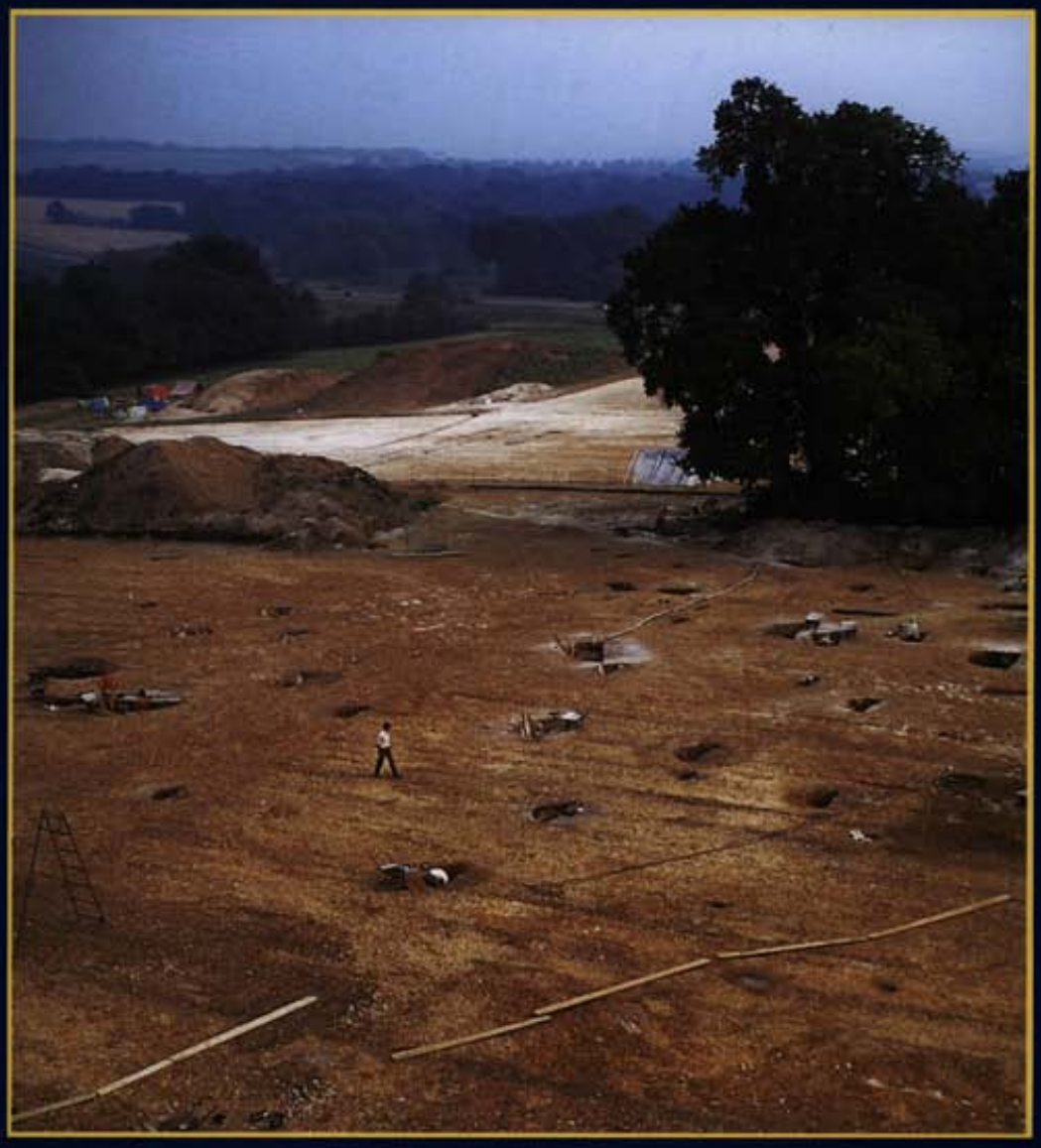
BALKSBURY CAMP HAMPSHIRE

Excavations 1973 and 1981

G J Wainwright and S M Davies



ENGLISH HERITAGE

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with contributions by
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S Garwood, J D Henderson, R I Macphail, J M Maltby, H Rees, and K Smith

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ARCHAEOLOGICAL REPORT 4

Dedication

While this volume was in preparation news was received of the death of Peter Donaldson in Bali. Peter had been responsible for the management of the Balksbury excavation and preparation of the archive, and had fulfilled this role on every excavation of mine for over twenty years. This volume is therefore dedicated to him in memory of a fine archaeologist and a good friend.

G J Wainwright
January 1995

Acknowledgements

The 1973 excavations were directed by G J Wainwright with deputy director the late P Donaldson; skilled supervision was provided by P Addison, R Browse, D Buckley, A Carter, J Coppen, C Denholm, W Erskine, J Jeffries, A Kurlis, L Rowe, G Smith, R Williams, and D Young. In 1981 the excavations were directed by K Smith with the (then) Central Excavation Unit. The owners of the site, Swattons (Andover) Ltd, are to be thanked for their co-operation in permitting both excavations to take place, and for their generosity in providing free of charge the machinery used to strip the site in 1973.

Thanks are also due to all who have contributed to this report or who have assisted during its compilation; in particular to the late P Donaldson, who compiled the archive report, and P Bellamy, who collated the publication draft. Figure 1 was drawn by K Nichols, the pottery by K Holt, Figures 55–76, 78, and 82 by M J Allen, of Wessex Archaeology, the rest were prepared by C Boddington, of English Heritage. Air photographs were supplied by the Royal Commission on Historic Monuments of England. Site photography for the 1973 excavations was by J Jeffries, and in 1981 by K Smith.

M J Allen (who undertook this work while in receipt of an SERC studentship) would like to offer special thanks to R I Macphail for discussing details of the samples and N Balaam for providing additional information. Integration with the archaeology was only made possible by discussions with E Morris and H Rees.

R I Macphail wishes to thank M Allen (grain size analysis), P Loveland (nutrient chemistry), and lastly P Bullock for his interesting views on the Balksbury microfabrics.

D de Moulins wishes to thank S Colledge for checking some of the identifications, for making valuable suggestions, and for much general help and support. She would also like to thank N Balaam for his support and help with the preparation of her report.

S M Davies wishes to thank M J Allen for his enthusiasm and for his initial synthesis of all the specialist environmental reports, and A P Fitzpatrick for his comments on the artefacts and discussion.

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Summary

In 1973 and 1981 excavations at Balksbury Camp, an Iron Age plateau enclosure situated at the junction of the River Anton and Pillhill Brook on the outskirts of Andover, revealed site occupation and use from the Late Neolithic/Beaker to the late Roman period. A sequence of Late Bronze to Early Iron Age defence construction and modification, subsequently further modified in the Romano-British period, was established.

Other features included a Late Neolithic/Beaker burial and, in the interior of the enclosure, a palimpsest of pits, postholes, gullies, and buildings of Early Iron Age to late Roman date.

A collection of artefacts of all site periods was found, comparable to other local and regional sites. Environmental analysis enhanced the understanding of the site sequence and activities and the ecological background.

Résumé

En 1973 et en 1981 des fouilles ayant eu lieu à Balksbury Camp, une enceinte datant de l'Âge du Fer située sur un plateau au confluent de la riviére Anton et du cours d'eau Pillhill dans la banlieue d'Andover, ont revélé l'occupation et l'utilisation du site depuis la période néolithique finale jusqu'à la fin de la période romaine. Une série de constructions défensives et d'altérations datant de la fin de l'Âge du Bronze au début de l'Âge du Fer et transformées par la suite durant la période romano-britannique ont pu être établies.

Au nombre des découvertes figurent une sépulture remontant au Néolithique final, et à l'intérier de l'enceinte-même, un ensemble de fosses, de trous de poteaux, de caniveaux et de bâtiments datant du commencement de l'Âge du Fer jusqu'à la période romaine.

On a également trouvé une collection d'objets appartenant à toutes les périodes représentées par le site et comparable au matériel découvert sur d'autres sites locaux et régionaux. Une analyse de l'environnement a permi une meilleure compréhension de la sequence d'occupation du site et des activités qui y ont eu leiu ainsi que du milieu écologique.

Traduction: *Robin Symonds and Christine Bedeschi-Smith*

Zusammenfassung

In 1973 und 1981 erkannte man bei den Ausgrabungen in Balksbury Camp, eine aus der Eisenzeit stammende Plateau-Umfriedung, welche am Zusammenfluß des Antonflusses und des Pillhill Brook-Baches am Randgebiet Andovers leigt, daß das Gelände von der spät-neolithischen/Glockenbecher-Zeitalter bis zum spät-romanischen Zeitalter bewohnt und benutzt wurde. Festgestellt wurden auch eine Reihenfolge von Abwehrkonstruktionen und deren Änderungen aus der Spät-Bronzezeit bis zur Früh-Eisenzeit Weitere Änderungen wurdenim romanisch-britishen Zeitalter festgellt.

Andere Merkmale beinhalteten eine spät-neolithische /Glockenbecher Grablegung und innerhalb der Umfriedung fand man ein 'Palimsest' min Gräben, Postenlöcher, Schluchten und Bauten, die aus der Früh-Eisenzeit bis zu einem späten romanischen Datum stammen.

Eine Sammlung alter Kunstobjekte wurde von jeder Zeitperiode des Geländes, das mit anderen örtlichen und regionalen Geländen vergeleichbar ist, gefunden. Eine Umgebungsanalyse half dazu bei die Reinhenfolge des Geländes, dessen leben und ökologischen Hintergrund besser zu verstehen.

Übersetzung: *Monika Schmid-Jenkinson*

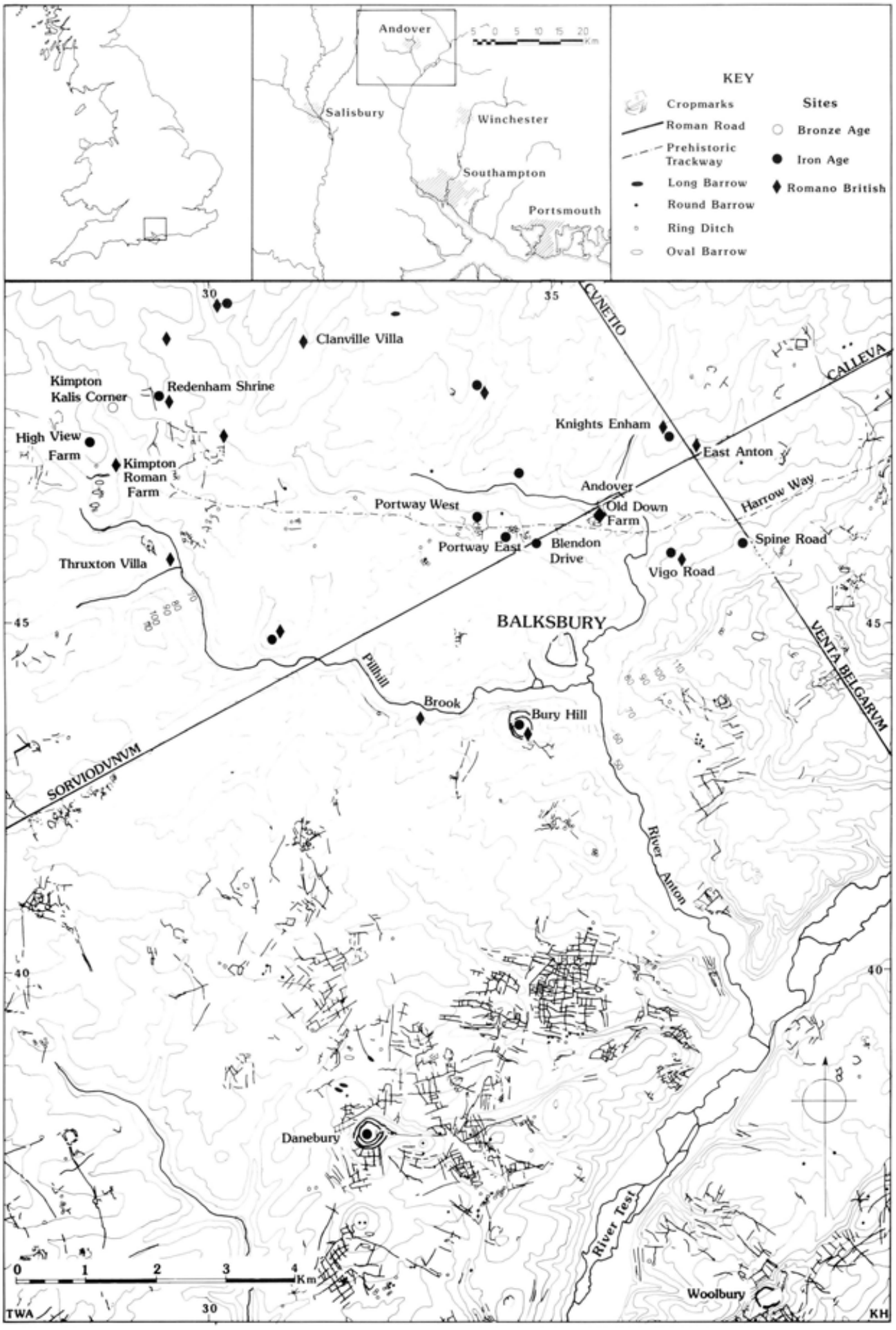

Fig 1 Location map, including neighbouring prehistoric and Roman sites

1 General introduction

Balksbury Camp (SU 350445) is a univallate Iron Age plateau enclosure situated on a low spur at the junction of the Rivers Anton and Anna (Pillhill Brook) in the southern suburbs of Andover (Fig 1). The site sits on a small knoll which rises gently to a height of 91m OD and encloses a roughly triangular area of 18ha. Little remains to be seen either of the enclosure bank, much denuded by ploughing, or the silted-up ditch. The northern part of the defences has been destroyed by housing along Salisbury Road and Rooksbury Road. Balksbury Road cuts across the south-western part of the site, the south-eastern corner is traversed by a footpath, and the Andover by-pass cuts across the southern end (Figs 2, 3, and 5). In the area bounded by these were farm buildings, a clump of trees and a private house.

Proposals for major housing development in 1973, further extended in 1981, threatened large-scale destruction of the interior of the enclosure. This report gives the evidence recovered by the excavations which preceded this proposed development.

Site location and geology

The low spur on which Balksbury Camp lies was formerly part of an extensive geological surface of Upper Chalk which undulates between 91–110m OD throughout the Andover district (Figs 1 and 3). This spur is not topographically commanding as it is overshadowed by many other hills in the area, as well as much of the 91–110m surface. Nevertheless, it has a good position in relation to the

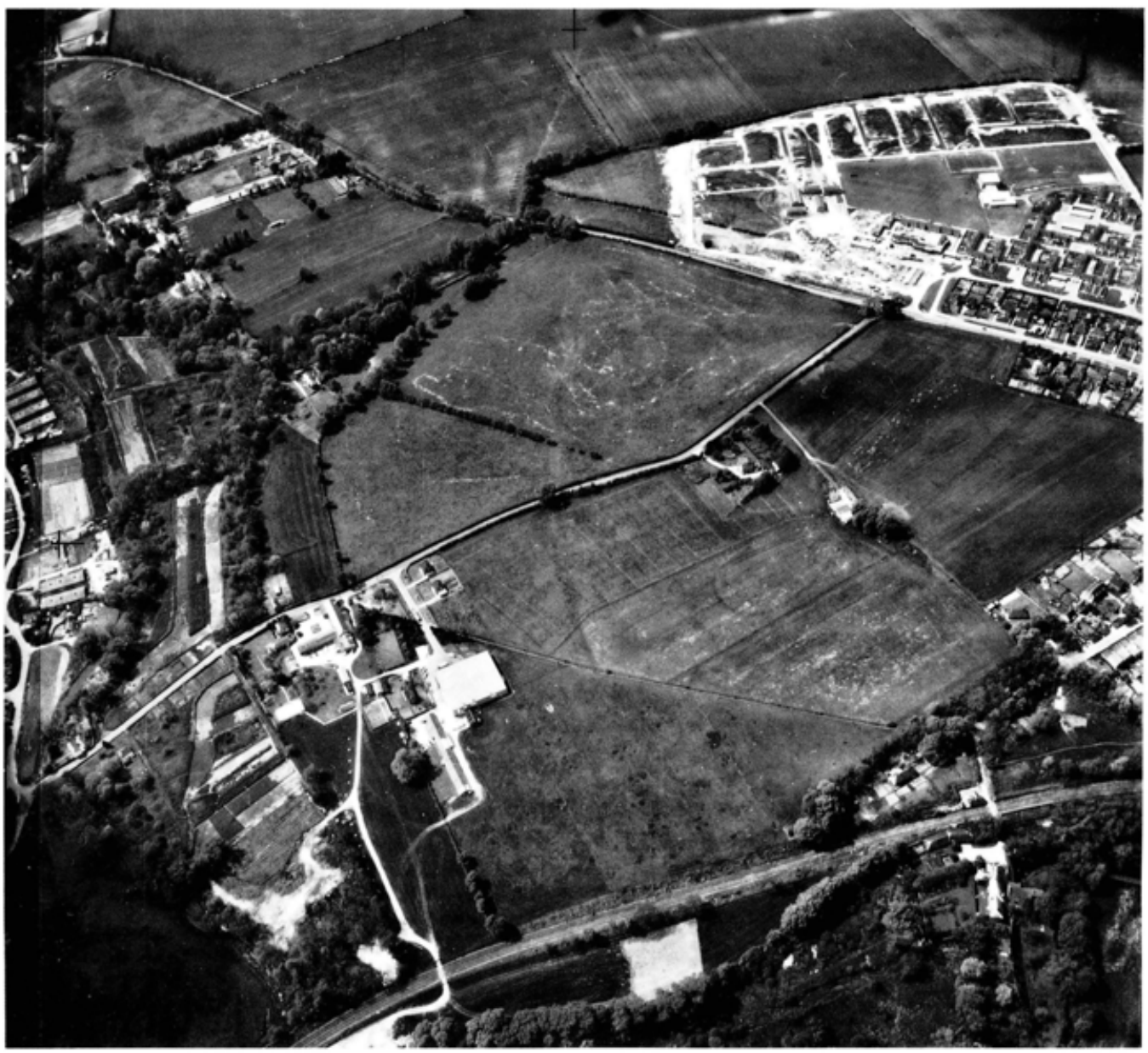

Fig 2 Aerial photograph taken in 1967 before excavation, looking north-westwards across Balksbury Camp with the south ditch just visible

local river valleys and their resources, superior in fact to that of the broadly contemporary hillfort of Bury Hill which overlooks it to the south. The chalk surface is broken by periglacial polygons and stripes of 'sol' and sand, and the spur is capped by a thin deposit of 'clay-with-flints' and Tertiary flint gravel. The modern soils are mainly thin rendzinas of the Andover Series.

Before excavation, the site was chiefly open farmland, but a large number of tree-hollows, recognised after topsoil stripping, indicate that formerly the area was wooded.

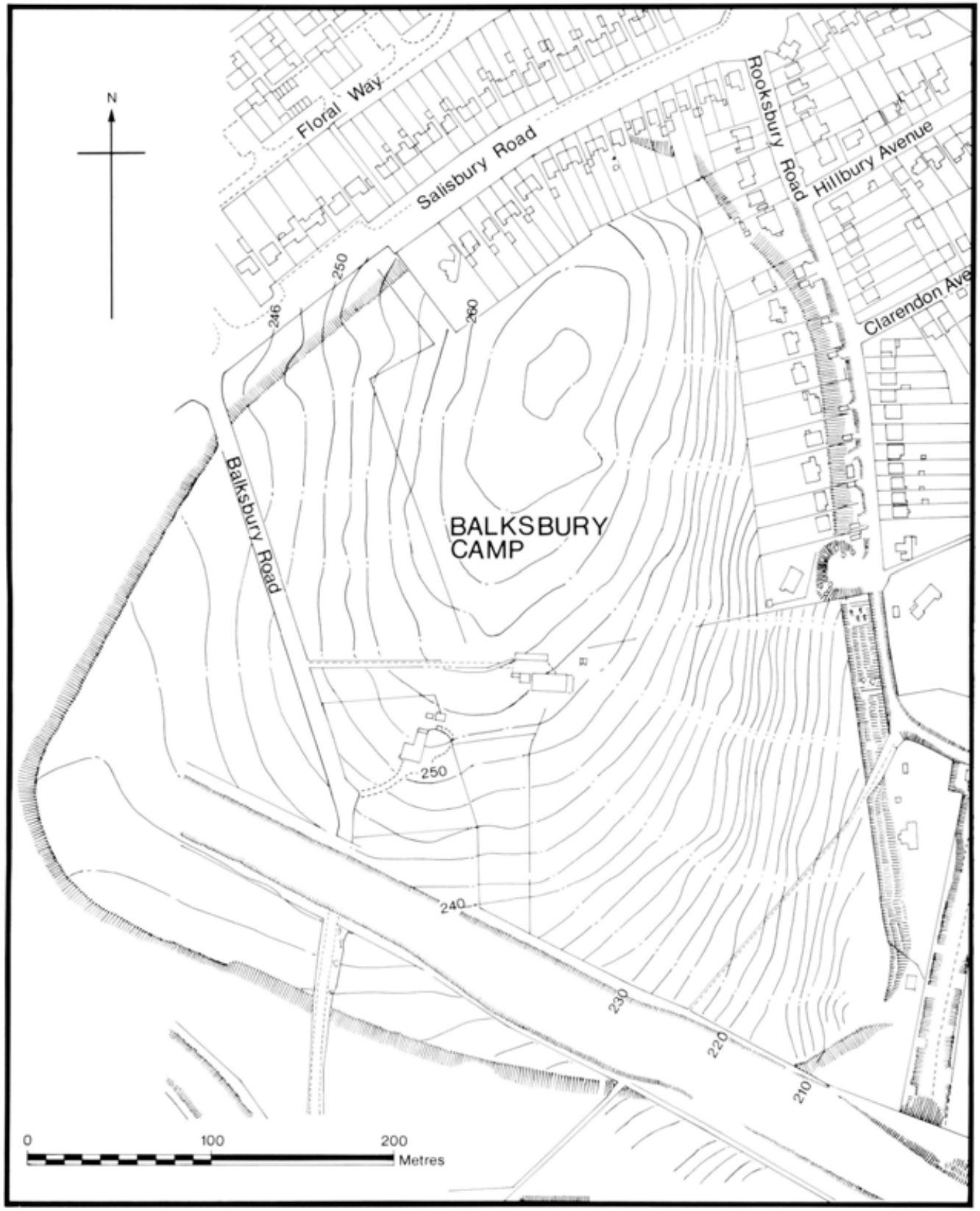

Fig 3 Detailed contour map

Previous archaeological work

Details of previous antiquarian and archaeological activity at Balksbury Camp have already appeared in print (Wainwright 1969), so only a short summary will be given here.

In 1939 the defences on the southern side were sectioned by Mrs J Hawkes (Hawkes 1940), revealing a bank of dump construction between 5.4 and 7.0m wide and surviving 0.3m high, with an accompanying flat-bottomed ditch 6.7m wide and 2.7m deep. In 1958 further details of the defences were revealed during house-building along Rooksbury Road in the north-eastern corner of the enclosure (Thompson 1958). The bank was traced as a low chalk feature 0.6m high for a distance of 146m. Part of the ditch was also excavated.

In 1967 a series of excavations was carried out in the south of the enclosure (Figs 4 and 5), in advance of the construction of the Andover by-pass (Wainwright 1969). This work produced more information on the nature of the defences and also revealed evidence for activity within the interior of the enclosure. In addition, details of earlier occupation on the site were uncovered in the form of a group of four hearths with associated Beaker pottery.

Three phases of defensive circuit were recognised. The bank and ditch were successively enlarged in each phase. The phase III defences survived as a ditch 3.5m deep and 7.3m wide, with a narrow flat bottom and an accompanying bank 6.4m wide. A flint-cobbled trackway of uncertain date was found cut through the phase III bank in the south-west. A thick black 'occupation' deposit was uncovered behind the phase III bank which contained large quantities of Iron Age pottery and animal bone, and also numerous flint artefacts. A single inhumation burial was found within this deposit, immediately behind the bank in the south-eastern corner. Other evidence for activity within the enclosure consisted of a series of four-post structures, mainly concentrated in the south-eastern corner, and sporadic hearths and postholes. It is against the background of these earlier investigations that the later excavations reported here in detail have to be considered.

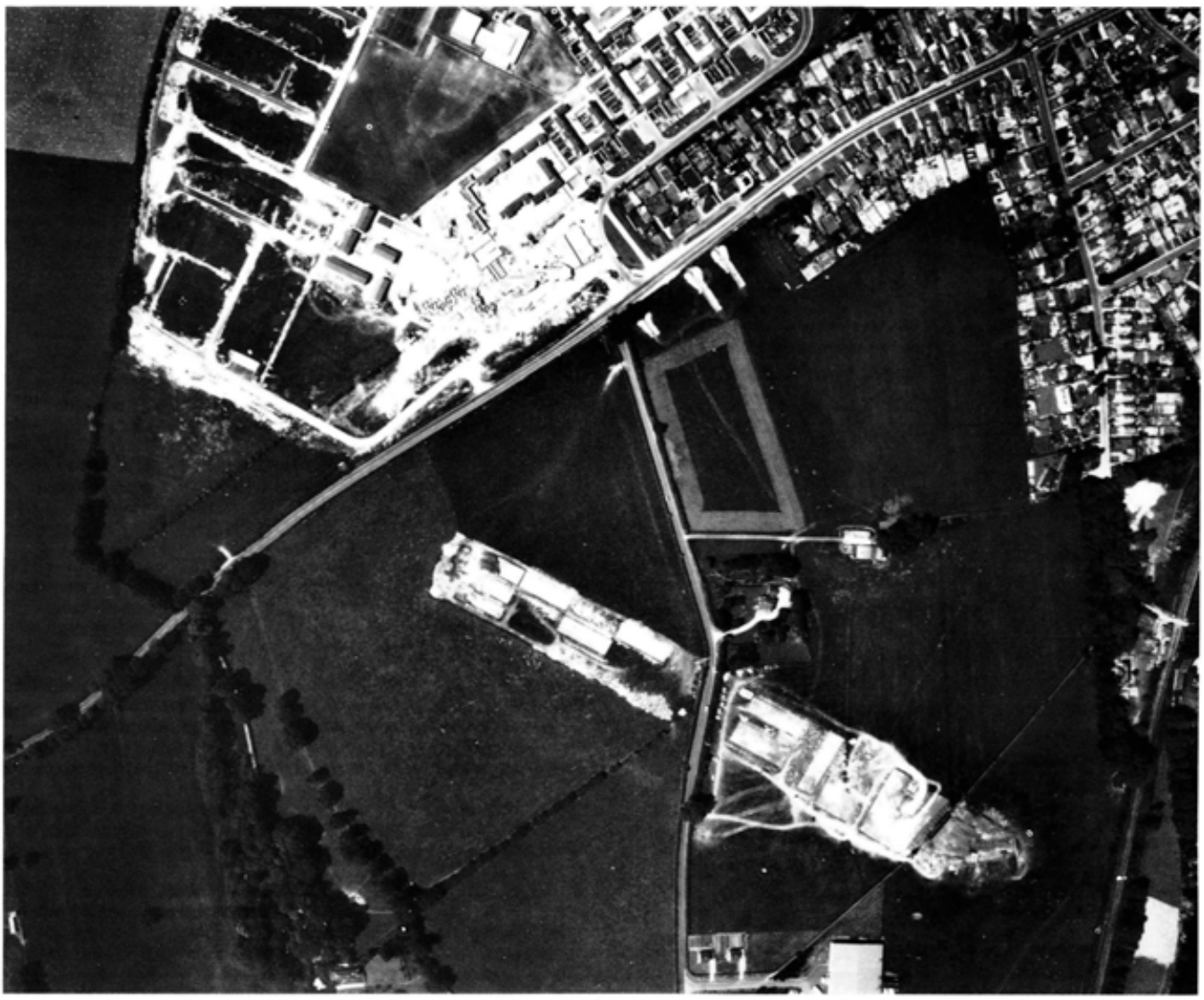

Fig 4 Aerial photograph of the 1967 excavations along the route of the A303 bypass

The 1973 and 1981 excavations

A magnetometer survey was carrried out in April and May 1973 by Alastair Bartlett for AM Lab (*AM Lab report no 1606*), then during May and September 1973, 10ha in the interior of the enclosure were excavated in advance of redevelopment, by the Department of the Environment. The designated area was bounded by Balksbury Road to the west and the Andover by-pass to the south respectively, by a footpath cutting diagonally across the south-eastern corner, and by the gardens of houses along the eastern and northern sides (Figs 5 and 6). The grounds of a private dwelling in the angle of Balksbury Road and the by-pass were excluded, as was an area in the centre covered by a clump of mature trees. The available site, except for a small area excluded for access, dumping, and other purposes, was first stripped of ploughsoil by earth-moving machinery (a scraper and a tracked loader) before excavating by hand the features thereby revealed. The excavation strategy was to half-section all features (with the exception of gullies, of which only small segments were excavated), but to investigate fully features of special interest. Innovative use was made of large-scale

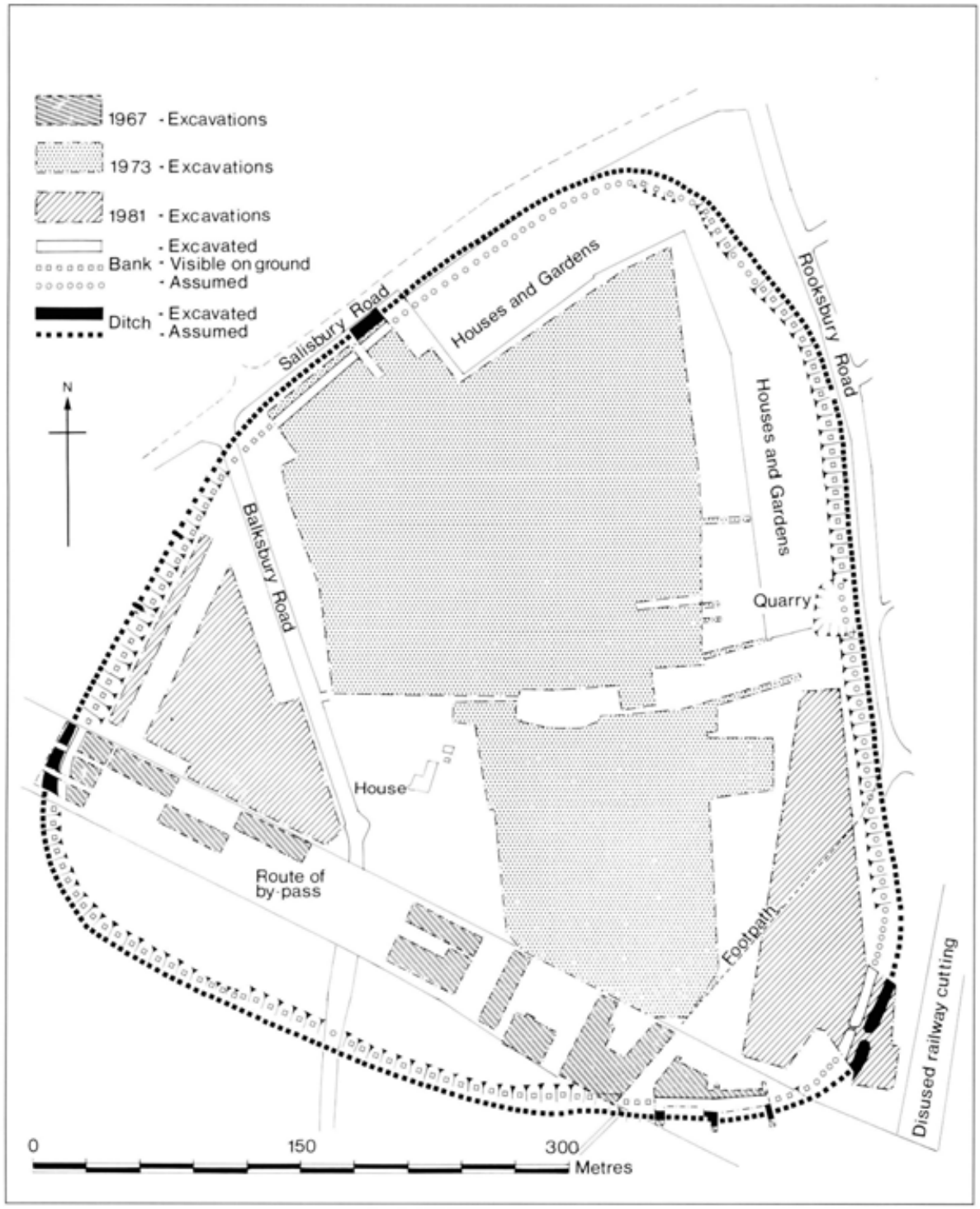

Fig 5 Areas excavated in 1967, 1973, and 1981

hydraulically-powered flotation equipment for obtaining samples of micro-flora and fauna from selected deposits. A force of up to 50 volunteers was employed in addition to 16 supervisory and specialist staff.

During June to October 1981, further excavations were carried out by the Central Excavation Unit of the DoE (now Central Archaeological Service of English Heritage) in advance of an extension of the housing development into the western and south-eastern areas previously not threatened (Fig 5). Similar machinery to that used in 1973 was employed to clear 13,000 sq m of topsoil on the western side and 7000 sq m in the south-eastern corner and to section the bank. There was insufficient time in the 1981 season to excavate all the features exposed by surface stripping and only about three-quarters of the revealed features were investigated. Only a small part of the south-eastern area behind the ramparts at the entrance was planned and only a few of the features were excavated. Therefore no detailed plan of this area or of the area outside the entrance, where some gullies of uncertain function were discovered, is published here. Information on these is available in the site archive.

