale excavation were carried out in these places it is probable that other products of Hamwic, if they went there at all and if they survived, would not be easily recognised.

Imported objects found in Hamwic provide a more useful indication of trade, though not necessarily directly with their places of origin. This is particularly apparent when the production sites of the sceattas and pottery are compared. For example, there are sceattas minted in the Low Countries, Frisia, and possibly Denmark. Slightly under half of the imported pottery examined in an extensive sample 'emanates from sources in the region served by Quentovic, and much the same amount from the La Londe kilns [near Rouen]' (Hodges 1991, 885). Other vessels come from the southern Low Countries. There are also glass vessels of doubtful origin, but almost certainly Continental, along perhaps with some cullet, and stone from the Eifel region and possibly also from Northern France. The remainder of the stone, some coins and pottery, and varying quantities of iron, copper (raw or as alloy), lead, and silver, may all have been the products of long-distance, non-Continental trade, brought into Hamwic from elsewhere in Britain outside its immediate hinterland.

Although only comparatively small quantities of these imports, whether Continental or from far afield in Britain, have been found, they are likely to represent only a fraction of the original volume of imports, many of which will not have survived. However, discussion of the scale and importance of Continental trade should also be tempered by the likelihood that much trade would have been local

and over relatively short distances.

The excavations at Six Dials have demonstrated that imported objects were widespread and not restricted to particular areas within Hamwic. The overall percentages of imported Continental pottery from sites around Chapel Road in the south-east of Hamwic are greater than at Six Dials; but if only the early contexts are considered from Six Dials the percentages are similar.

Glass and coins were present in the earliest stratified contexts. The widespread occurrence of coinage and objects such as imported glass, both at Six Dials and more generally within Hamwic, raises question as to the settlement's status. Attention has been drawn before to the apparent overall homogeneity of the settlement in terms of the size and layout of buildings, the faunal assemblage, industries and so on, but it seems inconceivable that there were not some differences reflecting variations in the social status of the inhabitants. Perhaps a complex of royal buildings was so localised that it remains to be discovered (Morton 1992, 67–8). However, the small number of penannular-ditched graves found at SOUs 32 and 254 provide some hint of social differentiation, at least in the earlier part of the 8th century. Other differences may be virtually impossible to detect in the archaeological record or may be masked.

The site or sites where goods were bought, sold, or exchanged have yet to be identified. It seems improbable that any of the buildings were shops. Possible market sites include the waterfront area in the vicinity of SOUs 10 and 13, St Mary's churchyard, and the north-south street exposed at Six Dials. This anomalously wide section of street, 20m between the building frontages on either side, in a comparatively densely occupied area, was probably part of the major land route into Hamwic from the north. The east side of the street was kept clean, but there was evidence for at least one small shed or shelter and several gravel pathways interleaved with spreads of domestic and industrial refuse along the western edge. It is tempting to envisage this area as a marketplace strung out along the side of the street, but there is nothing in the animal bone or other finds data which would strongly support this. However, one must consider what material evidence might demonstrate the existence of a marketplace, and given the apparent cleanliness of Hamwic's streets whether much evidence would survive anyway. Foodstuffs are likely to have been the most common goods brought into Hamwic, along with raw materials such as timber, thatch, wood, leather, and perhaps iron. These, as well as the various objects produced in the settlement would have been discarded in small quantities only if they remained unsold or unexchanged.

Hamwic was remarkable for its size, layout, density of buildings, and concentration of crafts and industries. Even taking Morton's estimates of a population numbering 2000–3000, the settlement would have required comparatively large quantities

of foodstuffs to sustain it, in particular probably from around the middle of the 8th century until the early part of the 9th century. Although some poultry and pigs were probably kept within Hamwic, many of the food animals would have been brought in on the hoof from outside. Bourdillon (1983, 70, 121, and 127) interprets the animal bone recovered from Hamwic's features as a 'uniform and distinctive' assemblage providing evidence of an 'outstanding animal husbandry' based on 'an efficient rural base'. Furthermore, the large quantities of timber, wattle, and thatch required during Hamwic's rapid growth in the 8th century also point to an efficient rural base able to organise the supply of the building materials needed. The area to the south of the chalk downs and between the Rivers Test and Hamble (*frontis*), covering some 100km², is likely to have provided a sufficiently large agricultural hinterland to meet most of the settlement's requirements. Unfortunately, no contemporary villages or farms have yet been certainly located or excavated within this area – unlike places like Chalton and Abbots Worthy, which lie outside. Monasteries at Waltham and Nursling lay on the extremities, with other settlements probably at Romsey – thought likely to have been a source of iron – and at Winchester. The sea should not be ignored: fish, and particularly herring, were an important contribution to Hamwic's diet.