As the results of both the 1973 and 1981 excavations are considered together in this report, and since both have numbered sequences beginning at 0001, to avoid confusion, the 1981 context numbers have had 2000 added to them here. The original numbers are, however, retained in the archive. Thus, the individual contexts from the 1973 excavation are numbered in a sequence 1–1999; contexts in the western area of the 1981 excavations (site subdivisions A, B, and C) are numbered 2000–2999; and context numbers in the south-eastern area (site subdivision D) are in the series 3000–3999.

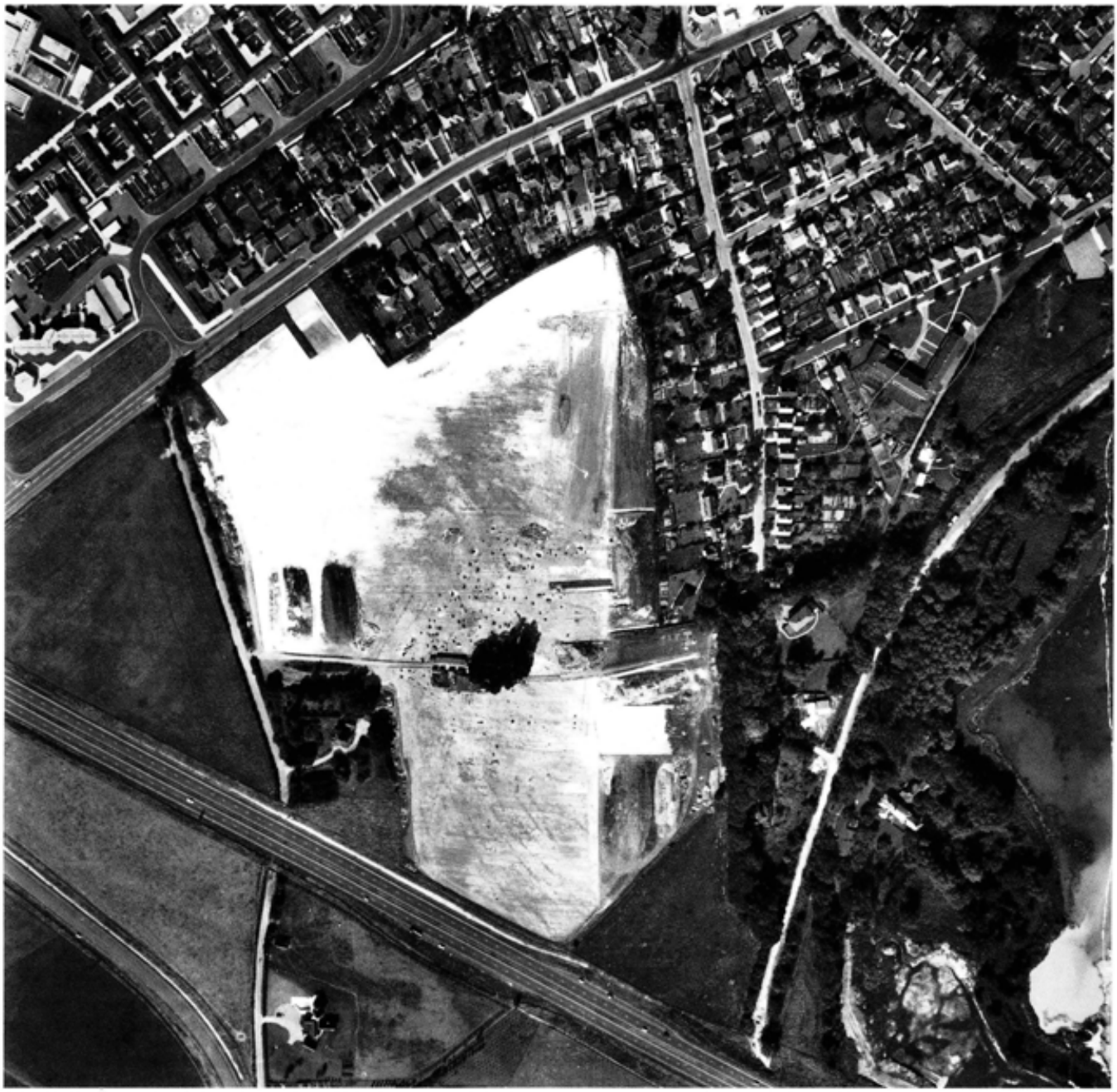

Fig 6 Aerial photograph of the 1973 excavations

Individually numbered objects from the two seasons of excavation are distinguished by the use of the SF (special find) prefix for the 1973 excavation objects and by the use of an eight-figure Ancient Monuments Laboratory code for the 1981 excavation objects.

Archive

The finds, together with copies of the archival material, are deposited with the Hampshire County Museum Service (*accession number A.19/12b*). The archive consists of site records in unedited form, supplemented by computer-based catalogues of the 1981 excavation. It also contains pottery drawings and the detailed specialists' reports summarised in this volume.

Report organisation

The site report below summarises, by period, the information retrieved, using simplified overall plans. Detailed plans of smaller areas, including feature numbers, may be found on microfiche. These are indexed with details of feature dimensions and stratigraphic relationships in appendix 2.

2 The site

Introduction

The distribution of archaeological features within the enclosure (Fig 7) provides a clear pattern of the form of the settlement. It falls broadly into four main areas of occupation in addition to the southern area excavated in 1967: the central area; the north-western area; the western area; and the south-eastern area. A few isolated features were also found in the north-eastern part of the enclosure.

The focus of activity was in the centre of the site where a palimpsest of different features was revealed (Figs 7 and 8, and MF Figs 3 and 5–11). These included a series of small enclosures defined by gullies and a large number of pits concentrated mainly in the northern part. In the southern part there was a large number of postholes, amongst which can be recognised some post-built structures. Postholes were scattered over the rest of the central area, but no timber structures

Fig 7 Plan showing features recorded in all seasons of excavation

were apparent. The north-western, western, and southern areas were almost entirely occupied by post-built structures, mainly four-post ones, and a small number of circular structures.

It should be borne in mind that many of the postholes survived only a few centimetres deep, the result of severe plough erosion. Thus many postholes may have been completely removed, and it is possible that evidence for other timber structures has been lost. Any construction composed of small stakes is likely to have been completely destroyed, as only three stakeholes were found on the entire site.

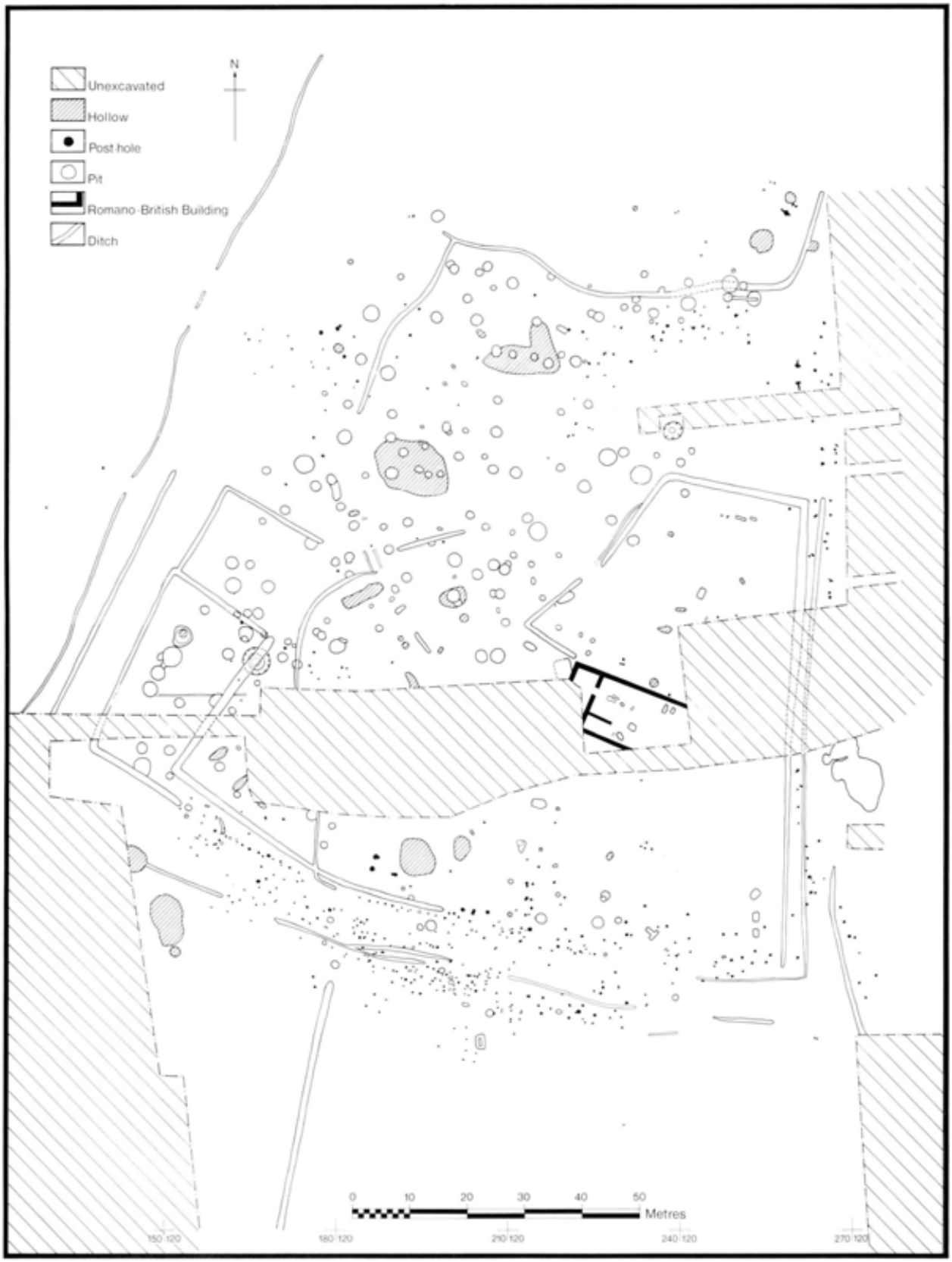

Fig 8 Detail plan of the central settlement area excavated in 1973 (for feature numbers see MF Fig 3)

The evidence for the archaeological features is presented within a series of chronological periods. The main data for these chronological periods are derived from the ceramic phasing (*see Rees, chapter 3*). In the absence of stratigraphic relationships between most of the features, they have been assigned to the relevant chronological period on the basis of the diagnostic pottery contained within them. It must be stressed that individual features were assigned to a ceramic phase on the basis of the examination of featured sherds only. It is possible that an analysis of the body sherds might alter the ceramic dating of individual features. A complete list of features assigned to each ceramic phase is presented in appendix 1.

Neolithic

Evidence for activity which can be dated to this period was scarce. No structural remains were revealed and a relatively small quantity of worked flint was residual. In general, the flint assemblage is undiagnostic and contains both material which may be Neolithic in date and material which may be dated to the early Bronze Age (eg a barbed and tanged arrowhead, *SF3019, Fig 43, no 1*), so it is clearly not chronologically homogeneous. The two flint artefacts which may be Neolithic are a small flaked adze (*SF3012, Fig 43, no 3*) found stratified beneath the ramparts of the Iron Age defences to the north of the entrance, and a broken petit tranchet derivative arrowhead (not illustrated) found in ploughwash against the bank in this area. A second small flaked axe and a chisel transverse arrowhead were found in the ploughsoil within the enclosure during the 1967 excavations (Wainwright 1969, 46). The stone adze (*SF3028, Fig 48, no 33*) which may be from Cornwall, is certainly Neolithic. The small size of the Neolithic artefact assemblage argues against any intensive use of the site during this period. The molluscan evidence suggests that the area was still covered in dense woodland at this time (*see Allen, chapter 3*).

Beaker/Early Bronze Age

The 1967 excavations revealed four small hearths, closely grouped on the southern side of the site, which produced sherds of at least three Beakers (Wainwright 1969, 34). One belongs to the developed stage of Clarke's Southern British Beaker Tradition (Clarke 1970), and one has heavy rustication, while a third sherd is probably from a variety of domestic Beaker. A date of *c* 1550 BC was assigned to the pottery by Dr Longworth (Wainwright 1969, 36). A small number of flint flakes were directly associated with the pottery.

In 1981 a single crouched inhumation was found on the western side of the site, just inside the enclosure bank, in a large grave much disturbed by later activity (Figs 9 and 10). This burial of an adolescent female

Fig 9 Beaker burial 2286 from the west

Fig 10 Beaker burial 2286

crouched on her left side with her head to the north was accompanied by a complete Beaker vessel behind the pelvis. The Beaker (*Figs 55 and back cover*) does not readily fit into any of the classificatory schemes but has characteristics akin to Clarke's (1970) Wessex/Middle Rhine group and Lanting and van der Waals' (1972) Step 2 (*see Cleal, chapter 3*). The grave is dated by a radiocarbon determination from the skeleton (Har-5124), calibrated to produce a date of 2130 to 1680 cal BC (*see Table 36*).

The Beaker pottery from the two excavations is very different and it is difficult to determine any relationship between the two areas of activity.

Middle to Late Bronze Age

No features of this date were recorded from the excavations, but a few sherds of Globular Urn were found scattered across the site in a number of later features. These are similar to pottery found at the extensive Urn cemetery at Kimpton, some 8km to the west (Dacre and Ellison 1981, 147–203). Not enough evidence was recovered to be able to assess the nature of any activity on the site belonging to this period.

Late Bronze Age to Earliest Iron Age

This is the first major period of activity which affects the topography of the site and it sees the inception of the plateau enclosure (Fig 11). Three phases of defence construction and modification were identified. Internal features contemporary with the defensive sequence comprise a small number of pits and post-holes scattered across the site. A number of four-post structures mainly concentrated around the periphery may also belong to this phase. The period is dated by the occurrence of 'plain' or 'early decorated' pottery (Late Bronze Age to Early Iron Age ceramic phase).

The defensive circuit

The main enclosure consisted of a single ditch and internal bank. A single entrance in the south-eastern corner has been identified and this is discussed separately below. Extensive investigations were carried out during 1967 when nine cuttings were inserted through the south-western, south-eastern, and north-western parts of the defensive circuit (Wainwright 1969, fig 7). Although previously published, the broad details are reiterated here in summary to define the evidence for the nature of the defensive circuit. Three phases were identified:

Phase I: a ditch at least 0.9m deep and less than 7.3m wide, fronting a bank with an average width of 3–3.5m

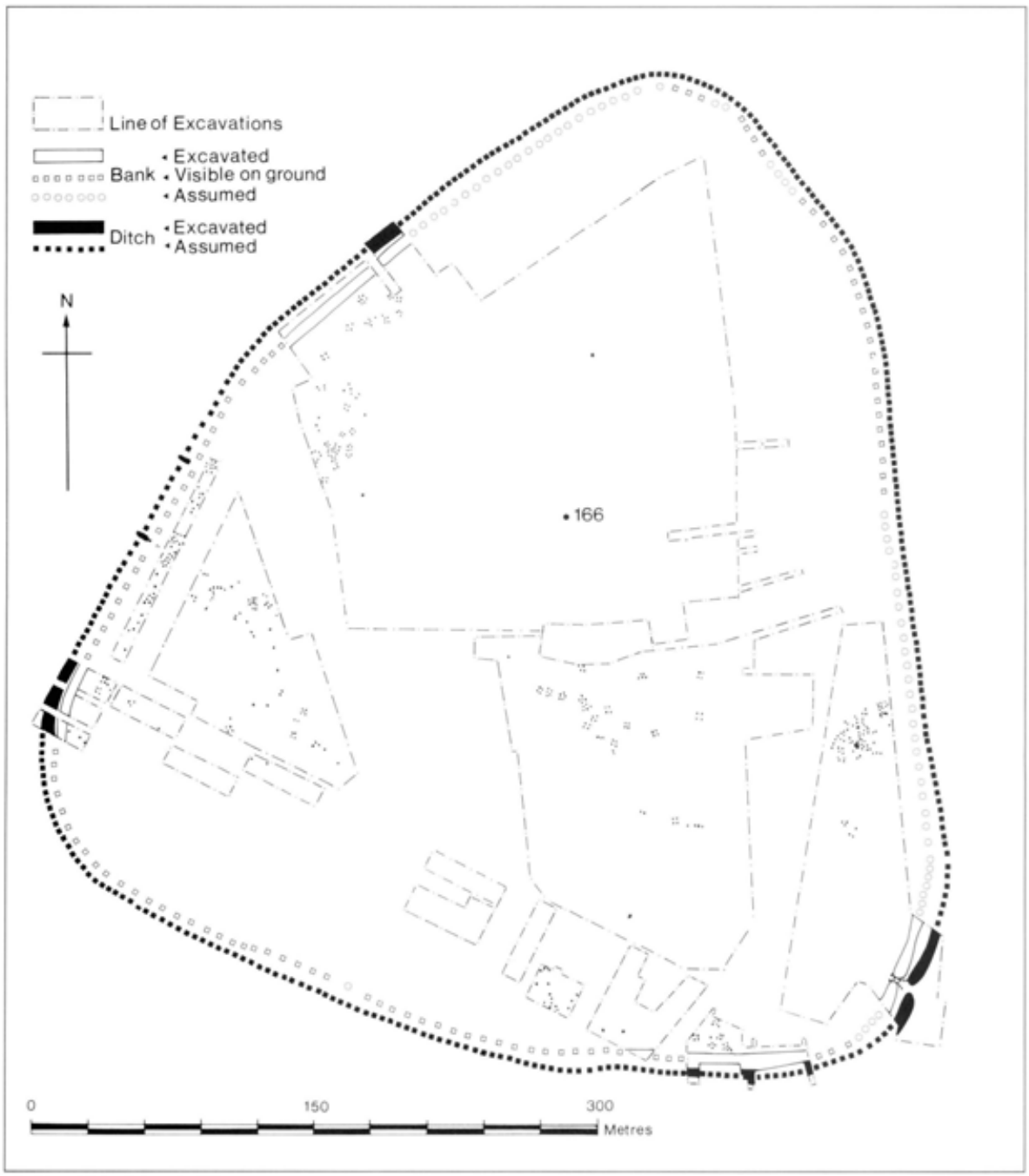

Fig 11 Late Bronze Age to Earliest Iron Age features

and a surviving height of 0.45m. The bank was composed of soil overlain by flint gravel, presumably derived from the clay-with-flints excavated from the ditch. The phase I ditch had been almost completely cut away by later recutting.

Phase II: the ditch was enlarged to an average depth of 1.8m land at a width of less than 7.3m. It appears to have been flat-bottomed. The bank was enhanced with chalk and soil derived from the ditch-deepening to a width of between 4.5–5m and was probably originally in excess of 2m high.

Phase III: the ditch was enlarged yet again to a depth of 3.3m and an average width of 7.3m, with a narrow flat base. The bank was enlarged to a width of *c* 6.4m by the addition of the material excavated from the ditch. This ditch appears to have silted up naturally, although there is some suggestion of ditch-cleaning in certain areas.

In 1973, the only part of the defences to fall within the area designated for excavation was a stretch in the north-west (Fig 5). As part of the western side of the defences had been examined in 1967, it was decided to restrict excavation to a cutting through the remains of the bank in search of dating evidence. A shallow extension of the trench delineated the edges of the ditch. A section (Fig 12) cut through the bank confirmed the three phases of construction that were recorded during the earlier excavations. Phase I is represented in this cutting by layer 12; phase II by layer 10; and phase III by layer 8.

A distinctive feature found behind the tail of the phase III bank (layer 8) was a layer of large flint nodules (layer 5), which extended for a distance of approximately 17m. The flint nodules do not resemble those in the clay-with-flints capping on the hilltop. It is likely that this layer was derived from the erosion of the bank material, in which case the flints may have been deliberately brought in and incorporated in the bank construction (*see Wilkinson, site archive*).

In 1981, an area of defences around the entrance in the south-east was examined (Fig 5). Two sections were also cut through the bank on the western side, which demonstrated similar stratigraphic sequences to those found in 1967 and 1973. In the vicinity of the entrance the final phase of the bank was slightly wider than elsewhere (*c* 8m) and survived to a height of just over 0.7m. The time limit for the excavation did not permit the excavation of the defensive ditch.

The dating evidence for the three phases consists of Late Bronze to Earliest Iron Age pottery found beneath the phase II bank in the southern and south-western areas during the 1967 excavations. Similar pottery was found in a stratigraphically similar position in the south-eastern area during the 1981 excavations (context 3134). A single radiocarbon date (Har-442: 2740±170 BP) calibrated to 1395–410 cal BC (two sigma; *see Table 36*) from an antler found in the phase II bank material (Fig 12, layer 10) gives a broad date for this phase of the defences. The time lapse between each phase of refurbishment cannot be determined, but the existence of soil development between the phase II and III banks (Fig 12, layer 9) which was revealed during all three excavation seasons implies a lengthy period of apparent neglect (*see Allen, chapter 3*) despite the very coherent nature of the pottery assemblage.

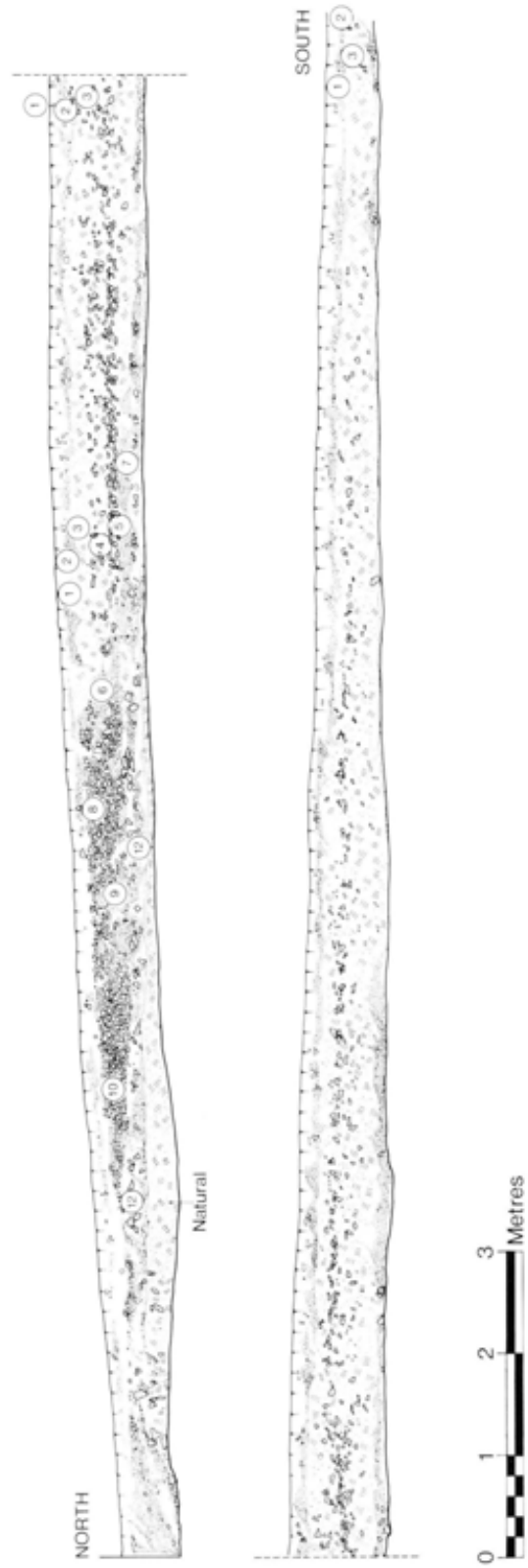

Fig 12 Section through the enclosure bank, excavated 1973 (for key see Fig 21)

The entrance

by K Smith

The excavation in 1981 of the entrance area in the south-eastern corner of the enclosure revealed evidence for a timber entrance corridor through the bank reached by a causeway across the ditch. A sequence of development which parallels the three phases of ditch and bank can be identified (Figs 13–15). The details of the entrance structure have been obscured by the remodelling of this area in the Romano-British period (Fig 26). The three phases of the enclosure entrance can be reconstructed as follows:

Fig 13

Phase I: two substantial postholes (3628 and 3638) set 3.6m apart were found on either side of the single-portal entrance way. post voids indicate that timbers 0.35m in diameter and 3.0m apart were set in these postholes in line with the leading edge of the phase I bank. External to these posts were two further postholes (3634 and 3636) of lesser dimensions and of varying depth which contained post voids 0.2m in diameter. At the rear of the bank were two further postholes (3630 and 3564). On the southern side of the entrance, posthole 3630, 0.6m across, contained a post void 0.4m in diameter. On the northern side, no post void was evident in posthole 3564, which was 0.5m in diameter. The minimum distance between the two posts would have been 2.1m. Central to the entrance corridor was a shallow gully (3646) 0.2m wide, which was traced for a distance of 3.0m. It terminated 1.5m outside the entrance but its extent westwards into the enclosure could not be determined as it had been eroded by subsequent activity. It may have been a drainage feature running through the entrance corridor. There is no stratigraphic evidence to demonstrate that this feature was contemporary with the first phase of the entrance.

The entrance was approached externally across a causeway (3694) between the terminals of the ditch (3688 and 3689). Poorly preserved small stone cobbling was discovered on the causeway but this could not be ascribed with any confidence to a particular phase.

It is possible that the substantial timbers in postholes 3628 and 3638 carried a gate or gates which could have closed flush with the front of the bank. Although the bank appears to have been very slight in this phase, the scale of the posts suggests a substantial entrance construction. The substantial posts at the rear of the entrance corridor and the two smaller posts in front of the bank may have been an integral part of the entrance superstructure. There is no indication of any form of barrier between the bank and ditch to prevent access to the berm, although the small postholes 3634 and 3636 may have been part of one. Also, positioned as they were, they would have protected the main gateposts from collision damage.

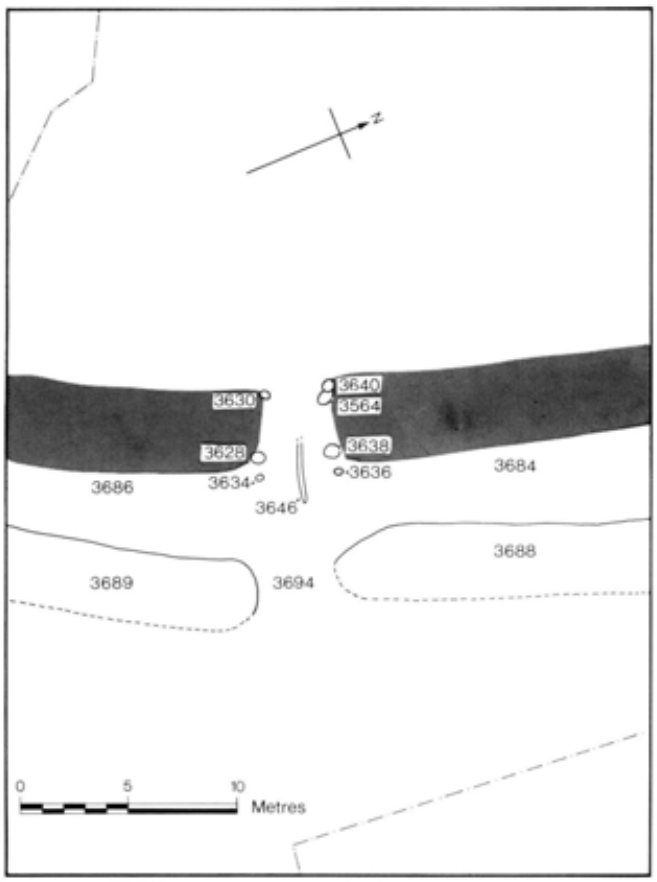

Fig 13 The enclosure entrance, phase I

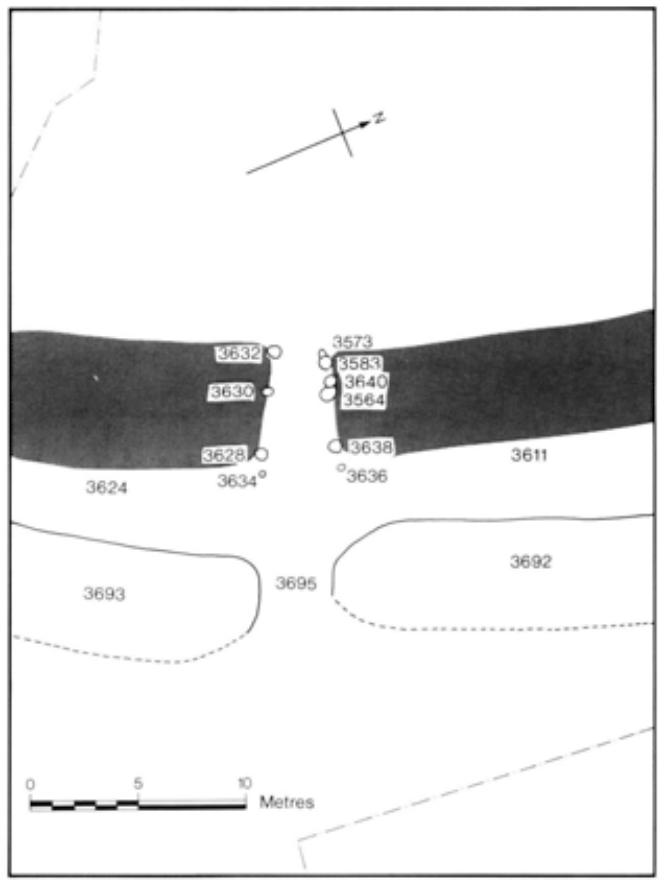

Fig 14 The enclosure entrance, phase II

Fig 14
Phase II: there was no evidence for the refurbishment of the substantial timbers of the phase I entrance. They may have continued in use. The enlargement of the bank in this phase meant that the entrance corridor had to be lengthened or vice versa. Two further postholes (3632 and 3573/3583) were added to the rear of the entrance corridor. These were between 0.4m and 0.5m in diameter with no trace of a post void. It is likely that the substantial upright timbers on both sides of the entrance corridor supported some sort of revetting for the bank, but no direct evidence survives for this. The entrance causeway across the ditch remained substantially unaltered.

Fig 15
Phase III: this phase saw the lengthening of the entrance corridor to almost 8m, with the addition of two more postholes (3575 and 3579) at the rear end of the bank. These postholes were 0.5m in diameter and were set 2.2m apart, so the corridor widens slightly at the inner end. The entrance causeway (3647) across the ditch measured about 3m wide in this phase.

The interior

Only a small number of features within the enclosure have associated pottery which can definitely place them within this period (*see appendix 1*). The majority of these are postholes, chiefly restricted to the peripheral area

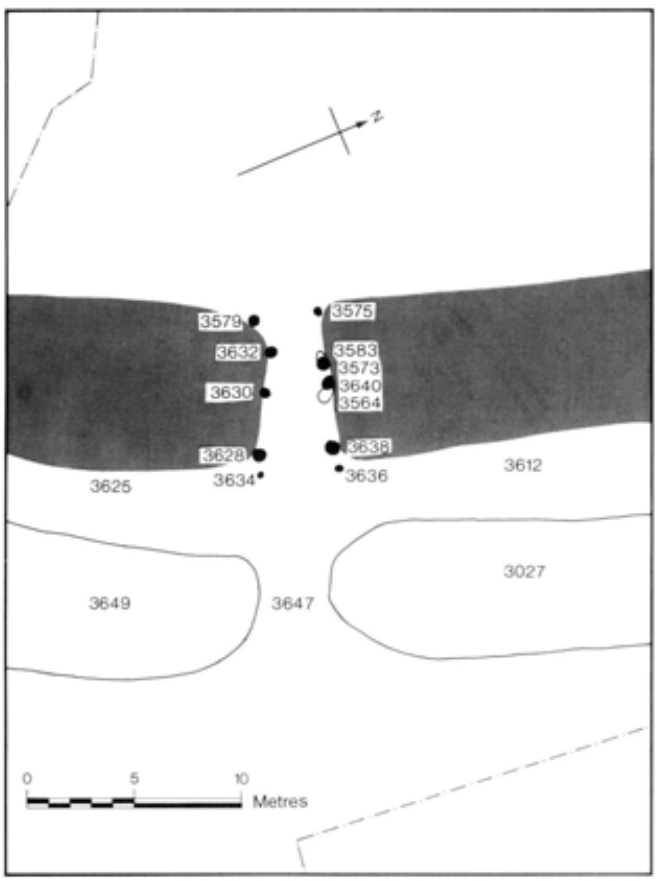

Fig 15 The enclosure entrance, phase III

Fig 16 Four and five-post structures of the Late Bronze and Early Iron Age

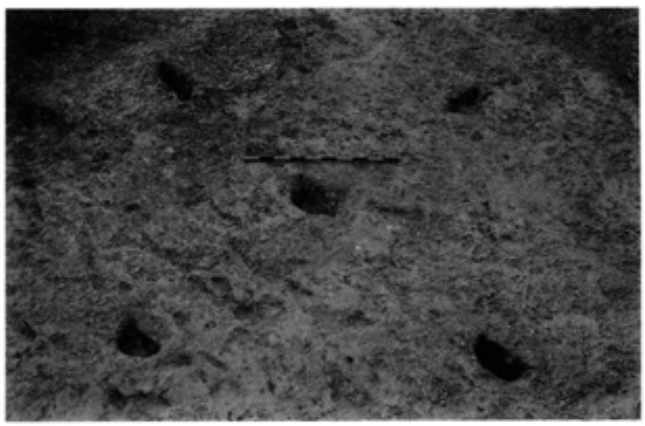

Fig 17 Five-post structure 2086 from the south-west

of the enclosure (Fig 11). The absence of diagnostic pottery belonging to the later ceramic phases suggests that the majority of the features discovered in this peripheral area belong to this period. Most of the features discovered during the 1967 excavations can be ascribed to this period on general pottery association (*see Rees, chapter 3*).

The only recognisable structures which belong to this phase are four-post structures, which in general are situated just inside the defensive circuit, although examples have also been found more centrally positioned within the enclosure (Fig 11). The dating evidence for ascribing these structures to this period comes from pottery contained in a single posthole (709) of a four-post structure (J) in the central area (Fig 16). These four-post structures were generally square or trapezoidal in shape with sides between 1.3 and 2.8m in length. The postholes were generally between 0.15 to 0.25m in

diameter with flint packing. In total 37 four-post structures were recognised during the 1973 and 1981 excavations: eighteen in the north-western area; nine in the western area; and ten in the central area. In addition, seven were recognised during the 1967 excavations. The details of these structures can be found in appendix 2 and MF Fig 2. No four-post structures were recognised in the south-east; however, the minimal archaeological recording of this area means that their existence here cannot be categorically excluded.

Four possible five-post structures were also identified (*see appendix 2, and MF Fig 4*). Structure 2086 (Figs 16 and 17) in the western area was a typical four-post structure with the addition of another, central, post. The other three possible five-post structures (A, B, Fig 16; N, MF Fig 8) were grouped together in the central area. These too were typical four-post structures, but the additional post was not centrally placed but positioned outside the middle of one side, thus forming a pentagonal shape.

During the 1981 excavations it was noticed that it was possible to pair off similar postholes to form two-post structures. A total of six of these were identified in the western area (*see appendix 2 and MF Fig 4*), and have been included in this period because they occur in the same area as the four and five-post structures, although there is no independent dating evidence for them.

Also during the 1981 excavations, several small pits (2076, 3003, 3010, and 3018) were recorded, which contained the remains of complete or near-complete vessels. They had been dug just large enough to contain the vessels placed in them. The diameter of the pits

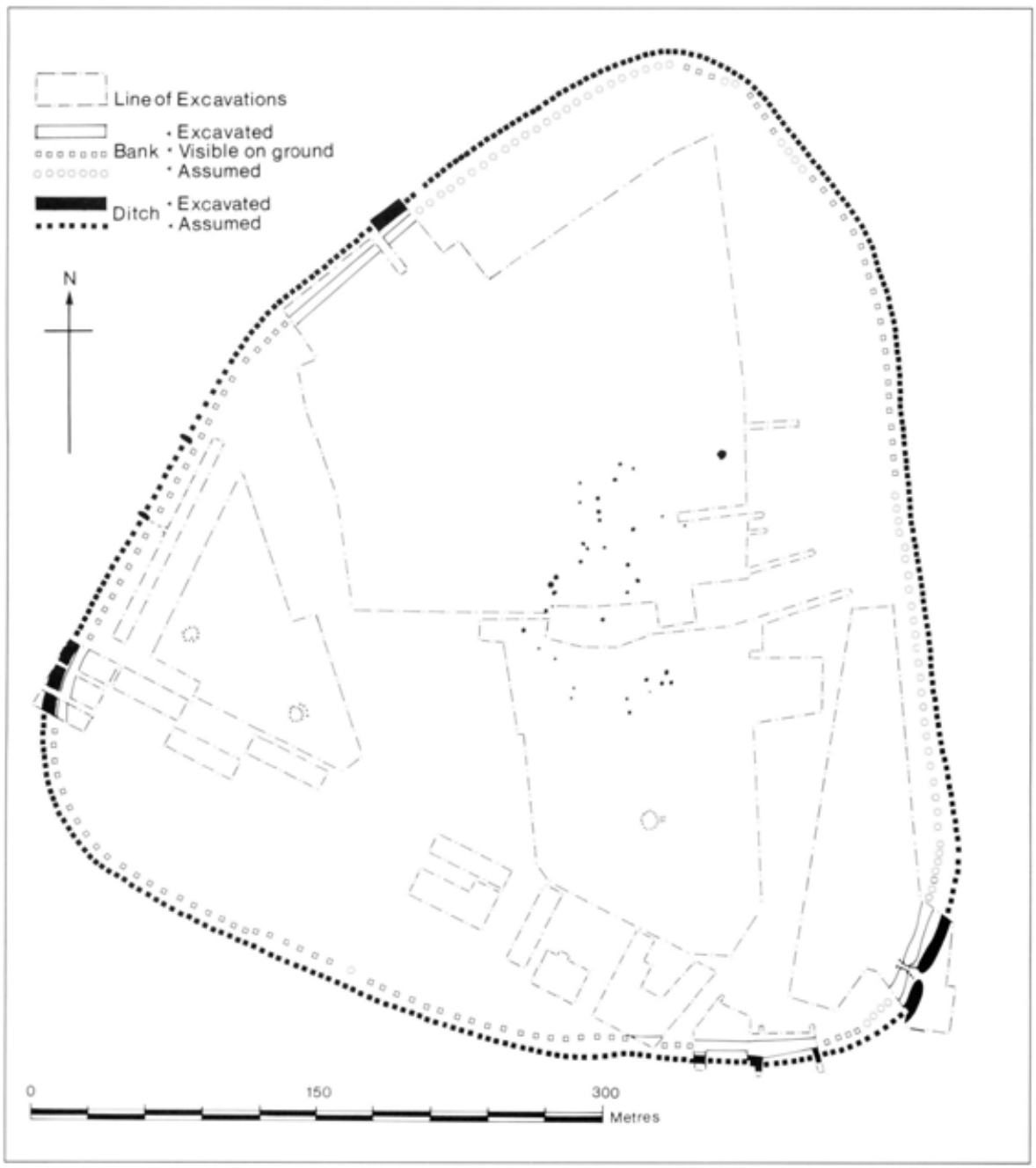

Fig 18 Early Iron Age features

ranged between 0.2 and 0.5m and they were between 0.15 and 0.2m deep. One of the vessels (in pit 3003) belonged to the Late Bronze Age to Early Iron Age ceramic phase. The burial of complete pots within a settlement of comparable date is known from Aldermaston Wharf (Bradley *et al* 1980, 224), but the other vessels could not be more closely dated than to the Iron Age, thus all of these features have been assigned to this phase. Three of the buried vessels were in the eastern area and one in the western area. The function of these buried vessels is uncertain, but it is suggested that they may have been a form of cool container. Although some had varying quantities of burnt flint in the filling, there was no evidence to suggest that the flints were placed there whilst still hot, nor was there any evidence of *in situ* burning.

During the 1967 excavations, hearths and areas of burning, together with pottery and worked flint, were found sealed under the phase II bank, in the south-western and south-eastern areas of that excavation. The worked flint was more than likely residual, but the other evidence of activity was probably associated with phase I of this period. Behind the phase III bank and further into the interior, sporadic hearths were also found. A thick deposit of black ashy soil containing domestic refuse was found built up against the rear of the phase III bank during both the 1967 excavations and those of 1981 in the south-east. This deposit contained pottery which belongs to this period.

Dating evidence

The primary dating evidence for this period comes from the diagnostic pottery of the Late Bronze Age to Earliest Iron Age ceramic phase. A list of features which can be ascribed to this ceramic phase is presented in appendix 1. The absolute dates for this ceramic phase are further discussed in chapter 4. A date range of 1100–900 BC is suggested.

In addition, two radiocarbon dates were obtained from features which have been ascribed to this period. An antler from the phase II bank produced a date of 1395–410 cal BP (Har-442); charcoal from posthole 3465 in the south-eastern area provided a date of 1160–820 cal BC (Har-5127) (*Table 36*). These dates fall within the range suggested above but do not date the period any more precisely.

Early Iron Age

In this period there appears to be a shift of activity towards the central part of the site indicated by a concentration of pits there (Fig 18). Also, in the southern half of the site, three post-built round houses may belong to this phase. It is uncertain what role the defensive circuit played during the period; however, whether it was being actively maintained or not, it would still have formed a significant boundary marker. The period is defined by features containing diagnostic pottery from the Early Iron Age and Early to Middle Iron Age ceramic phases. The earlier part of the period is dated by the presence of pottery assemblages which include furrowed bowls and decorated jars of early All Cannings Cross type (Cunnington 1923); whilst later stages include the later 'haematite-coated' scratched-cordoned bowls of Meon Hill type (Cunliffe 1978, 355) and other similarly decorated wares.

Post-built structures

Three circular post-built structures have been ascribed to this period (Fig 19). Two of these structures (2075 and 2150) were in the western area and one in the southern central area (AJ). The dating evidence for placing these structures in this period comes from pottery contained in a single posthole (745) in structure AJ. This structure consists of a well-defined circle of 15 postholes with an internal diameter of *c* 8.5m and a four-post external porch facing east (Figs 19 and 20). The postholes which make up the circle were between 0.20m and 0.37m in diameter and the majority between 0.2m and 0.3m deep. Four of the postholes were slightly elongated and flint packing was discovered in two (746 and 748). The four postholes of the porch were larger, being between 0.3m and 0.4m in diameter and between 0.22m and 0.38m deep. This structure appears to have been of

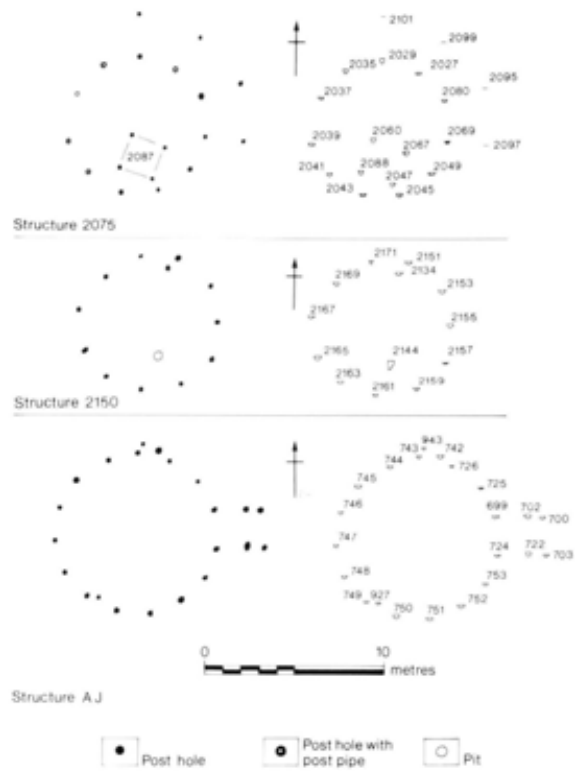

Fig 19 Detail plan and sections of Early Iron Age circular post-built structures

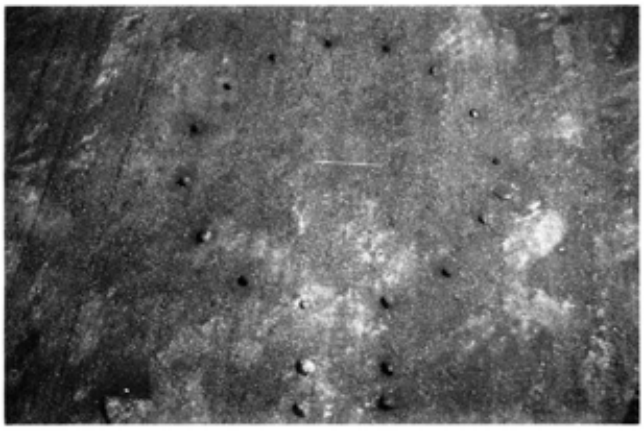

Fig 20 Structure AJ

a single period construction, although there are two features (742 and 943) very close to the line of the wall which could have been connected with repairs.

Structure 2075 (Fig 19) consisted of eleven postholes spaced equidistantly to form a circle 7.6m in diameter. In the north-east quadrant, outside this circle, was an arc of four postholes which lie on a concentric circle 12.4m in diameter. These outer postholes were placed radially out from four postholes in the inner circle. The postholes measured between 0.2m and 0.35m in diameter and between 0.09m and 0.25m in depth. Six of the postholes (2027, 2029, 2035, 2037, 2039, and 2041) had post pipes with an average diameter of 0.15m. The outer postholes were only 0.05m in depth, so it is likely that other postholes may have existed in this outer circle but had been completely ploughed out.

Inside the inner circle was a setting of four postholes (2087). This post-setting was off-centre in the southern half (Fig 19), and it seems unlikely that it belongs to 2075 but is a separate four-post structure. No stratigraphic relationship survives between these two structures, but it has been assumed that the four-post setting is earlier and belongs with the other similar structures ascribed to the preceding Late Bronze Age to Earliest Iron Age period.

Structure 2150 (Fig 19) consisted of a circle 7.7m in diameter of eleven postholes. The postholes were between 0.25m and 0.34m in diameter and between 0.1m and 0.2m in depth. This structure is almost identical to the inner ring of structure 2075. However, no outer ring of posts was located. Perhaps the posts had either been completely ploughed out or were otherwise not recognised in the rather mixed subsoil in this area. A small pit (2144) containing burnt flint in the upper filling was found within the ring and may have been contemporary within the structure.

These circular structures all appear to represent the remains of round houses typical of this period. Similar houses have been recognised at other Early Iron Age enclosures such as Old Down Farm (Davies 1981) and Winnall Down (Fasham 1985), and in hillforts such as Winklebury (Smith 1977), where more complete examples have been uncovered.

Pits

A total of 27 pits has been ascribed to this period on the basis of the pottery contained within them (*see appendix 1*). These were concentrated in the central part of the site (Fig 18). The specific details of the pits can be found in appendix 2. The majority were bell-shaped, with a few conical examples and a single cylindrical pit, which in general reflects the overall proportions of pit profiles for all periods of the site. There was a wide variation in diameter and depth and no distinctive types or any particular size or shape of pit peculiar to this period was recognised. A selection of these pits is illustrated in Fig 22, nos 1–7, a key to sections is provided in Fig 21.

In general, these pits appear to have been deliberately backfilled with occupation debris. The details of the individual fillings have been retained in archive, but a small number of pits contained artefacts of note. Pit 515 contained a fragment of a triangular fired clay loomweight and several fragments of wattle-impressed daub. Pit 501, adjacent to pit 515, on the south-eastern edge of the distribution of features belonging to this period, also contained wattle-impressed daub in its filling. Pit 2, on the western side of the area of feature distribution, also contained a ceramic loomweight fragment and a piece of wattle-impressed daub. Pit 48 in the north central area contained three fragments of saddle quern. Worked bone was found in four pits (98, 133, 265, and 500).

Carbonised grain was recovered from several pits belonging to this period (*Table 22*), indicating that both wheat and barley were cultivated, with wheat being the dominant crop (*Table 27*). The large proportion of oats recovered is unusual for this period.

Section key

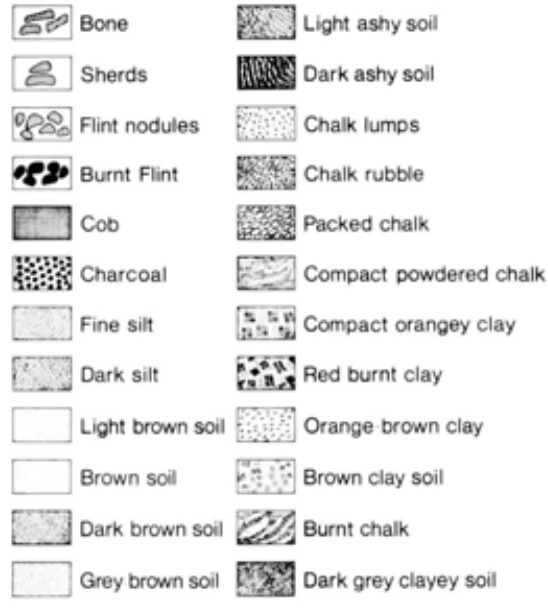

Fig 21 Key to sections (Figs 12, 22, and 29)

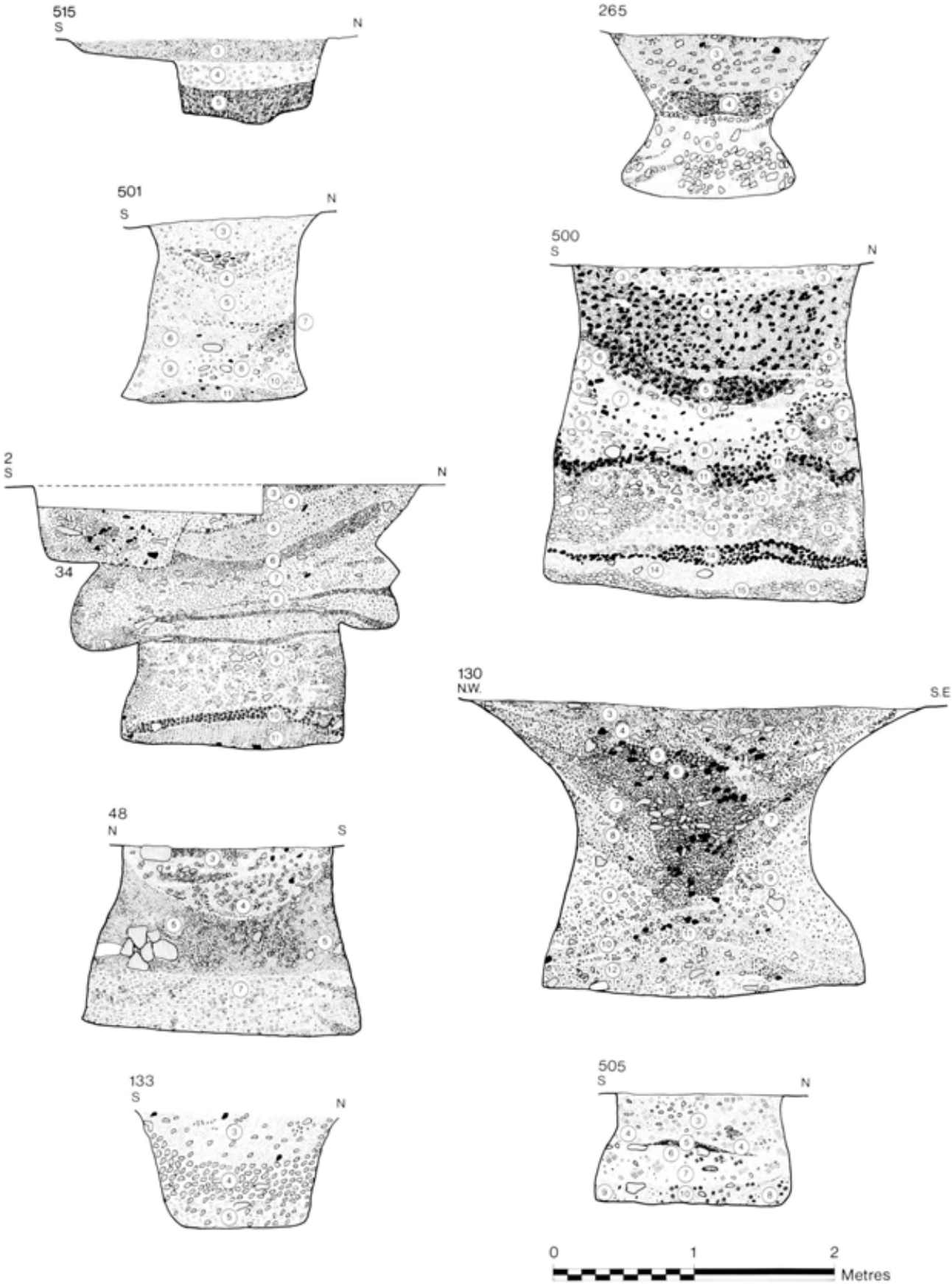

Fig 22 A selection of Early, Middle and Late Iron Age pit sections (for key see Fig 21)

Fig 23 Middle to Late Iron Age features

The animal bone evidence from these pits (*Table 14*) shows that sheep and cattle were the most common sources of meat with no real indication of the exploitation of wild animals. The large proportion of dog bones is derived from several new-born puppies disposed of in a number of pits (133, 191, 240, and 483).

The relatively small quantity of artefacts and other evidence recovered from the pits does give an outline of the range of activities on site during this period, however, no significant spatial differentiation could be recognised in the distribution of this material.

A small number of other features, mainly irregular hollows and scoops and isolated postholes, could also be placed in this period (*see appendix 1*).

Defences

All three phases of the development of the defences have been discussed as a part of the preceding period. There is, however, a possibility that the final phase of the defences may in fact belong to this period. It is possible that there was a long period between phases II and III of the bank construction, as suggested both by the soil development between those phases and by the molluscan analysis, which indicates a period of neglect and regeneration of vegetation (*see Allen, chapter 3*). Thus, phase III might belong to this later period and be coincident with a reorganisation of the interior indicated by the appearance of round houses and a seeming concentration of activity in the central rather than in the peripheral areas of the site.

One argument against this is the coherent nature of the pottery assemblage and the lack of diagnostic pottery belonging to this Early Iron Age period. However, the lack of pottery may be in part a result of the apparent contraction of the area of activity on the site. It must be remembered too that no sections were cut through the ditch fillings, where it is likely that the greatest chance of recovering pottery to date this phase is to be found. On the present evidence, the date of the final refurbishment of the defences cannot be determined.

Dating evidence

The main dating evidence for this phase comes from the diagnostic pottery of the Early Iron Age and Early to Middle Iron Age ceramic phases. The dating of these ceramic phases is not secure (*see Rees, chapter 3*). The suggested date range for this period is 900–400 BC. The stratigraphic relationship of the fourth-century BC La Tène I 'Wessex' brooch (*SF1058, Fig 39, no 1*) and the La Tène I dagger scabbard (*SF1062, Fig 40, no 22*) to the Middle Iron Age ceramic phases is not known.

In addition a single radiocarbon date was obtained for this period from charcoal from within pit 500 (Har-443). This produced a calibrated date of 550–950 cal AD (*Table 36*). This is presumably the result of a sampling problem as the ceramic assemblage is a coherent Early Iron Age group apart from a little Romano-British material in the uppermost silting layer.

Middle to Late Iron Age

Evidence for activity is confined to the central area of the site (Fig 23), where a number of pits and postholes can be dated to this period on the basis of the diagnostic saucepan pots and associated forms contained within them. No buildings or other structures were associated with this period and there is no evidence to suggest that the enclosure system was still functioning. It is possible that the settlement at this period was an open one or one defined by ephemeral structures such as hedges or fences.

Pits

A total of 90 pits has been ascribed to this period. As with the other periods, the majority were bell-shaped with only six cylindrical (nos 14, 53, 103, 116, 118, and 916) and three sloping-sided pits (nos 18, 146, and 255) present. These latter types did not appear to have a significant distribution but were scattered throughout the area. The pits exhibited a wide range of sizes (*see appendix 2*), but no characteristics particular to this period could be identified. Typical bell-shaped pits belonging to this period are illustrated on Figure 22, nos 8 and 9.

Three pits (168, 193, and 918) were sampled for environmental evidence. Pits 193 and 918 contained

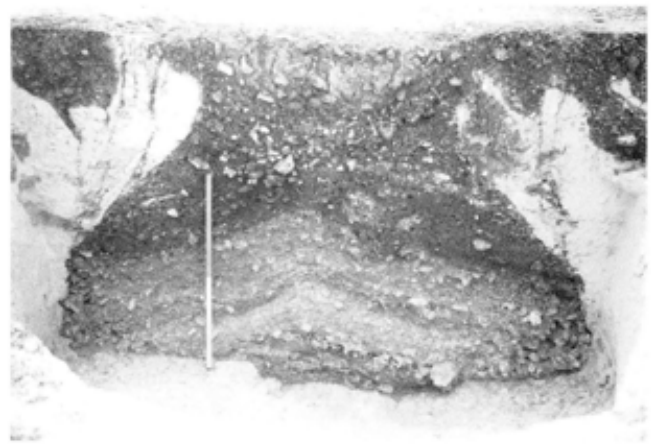

Fig 24 A typical Middle to Late Iron Age pit

mollusca common in open, short grassland, and arable contexts (*see Allen, chapter 3*). The results from pit 168 were more interesting, with a marshy environment indicated. It is suggested that this might be as a result of the deposition within the pit of reeds or mud derived from the river basin.

The pits were filled with domestic refuse which provided some information on the range of activities on the site during the period. Evidence for arable farming and cereal production comes from the occurrence of an iron share tip (*SF2064, Fig 41, no 11*) in pit 126 and an iron sickle (*SF2051, Fig 41, no 9*) in pit 204/205, and from the carbonised plant remains which indicate an almost equal proportion of wheat and barley (*Table 23*).

A total of thirteen saddle querns and fragments was found concentrated in a small number of pits (12, 23, 55, 106, 130 (Fig 22, no 8), 213, 238, 628, and 1027), but these had a widely-spaced distribution. Three rotary querns were recovered (from pits 36, 112, and 123).

A mixed farming economy is indicated by the animal bone, which shows a continuous predominance of sheep. Pig bones become slightly more common compared to the preceding phase and deer are present in small numbers.

A number of bone points and needles came from pits of this period (103, 111, 168, 195, and 237). These bone objects appear to be generally concentrated in the north-west, in contrast to the other worked bone artefacts which have a more general distribution.

One distinctive feature of this period is the occurrence at Balksbury of four circular chalk loomweights (*Fig 49*), which are unique to this period. Three were found in pit 111 and one in pit 168. A circular sandstone loomweight (*SF3071, Fig 48, no 34*) was also found in pit 11.

A single crucible fragment (*SF4031, not illustrated*) was found in an isolated pit (505, Fig 22, no 9) right on the extreme south-eastern edge of the pit distribution. This might indicate the presence of metalworking activity carried out away from the main focus of activity as indicated by the pit distribution.

Other noteworthy objects recovered from this period include a La Tène I brooch (*SF1058, Fig 39, no 1*) from pit 931; an iron bucket handle (*SF2055, Fig 41, no 10*) from pit 905, and part of a Kimmeridge Shale bracelet roughout (*SF3067, Fig 50, no 2*) from pit 918. A damaged stone axe (*SF3028, Fig 48, no 33*) was recovered from pit 111. Obviously a residual artefact in this period, it exhibited signs of abrasion and wear, suggesting that it might have been re-used as a rubber.

Postholes

Only a single posthole (959, MF Fig 9) can be attributed to this phase. This was situated in the southern central area beyond the limit of the pit distribution shown in Figure 23. Several other postholes were found in the vicinity but it is not certain that they are related. It is hardly surprising that most of the postholes do not contain any dating evidence, but on the basis of a single posthole it is not possible to be certain whether there were any post-built structures in use during this phase.

Dating evidence

The dating evidence for this period again comes from the diagnostic pottery of the Middle Iron Age, the Middle to Late Iron Age and the Late Iron Age ceramic phases contained within a number of features, a complete list of which can be found in appendix 1. The dating of the ceramic phases is discussed below in detail (*see Rees, chapter 3*). A general date range of 400 BC – AD 50 is suggested for this period.

In addition a single radiocarbon date (Har-444) was obtained from pit 36, which contained diagnostic pottery from the Late Iron Age ceramic phase. This date has been calibrated to 390 cal BC – 20 cal AD (*Table 36*).

Two further dates (Har-445 and Har-446) were obtained from pits 182 and 106 respectively. Both of these pits contained pottery of Iron Age date but no diagnostic material which could place them more closely within a ceramic phase. The calibrated dates of 200 cal BC – 120 cal AD and 760 cal BC – 120 cal AD (*Table 36*) suggest that these two pits also belong to this period.

Late Iron Age to early Roman

As with the preceding period, the primary area of importance was the central part of the site excavated in 1973, although the entrance area of the enclosure in the south-east was also modified in the Romano-British period. Most of the earlier Romano-British features form part of a complex of small enclosures or fields delineated by shallow gullies (Fig 26). It is likely that some of the 31 postholes generally assigned to the Romano-British period may belong to this phase. Early Roman pottery also occurred in the upper fillings of many of the Iron Age pits.

The entrance

by K Smith

At some time during the Roman-British period, the entrance to the large Early Iron Age enclosure was modified by the construction of a wide cobbled trackway (Fig 25). There was little evidence of the forcible removal of posts from postholes. Only the flint packing of posthole 3640 appeared disturbed. Therefore it is likely that the entrance corridor and the bank and ditch had been allowed to decay and collapse naturally.

The Romano-British entrance was about 10m wide, several metres wider than the Iron Age entrance, so the bank terminals had to be cut well back. The trackway (3167) was a slight hollow-way and appears to have been a re-used periglacial stream-cut channel (*see Macphail, chapter 3*). There are patches of flint cobbling on the base of the hollow-way and flanking ditches (3379, 3682, and 3586/3356) on both sides (Fig 25). The ditch on the northern side had been recut several times. The trackway enters through the bank in a north-westerly direction and appears to be heading towards the central settlement area. Immediately outside the line of the defensive circuit was another gully (3218) oriented roughly south-west to north-east, which suggests that the trackway turns sharply towards the north-east. The gap between gullies 3379 and 3218 may indicate that there was access

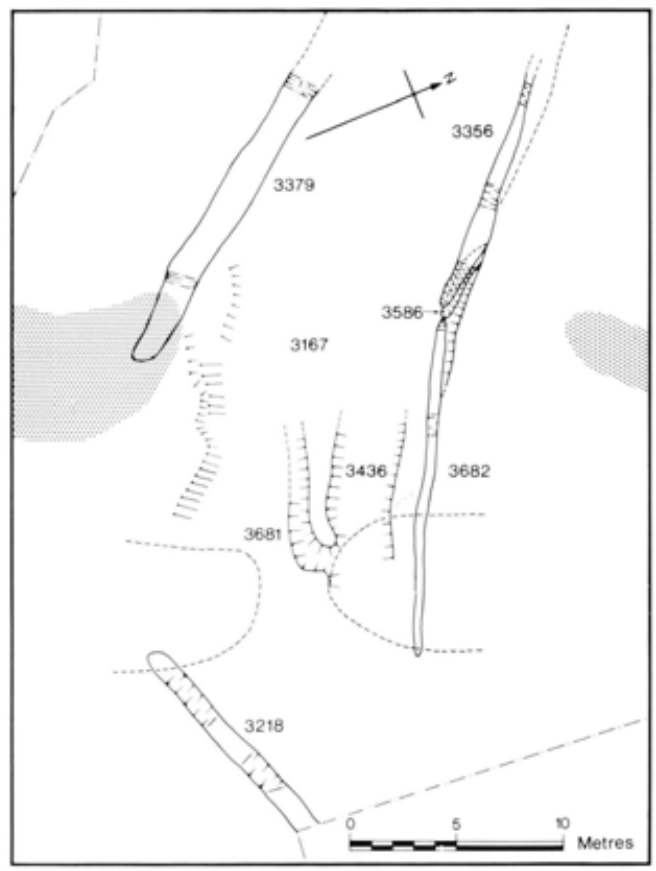

Fig 25 The enclosure entrance, final phase (for earlier phases see Figs 13–15)

into the enclosure from the south also. Traces of two other shallow linear features (3681 and 3436) were found on the trackway (Fig 25). These may have been just erosion features. Several probable wheel-ruts were also recognisable, mainly on the southern side.

The modification of the entrance is not precisely dated. Romano-British pottery was found in gullies 3379, 3218, and 3436, but this could not be dated exactly enough to determine whether this entrance modification belongs to this early Roman or the succeeding later Roman period. It is possible that the trackway was related to the series of Late Iron Age to early Roman enclosures in the central area of the site (Fig 25).

Enclosures

A system of enclosures, defined by shallow linear gullies, was located in the central area of the site. This enclosure system had been changed and modified, but it was possible to identify a series of elements which belonged to the Late Iron Age to early Roman period on the basis of the diagnostic pottery contained within the gullies (Fig 26; detailed plans on MF Figs 4–11). The complete system of enclosures was not revealed as the gullies continued out of the excavated area to the east and to the south-east.

The main enclosure of this period was roughly trapezoidal in shape. It consisted of gully 391 on the

Fig 26 Late Iron Age to early Roman features

Fig 27 General view across the Late Iron Age to early Roman enclosures, from the south-west

Fig 28 The Late Iron Age to early Roman enclosure gullies in the north part of the central area

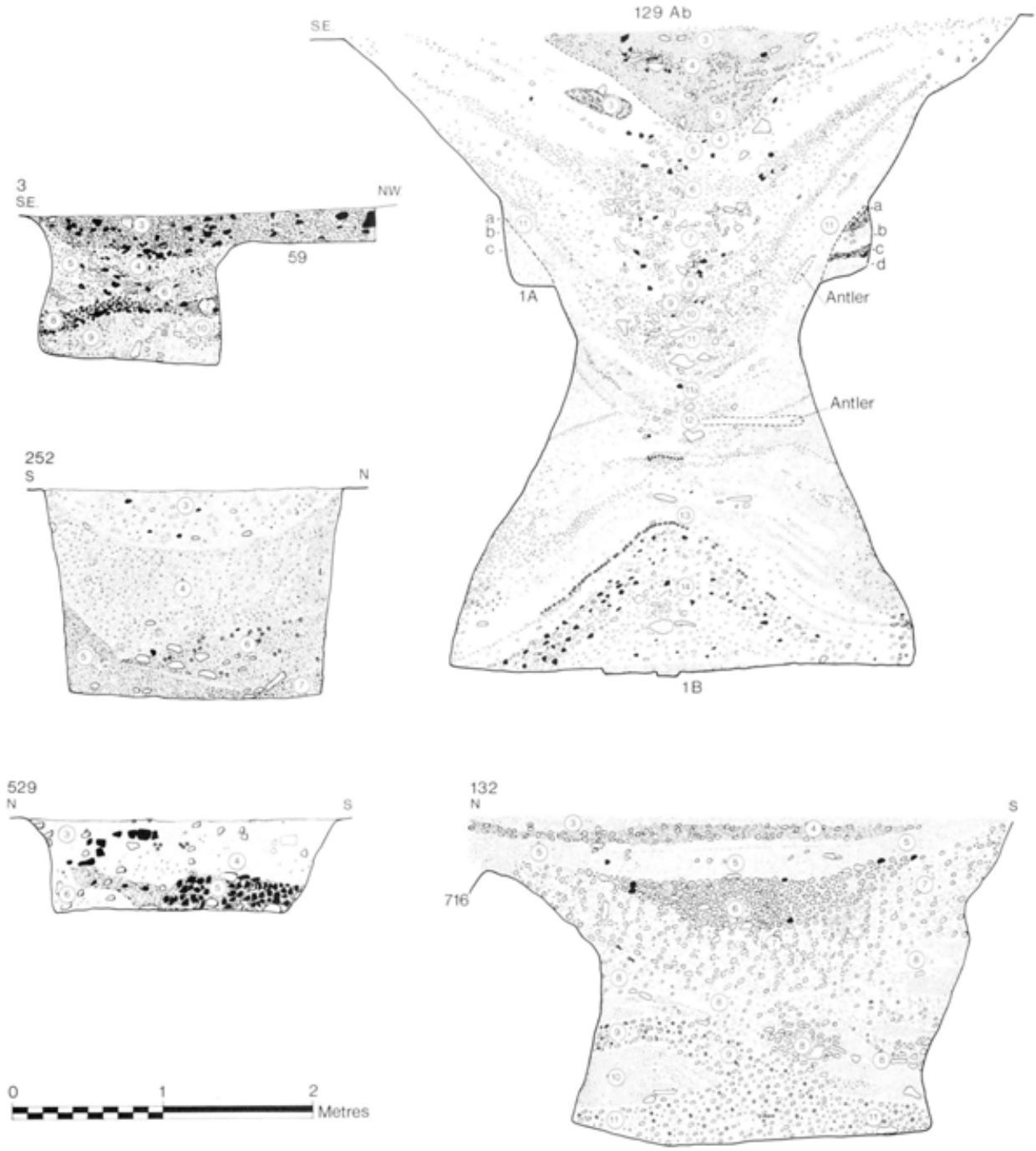

Fig 29 Late Iron Age to early Roman pit sections (for key see Fig 21)

southern side, gully 60 on the southern half of the western side, gully 183 on the northern side and the northern part of the western side (continued to the north-east out of the excavation area by gully 624), and gully 539 which formed the eastern side, with a return at the northern end (559) to form a smaller trapezoidal enclosure within the larger one (Figs 25, 27, and 28). The south-western corner of the smaller enclosure is formed by gully 145/243. This particular gully contained diagnostic late Roman pottery, but it has been included in this phase also by virtue of its similar nature and position which suggests that it formed an integral part of a small enclosure together with gully 559 (which contained no diagnostic late Roman pottery). It is likely that this small enclosure was modified and re-used in the late Roman period.