Other English settlements

It is unfortunate that other Middle Saxon settlements in the vicinity remain largely undiscovered and unexcavated. The Middle Saxon settlement hierarchy in East Anglia, and Norfolk in particular, may not be directly comparable, but is better understood as a result of fieldwalking, metal detecting, and limited excavation (Andrews 1992, *passim*). It might thus provide a guide to the types of settlement which might be expected in the vicinity of Hamwic, and also to Hamwic's place in the hierarchy. Although Norfolk possessed no known equivalent to Hamwic, Ipswich in Suffolk provided East Anglia with a *mercimonium* which appears to have been similar in many respects. In Norfolk there were two smaller, probably non-urban settlements at Norwich and Thetford; and several sites have been located which may have been local market or exchange sites. The finds assemblages differ between the two groups, but neither assemblage would have been out of place in Hamwic though imported pottery and glass appear to have been rare. However, more sites are coming to light which are similar except that they are characterised by high-quality copper-alloy assemblages which include inscribed objects and styli. These comparatively small but rich assemblages almost certainly indicate a monastic presence, and seem clearly to contrast with the large, but otherwise unexceptional copper-alloy assemblages from

Hamwic and the other *emporium*. Finally, a large number of village settlements have been discovered which were both small and have produced a limited range of finds, with coins and imported objects virtually entirely absent. There is evidence that some of the Fen-edge settlements may have been seasonally occupied agricultural production centres which supplied the larger estates, and where coins and imported objects are virtually entirely absent.

Considered in the context of such settlements, Hamwic would have appeared as a very large, non-rural agglomeration. It would have been remarkable for its size, its layout, as a non-agricultural production centre, as a port and market centre, and as an important consumer of agricultural produce. It therefore does not seem unreasonable to continue describing it as a town even if it may not have possessed the full range of urban attributes.

The end of Hamwic

As has already been pointed out, the principal difference between Morton's and this writer's chronology of events is a difference in the interpretation of the same types of evidence, most of which points to an end of large-scale occupation at roughly the same time throughout Hamwic. Morton (1992, 70) makes it clear that the archaeological evidence as he interprets it may be at odds with the historical evidence, which would support a date for the abandonment of Hamwic late in the 9th century. The present writer, however, interprets the archaeological evidence as showing the virtual end of occupation in the period c 850–c 900, but allows for the possibility of dispersed settlement continuing, along with the survival of a few elements from the earlier town (Fig 100).

By 900 it is possible that there was no occupation at Six Dials, and Hamwic as a whole is likely to have been largely abandoned. As a large, comparatively densely occupied settlement it appears to have lasted little more than about 150 years. Only small pockets of occupation are likely to have persisted after 900, though whether there was any continuity of occupation remains unclear. Two structures on SOU 16, in the south of Hamwic and adjacent to the waterfront, both dated probably to the 11th century, remain the only excavated evidence for later occupation within the area of Hamwic prior to subsequent medieval development.

The causes of Hamwic's decline are considered in detail by Morton (1992, 75–7), and it is only necessary here to outline these. Overall, it is likely that a combination of factors were involved in this decline and virtual abandonment. Hodges (1982, 156–7) suggests that all *emporium* were suffering a decline in the 830s and 840s, partly a result of disruption in trade caused by the civil wars between Charlemagne's heirs. Viking incursions from the 840s onwards are also likely to have disrupted trade routes and led to attacks on some of