The gullies only partially enclosed these spaces, substantial gaps occurred on the western side and north-eastern corner of the larger enclosure. Also along the southern side, there were three wide causeways in gully 391 with a further gap in the south-eastern corner. No southern side was found to the smaller enclosure, which appeared to have an entrance in the middle of the western side. The gaps and open sides may have been closed off by hurdles or light fences of which no trace now remains. At some point during this phase, the central part of gully 391 was recut by gully 249. Details of these gullies and those ascribed to the subsequent phase can be found in appendix 2.

Pits

Only a small number of pits, seventeen in total, can be assigned to this phase. All except one (pit 120) are within the large trapezoidal enclosure. Pit 120 lies just outside the northern edge of this enclosure. Seven pits formed a straight line oriented north-east–south-west across the larger enclosure and may preserve the position of another boundary, all other traces of which have now disappeared. In comparison with pits of earlier periods, some differences were noted. The majority were conical or oval with sides sloping in towards the base, rather than bell-shaped. Several rectangular pits could also be attributed to this phase. There was a range of sizes of pits, but no distinguishing characteristics based on size could be recognised for this period. A selection of pits belonging to this period is illustrated in Figure 29.

The artefacts found within these pits include fragments of rotary querns, worked bone and antler, and several brooches. The animal bone evidence suggests a continuing predominance of sheep, but unlike all other periods, pig bones outnumber those of cattle (*Table 18*). The plant remains indicate that wheat and barley were present in almost equal proportions (*Tables 24 and 27*).

Dating evidence

This period is dated by the occurrence of diagnostic pottery belonging to the Late Iron Age to early Roman ceramic phase (*see appendix 1*). The pottery assemblage contains a standard selection of types such as bead-rimmed jars and bowls and other coarseware forms commonly found on sites of this period in the area, and it is therefore impossible to say whether the phase started in the pre-conquest period, or whether it commenced in the mid to late first century AD. The phase appears to continue until *c* AD 120.

Late Roman

This phase contains perhaps the widest variety of feature types of the entire sequence. Concentrated in the centre of the site was a series of small enclosures with possible droveways continuing the boundary developments of the early Roman period (Fig 30), suggesting that their use was probably continuous, although the date range of the pottery assemblage appears discontinuous. The entrance-way in the south-east corner described in the previous phase probably continued in use during this phase. In amongst the enclosures was a substantial building, a corndryer, several large hollows, and several burials.

The entrance

The modifications to the entrance in the Romano-British period described in the previous section are not well dated. They may belong to this phase, but it seems more likely that they were made earlier in the Romano-British period and that its use continued into late Roman times. Diagnostic late Roman pottery was found in the silting layers above the trackway (*see appendix 1*).

Enclosures

It is uncertain how much of the earlier enclosure system remained in use during this phase. Certain elements were reworked or replaced but other gullies may well have continued to be used, although the lack of datable pottery of this period in them makes it difficult to determine which ones. The trapezoidal enclosure appears to have been retained, as the western part of gully 559 is recut by gully 243. The eastern part of gully 559 may have been replaced by gully 560, which runs parallel to and a few metres to the east of it. The southern side of this enclosure was formed by building 562, so it is probable that it was a paddock or field directly associated with the building. It is possible that gully 183/624 continued in use, defining the northern limit of the settlement, as no features were found outside of it.

In the south-west, there were two small rectangular enclosures formed by gullies 59 and 41. The larger,

Fig 30 Late Roman features

southern, enclosure is closed on its eastern side by gully 129, with an entrance/droveway in the south-eastern corner. The northern enclosure is open on its eastern side. Another more irregular enclosure between the trapezoidal and rectangular enclosures is suggested by curving gully 8, which is extended to the north-east by gully 782 and probably to the south by gully 246 which appears to cut gully 129. A line of postholes can be identified to the south of and roughly parallel to gully 129, which may be the remains of a fence-line. The presence of another large enclosure to the south and south-west of the main enclosure complex is indicated by gully 383 (Fig 30 and MF Fig 8).

The building

In the central part of the site was a building (562) orientated west-north-west to east-south-east (Figs 30–33) which had been slightly scarped into the slope to form a level platform. The complete plan of the building was not revealed by excavation, but it measured at least 20.9m long and was 11.25m wide. This building had two phases of construction.

The first phase consisted of a single wall foundation trench (562 K) oriented west-north-west to east-south-east in the northern part of the building (Fig 32) and intermittent patches of a rammed chalk floor (layer 562 (11)). Above these remains was evidence for a period of abandonment and collapse (layers 562 (7),

Fig 31 Building 562, north-west corner

(9), and (10); Fig 33). Layer 9 contained a lot of crushed wall plaster, including some painted fragments, and layer 7 contained quantities of charcoal and iron slag. At some point, the debris from this building was levelled (layer 562 (4); Fig 33) to form a foundation for the second phase of construction. Fragments of mortar and a large quantity of flint nodules and Purbeck Limestone roof tiles were found in this layer, together with fragments of iron and copper alloy strips and bindings and other objects.

The second phase of the building consisted of a series of foundation trenches (layer 562 (5)) cut into the levelling layers with flint, chalk, and mortar wall footings built into them. In places, regular flint facings were preserved. Although the full plan of the building was not revealed, there was some indication of internal divisions (Fig 32).

Within the area of the building were several features. The relationship between these and the building is unclear; some appear to be earlier but some may be contemporary with the use of the building. Two ovens (562 H and 562 J) were found sealed below the chalk floor (layer 562 (11)) belonging to the first phase of the building, and are therefore likely to be earlier. These ovens were very similar and consisted of a circular pit 0.3m deep with a sloping ramp (or stokehole?) on the eastern side (Figs 32 and 33). The sides of both of these features had been burnt.

An oval pit (562 D) 0.28m deep cut through one of the layers of collapse (layer 562 (7)) described above. This feature may belong to the second phase of the building. The other features (562 A, B, C, F, G, L, and N) had no stratigraphic relationships which could link them with either phase of the building. The majority of these features were either ovens or hearths or had burnt material within them. Oven 562 G

Fig 32 Late Roman building 562

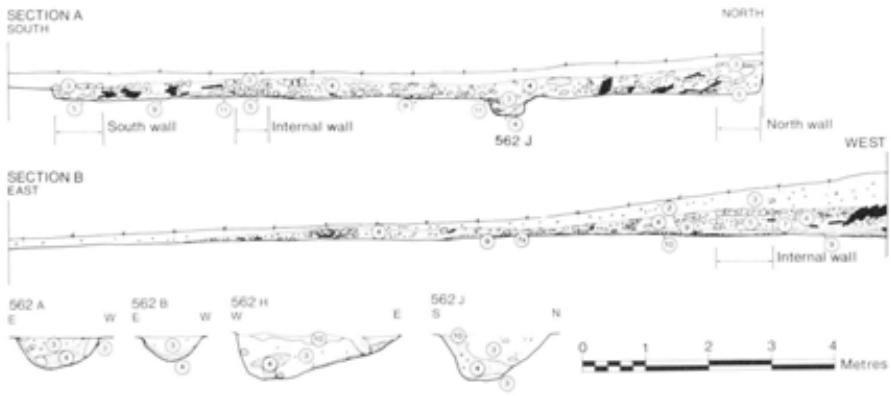

Fig 33 Section through building 562 and associated features

was similar to, but smaller than ovens 562 J and H described above. The stokehole in this case was in the south-west. In the north-western part of the building were two adjacent subrectangular pits 562 A and B (Figs 32 and 33) which had burnt sides. In the southern part of the building was a shallow oval hollow (562 F) 0.1m deep with burnt chalk in its filling. Another small oval hollow (562 N) was found beside it. In the middle of the building was a rectangular pit (562 C) 0.2m deep, which was packed with flint nodules.

A single burial (562 (4)) was found within the levelling (layer 4) in the western end of the building (Figs 32 and 38). The precise relationship between this burial and the building is uncertain, but it is likely that the burial post-dates the building.

The function of the building is not clear, but there is no evidence to suggest that it was anything other than a domestic structure. If the painted wall plaster found in the layers of collapse of the first phase of building belonged to that structure, it hints at a building of fairly high status.

The dating evidence for this structure comes from a series of four coins. Two coins (*SF1043 and SF1053*) were found in layer 4, which give a *terminus post quem* in the mid-fourth century AD for the construction of the second building. Pit 562D also contained a mid-fourth century coin (*SF1040*). In addition, a single early fourth-century AD coin (*SF1025*) was recovered from the layers overlying the collapse of the second phase of building. The pottery assemblage in the demolition layers between the first and second phases is dated to pre-AD 340 (*see Rees, chapter 3*).

Other features

A variety of other features can also be attributed to this phase and these are described briefly below.

Corndryer: in the south-eastern part of the central enclosure complex was a corndryer (511, MF Fig 10). This consisted of a T-shaped cut into the natural chalk which formed a combined flue and stokehole set at right-angles to a drying compartment measuring 2m by 0.7m across (Figs 34 and 35). The flue, which was 0.9m wide, 1.1m long, and 0.45m wide, continued into the stokehole which deepened to 0.5m. Traces of a lining of large flints set in a clay/chalk mortar were found along the sides of the stokehole and the drying compartment. The walls and floor of the stokehole showed signs of having been subjected to intense heat. In the drying compartment itself, the remains of a layer of Purbeck Limestone slabs resting on the flint wall-lining was found at a height of 0.5m above the floor.

The dryer used the hypocaust principle of circulating heated air below to dry the grain, which was placed on the limestone slab floor and heated through by the fire in the stokehole below. The presence of flint and chalk mortar in the upper levels of debris indicated that there was probably a superstructure above it. Within the stokehole there was a soft, fine, ashy deposit; no charcoal was detected. This, and the limited extent of the evidence for burning on the lining, suggests the use of charcoal for the fire rather than wood. This would have provided a clean, hot fire without smoke. Charred plant remains were found in this structure; (*see de Moulins, chapter 3*). A coin (*SF1041*) was found in the debris filling the flue.

Fig 34 Late Roman corndryer 511 from the north-east

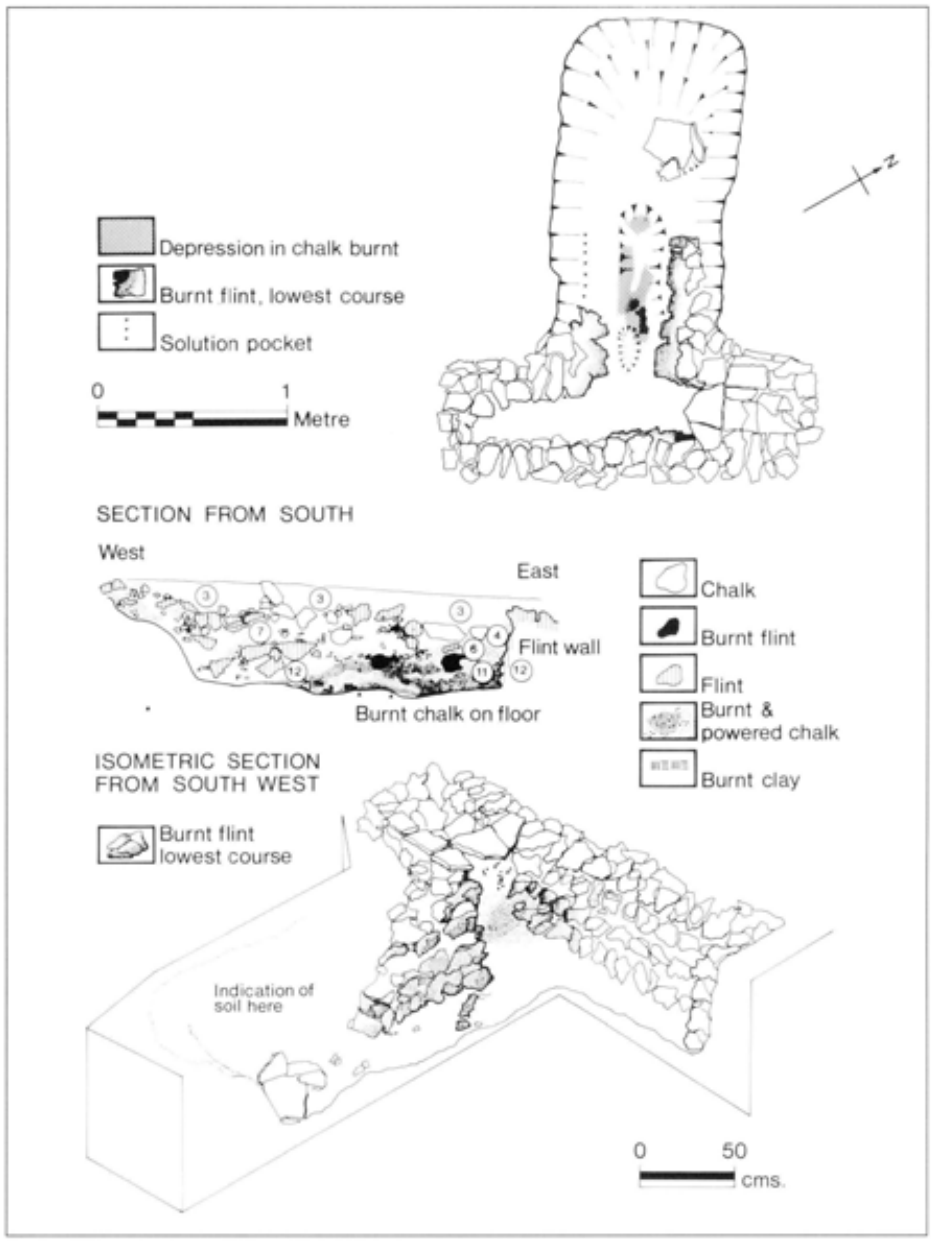

Fig 35 Late Roman corndryer, feature 511

Pits: a total of ten pits was found scattered throughout the enclosure complex. As with the preceding early Roman phase, these included some rectangular-shaped pits and only a very few bell-shaped pits.

Hollows: a variety of hollows (thirteen in total) have been ascribed to this phase (Figs 30 and 36). These vary widely in size from small shallow scoops which survive as slight irregularities in the ground (eg 46, 58, and 429) to very large irregular features of the type known as 'working hollows' (eg 63 and 176). Several of the smaller hollows (9, 78, and 465) were tightly packed with flint nodules, possibly to serve as a firm base for some agricultural or industrial activity or simply convenient dumps for large flints obtained from field clearance. These hollows, including the large 'working hollows', were all very shallow, being on average about 0.15m deep.

Fig 36 View from the south showing late Roman hollows and gullies

The dating of these features is problematic. They contain diagnostic late Roman material, but this may only reflect the date of their final silting and not the period of their construction. Hollows 63 and 176 appeared to overlie several Middle to Late Iron Age pits.

Outside the eastern edge of the central enclosure complex was an irregular hollow (270) composed of a number of small pits broken into each other. This feature measured *c* 17m long, 8.75m wide, and with a maximum depth of 0.55m. It was similar to quarry hollows discovered on other sites such as Winnall Down (Fasham 1985).

Burials

Four burials, which belong to this period, were discovered, plus a fifth which either belongs to this late Roman period or to a subsequent, post-Roman, period. These burials are described below. In addition, there were fragmentary remains of a frontal bone found in gully 8 (*see chapter 3 for human bone report*).
Figs 37 and 38

Grave 75: a rectangular grave 1.51m by 0.61m across and 0.22m deep was cut into the top of pit 12 in the central settlement area. It was oriented east to west and contained a lightly flexed adult female skeleton on her left side with the head to the east, facing south. One arm was drawn up in front of the chest and the other rested on the pelvis. Around the periphery of the graves were coffin nails (*SF2046*), indicating the former presence of a wooden coffin, and fragments of iron wire (*SF2047*) lay across the neck of the skeleton.

Fig 37 Late Roman burial 75, from the west

Grave 257: a rectangular grave 1.1m by 0.6m across and 0.32m deep, oriented east – west, was found in the northern part of the small central trapezoidal enclosure. It contained the fragmentary remains of a juvenile skeleton with its head to the west. The grave also contained coffin nails (*SF2057*) and an iron bucket hasp (*SF2050, Fig 41, no 16*).

Grave 258: a rectangular grave 2m by 0.65m across and 0.56m deep was found close to grave 257. It contained an extended adult ?female skeleton on her right side with the head to the east facing north. A hasp and a fragment of iron sheet (*SF2062*) and an unidentified iron object (*SF2060*) (*neither illustrated*), were found in the grave.

Grave 266: this rectangular grave oriented east–west was found just south of the central enclosure complex. It measured 1.25m by 0.65m across and was 0.29m deep. It contained the fragmentary remains of an extended juvenile skeleton with the head to the east. The former presence of a coffin is attested by the presence of coffin nails (*SF2040, not illustrated*). Some animal bones were found in the east of the grave outside the area of the coffin.

Burial 562 (4): this burial was in the western end of building 562. It consisted of a lightly flexed adult ?male skeleton with the head to the west facing south. One arm was drawn up in front of the chest and the other was flexed at the waist. This skeleton was found within the levelling layer 4, deposited prior to the second phase of building construction. No trace of a grave cut was recorded, but it is possible that it was cut through the remains of this building, possibly in the post-Roman period.

Dating evidence

The dating evidence for this period comes chiefly from the diagnostic pottery, which includes a variety of coarse and fineware products, both 'imported' and of local origin, which range in date from the mid-third century to the end of the fourth century AD. The features containing pottery and coins (ranging in date from the mid-third to late fourth century) are listed in appendix 1.

Unphased features

A number of features contained no dating evidence so cannot be included in any of the chronological periods described above. The majority of these are postholes and hollows, but features of all types are included. The details of these features have been retained in archive. However, a small number of undated features are worthy of note:

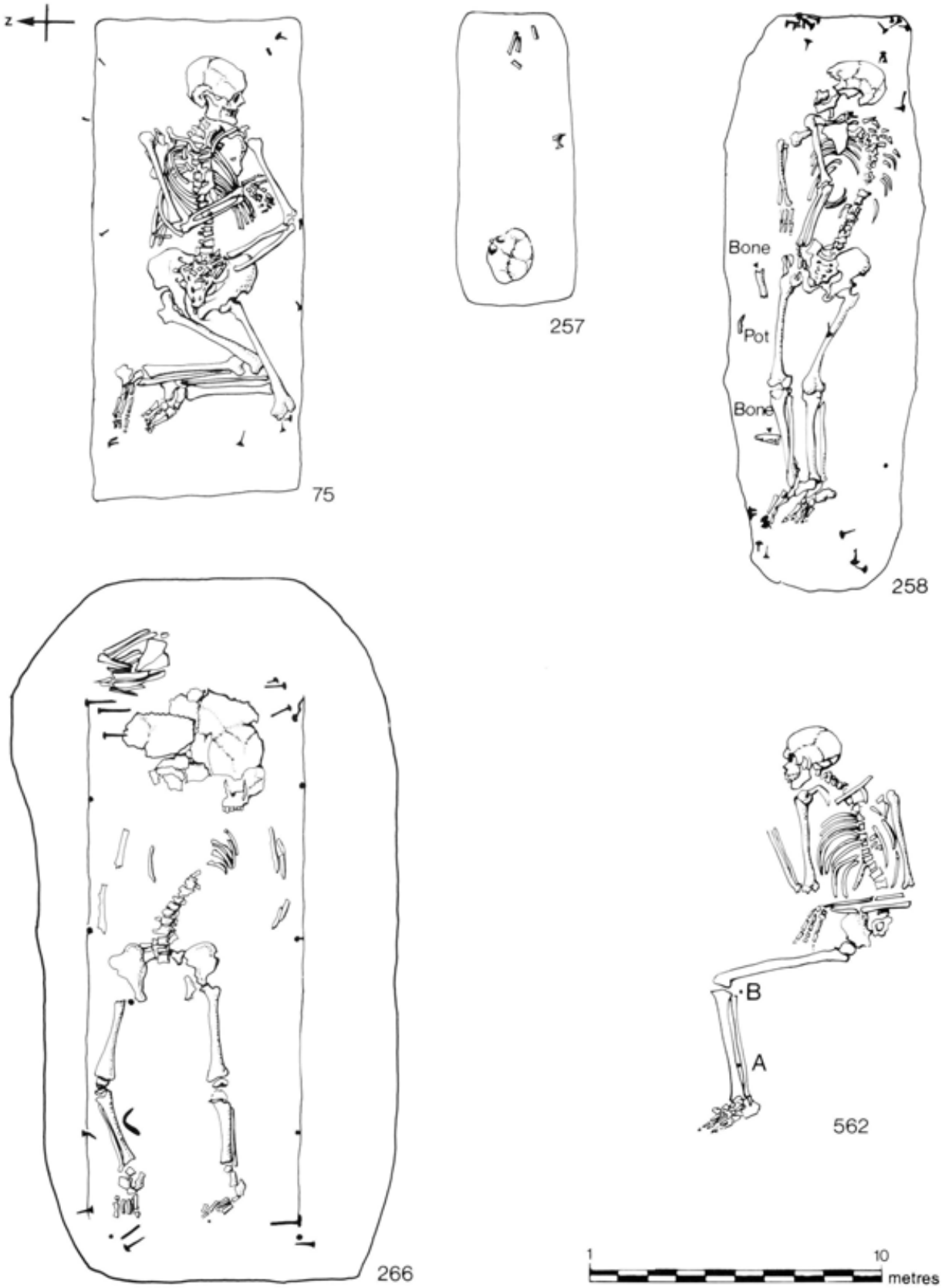

Fig 38 Late Roman burials

Hollow 656: a shallow, irregular hollow, 0.3m in diameter and 0.05m deep, located near the northern edge of the central area, which contained 27 evenly matched rounded flint pebbles. Although other hollows contained concentrations of flint nodules, the regularity of the flint pebbles in this feature suggests that they were deliberately selected, perhaps as slingstones.

Hearth/oven 186: an oval pit with sloping sides and flat bottom which measured 1.47m by 0.94m across and 0.32m deep and was located in the middle of the central area. It contained a black burnt layer at the base and may have been used as a hearth or oven.

Hearth/oven 304: a shallow circular pit, 0.62m in diameter and 0.1m deep, located on the southern edge of the central settlement area. It had a clay lining round the edge.

Hearth/oven 305: an irregular pit, 0.8m by 0.57m across and 0.18m deep, located adjacent to 304 and filled with burnt soil and flints. It may have been another hearth.

3 The finds

Roman coins

by P Curnow

Coin list

find number	*coin type*	*date of issue*	*mint*	*context*
SF1005	Valerian (RIC 124)	AD 253–9	-	hollow 442, layer 3
SF1007	Tetricus (RIC 88)	AD 270–73	-	pit 553, layer 3
SF1021	SOLI INVICTO OMITI Constantine I (RIC London 121a)	AD 310	London	posthole 395, layer 3
SF1022	SECURITAS REIPUBLICE Helena (LRBC I 9)	AD 324–5/6	London	posthole 395, layer 3
SF1023	CAESARUM NOSTRORUM Constantine II (RIC Trier 441)	AD 323–4	Trier	posthole 395, layer 3
SF1024	SARMATIA DEVICTA Constantine I (RIC Lyons 222)	AD 323–4	Lyons	hollow 542, layer 3
SF1025	GLORIA EXERCITUS, 2 stds (Constantine II (LRBC I 534)	AD 330–31	Rome	building 562, layer 6
SF1030	Diocletian (Carausius) (RIC VII *cf* p 553, 19, but legend IF) A rare coin, well silvered	AD 290–91	Colchester	posthole 337, layer 3
SF1033	Tetricus II (RIC 272)	AD 270–73	Colchester	pit 119, layer 4
SF1040	GLORIA EXERCITUS, 1 std Constans (LBRC I 688a)	AD 337–41	Aquileia	pit 562D
SF1041	not identified	-	-	corndryer 511, layer 7
SF1043	GLORIA EXERCITUS, 1 std, Constantius II (LRBC I 132)	AD 337–41	Trier	building 562, layer 4
SF1053	Claudius II Posth (RIC 266)	AD 270	-	building 562, layer 4
8112837	FELTEMP REPARATIO (fh3) Constantius II (LRBC II 253-6)	AD 353–60	Lyons	silting layer 3450 in entrance
8112838	VICTORIA AUGGG, Hd of Theodosius I (LRBC II 562-72)	AD 388+	Arles	silting layer 3316 in entrance
8112879	SECURITAS REIPUBLICAE Valentinian I (LRBC II 986)	AD 364–7	Aquileia	silting layer 3450 in entrance
8112880	Frag of Radiate	c AD 270	-	layer 3362 in entrance trackway
8112883	GLORIA ROMANORUM, Hd of Valentinian I (LRBC II *cf* ?1380 etc)	AD 364–78	?Siscia	feature 3297, layer 3298

abreviations
RIC: Roman Imperial Coinage, Mattingley, Sydenham, Sutherland and Carson, 1923ff
LRBC I: Late Roman Bronze Coinage I, Carson Hill and Kent, 1960
LRBC II: Late Roman Bronze Coinage II, Carson Hill and Kent, 1965

The majority of the 18 coins were recovered from the central areas in the 1973 and 1981 excavations. The dates range from the mid-third century to the late fourth century AD and thus can be associated with the late Roman period occupation of the site. The coins from the central area cluster in the date range 270–341 AD. The coins from the south-eastern area and the entrance cluster in the slightly later date range 353–388 plus AD. The only coin from the entrance area to overlap in date with those of the central area is the small fragment of radiate, 8112880. The reason for this distribution is not clear.

Copper alloy

A total of 62 copper alloy objects was recovered from the excavations (Table 1). These items were concentrated in features of the late Roman period. The copper alloy objects were found distributed over the whole of the site but with a definite cluster in the late Roman building 562, mainly consisting of small unidentifiable objects and fragments. Only selected artefacts were conserved by staff of the Ancient Monuments Laboratories, English Heritage, including S Garwood , a vacation student.

Personal adornment

There are 22 objects connected with personal adornment or dress: 11 brooches, 4 bracelet fragments, 5 finger and ear-rings, a buckle plate, and a scabbard tip. The majority of these were found in late Roman contexts.

Fig 39

1 La Tène brooch terminates in a plain roundel and the flat bow is decorated with simple grooves. A classic 'Wessex' type, Hull's type 1Ba (Hull and Hawkes 1987, 95–103, pl 28–9). Fourth century BC, *SF1058; pit 931, layer 8; Middle to Late Iron Age period*

2 *Not illustrated*. ?Brooch. Fragments of a corroded object, too decayed to permit further identification, *SF1018; pit 148, layer 3; Middle to Late Iron Age period*

3 Nauheim derivative brooch with a low reverse-curved bow. Solid catch-plate and simple round-sectioned bow. First century AD, *SF1036; pit 132, layer 5; Late Iron Age to early Roman period*

4 Incomplete brooch, of Middle or Late Iron Age type. Large pin with three coils of spring intact, *SF1013; gully 559, layer B3; Late Iron Age to early Roman period*

5 Incomplete brooch, damaged bow and catch-plate with separate hinged pin. Bow decorated with three grooves. A Langton Down or derivative (Hawkes and Hull 1947). Early to mid-first century AD, *SF1010; pit 528, layer 3; Late Iron Age to early Roman period*

6 Hod Hill type brooch, damaged bow with lateral lugs at the top and prominent mouldings. Pin broken. Mid-first century AD (Brailsford 1962, 9), *SF1052; pit 187, layer 3, Late Iron Age to early Roman period*

7 Incomplete Hod Hill type brooch (*ibid*), bow only with lateral lugs at the top of the bow and raised mouldings. Tapering foot and cross-moulded foot knob. Traces of tinning or, perhaps, silver. Mid-first century AD, *SF1006; gully 383, layer A3; late Roman period*

8 Nauheim derivative brooch with round-sectioned bow. Catch-plate and most of pin missing. First century AD, *SF1031; quarry hollow 270, layer 3; late Roman period*

9 Nauheim derivative brooch with a wide flat bow. Catch-plate missing. First century AD, *SF1020; pit 150, layer 3; late Roman period*

10 *Not illustrated*. Brooch spring coil fragment, *8112884; silting layer 3298 behind bank; unphased Romano-British*

11 Nauheim derivative brooch with flat bow, decorated with transverse incisions above the foot. Solid catch-plate with single perforation. Four-coil 'spring' wound round an iron hinge. First century AD, *SF1000; bank cutting I, layer 3; unphased*

12 Strip bracelet fragment with an eye-clasp terminal. Grooved, notched, and ring-and-dot outer surface decoration. A common later Roman type (Crummy 1983, 37–45), *SF1008; gully 129, layer Ab3; late Roman period*

13 Fragment of round-sectioned bracelet with grooved decoration. Paralleled at Winklebury (Smith 1977, fig 37, 7), *SF1061; pit 197, layer 4; unphased Iron Age*

14 Incomplete round-sectioned bracelet. Diameter 57mm, *SF1001; bank cutting I, layer 4; unphased*

15 Round-sectioned bracelet fragment, *SF1063; unstratified; unphased*

16 Ring with an expanded bezel which housed an oval setting, *SF1054; hollow 176, layer D3; late Roman period*

17 Plain finger ring. Round-sectioned. Internal diameter 20mm, *SF1009; hollow 176, layer 3; late Roman period*

18 Plain opened ring with pointed terminals which may be a Type 1 ear-ring (Allason-Jones 1989, 2–3, fig 2, 1), *SF1017; gully 129, layer B5; late Roman period*

19 Possibly a Type 1 ear-ring of thin strip bronze with pointed terminals (*ibid*), *SF1059; building 562, layer 4; late Roman period*

20 A broken ?finger-ring, decorated with a single row of dots, *SF1003; pit 15, layer 2; late Roman period*

Table 1 Copper alloy by period

	Personal adornment				*Toilet*	*Fastenings*		
	Brooches	*Bracelets*	*Rings*	*Other*	*instruments*	*& fittings*	*Miscellaneous*	*Total*
Late Bronze to Early Iron Age	–	–	–	–	–	–	–	–
Early Iron Age	–	–	–	–	–	1	2	3
Middle to Late Iron Age	2	–	–	–	–	–	6	8
Late Iron Age to early Roman	4	–	–	–	1	1	1	7
Late Roman	3	1	5	–	–	2	14	25
Unphased Iron Age	–	1	–	–	–	1	2	4
Unphased Romano-British	1	–	–	1	1	2	3	8
Unphased	1	2	–	1	–	1	2	7
Total	11	4	5	2	2	8	30	62

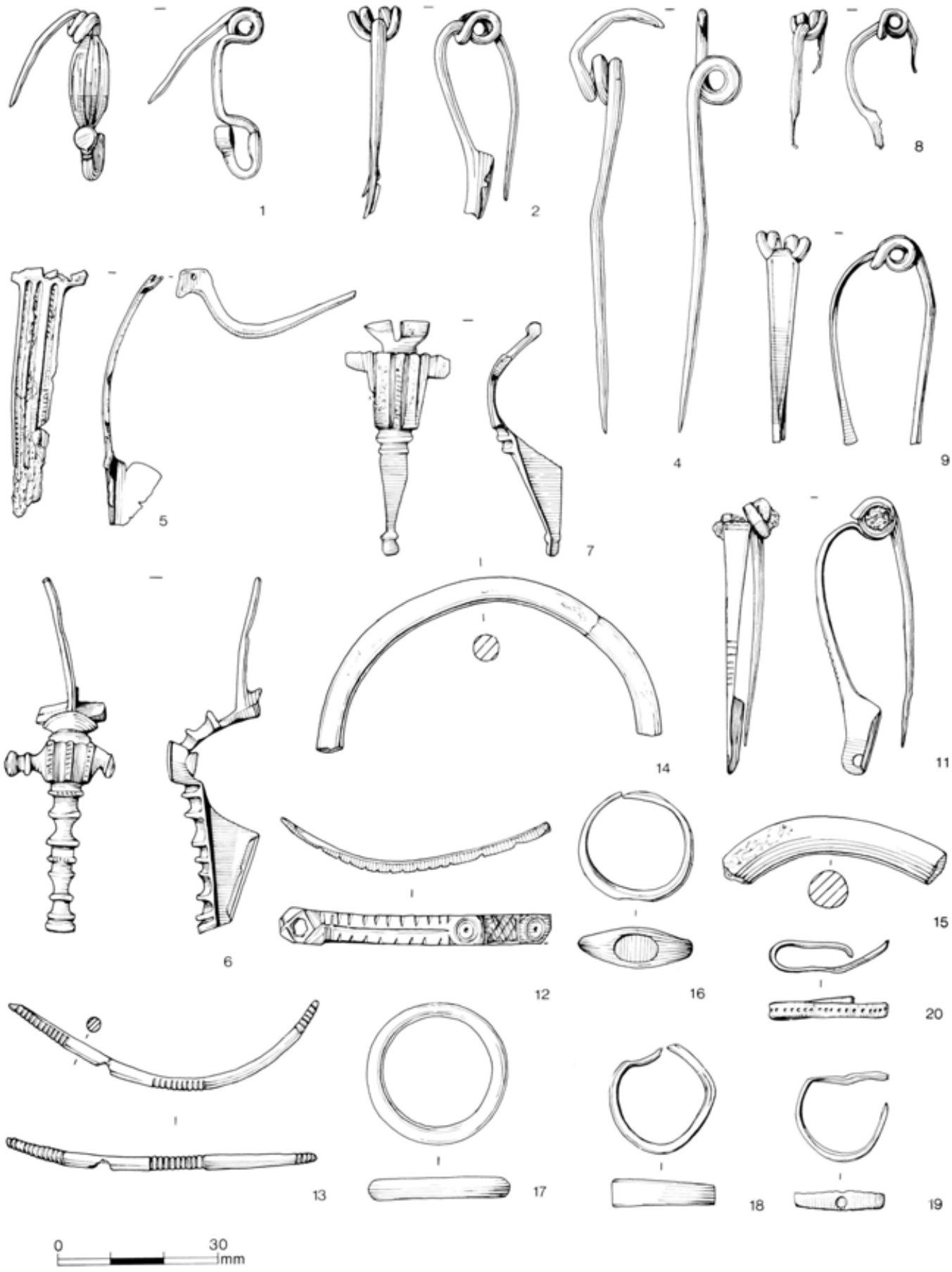

Fig 39 Copper alloy objects (scale 1:1)

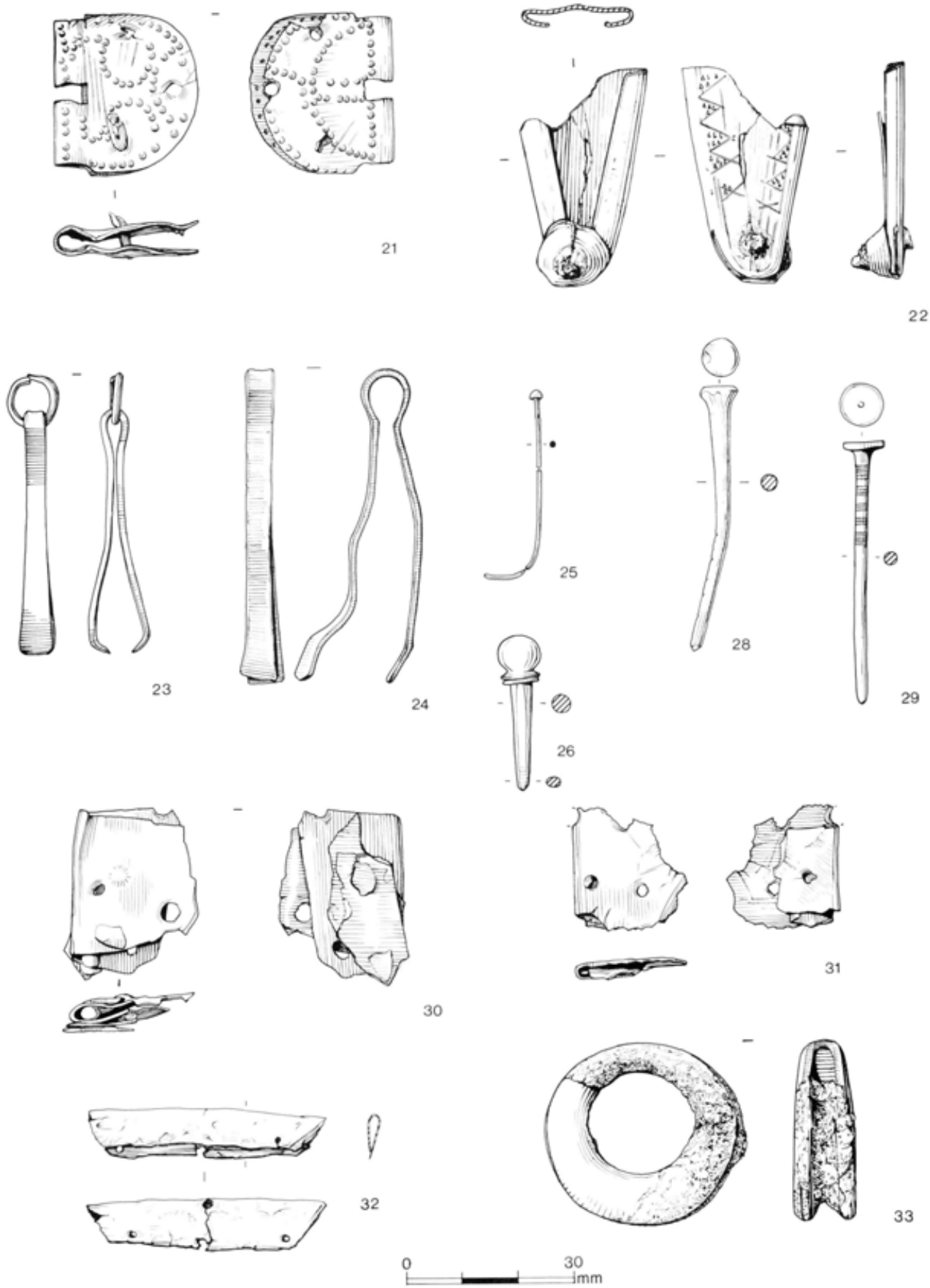

Fig 40 Copper alloy objects (scale 1:1)

Fig 40

21 Oval buckle plate with three holes for rivets which were apparently of iron. Both surfaces are decorated with repoussé decoration. Both form and decorative technique are typical of some types of fourth century Romano-British buckles (Clarke 1979, 270–3, fig 34), *SF1046; pit 905, layer 3; later Romano-British*

22 The bottom of a scabbard for a La Tène I type dagger. The front borders are decorated with incised triangular panels between parallel lines which have been infilled with what appears to be punched decoration. The front plate is bent over to clasp the iron (or perhaps more likely wooden) back plate. An iron rivet holds the remains of the chape. This method of attachment is unusual in that most British La Tène I dagger chapes were slotted onto the scabbard and the casting carried back higher up it by arms. This may suggest that the chape did not have arms, and might have been attached in a similar fashion to an example from the River Thames at Wandsworth (Jope 1961, 335–6; pl xix, 19). The decoration on the scabbard is characteristic of British La Tène I daggers of fifth or fourth-century BC date. Almost all the weapons of this type have been found in watery contexts and in the River Thames in particular (*ibid*; Fitzpatrick 1984), and the present example is a welcome site find, *SF1062; unstratified; unphased*

Toilet instruments

The only objects which belong to this category are two pairs of tweezers from Romano-British contexts; both are common types (eg Stead and Rigby 1986, 130–4).

23 Tweezers with flared blades and a simple ring for suspension. Length 43mm, *SF1019; pit 252, layer 4; Late Iron Age to early Roman period*

24 Tweezers with flared blades, *8112810; silting layer 2232 behind bank; unphased Romano-British*

Fastenings and fittings

This category includes nails, pins, and studs, and fragments of sheet copper alloy which originally were parts of bindings.

25 Round-headed pin, in two pieces. Perhaps a late Bronze Age type (eg Coombs 1991, 135˛7, fig 56, 149), *8112710; posthole 2151, layer 2152; Early Iron Age period*

26 Round-headed rivet or broken pin with moulding below head (Crummy 1983, 28–9, Type 2), *SF1047; gully 183, layer H3; Late Iron Age to early Roman period*

27 *Not illustrated*. Small tack, *8112668; cleaning layer 3017 on bank; unphased Iron Age*

28 Pin or nail which does not fall within Romano-British types and may be of later Bronze Age date, *8112831; silting layer 3156 in entrance; unphased Romano-British*

29 Nail-headed pin with round, flat head, tip missing. Shank marked with five groups of transverse incisions below head. Length 47mm. Although from an unphased context, the pin compares with nail-headed pins of later Bronze Age date (Needham 1980, 20–21; Coombs 1991, 135˛7, fig 56, 45). The decoration on the shank may be paralleled by continental European finds of similar date (eg the Alfstedt variant of Disc-headed Pins; Laux 1976, 114–15, Taf 38, 654–5 and 39, 660), *SF1039, hollow 754, layer 4; unphased*

30 Binding fragment with two rivet holes and two rivet heads in place. Deliberately folded for scrap? *SF1050; building 562, layer 7; late Roman period*

31 Binding fragment with two rivet holes, *SF1055; building 562, layer 4; late Roman period*

32 Binding fragment, *8112833; silting layer 3156 in entrance; unphased Romano-British period*

Miscellaneous

This category includes a terret or a pulley ring, fragments of wire and various small fragments and lumps of indeterminate nature and function.

33 A terret of unusual form (Wainwright 1979b, 134) or pulley ring with wear on part of its circumference through use. Internal diameter 20mm, *SF1042; pit 36, layer 3; Middle to Late Iron Age period*

Not illustrated

34 Fragment of twisted wire. Length 40mm. *SF1048; pit 72, layer 5; Middle to Late Iron Age*

35 Fragment of wire. Length 10mm, *SF1032; pit 462, layer 6; Middle to Late Iron Age period*

36 Fragment of wire, *SF1035; pit 119, layer 4, late Roman period*

37 Fragment of wire, *SF1037; pit 217, layer 3; unphased Iron Age*

38 Two small fragments of wire, *SF1002; bank cutting I, layer 5; unphased*

39 Unidentifiable fragment, *SF1011; pit 265, layer 3; Early Iron Age period*

40 Fragment with rectangular cross-section, possibly the shank of a pin. Length 17mm, *SF1038; posthole 744, layer 3; Early Iron Age period*

41 Two unidentifiable fragments, *SF1014; pit 488, layer 3; Middle to Late Iron Age* period

42 Unidentifiable fragment, *SF1015; pit 488, layer 3; Middle to Late Iron Age* period

43 Strip fragment, *SF1049; pit 130, layer 10; Middle to Late Iron Age period*

44 Unidentifiable lump, *SF1044; pit 168, layer 3; Late Iron Age to early Roman period*

45 Unidentifiable strip fragment, *SF1026; building 562, layer 2; late Roman period*

46 Unidentifiable fragment, *SF1027; building 562, layer 2; late Roman period*

47 Unidentifiable fragment, *SF1028; building 562, layer 2; late Roman period*

48 Unidentifiable fragment, *SF1012; building 562, layer 3; late Roman period*
49 Unidentifiable fragment, *SF1016; building 562, layer 3; late Roman period*
50 Unidentifiable object, *SF1060; building 562, layer 4; late Roman period*
51 Fragment of ?slag, *SF1045; building 562, layer 6; late Roman period*
52 Distorted strip fragments, *SF1051; building 562, layer 7; late Roman period*
53 Two strip fragments, *SF1056; building 562, layer 7; late Roman period*
54 Strip fragment, *SF1057; building 562, layer 9; late Roman period*
55 Unidentifiable irregular lumps, *SF1029; building 562, layer 9; late Roman period*
56 Strip fragment, *8112839; silting layer 3316 in entrance; late Roman period*
57 Strip fragment, *8112895; silting layer 3316 in entrance; late Roman period*
58 Fragment of ?slag, *SF1004; gully 61, layer Z3; unphased Iron Age*
59 Small fragment, *SF1034; gully 561, layer C3; unphased Romano-British*
60 Strip fragment, *8112832; silting layer 3156 in entrance; unphased* Romano-British
61 Fragment of folded strip, *8112882; silting layer 3298 behind bank; unphased Romano-British*
62 Unidentifiable fragment, *8112881; silting of bank 3396; unphased*

Lead

Not illustrated. Only one unidentifiable lump of lead, *SF4066; hollow 63, layer E3; late Roman period*

Iron

A total of 128 iron objects and fragments was recovered from the excavations. The majority of these were found in late Roman contexts (Table 2). Most of the iron items were nails, including a few hobnails and coffin nails from the late Roman graves (Fig 38). As only a few selected items were conserved the illustrated items were drawn from x-radiographs provided by the Ancient Monuments Laboratory of English Heritage.

Personal adornment

Eight objects are included in this category, seven brooches and one ring. In addition, SF2033 (Fig 42, no 29) and SF2003 (Fig 42, no 30) below may be fragments of brooches.

Fig 41
1 Incomplete later Iron Age bow brooch with single-curved bow and open catch-plate. One surviving coil of the spring. Pin missing. Possibly a Hawkes and Hull type II (Hawkes and Hull 1947), *SF2058; pit 112, layer 7; Middle to Late Iron Age period*
2 Fragments of later Iron Age bow brooch with open catch-plate, *SF2000; pit 220, layer 5; Late Iron Age to early Roman period*
3 Incomplete strip brooch with flat bow of later Iron Age or early Romano-British date (Partridge 1981, 135, no 18; Wainwright 1979, 108, fig 82, 1049), *SF2015; hollow 442, layer 3; late Roman period*
4 Pin of brooch, *SF2016; hollow 442, layer 3; late Roman period*
5 Two coils of the spring of a brooch wound around an iron core, probably of later Iron Age or early Romano-British date, *SF2020; hollow 442, layer 4; late Roman period*
6 Incomplete bow brooch with flat bow and bulbous moulding at the base of bow, *cf* no 2 above, *SF2036; hollow 9, layer 3; late Roman period*
7 Pin of bow brooch, probably of later Iron Age or early Romano-British date, *SF2061; hollow 562, layer 4; late Roman period*
8 Plain open ring with pointed terminals, *SF2002; pit 220, layer 3; Late Iron Age to early Roman period*

Tools and agricultural implements

These are equally distributed in features of Middle to Late Iron Age and late Roman periods. The majority of the Middle to Late Iron Age tools were connected with agriculture.

Table 2 Iron by period

	Personal adornment			*Fastenings & fittings*			
	Brooches	*Rings*	*Tools*	*Nails*	*Other*	*Miscellaneous*	*Total*
Late Bronze to Earliest Iron Age	–	–	–	–	–	–	–
Early Iron Age	–	–	–	–	–	–	–
Middle to Late Iron Age	1	–	4	1	3	3	12
Late Iron Age to early Roman	1	1	–	–	2	2	6
Late Roman	5	–	4	46	8	16	79
Unphased Iron Age	–	–	–	3	–	2	5
Unphased Romano-British	–	–	–	8	–	3	11
Unphased	–	–	–	4	–	11	15
Total	7	1	8	62	13	37	128

9 Possibly a fragment of a sickle or bill-hook (Rees 1979, 450–73), *SF2051; pit 204/205, layer 17; Middle to Late Iron Age period*

10 Fragment of a bucket handle, round-sectioned, paralleled, for example, at Danebury (Cunliffe 1984a, 370, fig 7.23, no 2.170–2) and Hod Hill (Richmond 1968, 41, pl 13A and 116, fig 59, c5a), *SF2055; pit 905, layer 6; Middle to Late Iron Age period*

11 Plough or ?ard share tip: Rees's group la (1979, 50). Similar examples found at Danebury (Cunliffe 1984a, 357, fig 7.14, no 2.70), Hod Hill (Richmond 1968, 137, pl 141, no 9), and Gussage All Saints (Wainwright 1979b, 1022, fig 81), *SF2064; pit 126, layer 7; Middle to Late Iron Age period*

12 Heavy spiral iron ring, possibly an animal goad with tip broken; *cf* Winnall Down (Fasham 1985, fig 43). Alternatively a spiral finger or toe ring; *cf* Danebury (Cunliffe 1984a, 371, fig 7.25). Internal diameter 22mm, *SF2042; pit 148, layer 9; Middle to Late Iron Age period*

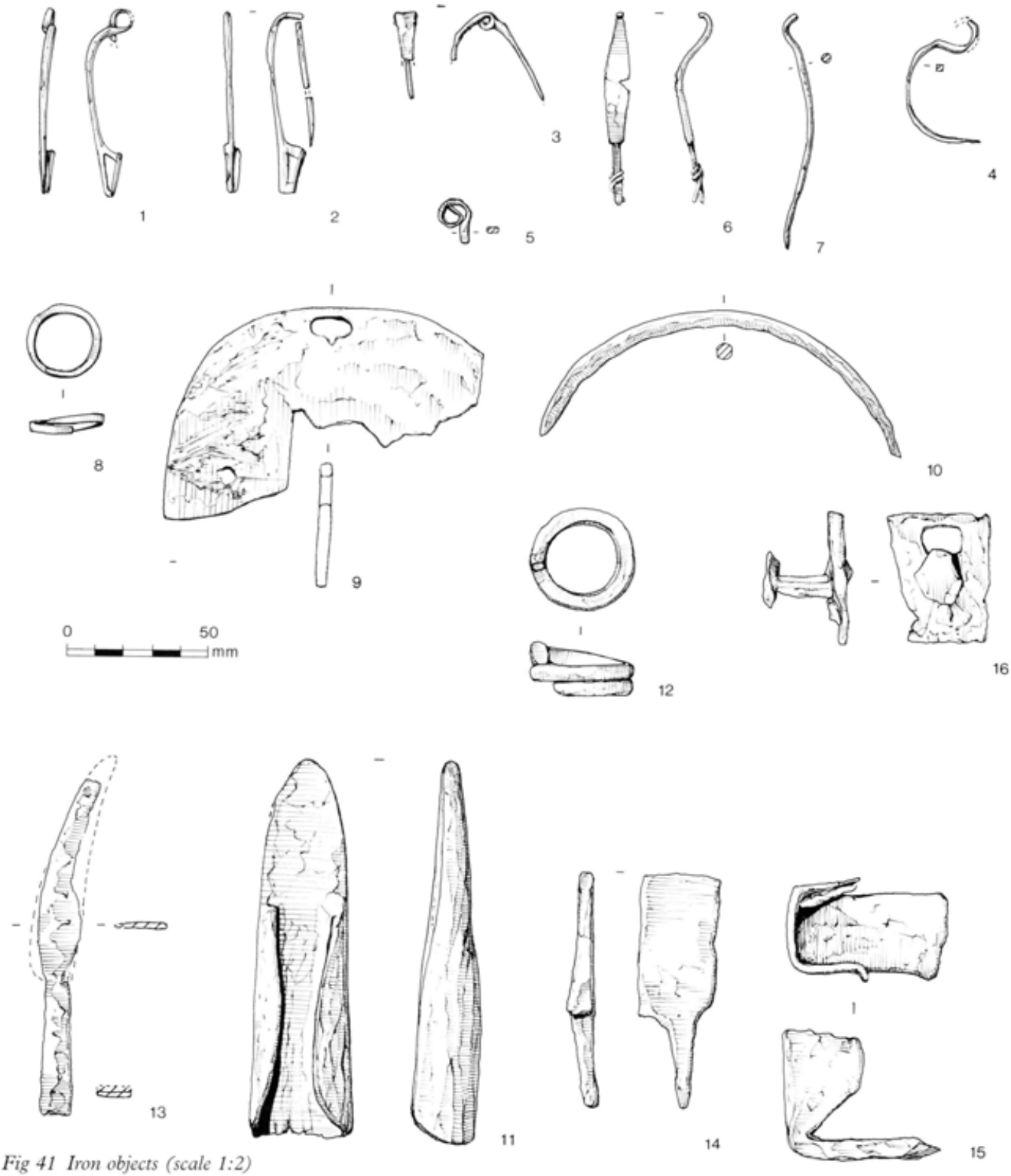

Fig 41 Iron objects (scale 1:2)

13 Corroded, incomplete knife blade with flat tang, possibly a Manning type 7 (1985, 112–13, fig 28, 7), *SF2054; building 562, layer 4; late Roman period*
14 Tanged flat iron object. Possibly a bill hook (Rees 1979, 450–73), *SF2044; hollow 63, layer 3; late Roman period*
15 Object with an open socket and an arm or blade at right-angles to the shaft, possibly a piece of binding or structural ironwork, *SF2052; building 562, layer 7; late Roman period*
16 Trapezoidal bucket hasp or escutcheon with rectangular aperture and square-headed nail for attachment, *SF2050; grave 257, layer 4; late Roman period*

Fastenings and fittings

The majority of items in this category are nails, chiefly from late Roman contexts (see Table 2). Most of them are unclassified general purpose nails. Coffin nails were recovered from graves 75, 257, and 266. Hobnails were found in hollow 442 and corndryer 511.

Fig 42
17 Square fitting with two rivets surviving. Traces of wood on both surfaces, *SF2049; pit 36, layer 5; Middle to Late Iron Age period*
18 Fitting with three rivets surviving, *SF2006; pit 1B, layer 7; Middle to Late Iron Age period*

Fig 42 Iron objects (scale 1:2)

19 Hasp or joiner's dog, *SF2028; pit 131, layer 3; Middle to Late Iron Age period*
20 Boot cleat (Manning 1985, 131, pl 61, R54–64), *SF2021; gully 391, layer P3; Late Iron Age to early Roman period*
21 Joiner's dog (Manning 1985, 131), *SF2018; gully 391, layer S3; Late Iron Age* to *early Roman period*
22 Double spiked loop with attached ring. Internal diameter 38mm, *SF2056; building 562, layer 4; late Roman period*
23 Fragmentary collar or ferrule, *SF2037; hollow 9, layer 3; late Roman period*
24 Joiner's dog? *SF2038; pit 119, layer 4; late Roman period*
25 Binding with rounded end and square rivet hole. Traces of wood preserved on one surface, *SF 2053, context info missing?*
26 Fitting, *SF2011; hollow 442, layer 3; late Roman period*
27 Unidentified fastening, apparently not from a brooch, *SF2012; hollow 442, layer 3; late Roman period*
28 Joiner's dog and fragment of sheet metal, possibly coffin fittings? *SF2062; grave 258, layer 6; late Roman period*

Not illustrated
Nail, *SF2041; pit 148; layer 8; Middle to Late Iron Age period*
Nail, *8112680; gully 3218, layer 3029; Late Iron Age to early Roman period*
Nail head, *8112733; gully 3135, layer 3148; Late Iron Age to early Roman period*
Two fragments of ?hasps, *SF2013; hollow 442, layer 3; late Roman period*
Seven hobnails, six medium-sized nails, two large nails and four shank fragments, *SF2014; hollow 442, layer 3; late Roman period*
Two nails, *SF2024; pit 555, layer 4; late Roman period*
Hobnail, *SF2029, corndryer 511, layer 4; late Roman period*
Hobnail, *SF2032; corndryer 511, layer 4; late Roman period*
Nail, *SF2031; pit 554, layer 9; late Roman period*
Nails, *SF2040; grave 266, layer 3; late Roman period*
Coffin nails, *SF2046; grave 75, layer 3; late Roman period*
Eleven nails, twelve nail-heads, and four shank fragments, *SF2057; grave 257, layer 4; late Roman period*
Nail fragment, *SF2034; hollow 355, layer 3; unphased Iron Age*
Nail head, *8112718; silting layer 3041 above trackway; unphased Iron Age*
Two nail fragments, *SF2009; pit 217, layer 3; unphased Iron Age*
Three nail fragments, *8112796; silting layer 3156 above trackway; unphased Romano-British*
Three nails, *8112834; silting layer 3299 above trackway; unphased Romano-British*
Nail, *8112835; silting layer 3299 above trackway; unphased Romano-British*
Three nail fragments, *8112795; silting layer 3258 above trackway; unphased*
Nail, *SF2035; posthole 476, layer 3; unphased*

Miscellaneous

29 Brooch pin or nail shank, *SF2033; pit 245, layer 3; Middle to Late Iron Age period*
30 Unidentified object, possibly part of a brooch, although the square section mitigates against this, *SF2003; pit 220, layer 4; Late Iron Age to early Roman period*
31 Tapering strip, with plano-convex section, *SF2039; hollow 9, layer 3; late Roman period*
32 Spike with hook terminal, *SF2045; hollow 63, layer 3; late Roman period*
33 Fragment of sheet, possible rivet hole surviving, *SF2059; building 562, layer 4; late Roman period*
34 Fragment of sheet, *SF2063; building 562, layer 4; late Roman period*
35 Unidentified object, *SF2005; bank cutting I, layer 4; unphased*

Not illustrated
Fragments of thin iron strip, possibly a blade, *SF2004; pit 220, layer 4; Late Iron Age to early Roman period*
Fragment, possibly a blade, *SF2017; Building 562, layer 2; late Roman period*
Four small fragments of wire, found at neck of skeleton, *SF2047; grave 75, layer 3; late Roman period*
Ring, internal diam 22mm, *8112836; silting layer 3299; Unphased Romano-British*
Unidentified lump, *SF2048; pit 237, layer 6; Middle to late Iron Age period*
Unidentifiable object, *SF2022; pit 462, layer 3; Middle to Late Iron Age period*
Unidentified fragment, *SF2010; gully 383, layer A3; late Roman period*
Unidentified object, *SF2023; pit 553, layer 5; late Roman period*
Unidentified fragment, *SF2025; building 562, layer 5; late Roman period*
Unidentified object, *SF2026; pit 86, layer 3; late Roman period*
Unidentified fragment, *SF2027; hollow 442; layer 3; late Roman period*
Indeterminate object, *SF2060; grave 258, layer 4; late Roman period*
Unidentified fragment, *8112843; silting layer 3316; late Roman period*
Unidentified fragment, *8112859; silting layer 3316; late Roman period*
Unidentified fragment, *8112871; silting layer 3316; late Roman period*
Unidentified fragment, *8112841; silting layer 3299; unphased Romano-British*
Unidentified fragment, *8112842; silting layer 3299; unphased Romano-British*

Unidentified object, *SF2007; Bank cutting I, layer 5; unphased*
Unidentified object, *SF2008; Bank cutting I, layer 5; unphased*
Three unidentified fragments, *SF2091; posthole 362, layer 3; unphased*
Unidentified fragments, *8112754; silting layer 3169 above trackway; unphased*
Unidentified fragments, *8112806; trackway cobbling 3282; unphased*
Unidentified fragments, *8112840: silting layer 3366; unphased*
Unidentified fragments, *8112857, gully 3356, layer 3388; unphased*

Worked flint

The worked flint has been catalogued by context in archive, but only a brief summary is presented here as the whole assemblage came from contexts containing later material. The flint from the 1973 excavations consisted of 6 cores and 38 core fragments, 678 flakes and 72 flake fragments, 308 blades, 70 retouched flakes, and 253 implements. The 1981 excavations produced 1 core fragment, 191 flakes and 89 broken flakes, 23 chips, 35 burnt pieces, and 7 implements.

The implements from the 1973 excavations consisted of 251 scrapers (the majority recovered from the topsoil), one heavily weathered flint adze (SF3012, Fig 43, no 3), and a single barbed and tanged arrowhead of Sutton b type (Green 1980) (SF3019, Fig 43, no 1). The later excavations produced only four scrapers, along with a broken petit tranchet derivative arrowhead, a flint hammerstone and a small flaked axe (8112778, Fig 43, no 2).

In addition to this material a total of 6 cores, 1120 flakes, and 8 implements (4 scrapers, 1 piercer, 1 fabricator, 1 flaked axe, 1 chisel transverse arrowhead) was recovered from the 1967 excavations (Wainwright 1969). Discussion of these assemblages is limited by the lack of material from stratified contexts. Although there are very few diagnostic pieces, it is clear that this is unlikely to be a homogeneous collection of worked flint. The barbed and tanged arrowhead suggests an Early Bronze Age component. The piercer may also be Bronze Age in date. The core tools and the transverse arrowheads indicate an Early to Late Neolithic component also. The flint recovered from the Balksbury excavations cannot be associated with any specific activity of any specific date, rather it represents general background material.

Fig 43
1 Barbed and tanged arrowhead, Green's Sutton b type (Green 1980). Slightly patinated. Length 22mm, *SF3019; hollow 63, layer 3; late Roman period*
2 Small flaked axe, bifacially worked with some cortex. Unpatinated. Length 109mm, *8112778; layer 3166; unphased Iron Age*

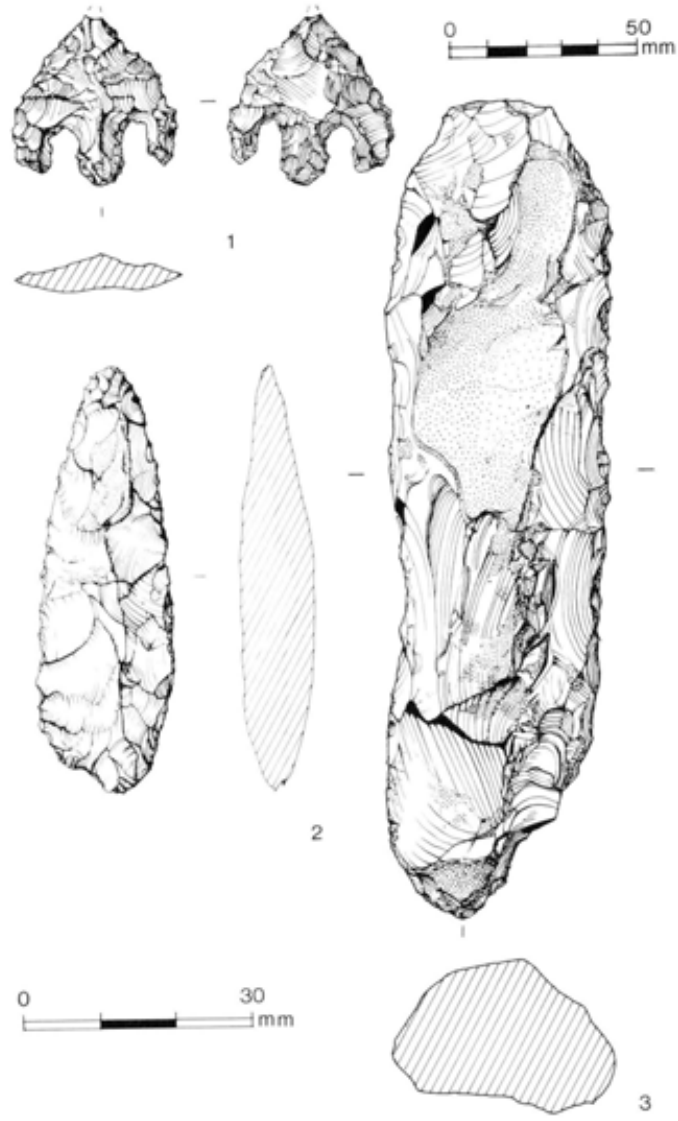

Fig 43 Worked flint artefacts (no 1 scale 1:2; nos 2 and 3 scale 1:1)

3 Adze, bifacially worked with some cortex remaining. Plano-convex in section. Heavily weathered. Length 215mm, *SF3012; unstratified; unphased*

Stone

by D G Buckley

The vast bulk of the foreign stone comes from the 1973 excavations in the central area of the site. Only a few pieces were recovered from the 1981 excavations, all from the south-eastern area, mainly from Romano-British contexts in the entrance. The stone recovered was of three main types: Greensand, Tertiary Sandstones, and Purbeck Limestone. Greensand formed the majority of the stone pieces in every period (Table 3). This was predominantly Lower Greensand with only a small amount of Upper Greensand present. The majority of the Purbeck Limestone pieces were

roof tiles from Romano-British contexts, which have not been included in the quantifications. In addition, small quantities of Sarsen and Basalt were present, together with isolated specimens of Tertiary Limestone, Oolitic Limestone (possibly Osmington Oolite) and Granite. The stone identifications were undertaken by the late Dr F W Anderson, *AM Lab report no 1846*.

The stone was derived from a total of 86 features (Table 4), much of it consisting of angular fragments to which no purpose could be assigned. However, a total of 75 fragments (excluding Purbeck Limestone tiles) had been utilised, 32 of which have been identified as quern-stones. Table 5 indicates the number and types of quern fragment from each site phase. It is likely that many of the unclassified utilised fragments and completely angular fragments were derived from broken and/or re-used quern-stones, especially in the case of the Greensand.

Balksbury Camp is located in an area of Chalk many miles from the nearest 'hard' rock outcrops, with only the residual capping of clay-with-flints or gravels from the nearby River Anton valley to supply harder stone in the form of pebbles. Lower Greensand is the commonest imported stone, but the nearest sources are some 45km to the west near Devizes, to the north near Uffington, or to the east where substantial outcrops form the western end of the Wealden anticline. Peacock (1987) has demonstrated that 16 of the querns are made of rock from Lodsworth, West Sussex. Thus the majority of the Lower Greensand may have come from this source. Upper Greensand outcrops some 20km to the north, and Tertiary Sandstones are available some 30km to the south in the Hampshire Basin, while Purbeck Limestone is found between 70 and 100km away to the south-west.

The small number of miscellaneous stone fragments: Basalt (building 562, late Roman period, and hollow 445, unphased Romano-British); Tertiary Limestone (pit 48, Early Iron Age period); Oolitic Limestone (hollow 465, late Roman period); and Granite (posthole 710, unphased) – are of interest in that they are indicative of distant trading contacts. An isolated lump of Dartmoor Granite was found at Gussage All Saints and some form of regular trade in this West Country stone is suggested (Buckley 1979, 90). The three fragments of Basalt are almost certainly derived from imported quern-stones. Basalt lava querns from quarries at Mayen, Germany, have a long history beginning with the production and trading of saddle querns during the Neolithic period, changing to circular rotary querns during the La Tène period (Crawford and Roder 1955). Since the Balksbury Camp fragments came from Romano-British contexts it is likely that these came from rotary querns.