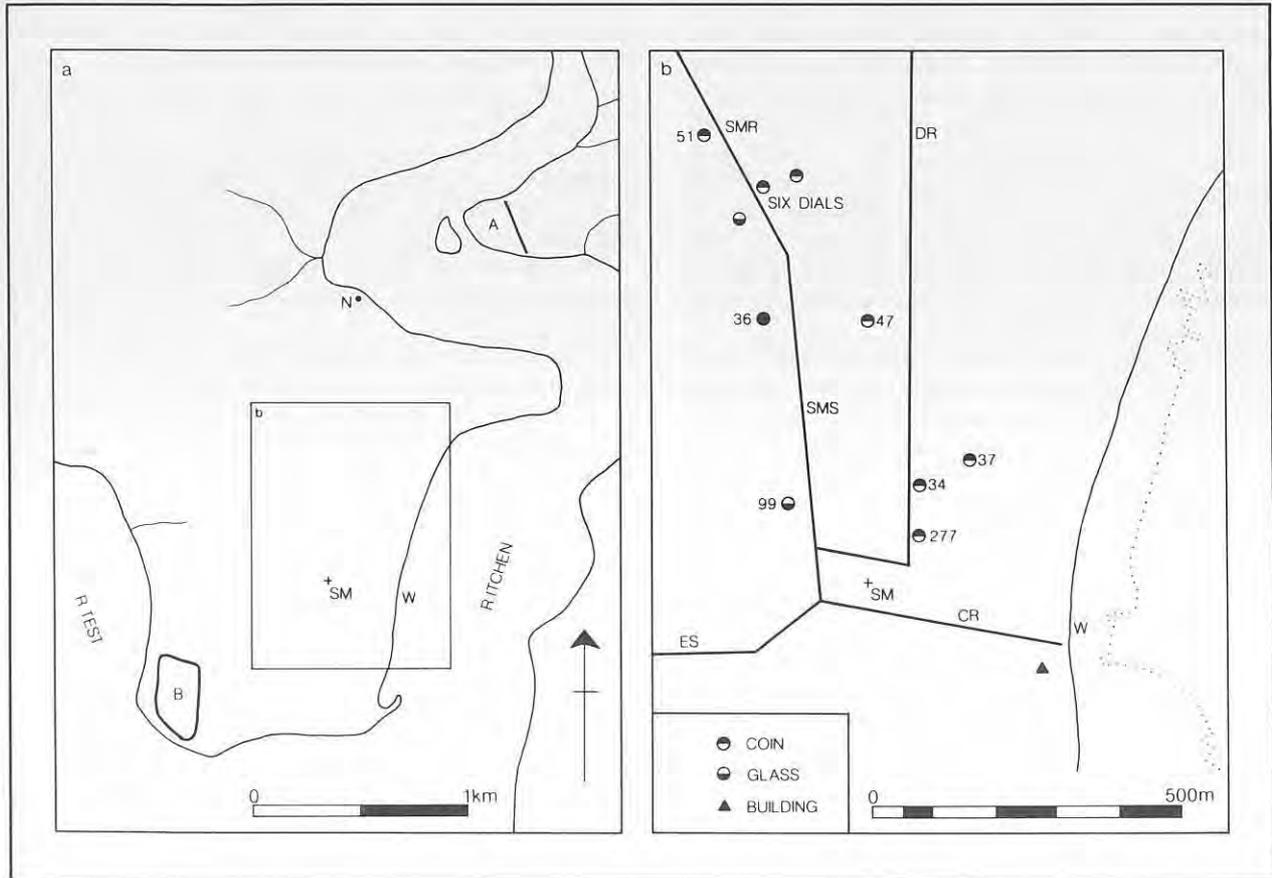


Figure 10 Suggested areas of Late Saxon (post 850) occupation, showing the supposed riverlines. 'SOU' prefixes to site numbers are omitted. Key: A the possible Burghal Hidage fort, B the new, ditched settlement, CR Chapel Road, DR Derby Road, ES East Street, SM St Mary's Church, SMR St Mary's Road, SMS St Mary Street, W The wic-hithe.

the trading centres including Hamwic. There is no evidence that one or more Viking raids on Hamwic in the early 840s caused widespread devastation or led directly to large-scale depopulation. However, the inhabitants would have been aware of the vulnerability of living in an extensive and virtually indefensible riverside settlement whose location was well known. There may have been an increasing incentive to head for safety – in this case the chalk uplands to the north. At the same time, people may have ceased to be attracted to Hamwic for these and other reasons, and therefore its population would not have been maintained by an influx of new people.

It was around this time in the second half of the 9th century that Winchester re-emerged as an important urban centre, and this rise appears to be too much of a coincidence to ignore. Some of Hamwic's functions as well as some of its population may have transferred to Winchester. Indeed Yorke (1984, 66) argues that Winchester took over from Hamwic as an administrative centre after the mid 9th century. When royal interest in Hamwic declined, so did the settlement itself.

Its relative unsuitability for defence was pro-

bably the main reason why the site of Hamwic did not become the site of the Late Saxon and subsequent towns. One can only envisage a somewhat forlorn appearance which it came to have as it declined and was largely abandoned. The lines of three of its streets, St Mary's Church, and a waterfront were probably the only features to survive into later periods.

A short-lived, late-9th-century *burh* may have been established within the confines of the still standing Roman walls at Bitterne Manor (Hill 1967). By the early 10th century there was a new settlement, established adjacent to the River Test on the Southampton peninsula. This was defended by one or more ditches and banks, but there is little clear evidence of intensive occupation until perhaps after the middle of the 10th century, at least half a century after Hamwic's demise. Although there was some settlement outside the defences, the enclosed area was only some 6ha and was therefore an order of magnitude smaller than Hamwic. It was this site which was subsequently to become the site of Southampton's medieval walled town, but initially at least it seems not to have been an important trading or production centre.

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EXCAVATIONS AT HAMWIC: Volume 2

Hamwic, Middle Saxon Southampton, was founded around 700 and quickly grew into a trading town of some 45 hectares. The large-scale excavations at Six Dials that form the subject of this monograph unearthed extensive and coherent evidence for the layout and development of part of the town adjacent to a major street throughout the 8th and 9th centuries. This evidence includes three streets, an early boundary ditch, 68 buildings, over 500 pits and wells, and a small cemetery. Widespread evidence for crafts and industries was also recovered – principally smithing, non-ferrous metalworking, boneworking, and the production of leather and textiles. Finds included important assemblages of metal objects, local and imported pottery, coins, vessel glass, bone and antler objects, stone, and animal bone. Reports on the finds are published in other volumes in this series, but lengthy summaries are presented here, with particular reference to the evidence for industries and site economy.