Querns

Both saddle querns and rotary querns were recovered. Little work has been done on querns since Curwen's seminal studies on rotary querns (Curwen 1937; 1941), though Peacock's (1987) work on Lodsworth

Table 3 Utilised stone by period

	Purbeck Limestone	*Lower Greensand*	*Upper Greensand*	*Tertiary Sandstone*	*Sarsen*	*Other stone*	*No of features containing stone*
Late Bronze to Earliest Iron Age	–	–	–	–	1	–	1
Early Iron Age	–	7	–	2	–	1	4
Middle to Late Iron Age	1	23	1	8	–	1	21
Late Iron Age to early Roman	–	2	–	3	–	–	5
Late Roman	–	6	2	5	–	–	6
Unphased Iron Age	–	4	–	–	1	–	4
Unphased Romano-British	–	2	–	–	1	–	3
Unphased	–	5	–	–	–	–	4
Total	1	49	3	18	3	2	48

Table 4 Features containing 'foreign' stone by period

	Purbeck Limestone	*Lower Greensand*	*Upper Greensand*	*Tertiary Sandstone*	*Sarsen*	*Other stone*	*No of features containing stone*
Late Bronze to Earliest Iron Age	–	–	–	–	1	–	1
Early Iron Age	1	4	–	4	–	1	7
Middle to Late Iron Age	3	18	3	10	1	–	27
Late Iron Age to early Roman	3	3	1	4	–	–	9
Late Roman	20	11	5	8	1	2	24
Unphased Iron Age	1	6	–	1	1	–	7
Unphased	4	5	1	2	–	1	11
Total	32	47	10	29	4	4	86

is directly relevant. Curwen (1937) claimed that the use of the saddle quern practically ceased with the Early Iron Age. However, at Balksbury, the majority of saddle quern fragments came from Middle to Late Iron Age pits (Table 5). Rotary querns were also found in this period, although examples of the two types were never found within the same feature. The saddle querns are unlikely to be all residual, so they probably continued to be used after the introduction of rotary querns. A similar situation was noted at Danebury (Cunliffe 1984a, 418). At Winnall Down, saddle querns are almost as common as rotary querns in the Middle Iron Age phase (Fasham 1985, table 13), and at Gussage All Saints there was a continuous, though declining, use of the saddle quern during the course of the Iron Age (Wainwright 1979b). The Balksbury saddle querns show a consistency in size comparable to those from Gussage All Saints.

There are 20 recognisable saddle querns, 18 of Lower Greensand (10 of Lodsworth rock: Peacock 1987, 77), 1 of Tertiary Sandstone, and 1 of Sarsen. The dimensions, where ascertainable, given for saddle querns are length/width/thickness. Two types can be distinguished: small oval examples of dimensions 320/180/80mm and larger forms of dimensions 300/260/100mm. Both those examples in Lower Greensand and that in Tertiary Sandstone have deliberate surface pecking to the required form; although the Sarsen example, which could have been derived locally, does not. As at Gussage All Saints, the standardisation of forms and absence of substantial quantities of waste stone from excavated contexts suggests importation in the finished state.

There are 12 recognisable rotary querns, comprising 9 of Lower Greensand (6 of Lodsworth rock: Peacock 1987), 2 of Tertiary Sandstone, and 1 of Purbeck Limestone. The original dimensions, where ascertainable, given for each rotary quern fragment are: upper stones, diameter/maximum thickness at rim; lower stones, diameter/thickness at rim/thickness at centre. This follows the practice of A Clark and J F Nichols as adopted in their study of querns from Romano-British farms south of the Hog's Back, Surrey (Clark and Nichols 1960), which accepts Curwen's suggestion that the proportion of thickness to diameter has a certain chronological significance (Curwen 1937); this may become more useful as the body of knowledge of quern size increases. The maximum thickness at the rim is given because this must be closest to the original thickness before wear, usually particularly heavy on one side, took place.

The number of rotary querns from Balksbury Camp is too small to permit significant comment on Curwen's conclusions regarding the evolution of the rotary quern (ie that there was a marked diminution in thickness and grinding angle, changes in the method of securing the handle, and finally introduction of an adjustable pivot in the lower stone, Curwen 1937). However, it can be noted that an example of Curwen 1937, Wessex type (SF3054, Fig 45, no 20) and one of a form combining elements of both his Wessex and Sussex types (SF3044, Fig 45, no 21), both of Lower Greensand, are present in Middle to Late Iron Age pits. This latter form has now been identified as occurring on a number of southern English Iron Age sites and appears to be contemporary with Wessex types (Jecock 1981; 1985). However, this appears to be the first time that the two have been found in broadly contemporary features from the same site. These differences in form almost certainly reflect different sources of supply.

Rotary querns appear at Balksbury from the Middle to Late Iron Age period onwards (Table 5). A closer inspection of individual contexts indicates that none occurs earlier than the Middle to Late Iron Age ceramic phase. This date for the inception of use of the rotary querns is in accordance with the evidence from other Iron Age sites (Jecock 1981; 1985). The Tertiary Sandstone lower stone fragment (SF3035, Fig 47, no 27) is typical of Romano-British domestic types from southern Britain, and unsurprisingly it was found in a late Roman context.

There is little doubt that rotary querns, like saddle querns, were brought to the site in the finished state from established production centres. The organisation and trade in such heavy commodities was considered with regard to Gussage All Saints (Wainwright 1979b), and until further research has been undertaken little can be said about the precise source of individual quern-stones other than those which have come from Lodsworth, West Sussex (Peacock 1987).

Table 5 Quern fragments by period

	Saddle querns	*Rotary querns*			
		lower stone	*upper stone*	*indeterminate*	*Total*
Late Bronze to Earliest Iron Age	–	–	–	–	–
Early Iron Age	3	–	–	–	3
Middle to Late Iron Age	12	2	2	–	16
Late Iron Age to early Roman	–	–	2	1	3
Late Roman	1	1	1	–	3
Unphased Iron Age	1	1	1	–	3
Unphased Romano-British	–	–	–	–	–
Unphased	3	–	1	–	4
Total	20	4	7	1	32

Fig 44

1 Lower Greensand saddle quern, approximately half remaining. Rounded undersurface with overall pecking. 160 (incomplete)/180/75mm, *SF3048; pit 48, layer 5; Early Iron Age period*

2 Lower Greensand saddle quern, approximately half remaining. A well-made quern-stone; both the upper and lower surfaces are concave from use. 240 (incomplete)/260/105mm, *SF3053; pit 48, layer 5; Early Iron Age period*

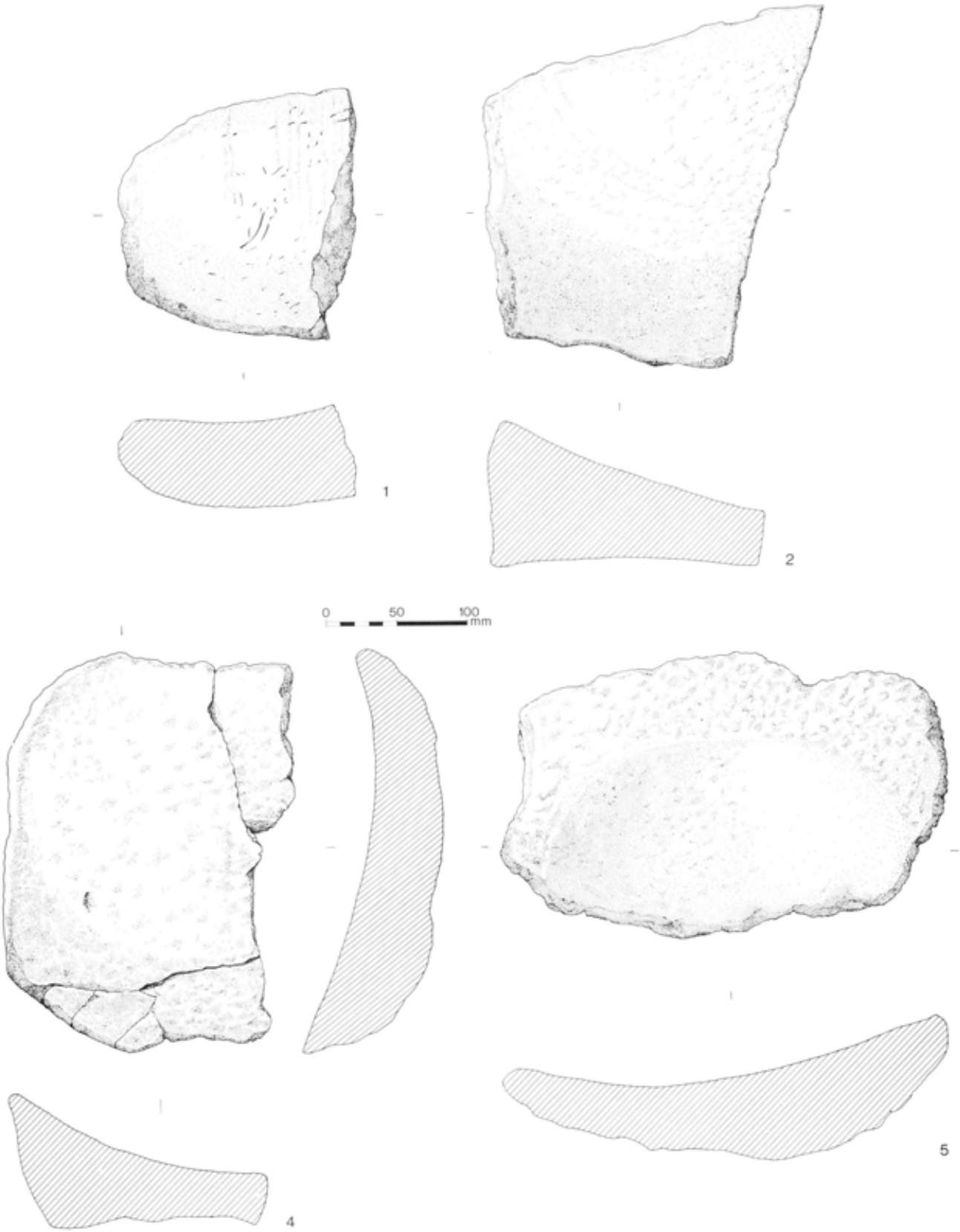

Fig 44 Worked stone: saddle querns (scale 1:4)

3 *Not illustrated*. Lower Greensand saddle quern fragment retaining part of the grinding surface and pecked undersurface, *SF3082; pit 48, layer 5; Early Iron Age period*

4 Lower Greensand saddle quern. An unusual quernstone, being concave lengthways and widthways, resulting in a dish shape. 210 (incomplete)/280/90mm, *SF3078; pit 1027, layer 5; Middle to Late Iron Age period*

5 Lower Greensand saddle quern with marked concavity lengthways from use. Pecking on undersurface. 300/200/90mm, *SF3079; pit 1027, layer 5; Middle to Late Iron Age period*

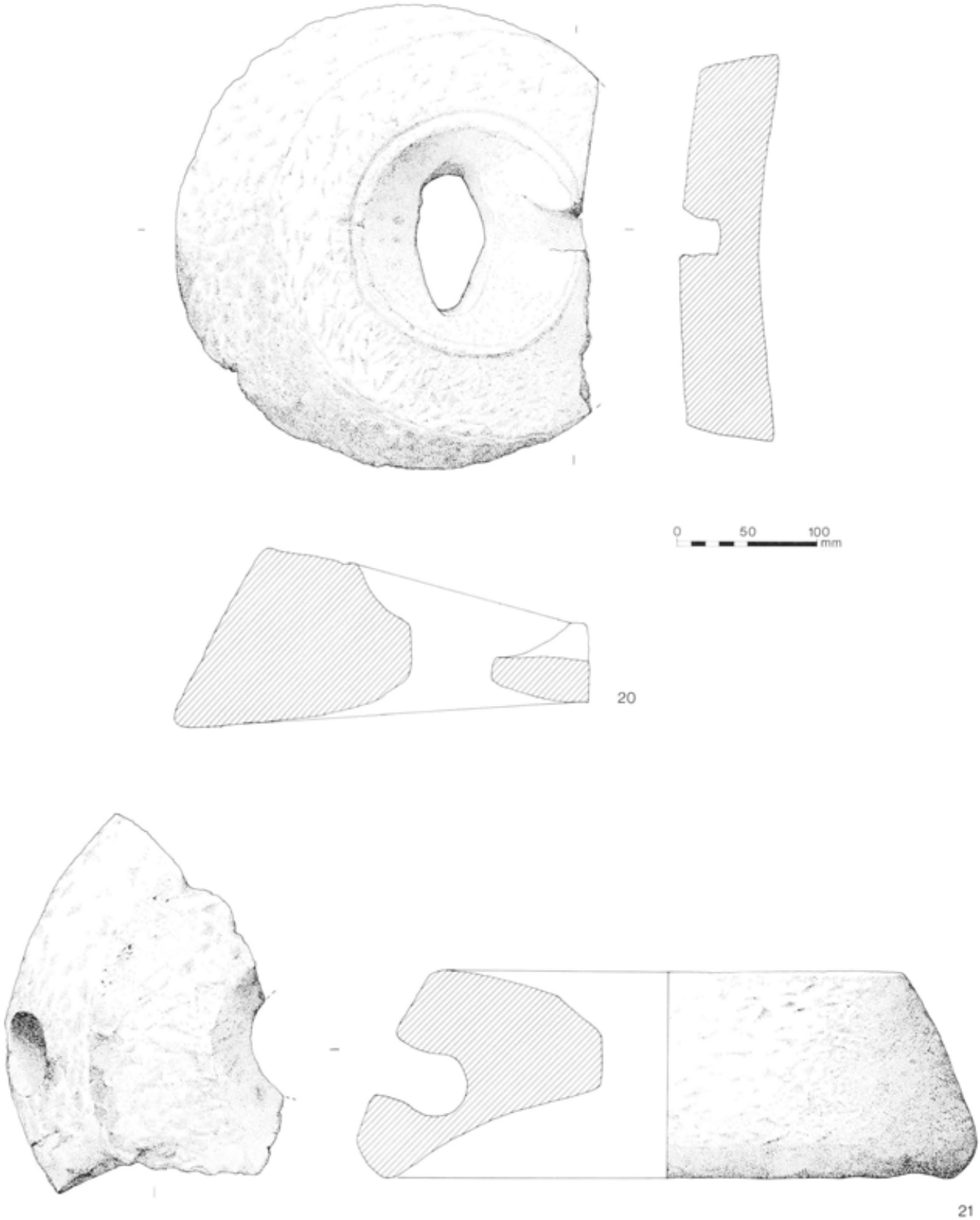

Fig 45 Worked stone: rotary querns (scale 1:4)

Not illustrated

6 Lower Greensand saddle quern. Rounded undersurface with overall pecking. 270/170/70mm, *SF3075; pit 1027, layer 5; Middle to Late Iron Age period*

7 Lower Greensand saddle quern, broken at both ends. Rounded under surface with overall pecking. 210 (incomplete)/200/75mm, *SF3045; pit 238, layer 7; Middle to Late Iron Age period*

8 Lower Greensand saddle quern fragment, approximately one-third remaining. 140 (incomplete)/160/40mm, *SF3085; pit 238, layer 7; Middle to Late Iron Age period*

9 Lower Greensand saddle quern, two joining pieces. Rounded undersurface with overall pecking. 320/180/60mm, *SF3050; pit 55, layer 9; Middle to Late Iron Age period*

10 Lower Greensand saddle quern with a flat undersurface and overall surface pecking. 300/180/65mm, *SF3063; pit 12, layer 6; Middle to Late Iron Age period*

11 Lower Greensand saddle quern, broken along one side. A well-made quern-stone with a flat base and pecking on all unfractured surfaces. There is marked concavity widthways, an intentional feature of the original quern. 320/250 (incomplete)/120mm, *SF3068; pit 12, layer 6; Middle to Late Iron Age period*

12 Lower Greensand saddle quern fragment. Retains part of the grinding surface, *SF3081; pit 23, layer 13; Middle to Late Iron Age period*

13 Lower Greensand saddle quern fragment, *SF3084; pit 213, layer 4; Middle to Late Iron Age period*

14 Lower Greensand saddle quern. Fourteen fragments from a shattered quern, *SF3086; pit 628, layer 5; Middle to Late Iron Age period*

15 Tertiary Ferruginous Sandstone saddle quern fragment, retaining part of the grinding surface. Rounded

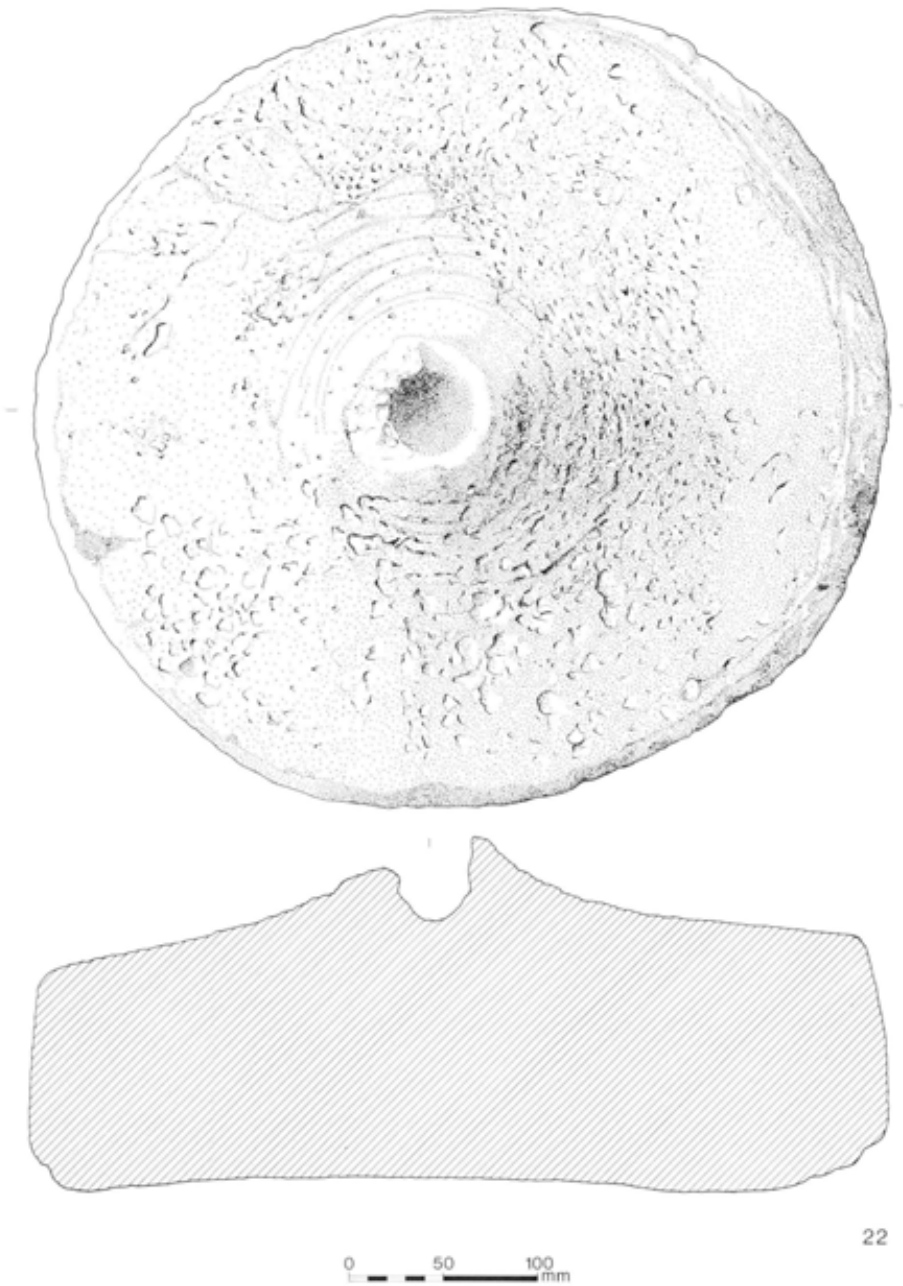

Fig 46 Worked stone: rotary quern (scale 1:4)

undersurface with pecking, *SF3077; pit 130, layer 5; Middle to Late Iron Age period*

16 Lower Greensand saddle quern. The under-surface of the stone shows no intentional working to shape. 310/180/80mm, *SF3042; building 562, layer 4; late Roman period*

17 Sarsen saddle quern, approximately three-quarters remaining. The largest saddle quern from the site, it shows little indication of being worked to shape, being rough on the sides and undersurface. 410 (incomplete) /280/80mm, *SF3064; hollow 113, layer 3; unphased Iron Age*

18 Lower Greensand saddle quern. A large fragment from what was originally a large quern, comparable with SF 3068(no 11), having a flat base and marked concavity widthways as an original feature of the quern, *SF3057; hollow 616, layer 3; unphased*

19 Lower Greensand saddle quern. Rounded under-surface with overall pecking. 300/150/50mm, *SF3058; hollow 616, layer 3; unphased*

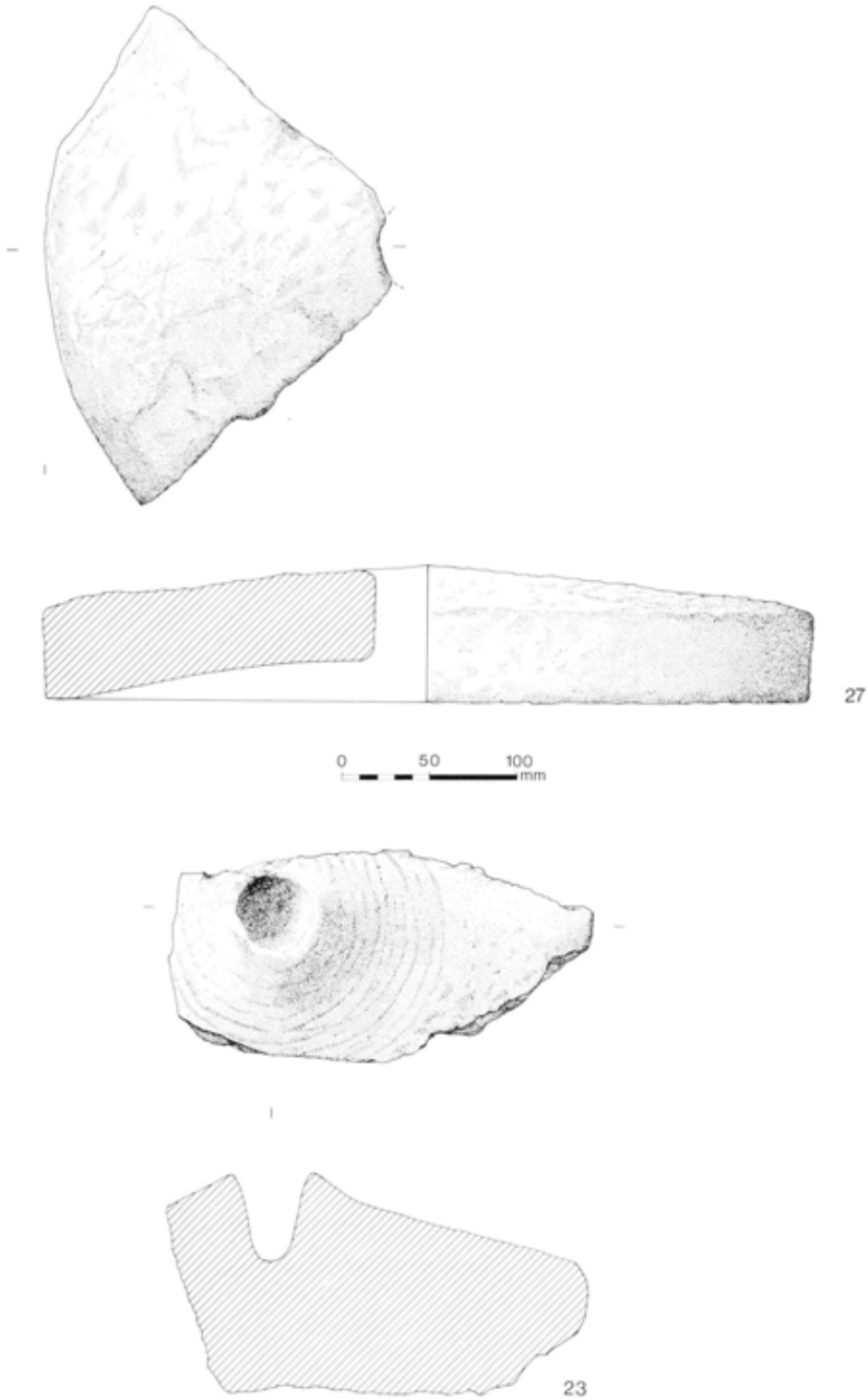

Fig 47 Worked stone: rotary quern (scale 1:4)

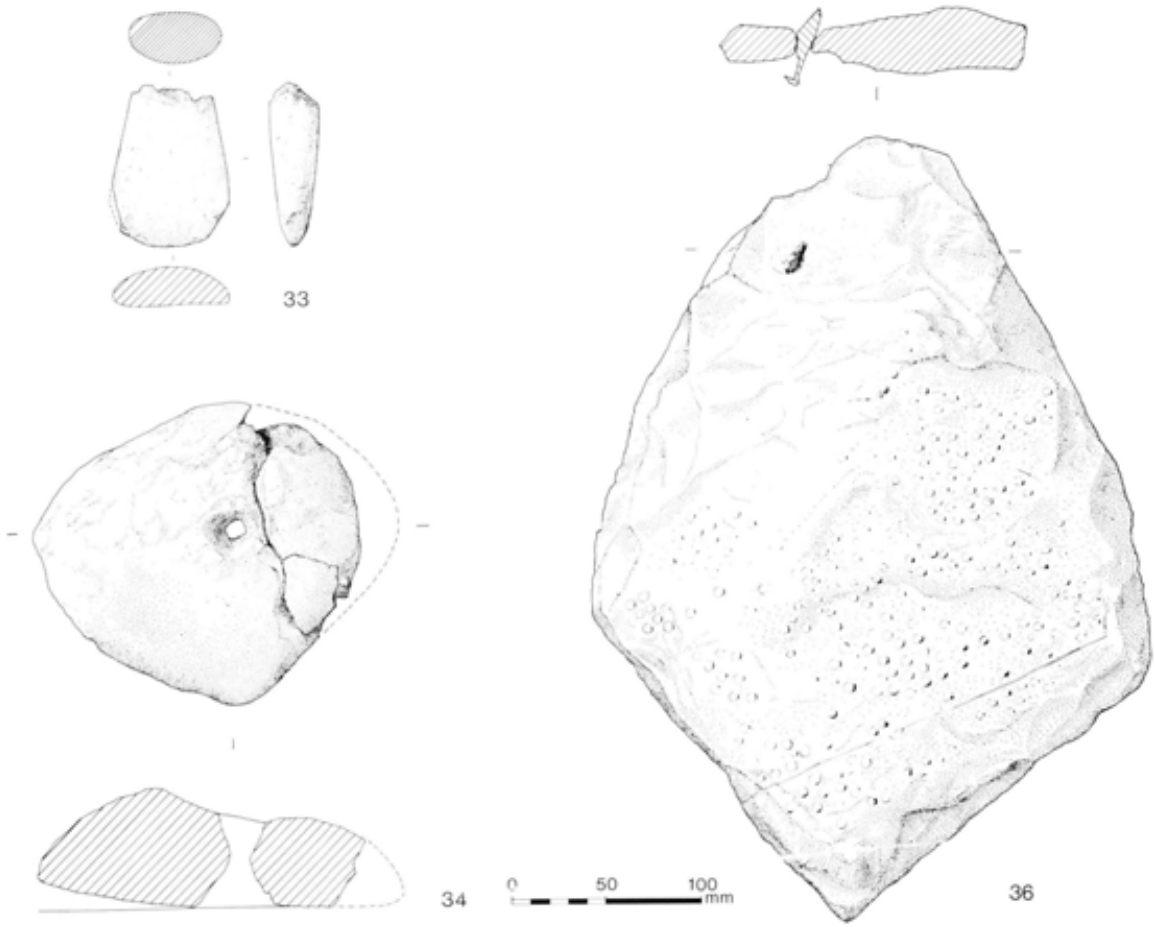

Fig 48 Worked stone: Group IV axe no 33; sandstone weight no 34; limestone roof tile no 36; (scale 1:4)

Fig 45

20 Lower Greensand rotary quern, Upper stone, almost complete. This combines elements of Curwen's Wessex type, having a large hopper with an additional slight groove and lip around it, and Sussex type, having the handle slot cut into the top of the stone. The whole of the upper surface is pecked and there is a marked groove on the grinding surface where the top stone would appear to have overhung the lower stone. Approx 340/140mm, *SF3054; pit 123, layer 4; Middle to Late Iron Age period*

21 Lower Greensand rotary quern, upper stone fragment, Curwen's Wessex type with surface pecking and gently sloping top to a round central hole with a slight hopper. The grinding surface is steep and concave. The handle slot is cut into the side with an oval cross-section 60×40mm across and 60mm deep. Approximately 320/140mm, *SF3044; pit 36, layer 3; Middle to Late Iron Age period*

Fig 46

22 Purbeck limestone rotary quern, lower stone. Low grinding angle but with a marked raised lip around the central pivot hole, partly broken. The pivot hole, 40mm in diameter, passes partially through the stone to a depth of 50mm. 410/100/120mm, *SF3065; pit 106, layer 4; Middle to Late Iron Age period*

Fig 47

23 Lower Greensand rotary quern, lower stone. Approx 350/65/120mm. The central pivot hole is 40mm in diameter and 50mm deep, *SF3072; pit 112, layer 8; Middle to Late Iron Age period*

24 *Not illustrated*. Lower Greensand rotary quern, upper stone fragment. Quern was flat-topped, *SF3090; pit 529, layer 5; Late Iron Age to early Roman period*

25 *Not illustrated*. Tertiary Sandstone rotary quern, upper stone fragment. Quern was flat-topped, *SF3089; gully 249, layer B3; Late Iron Age to early Roman period*

26 *Not illustrated*. Lower Greensand rotary quern, upper or lower stone fragment, *SF3087; pit 66, layer 4; Late Iron Age to early Roman period*

27 Tertiary Sandstone rotary quern, lower stone fragment. Approx 420/55/55mm, *SF3035, corndryer 511, layer 7; late Roman period*

Not illustrated

28 Lower Greensand rotary quern, upper or lower stone fragment, *SF3087; pit 66, layer 4; Late Iron Age to early Roman period*

29 Lower Greensand rotary quern, upper stone fragment. Quern was flat-topped, *SF3088; pit 199, layer 3; unphased Iron Age*

30 Lower Greensand rotary quern, lower stone fragment. Broken around its outer edge. The central pivot

hole, 25mm in diameter and 40mm deep, passes right through the stone though the underside is hollowed around the centre. A further hollow in the upper surface would appear to indicate use as a mortar after the stone ceased to be used as a quern, *SF3040; pit 783, layer 3; unphased Iron Age*

31 Lower Greensand rotary quern, upper stone fragment. Two joining pieces. Quern was flat-topped, *SF3074; posthole 378, layer 3, unphased*

Other stone

A small number of other stone objects were recovered from features across the site. The axe-head (SF3028, Fig 48, no 33) is clearly residual, although later re-use is suggested. Western axes are relatively frequent finds in Hampshire (Woodcock *et al* 1988, 25, 32, fig 4A). Only one probable whetstone (8112886, no 39) was recovered from the excavations. This is surprising given their occurrence on other Iron Age sites in the area (eg Danebury, Old Down Farm, Lains Farm). The geological nature of the site with its overlying capping of clay-with-flints pebbles made the determination of stones as sling-stones or skin rubbers from pit contexts impossible, but in one instance, feature 656, a collection of 27 flint pebbles, all of similar size, points to a deliberate collection, possibly as sling-stones.

Not illustrated

32 Sarsen hammerstone, elongated shape with faceted surfaces, *8112800; layer 3237; Late Bronze Age to Earliest Iron Age period*

Fig 48

33 A damaged and broken stone axe. Amphibolite, near Group IV and probably of similar provenance. Butt missing and heavily worn blade. One face was smoothed and abraded, either from resharpening or from re-use as a rubber. Surviving length 90mm, *SF3028; pit 111, layer 5; Middle to Late Iron Age period*

34 Sandstone weight with central perforation, *SF3071, pit 11, layer 6; Middle to Late Iron Age period*

35 *Not illustrated*. Three fragments of Tertiary Sandstone from one original piece. Flag-like pieces 25mm thick, rough on one surface, very smooth on the other, possibly from use as floor paving or as a sharpening stone (*see also no 37*), *SF3093; pit 25, layer 3; Middle to Late Iron Age period*

36 Purbeck Limestone roof tile. Five-sided with one nail hole for attachment, nail still present. Illustrated as an example of the large quantity of roofing tile recovered from the Romano-British building, *SF3080; building 562, layer 2; late Roman period*

Not illustrated

37 Twelve fragments of Tertiary Ferruginous Sandstone from one original piece. Flag-like pieces worn smooth from possible use as a floor paving or as a sharpening stone (see also no 35), *SF3092; hollow 9, layer 3; late Roman period*

38 Lower Greensand object. deliberately pecked to an irregular shape. Function unknown, *SF3094; posthole 704A, layer 3; unphased Iron Age*

39 Sarsen whetstone. Elongated fine white sarsen pebble with a rectangular cross-section used as a whetstone, *8112886; hollow 3297,layer 3298; unphased Romano-British*

Chalk

Four objects of chalk were recovered, all from Middle to Late Iron Age pits. Three came from pit 111 in the central settlement area. Two types of objects are represented: spindle whorls and weights. Although not precisely paralleled, the spindle whorls fall within the range of those found at Danebury (Cunliffe 1984a, 422, 425).

The chalk weights, possibly loom-weights, have also been found on other southern British chalkland Iron Age sites such as Danebury (*ibid*, 419–22, fig 7.59), where they are found in all periods but were concentrated in ceramic phase 7; Easton Lane (Fasham *et al* 1989, 108–12, fig 102), where they were recovered from Middle Iron Age pits; and Maiden Castle (Wheeler 1943, 297, fig 100).

Fig 49

1 Broken, incomplete, circular chalk spindle whorl, 110mm in diameter, with a central hour-glass perforation, 16mm minimum diameter, which is surrounded

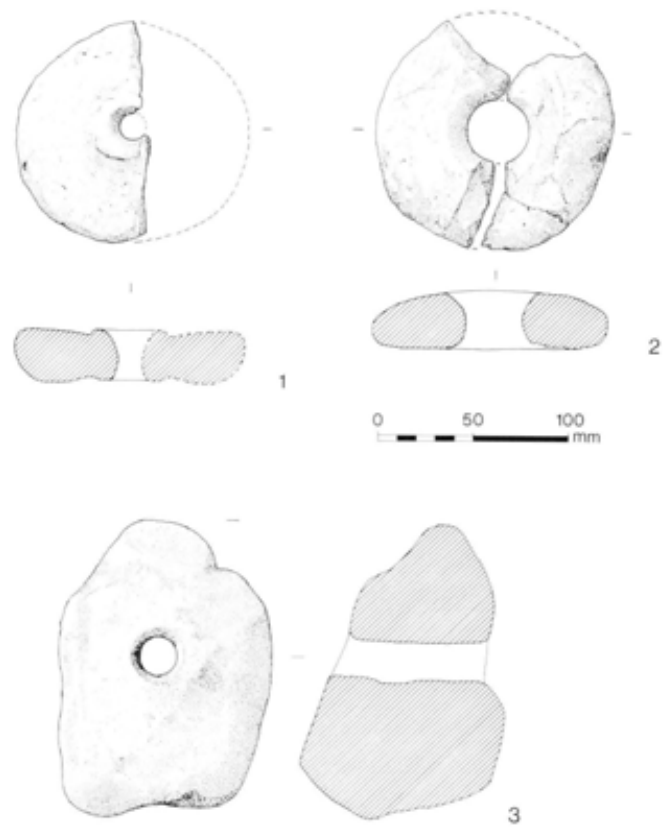

Fig 49 Spindle whorls and weights (scale 1:4)

by a raised lip on both faces, *SF3025; pit 111, layer 4; Middle to Late Iron Age period*

2 Broken chalk spindle whorl, 122mm in diameter, with a smooth surface and a carefully worked central perforation, 28mm minimum diameter. In two pieces, broken in antiquity, *SF3026; pit 111, layer 6; Middle to Late Iron Age period*

3 Irregular chalk weight with a central perforation. Length 156mm, breadth 112mm; thickness 104mm, *SF3070; pit 168, layer 11; Middle to Late Iron Age period*

4 *Not illustrated*. Fragment of smoothed chalk weight with perforation. Length 155m, breadth 100mm, *SF3027; pit 111, layer 6; Middle to Late Iron Age period*

Shale

Two objects of Kimmeridge Shale were recovered, one fragment of a finished bracelet and one fragment of a bracelet roughout. Similar shale bracelets have been found on other Iron Age sites, eg Danebury (Cunliffe 1984a, 396, fig 7.41), Gussage All Saints (Wainwright 1979b, 100, fig 75), and Maiden Castle (Wheeler 1943, 311–18, figs 107–9). The presence of a roughout suggests that some of the shale objects arrived on site in an unfinished state. A similar situation can be seen at Danebury (Cunliffe 1984a, 396) and All Cannings Cross (Cunnington 1923).

Fig 50

1 Broken, incomplete shale bracelet of plano-convex section. Internal diameter 50mm, *SF3049; pit 917, layer 3; unphased Romano-British*

2 Incomplete shale roughout, nearly triangular in section. Internal diameter 60mm, *SF3067; pit 918, layer 6; Middle to Late Iron Age period*

Glass

Three pieces of glass were recovered from the site. All were unidentifiable fragments, two from hollows containing late Roman material and one fragment from the lower layers of a Middle to Late Iron Age pit.

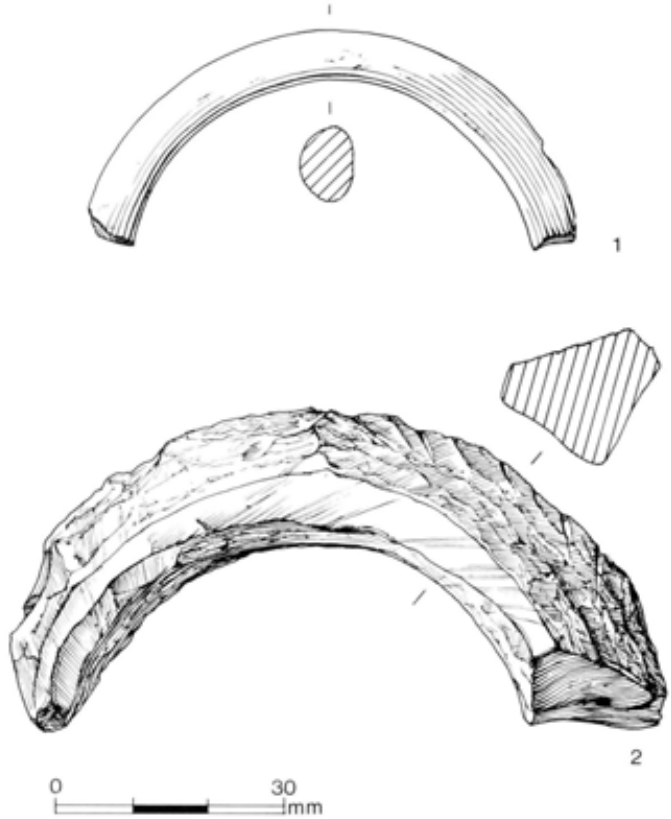

Fig 50 Kimmeridge Shale bracelet and bracelet roughout (scale 1:1)

Not illustrated

1 Sherd of blue glass, probably from a large annular bead (Guido 1978), c10mm square, *SF4039; pit 148, layer 6; Middle to Late Iron Age period*

2 Sherd of thin yellowish glass from a vessel of indeterminate type, *SF4061; hollow 9, layer 3; late Roman period*

3 Sherd of burnt glass, *SF4065; hollow 63, layer E3; late Roman period*

Fired clay

The fired clay objects can be divided into three main types: loom-weights, spindle whorls, and crucible fragments. In addition, fragments of daub and other unidentifiable burnt clay fragments were also recovered. These have been tabulated by period in Table 6.

Table 6 Fired clay by period

	Loomweights	*Spindle whorls*	*Crucibles*	*Daub*	*Other*	*Total*
Late Bronze to Earliest Iron Age	–	–	–	–	–	–
Early Iron Age	2	–	–	9	–	11
Middle to Late Iron Age	2	1	1	4	5	13
Late Iron Age to early Roman	1	–	–	–	–	1
Late Roman	–	1	–	–	–	1
Unphased Iron Age	3	–	1	–	–	4
Unphased Romano-British	1	1	–	–	–	2
Unphased	–	–	–	–	–	–
Total	9	3	2	13	5	32

Loomweights

Both triangular and cylindrical ceramic loomweights were recovered. The cylindrical weights were found in the peripheral area of the site assigned to the Late Bronze Age to Earliest Iron Age period, while the triangular loomweights were found in the central area. Neither cylindrical loom-weight was recovered from precisely dated contexts and one (8112602, Fig 51, no 1) may be residual. At Winnall Down the cylindrical loomweights were derived from Late Bronze Age contexts (Fasham 1985, 90). The triangular loomweights at Balksbury were found in pits dating from the Early Iron Age to the Late Iron Age to early Roman periods.

Fig 51
1 Broken, incomplete cylindrical loomweight with central perforation, *8112602; hollow 2013; unphased Romano-British*
2 Fragment, possibly from a cylindrical loomweight, *8112805; hollow 3274, layer 3275; unphased Iron Age*

Not illustrated
3 Fragments of a triangular loomweight, *SF4021; pit 515, layer 5; Early Iron Age period*
4 Fragments of a triangular loomweight, *SF4069; pit 2, layer 10; Middle to Late Iron Age period*
5 Fragments of a triangular loomweight, *SF4043: pit 154, layer 4; Middle to Late Iron Age period*
6 Fragment of a triangular loomweight, *SF4087; pit 204/205, layer 16; Middle to Late Iron Age period*
7 Fragments of a triangular loomweight, *SF4026; pit 529, layer 4; Late Iron Age to early Roman period*
8 Fragment of a triangular loomweight, *SF4017; pit 457, layer 3; unphased Iron Age*
9 Fragments of a triangular loomweight, *SF4015; posthole 309, layer 3; unphased Iron Age*

Spindle whorls

Three fired clay spindle whorls were recovered from the site, two, SF4037 and SF4051 (Fig 51, nos 10, and 11) from the central area and one, 8112601 (Fig 51, no 12) from the western area, in a silting layer immediately behind the bank. In addition to the ceramic spindle whorls, two made from chalk were also found.

10 Broken spindle whorl with central perforation 6mm in diameter. Possibly originally hemispherical or globular in shape, *SF4037; pit 148, layer 5; Middle to Late Iron Age period*
11 *Not illustrated*. Broken spindle whorl. Possibly originally hemispherical in shape, *SF4051; pit 86, layer 4; late Roman period*
12 Hemispherical spindle whorl with central perforation 4mm in diameter. Overall diameter 16mm. A similar spindle whorl was found at All Cannings Cross (Cunnington 1923, pl 25, 1), *8112601; layer 2005; unphased Romano-British*

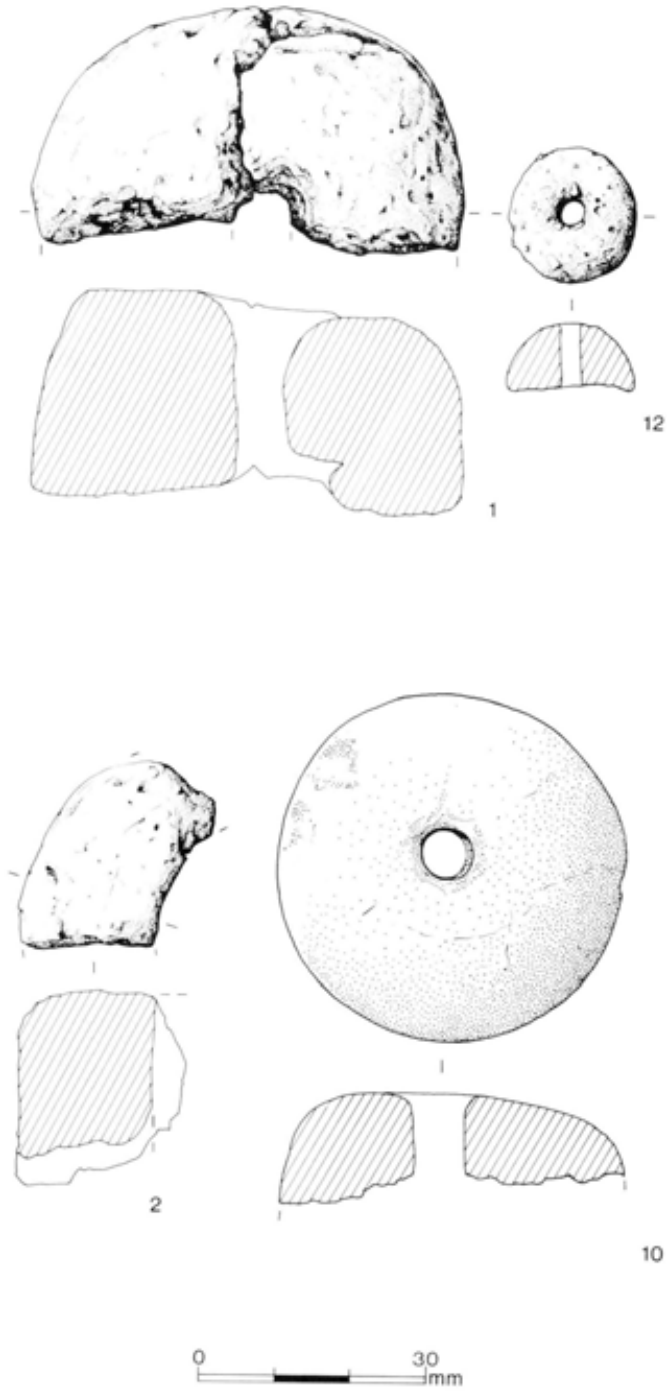

Fig 51 Fired clay loomweights and spindle whorl (scale 1:1)

Crucible fragments

Two crucible fragments were recovered, one from the southern edge and the other from the northern end of the central settlement area. Both are probably from triangular crucibles (*cf* Wainwright 1979b, 130, fig 99), they were not submitted for technological assessment.

Not illustrated
13 Fragment of crucible base with metal residue adhering to the inner surface, *SF4031; pit 505, layer 7; Middle to Late Iron Age period*

Table 7 Worked bone and antler by period

	Combs	*Needles*	*Points*	*Gouges*	*Other*	*Worked antler*	*Worked bone*	*Total*
Late Bronze to Earliest Iron Age	–	–	–	–	–	–	–	–
Early Iron Age	–	–	1	1	3	–	–	5
Middle to Late Iron Age	3	1	6	1	4	2	1	18
Late Iron Age to early Roman	–	–	–	–	2	2	–	4
Late Roman	1	–	–	–	1	2	–	4
Unphased Iron Age	–	–	4	–	–	–	–	4
Unphased Romano-British	–	–	–	–	–	–	2	2
Unphased	–	–	2	1	–	–	–	3
Total	4	1	13	3	10	6	3	40

14 Fragment of crucible wall with metal residue adhering to one surface, *SF4053; posthole 217, layer 3; unphased Iron Age*

Daub

Fragments of daub were found in eight pits in the central settlement area. The majority of these had wattle impressions visible on them. They were concentrated in contexts of the Early Iron Age period with a few fragments from contexts of the Middle to Late Iron Age period.

Not illustrated

15 Fragments of wattle-impressed daub, *SF4032; pit 501, layer 11; Early Iron Age period*

16 Fragments of wattle-impressed daub, *SF4022; pit 501, layer 9; Early Iron Age period*

17 Fragments of wattle-impressed daub, *SF4023; pit 501, layer 7; Early Iron Age period*

18 Fragments of wattle-impressed daub, *SF4024; pit 501, layer 6; Early Iron Age period*

19 Fragment of wattle-impressed daub, *SF4044; pit 515, layer 5; Early Iron Age period*

20 Fragment of wattle-impressed daub, *SF4025; pit 515, layer 4; Early Iron Age period*

21 Fragments of wattle-impressed daub, *SF4036; pit 515, layer 4; Early Iron Age period*

22 Fragment of wattle-impressed daub, *SF4045; pit 133, layer 4; Early Iron Age period*

23 Shaped daub fragments, burnt, impressed with wattles, 10mm diameter, *SF4070; pit 2, layer 10; Early Iron Age period*

24 Fragments of wattle-impressed daub, *SF4064; pit 352, layer 13; Middle to Late Iron Age period*

25 Shaped daub impressed with wattles, 30mm diameter, *SF4111; pit 204/205, layer 16; Middle to Late Iron Age period*

26 Fragments of wattle-impressed daub, *SF4052; pit 7, layer 5; Middle to Late Iron Age period*

27 Large lump of daub with flat surfaces, *SF4073; pit 111, layer 6; Middle to Late Iron Age period*

Miscellaneous

Not illustrated

28 A quantity of shaped clay fragments, many with flat surfaces, *SF4060; pit 111, layer 6; Middle to Late Iron Age period*

29 Shaped and burnt clay, *SF4102; pit 111, layer 6; Middle to Late Iron Age period*

30 Shaped clay lump, *SF4092; pit 55, layer 9; Middle to Late Iron Age period*

31 Clay lump, shaped and fired, *SF4080; pit 239, layer 5; Middle to Late Iron Age period*

32 Shaped clay fragment, *SF4094; pit 106, layer 4; Middle to Late Iron Age period*

Worked bone and antler

A number of pieces of worked bone and antler were recovered from features on the excavation. These included both complete finished implements and miscellaneous worked pieces. Bone and antler artefacts were found in all periods, except the Late Bronze Age to Earliest Iron Age period (Table 7). The majority were recovered from pits of the Early Iron Age and Middle to Late Iron Age periods and the variety within the assemblage is typical of sites of this date (Sellwood 1984). The lack of worked bone in the earliest period is probably a reflection of the absence of pits assigned to this period. A relatively small number of identifiable implements survived, mainly bone points and awls (Table 7). Although pieces of sawn and cut bone and antler were recovered, the number is too small and their distribution too scattered to be able to comment on the nature of bone-working on the site.

Combs

Two almost complete weaving combs and two fragments probably belonging to bone combs (Cunliffe 1984a, 371–8) were recovered, three from Middle to Late Iron Age features.

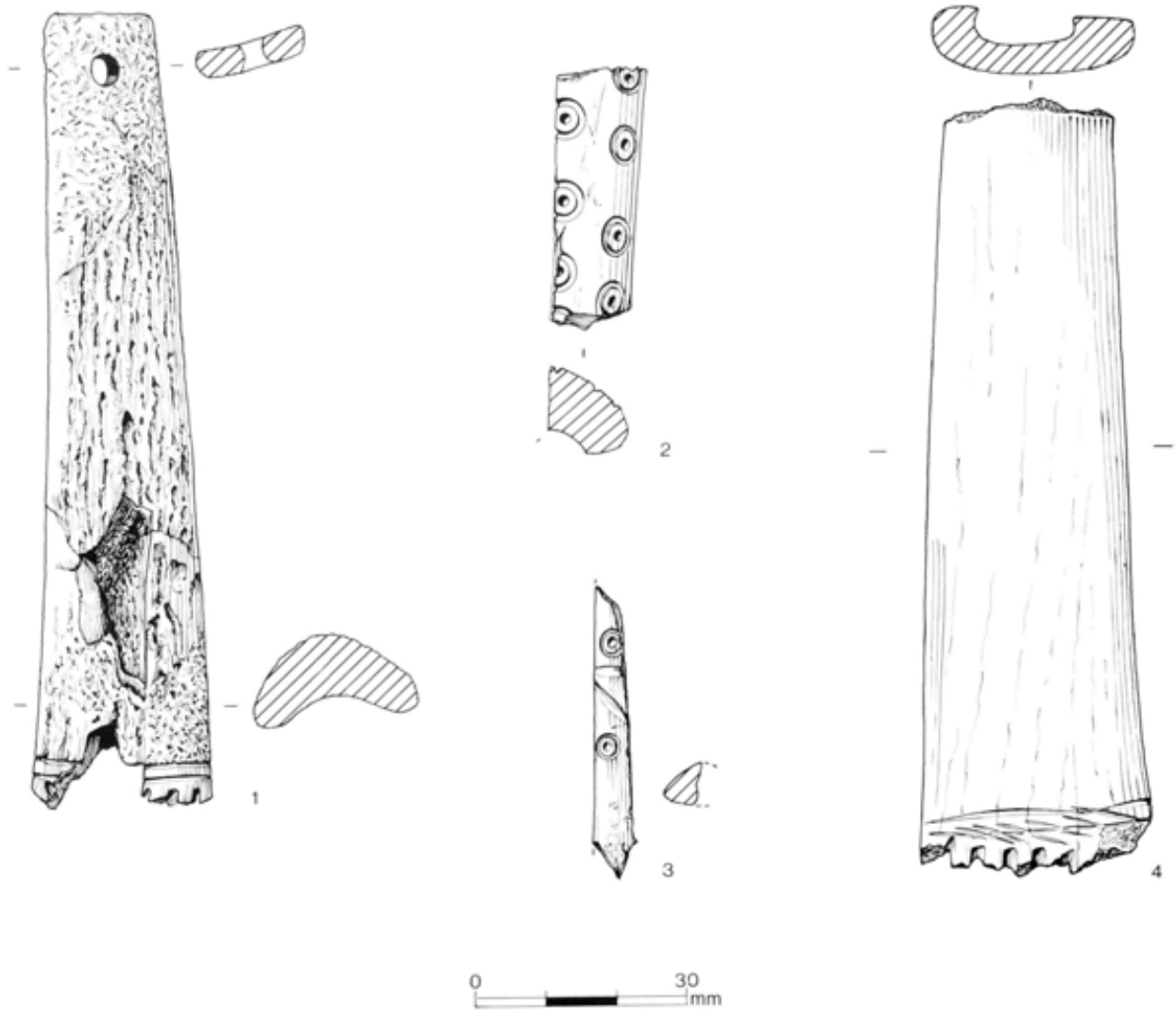

Fig 52 Bone and antler weaving combs (scale 1:1)

Fig 52

1 Antler comb, burnt and splintered with the teeth missing. Simple squared butt with central perforation, *SF4090; pit 36, layer 5; Middle to Late Iron Age period*

2 Fragment of bone comb and handle, burnt. Decorated with incised dot-and-circle motifs, *SF4109; pit 204/205, layer 16; Middle to Late Iron Age period*

3 Fragment of bone comb handle decorated with incised lines and dot-and-circle motifs, *SF4057; pit 239, layer 4; Middle to Late Iron Age period*

4 Broken comb handle, teeth missing and butt broken. Undecorated, *SF4110; hollow 139, layer 12; late Roman period*

Needles, awls, and points

Fig 53

5 Broken needle with part of the eye and the tip missing (Sellwood 1984, 380–2), *SF4082; pit 103, layer 3; Middle to Late Iron Age period*

6 Bone awl, *SF4046; pit 500, layer 8; Early Iron Age period*

7 Bone awl, worn and abraded, *SF4059; pit 111, layer 4; Middle to Late Iron Age period*

8 Polished awl, made on a split sheep tibia, *SF4096; pit 168, layer 11; Middle to Late Iron Age period*

9 *Not illustrated.* Complete awl, smoothed and polished ? from use. Length 110mm, *SF4084; pit 237, layer 4; Middle to Late Iron Age period*

10 *Not illustrated.* Awl made from a cattle astragalus, highly polished. Length 140mm, *SF4085; pit 195, layer 7; Middle to Late Iron Age period*

11 Awl, extremely worn and smoothed, *SF4049; pit 234, layer 5; unphased Iron Age*

Not illustrated

12 Bone awl with a polished tip. Length 75mm, *SF4003; pit 122, layer 7; unphased Iron Age*

13 Bone awl, worn and polished. Length 75mm, *SF4074; posthole 387, layer 3; unphased Iron Age*

14 Bone awl, length 105mm, *SF4054; posthole 683, layer 3; unphased*

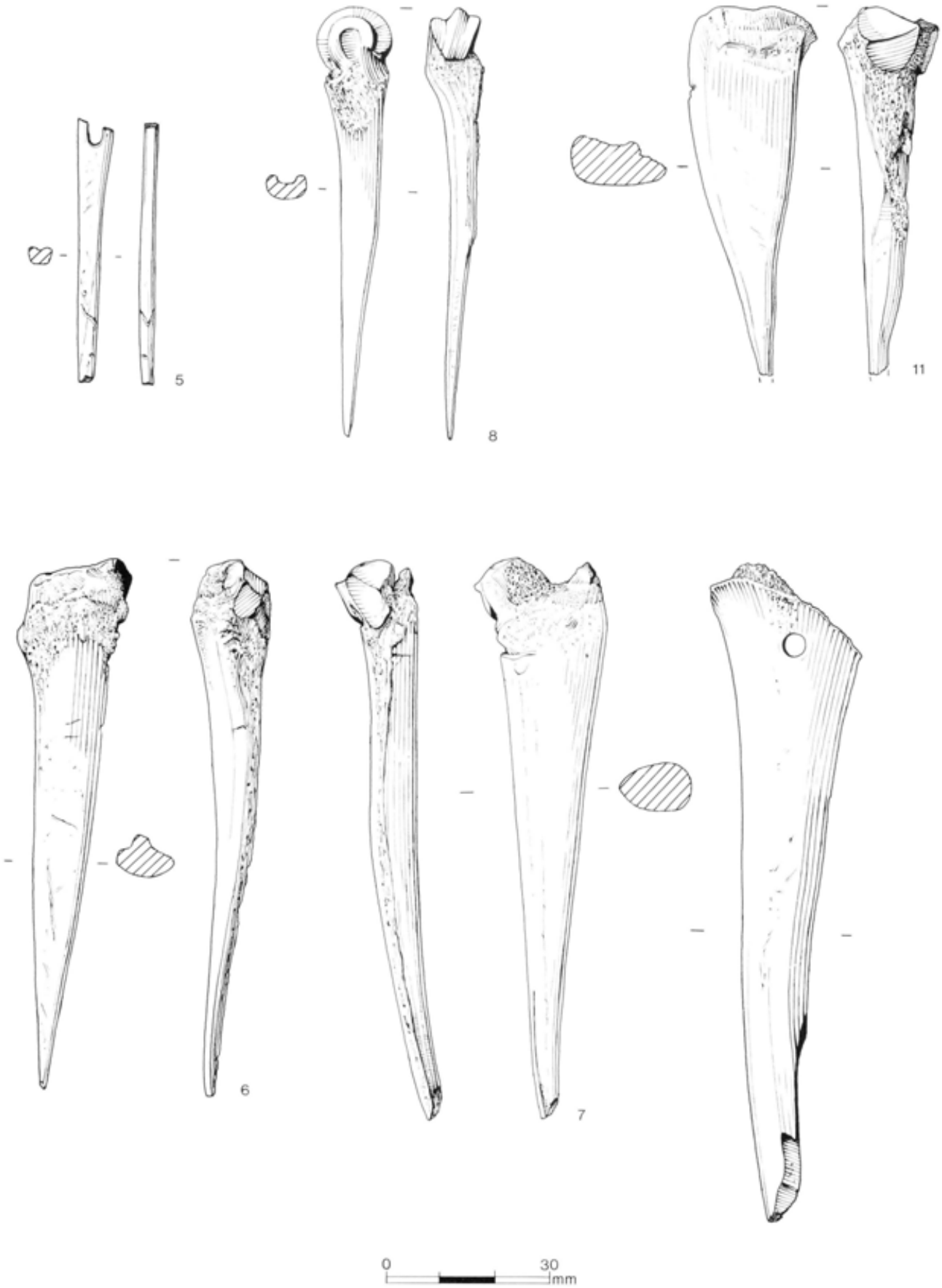

Fig 53 Worked bone needle, awls, and gouge(scale 1:1)

15 Tip of bone point, worn and polished, *SF4086; pit 168, layer 8; Middle to Late Iron Age period*
16 Fragment of long bone carefully worked to a polished point at one end, *SF4097; pit 195, layer 7; Middle to Late Iron Age period*
17 Fragment of split long bone, worn and abraded at the tip. Length 95mm, *SF4010; posthole 322, layer 3; unphased Iron Age*
18 Fragmentary tip of a bone point, *SF4035; hollow 553, layer 3; unphased*

'Gouges'

19 *Not illustrated.* Fragment of ?'gouge', *SF4050; pit 265, layer 5; Early Iron Age*
20 Broken 'gouge' with perforation at butt, *SF4088; pit 204/205, layer 16; Middle to Late Iron Age period*

Fig 54
21 Fragment of ?'gouge', *8112992; posthole 3276, layer 3480; unphased*

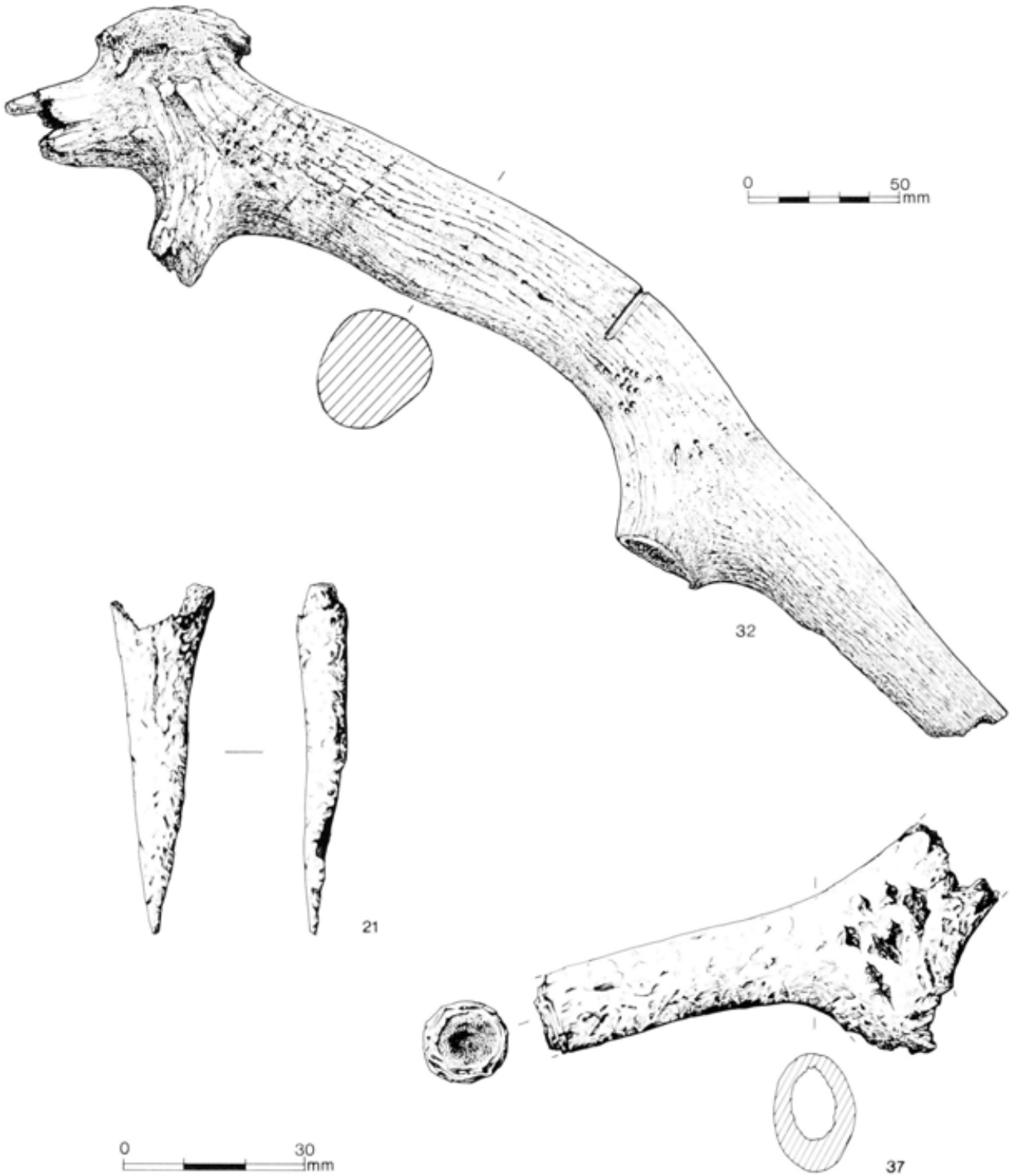

Fig 54 Worked bone and antler: nos 21 and 37; (scale 1:1); no 32 (scale 1:2)

Miscellaneous implements

Not illustrated

22 Antler tine, worn and smoothed at its tip, *SF4076; pit 98, layer 4; Early Iron Age period*

23 Segment of antler tine, sawn at both ends, and smoothed overall with a hollowed centre. Length 20mm, *SF4041; pit 133, layer 4; Early Iron Age period*

24 Splinter of bone, pointed at one end. Broken and burnt, in two pieces, *SF4047; pit 500, layer 8; Early Iron Age period*

25 Tip of antler tine, worn and smoothed, *SF4019; pit 435, layer 5; Middle to Late Iron Age period*

26 Fragment of cattle jaw, polished and worn, notched along two edges, *SF4055; pit 299, layer 7; Middle to Late Iron Age period*

27 Fragment of long bone, smoothed and polished ?from use, *SF4108; pit 628, layer 5; Middle to Late Iron Age period*

28 Cattle metacarpal, polished from use. A skin-dresser? *SF4067; pit 462, layer 10; Middle to Late Iron Age period*

29 Fragment of antler tine, smoothed and abraded from use, *SF4058; pit 132, layer 6; Late Iron Age to early Roman period*

30 Fragment of long bone with a central drilled perforation, *SF4002; pit 220, layer 3; Late Iron Age to early Roman period*

31 Fragment of long bone with one end smoothed and polished from use, *SF4033; corndryer 511, layer 4; late Roman period*

Manufacturing waste

32 Large piece of antler with one tine removed by sawing and a saw-cut on the beam. Extensive bruising from hammering over its surface. Possibly originally an antler pick, *SF4104; pit 112, layer 7; Middle to Late Iron Age period*

33 *Not illustrated*. Segment of sawn antler tine, *SF4105; pit 113, layer 7; Middle to Late Iron Age period*

34 *Not illustrated*. Fragment of cattle tibia sawn off below its articular end, *SF4068; pit 111, layer 6; Middle to Late Iron Age period*

35 *Not illustrated*. Roe deer antler tine, cut and splintered, *SF4089; pit 66, layer 4; Late Iron Age to early Roman period*

36 *Not illustrated*. Large segment of antler beam with cut-marks over part of its surface, *SF4081; pit 69, layer 6; Late Iron Age to early Roman period*

37 Cut antler, *8112993; silting layer 3381 above entrance trackway; late Roman period*

38 *Not illustrated*. Fragment of worn antler tine, cut at one end, *SF4001; gully 129, layer Ab3; late Roman period*

39 *Not illustrated*. Fragment of worked bone, *SF4048; pit 130, layer 3; unphased Romano-British*

40 *Not illustrated*. Fragment of long bone, sawn at one end and with cut-marks, *SF4091; pit 917, layer 3; unphased Romano-British*

Beaker pottery

by R M J Cleal

Sherds apparently representing three Beaker vessels were recovered from the Beaker grave 2286 (Figs 9 and 10). One vessel (Fig 55 and back cover) was deliberately placed in the grave as a grave good. The other sherds were probably accidental incorporations in the filling.

Fig 55, and back cover

1 An almost complete, fully reconstructed Beaker recovered from behind the pelvic area of the crouched inhumation burial 2286 (layer 2327). The fabric is moderately hard and contains a moderate amount of small grog (less than 2mm in diameter), very sparse, small flint (less than 2mm), and sparse fine sand (see also figs 9 and 10).

Colour: exterior and interior surfaces, very pale brown to buff; core, black.

Condition: mainly good, apart from the crushing caused by the pressure of the soil in the grave. The surface is slightly worn in some areas, most markedly in the cross-hatched zone around the rim.

Decoration: executed with a single comb; the majority of the teeth measure 1mm by 1mm. The motifs employed are Clarke (1970) motifs nos 4 and 7 (cross-hatching and running chevrons); both belong to the Basic European Motif Group (*ibid*). There are some traces of burnishing surviving, principally in the uppermost of the plain zones, and also in the middle plain zone and the two higher decorated zones.

2 *Not illustrated*. A decorated sherd weighing 10g, probably from a Beaker, was found in the fill (layer 2289) of grave 2286. The fabric is hard, and contains sparse to moderate coarse sand and sparse flint (less than 6mm in length, but most of the inclusions are smaller); also sparse calcareous inclusions (grey/white, soft, and 3mm in length).

Colour: exterior, pale brown; core, black; interior, worn.

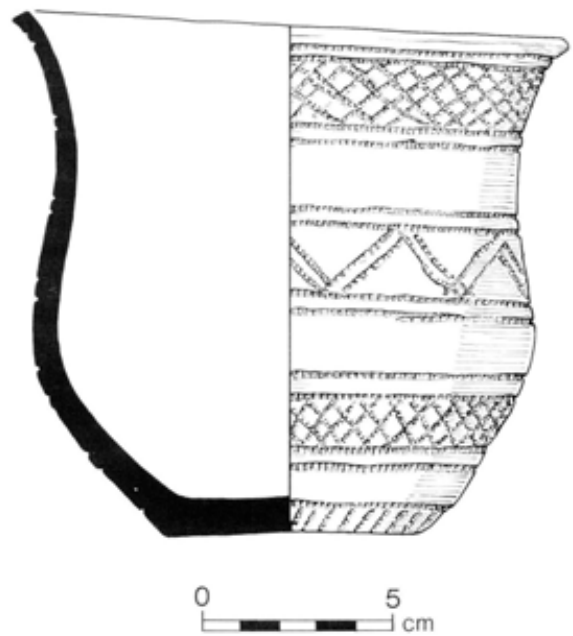

Fig 55 Step 2 Beaker from burial 2286 (scale 1:2)

Condition: worn, especially on the interior surface.
Decoration: shallow grooves, probably part of a chevron or herringbone motif.
3 *Not illustrated*. Two small, weathered, indeterminate sherds, weighing 2g, were also found in the filling (2290) of grave 2286. They may belong to a Beaker or Beakers, but are too small to be diagnostic. Some flint and grog inclusions are visible in the fabric.

Discussion

The only vessel on which it is possible to comment is the illustrated vessel, Fig 55. It is of a fairly small, squat form, with a sinuous profile and a belly diameter that virtually equals that of the rim, and is also equal to the height of the vessel. The belly does not show a marked carination, and is moderately low on the body.

The position of the Balksbury Beaker in Clarke's classificatory scheme (*ibid*) is not clear: it has some features in common with a small group of European Beakers which lack the sharp belly carination characteristic of that group (*ibid*, fig 66: Thickthorn, Dorset; and fig 69: Blackbush, Dorset), and which also show some similarity of decoration to Figure 55. However, there are also parallels in the Wessex/Middle Rhine group of Beakers. Although the characteristic features of that group were defined by Clarke (*ibid*) as a tall, slim outline, with the rim diameter equal to, or less than, the belly diameter, and with the waist high on the vessel, close to the rim (*ibid*, 84–5), he includes in this group a number of vessels which do not conform to this specification, but which do show a certain resemblance to the Balksbury vessel. These atypical Wessex/Middle Rhine Beakers are squat vessels, smaller than the classic Wessex/Middle Rhine Beaker (*ibid*, fig 132, Roundway, Wiltshire; fig 158, Mynydd-y-Bryn, Denbigh; and fig 179, West Overton, Wiltshire). Figure 55 approximates to these in form, but although the form is atypical in two of these cases there are decorative features which clearly support the attribution to the Wessex/Middle Rhine group, for which Clarke identifies the occurrence of filled triangles and lattice, ladder, ermine, and chequer zones as typical. Figure 55 and the vessel from West Overton both have lattice-filled and chevron-filled zones, but although these are considered characteristic of the Wessex/Middle Rhine group, presumably because of their frequency on Beakers of that group, they in fact both first occur on European Beakers. In view of this the attribution of the Balksbury Beaker to a Clarke group seems difficult, although on balance there is more resemblance to the atypical Wessex/Middle Rhine Beakers than to the equally atypical European Beakers.

The Balksbury Beaker is more readily accommodated in Lanting and van der Waals' Step scheme (1972), although, as with Clarke's classification, it does not exhibit all the characteristic features of the Step to which it appears to belong. It cannot be later typologically than Step 2 on the grounds of the squat form, the short neck which is barely distinguished from the body, the low belly, and the simple decorative motifs. As it clearly does not belong to Step 1, it must therefore be assigned to Step 2 (see Lanting and van der Waals 1972 for the characteristic features of each Step).

The question of the date of the Balksbury beaker however, is not dependent on typology, as in this case there is an associated radiocarbon determination of 3530±80 BP (Har-5124), calibrated to 2130–1680 cal BC (Table 36). This is an extremely late date for a Beaker of Step 2, which Lanting and van der Waals considered as most likely to occupy the period 3900–3800 BP (Lanting and van der Waals 1972, 44). However, there are All-Over-Cord Beakers (ie Step l or 2 in Lanting and van der Waals' classification) associated with a date of 3274±51 BP (BM-669) (Wainwright 1979a), calibrated to 1680–1440 cal BC, in the tertiary silts of the Site IV ditch at Mount Pleasant, and All-Over-Cord, European, and Wessex/Middle Rhine Beakers also occur in the secondary fill, for which there is a date of 3410±131 BP (BM-664) (Wainwright 1979a), calibrated to 2115–1430 cal BC. Presumably some of this material could be residual, but it is also possible that the currency of these typologically early styles was longer than envisaged by Clarke, or by Lanting and van der Waals. In the case of the Balksbury Beaker, the length of time which elapsed between its manufacture and its deposition is likely to have been short, as it was a whole vessel when deposited. The radiocarbon determination should also be an accurate reflection of its date of burial, as the sample came from the skeleton. The slightly anomalous nature of the pot may be due to the fact that it was intended to resemble a form of Beaker that was no longer in common use. It should also be noted that, if its dating is correct, it does not exhibit any features which could be construed as showing influence from the 'late' Beaker styles which must have been current contemporaneously; rather, its appearance is of a moderately early Beaker which simply does not fit comfortably within Clarke's groups.

It is perhaps of some interest to note here that remains of a late Beaker site, probably of a domestic nature, were recovered during the 1967 excavations at Balksbury. Sherds of at least three Beakers were found in association with two hearths, the Beakers comprising one fine vessel of Clarke's (1970) Southern Tradition (Group S2/S3 – Developed/Late Southern), a rusticated Beaker, and one Beaker represented only by a plain rim (Longworth 1969). The fine S2/S3 Beaker (Wainwright 1969, fig 22: 158) belongs to Lanting and van der Waals' Step 5 or 6; in Lanting and van der Waals' suggested chronology the date range for these Steps is 3750–3500 BP. It is possible, therefore, that both this material, and Figure 55 may have been deposited within a fairly short period of time. However, the Beaker material from the hearths does not have an associated radiocarbon date, so its date of deposition is not certain. Although the writer has not examined the Beaker material published by Dr Longworth, there are,

from the descriptions, certainly no obvious points of similarity in fabric, form, or decoration between the S2/S3 Beaker and the Balksbury vessel.

The firmly associated radiocarbon date of 3530±80 BP is certainly difficult to fully explain, but as the absolute dating of British Beakers is still at a stage where the fine detail is obscure, any addition to the sum of firmly dated Beakers should perhaps simply be welcomed without, at this stage, any expectation that the full implications of such dates will be immediately apparent.

Later prehistoric and Romano-British pottery and briquetage

by H Rees

The pottery assemblage from the 1973 and 1981 excavations comprises over 27,000 sherds weighing nearly 297kg. The average sherd weight is fractionally under 11g. Initially, the material was sorted by fabric and sherd type, using the Central Excavation Unit pottery recording system, by Louise Falcini. Subsequently a more detailed analysis of the diagnostic sherds of later prehistoric and Roman pottery was undertaken by the author. This report includes the quantification work by Louise Falcini. It is worth noting that despite the investigation of a large proportion of the enclosure interior, less than one-third of the amount of pottery produced by the first ten years of excavations at nearby Danebury (Cunliffe, 1984a, 231) was recovered from Balksbury, even though Balksbury appears to have been occupied for a longer span of time. Considering that the enclosed area at Danebury was also rather smaller (*c* 5 hectares as opposed to *c* 18 hectares), this contrast appears to be a result of the difference in intensity of occupation between the two sites.

The pottery was quantified by number, weight and rim percentage, and classified according to the four variables of fabric, form, type of surface treatment, and decoration. In addition, the presence of deposits such as sooting on sherds of identifiable form, and reworking of sherds or vessels by perforating holes in bases etc, was noted. All the material was treated as of equal value, regardless of its context.

The chronological analysis of the pottery was based on external parallels and dating, as internal stratigraphic evidence was inadequate for this purpose. At this stage of the analysis, factors affecting the quality of the pottery evidence, mainly the type of context from which the material was recovered and the size of the assemblage, were taken into account. Presentation of detailed quantification excludes all groups which were either insufficiently large to be assigned to a phase with reasonable confidence, or from suspect contexts such as hillwash, silting over stone surfaces etc. Groups from the uppermost layers of pits and ditches were only included if they appeared to be chronologically cohesive, containing few obviously residual sherds. This approach has, in some cases, excluded sherds which are of intrinsic interest. For this reason, a fairly full type series, in which vessels are illustrated in simplified form, is presented below.

Fabric descriptions

Prehistoric

The prehistoric pottery fabrics were initially sorted macroscopically and samples submitted for petrological analysis. This analysis (*D Williams, AM Lab reports nos 178/87 and 3768 and site archive*) suggested that very general groupings based on the most common visible inclusion would be the most appropriate method of fabric classification, and the material was accordingly coded in this way. Re-examination of the featured sherds (rims, decorated body, and base sherds) enabled certain refinements to be made and also revealed the presence of briquetage. This information could not be recorded for undecorated body and base sherds, due to lack of time. Re-examination also prompted the submission of further samples for petrological analysis, to test for the presence of glauconitic sandy wares identified at Danebury (Cunliffe 1984a, 245–6); and to discover if sherds which were unusual in form or decoration occurred in petrologically distinctive fabrics.

As only a small sample of body and base sherds was re-classified, it was not possible to calculate the relative proportions of numbers and weights of sherds for the assessment of detailed fabric change through time. Quantification of fabric by phase was therefore achieved using Estimated Vessel Equivalents (EVE: Orton 1980, 164–7).

The terms used in the fabric descriptions follow the established guidelines of the Trust for Wessex Archaeology (Davies and Hawkes 1985). Sorting was defined on the basis illustrated in Adams *et al* (1984, 24). The size ranges of the inclusions are defined as: Silt-sized (of quartz), sandy texture but no grains visible to the naked eye; Fine, barely visible macroscopically; Medium, less than 1mm; Coarse, more than 1mm, less than 3mm; Very coarse, more than 3mm; Large (of sparse inclusions), irregular in size, but examples more than 3mm.

Firing was defined as: Evenly fired, of a consistent colour; Irregularly fired, patchy colouring.

Fabric 1: Medium-grained sandy wares, a general classification for prehistoric wares containing medium-sized quartz, probably of diverse origins.

Fabric 2: Fine sandy ware, a hand-made, soft fabric, smooth to hackly in fracture, containing an abundant amount of well-sorted, silt-sized to fine-grained, sub-rounded quartz. Sherds are usually unoxidised. Surfaces may exhibit traces of wiping with grass or some other organic material and are often burnished. Red-slipped or haematite-coated examples of this fabric (recorded as 2S4) are always at the finest end of the range.

Fabric 3: Medium/coarse sandy ware, a hand-made, soft fabric, smooth to hackly in fracture, containing abundant, ill-sorted, medium to coarse sub-angular to rounded quartz and quartzite together with rare large detrital quartz pebbles and flint. Sherds are often irregularly fired. Surfaces are occasionally wiped or burnished but are usually untreated.

Fabric 4: Early sandy ware, a hand-made soft fabric, smooth to hackly in fracture, containing a moderate amount of well-sorted, medium-sized, clear, rounded quartz grains and a moderate amount of medium to coarse, well-sorted, sub-angular quartzite. Also visible are sparse inclusions of fine to medium iron ore. Sherds are unoxidised and regularly fired, and surfaces are carefully smoothed/burnished. This fabric is very rare.

Fabric 5: 'Durotrigian' sandy ware A hand-made, soft fabric, hackly in fracture, containing common, ill-sorted, coarse, sub-angular quartz and quartzite and rare, large, detrital flint. Sherds are predominantly unoxidised, but irregularly fired. Surfaces are untreated. This fabric compares well with material from Furzey Island, Dorset (Underwood 1988) and is rare at Balksbury.

Fabric 6: Coarse rounded quartz, a hand-made, soft fabric, smooth to hackly in fracture, containing common to abundant, well-sorted, coarse, rounded, clear quartz. This fabric is very rare and may represent as many sources as there are sherds.

Fabric 7: Coarse flint, a hand-made, soft fabric, hackly in fracture, containing abundant, ill-sorted, coarse to very coarse, angular fragments of flint. Sherds are usually unoxidised. Surfaces may be wiped but are often untreated.

Fabric 8: Flint and sand, a hand-made, soft fabric, hackly in fracture, containing moderate, ill-sorted, medium to very coarse, angular flint fragments and fine to medium, rounded quartz. Sherds may be oxidised or unoxidised and irregularly fired. Surfaces are usually untreated.

Fabric 9: Fine flint, a hand-made, soft fabric, hackly in fracture, containing moderate to abundant, well-sorted, fine to medium, angular flint. Sherds are usually oxidised and evenly fired. Surfaces may be smoothed and burnished.

Fabric 10: Sparse flint and chalk, a hand-made soft fabric, smooth in fracture, containing sparse, ill-sorted, very coarse, sub-rounded chalk and flint set in a very fine, slightly sandy clay matrix. Sherds are unoxidised with slightly oxidised surfaces. Surfaces are untreated. This fabric is rare, and may be a variation of fabric ll.

Fabric ll: Sparse flint, a hand-made, soft fabric, smooth in fracture, containing sparse, ill-sorted, fine to coarse, sub-rounded flint, set in a very fine slightly sandy clay matrix. Sherds are unoxidised with slightly oxidised outer surface, which is smoothed and burnished. This fabric is rare.

Fabric 12: Medium-sized flint, a hand-made, soft fabric, hackly in fracture, containing common to abundant, well-sorted, medium, angular flint fragments. Sherds are usually evenly fired and unoxidised and surfaces are often burnished. This fabric represents the St Catherine's Hill/Worthy Down element in the assemblage (Cunliffe 1978, 46).

Fabric 13: Shell and flint, a hand-made, soft fabric, hackly in fracture, containing common, well-sorted, fine to medium shell, and common, well-sorted sub-angular, fine to medium, flint fragments. Sherds are predominantly unoxidised and fairly evenly fired. Surfaces are untreated. This fabric is rare.

Fabric 14: Coarse shell and sand, a hand-made, soft fabric, smooth to hackly in fracture, containing abundant, well-sorted, sub-rounded, medium quartz, and sparse, large shell, with rare detrital flint. Sherds are usually unoxidised but slightly irregularly fired and surfaces are usually untreated.

Fabric 15: Shell, a hand-made, soft fabric, hackly in fracture, containing fine to coarse shell. Sherds may be oxidised or reduced but are usually fairly evenly fired. Surfaces are usually untreated.

Fabric 16: Fine shell and sand, a soft, hand-made fabric, smooth in fracture, containing moderate, ill-sorted, fine shell set in a fine, slightly sandy clay matrix. This fabric is rare. The one featured example is slightly irregularly fired with burnished outer surface.

Fabric 17: Limestone, a general classification for wares bearing inclusions of limestone. Such wares are rare at Balksbury.

Fabric 18: Oolitic limestone, a hand-made, soft fabric, smooth to hackly in fracture, containing abundant, medium oolitic limestone. This fabric is rare.

Fabric 19: Argillaceous, a hand-made, soft fabric, hackly in fracture, containing few visible inclusions but with 'porridgy', argillaceous texture, presumably due to the presence of clay pellets. This fabric is rare.

Fabric 20: Inclusionless, a hand-made, soft fabric, smooth in fracture, with a rare amount of sand. The clay has been treated but not tempered before use. This fabric is rare.

Fabric 21: Organic, a hand-made soft fabric, laminated in fracture, displaying frequent elongated voids, of all sizes up to *c* 10mm as a result of the combustion of organic material upon firing. This fabric is rare.

Briquetage

The presence of a small quantity of what is probably briquetage was discovered at a late stage in the pottery processing. It was systematically classified and recorded, but re-examination of the whole assemblage was not possible due to lack of time. However, at least two fabrics (which have been numerically coded to follow the Iron Age pottery fabrics sequence) were recognised:

Fabric 22: Shell briquetage, a hand-made, soft fabric, hackly in fracture, containing abundant ill-sorted shell, up to *c* 4mm, with sparse, large chalk lumps, which displays frequent, elongated voids caused by the burning-out of organic material upon firing. Sherds are oxidised on both surfaces with unoxidised core.

Fabric 23: Organic briquetage, a hand-made, soft fabric, smooth to hackly in fracture, with a very fine, virtually inclusion-free clay matrix, displaying frequent elongated voids caused by the burning-out of organic material upon firing. Sherds are oxidised on both surfaces with unoxidised core.

These fabrics have been classified as briquetage since, although the clay was carefully prepared and wedged prior to vessel formation, they do differ from the pottery fabrics in containing a high proportion of organic material and are unlike daub and loomweight fabrics which normally exhibit streaks and swirls of unmixed clay in fracture. In addition, the surfaces (where extant) are oxidised with unoxidised core, a characteristic suggested as diagnostic of this type of material (Morris 1985, 76). As the material is fragmentary, forms are uncertain, but both straight-sided and cylindrical vessels seem to be represented. It occurred sporadically throughout all periods of occupation from the ceramic phase Late Bronze to Earliest Iron Age onwards. The small size and paucity of sherds prevented petrological analysis of this material, which needs confirmation of a coastal source for the clays.

Sources and resources

The overwhelming majority of the pottery fabrics contain either sand (fabrics 1, 2, 3, 4, and 6), angular crushed flint (fabrics 7, 9, and 12), or a combination of both (fabric 8). Sand with sparse to moderate shell (fabric 14) is also a fairly common combination. Fabrics containing quartzite in addition to sand (fabric 5), sub-rounded flint (fabric ll), sometimes in combination with chalk (fabric 10), abundant angular flint and shell (fabric 13), shell alone (fabrics 15 and 16), limestone (fabric 17), oolitic limestone (fabric 18), clay pellets (fabric 19), and organic material (fabric 21), are rare. An additional rare type (fabric 20) appears not to have been deliberately tempered at all (which may also be true of fabrics 10, 11, 17, and 19, and the finer examples of fabric 2).

With the exception of oolitic and other limestone apart from chalk, and fossil shells, all of these inclusions are available within the immediate vicinity of the site. Flint and chalk may be obtained from the Upper Chalk deposits upon which the site is situated, and sand from nearby river gravels (*Williams, AM Lab reports nos 178/87, 3768, and site archive*). Organic material would, of course, have been universally available, as would recent, rather than fossil, shell. The suitability for potting of the local clay-with-flints is uncertain in the absence of a detailed programme of research and experimentation, but Rye (1981, 16) states that almost any naturally occurring clay can be used in the manufacture of low-fired pottery (up to *c* 800°C), although results may vary in quality.

Sandy clays are also obtainable from the Reading Beds, the nearest outcrop of which occurs at Highclere, *c* 15km north of Andover (Wandibba 1981, 93). This source is thought to have been exploited for pottery production during the Iron Age period (*ibid*), but whether such a source could strictly be termed 'local' to Balksbury is a moot point. Indeed, the existence of suitable local resources for potting merely suggests the potential for pottery production in the immediate vicinity, rather than demonstrating with certainty that such activity actually took place.

It was with the aim of identifying non-local ceramic distribution that the additional samples were submitted for petrological analysis. Results were equivocal, due to the extremely homogeneous nature of the regional geology. However, at least one vessel, classified as fabric 15, probably contains fossil shell (*Williams, AM lab reports nos 178/87, 3768, and site archive*), which suggests a non-local source. This vessel is in the cauldron form (Form 1.0 below), a type common in the Upper Thames Basin (Harding 1972, 151, pl 44), and it seems likely that it originated in the latter area, where large deposits of shell-bearing Oxford and Kimmeridge clays are found. In addition fabric 5 occurs in Form 30.0 which is more common in Dorset than in Hampshire, but the fabric is texturally different from sherds made in the Wareham–Poole Harbour area (which does not preclude an alternative Dorset source; *Williams, AM Lab reports nos 178/87, 3768, and site archive*).

The two samples in fabric 2 were decorated with shallow-tooled arcs or circles, so they may be equated with the glauconitic sandy wares of Wiltshire origin identified at Danebury (Cunliffe, 1984a, 245–6). However, since glauconitic phosphatic nodules do occur in the vicinity of Balksbury (*Williams, AM Lab reports nos 178/87, 3768, and site archive*), it seems that this Yarnbury/Highfield style, together with the macroscopically characteristic sandy fabric, is for the present as reliable an indicator of Wiltshire 'influence' at Balksbury as the nature of the fabric when viewed under the petrological microscope. Given the proximity of Danebury, it is highly likely that the two sites share such 'traded' wares in common.

The sample in fabric 4 was from a vessel of Late Bronze Age to Earliest Iron Age type and differed in texture from the samples in fabric 2 (*Williams, AM lab reports nos 178/87, 3768, and site archive*). It is possible that this vessel was imported to the site, as the sandy fabric was very unusual for the period.

The oolitic limestone-tempered wares (which were not analysed petrologically) must have originated within the area of the Jurassic Ridge and were therefore demonstrably of non-local origin. Such material also occurred at Old Down Farm (Davies 1981).

Wheel-turned and Roman

The fabric classifications for the Roman material found are of three types: visually discrete fabrics of known source; visually discrete fabrics of unknown source; and general classifications incorporating sherds of diverse visual characteristics and probably of varied origins.

The majority of the fabrics belonging to the first category were of late Roman date, and comprised fine wares from Oxfordshire (fabric R19), the New Forest (fabrics R20 and R21), and possibly from the Cirencester area (fabric R24); mortaria from Oxfordshire (fabrics R19 and R22); and grey wares from the New Forest or Alice Holt/Farnham kilns (fabric R18). Individually, none of these fabrics formed more than 2% of the whole Romano-British pottery assemblage, although the proportion of imported grey wares may have been underestimated, due to difficulty in distinguishing these from the general mass of grey wares.

Amongst the earlier imported material an equally small quantity of samian ware, both South and Central Gaulish (fabric R25), and a single mortarium of Antonine date and Rhineland origin (fabric R23), represented continental sources. In addition, Dorset Black-Burnished ware (BB1, fabric R23) was present in many of the feature groups, being most common in the late Roman period.

Other discrete fabrics contained inclusions compatible with, but not necessarily indicative of, a fairly local source: quartz, flint, grog, iron ore, and shell. The most distinctive of these fabrics, R1 (early coarse quartz) formed a high proportion of the early Roman assemblage. It contained similar inclusions to BB1, but the forms in which it occurred differ quite markedly from both BB1 and 'Durotrigian' types and were more reminiscent of early Alice Holt wares (Lyne and Jefferies 1979). It seems likely that the assemblage represents a more local, 'Atrebatic', influence (Cunliffe 1978, 380), and it may include some Alice Holt material.

Some fabric types (R2–R5) tend to overlap, not only in inclusion types, but in general appearance and texture too. Some sherds classified as fabrics R3 and R4 are reminiscent of Wiltshire Savernake ware (Swan 1975), but this resemblance depends less on the precise nature of the inclusions visible in fracture than on texture, colour, and firing. Whilst these two fabrics (R3 and R4) were probably in use throughout the Roman period, fabric R5 is invariably 'Belgic' in appearance; but the distinction would seem to be one of firing and form, as the inclusions are very similar to those of fabric R3.

Most of the remaining fabrics were assigned very general classifications and fall into three broad groups: reduced wares (fabrics R9–R11), oxidised wares (fabrics R6–R8), and white wares (fabrics R14–R16), of which the reduced wares were the most common. Further definition of fabrics might have been possible but for the small sherd size and high degree of abrasion apparent in a large part of the assemblage. The poor condition of sherds also militated against consistently accurate identification of fabrics during recording. In particular, this resulted in the possible confusion of fabrics R1 and R17 and some uncertainties in the identification of the colour-coated fabrics.

Fabric R1: Early coarse quartz, a hand-made, often wheel-finished, soft to hard fabric, smooth to hackly in fracture, containing abundant, well-sorted, medium to coarse, sub-angular quartz. Sherds are usually unoxidised but may be irregularly fired and surfaces may be burnished or wiped.

Fabric R2: Flint, a hand-made, soft fabric, hackly in fracture, containing moderate to abundant, moderately well-sorted, medium to very coarse, angular flint fragments, sometimes with moderate, coarse, angular grog. Sherds are usually unoxidised, but may be irregularly fired, and surfaces are usually untreated. Similar to prehistoric fabric 12 but tends more often to contain visible grog clay pellets.

Fabric R3: Grog/clay pellets, a hand-made, soft to hard fabric, hackly in fracture, containing moderate to abundant, well-sorted, medium to coarse, angular and sub-angular grog and clay pellets, sometimes with moderate, sub-angular, medium to coarse hard black inclusions (iron ore?). Sherds may be oxidised, un-oxidised or irregularly fired, and surfaces are usually untreated. Some sherds in this fabric resemble Savernake ware (Swan 1975).

Fabric R4: Black inclusions, a hand-made or wheel-thrown soft fabric, smooth to hackly in fracture, containing moderate to abundant ill-sorted, fine to coarse, angular and rounded black fragments or specks (iron ore?). Sherds are usually un-oxidised but may have oxidised exterior margins, and surfaces are usually untreated. The coarser examples of this fabric bear a superficial resemblance to Savernake ware (Swan 1975).

Fabric R5: Grog/clay pellets with carbonaceous material, a hand-made, wheel-finished, soft soapy fabric, hackly in fracture, containing moderate to abundant, well-sorted, medium-sized, sub-angular grog and clay pellets. Also visible are sparse, elongated, blackened voids, and rare to sparse, medium to coarse, irregularly-shaped iron ore. Sherds are usually unoxidised but may be slightly irregularly fired, and surfaces are usually untreated, but some examples are abraded.

Fabrics R6, R7, and R8: Oxidised coarse wares, a general classification for oxidised coarse wares of diverse origins (R6: fine to medium quartz; R7: medium to coarse quartz; R8: coarse quartz).

Fabrics R9, R10, and R11: Grey wares, a general classification for unoxidised coarse wares of diverse origins.

R9: fine to medium quartz
R10: medium to coarse quartz
R11: coarse quartz.

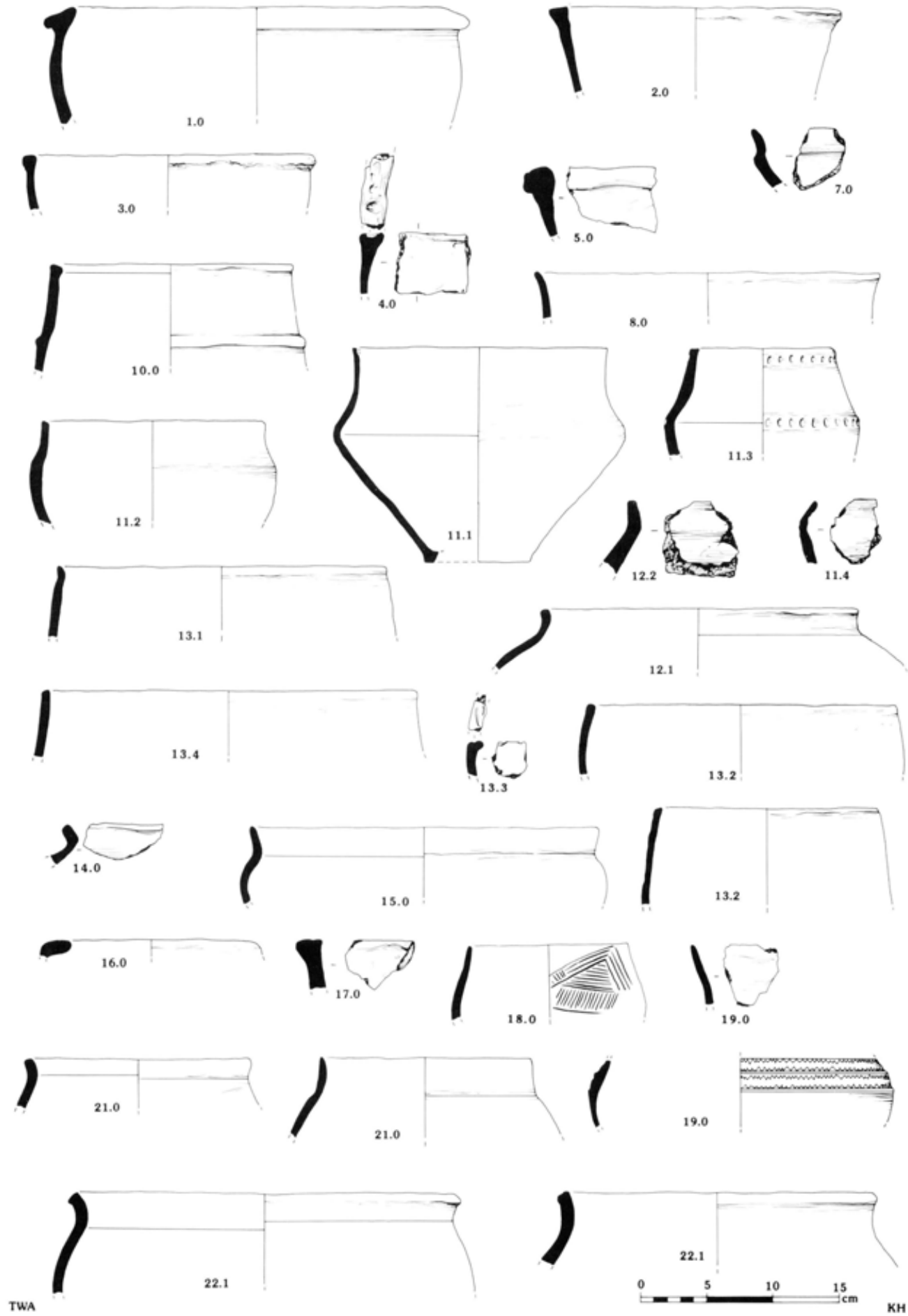

Fig 56 Pottery: vessel type series, forms 1.0–22.1 (scale 1:4)

Fabric R12: Shell, a wheel-thrown soft fabric, hackly or laminated in fracture, containing abundant, poorly-sorted, fine to coarse, plate-like shell fragments. Sherds are usually unoxidised but may be irregularly fired, and surfaces may be burnished. It may comprise two small groups: Late Roman 'shell-gritted' or 'calcite-gritted' ware; and sherds which appear precisely similar in fracture but differ slightly in surface treatment, and may have been of earlier date.

Fabric R13: Unoxidised with speckled surfaces, a wheel-thrown, soft to hard-fired fabric, smooth in fracture, containing abundant, well-sorted, fine to medium, sub-angular and sub-rounded quartz, and abundant, well-sorted, fine to medium, sub-angular black specks (iron ore?). Sherds are oxidised throughout, and surfaces are usually untreated. The only grey ware (besides fabric R18) sufficiently separable from the mass of grey wares (R9–R11).

Fabrics R14, R15, and R16: White wares, a general classification for white wares of diverse origins

R14, fine to medium quartz
R15, medium to coarse quartz
R16, coarse quartz.

Fabric R17: Black-Burnished Ware, Category 1 (Williams 1977).

Fabric R18: New Forest (Fulford 1975a, 85–8) or Alice Holt (Lyne and Jefferies 1979) grey ware.

Fabric R19: Oxfordshire red/brown-slipped tableware (Young 1977, 123).

Fabric R20: New Forest red/brown-slipped tableware (Fulford 1975a, 24–5).

Fabric R21: New Forest parchment ware (*ibid*, 26).

Fabric R22: Oxfordshire white mortarium (Young 1977, 56).

Fabric R23: Rhineland mortarium (*K Hartley, personal comment*).

Fabric R24: Unoxidised with oxidised outer surface. A wheel-thrown soft fabric, smooth in fracture, containing moderate to well-sorted, fine to medium, rounded and sub-rounded translucent quartz, which characteristically protrudes through the inner surface, and sparse well-sorted, fine iron grains. Sherds are unoxidised except for the angular surface, which also bears traces of a white slip. This fabric is similar in appearance to south-western white slipped ware, a later Roman fabric identified initially at Cirencester (*J Keeley, personal comment*).

Fabric R25: Samian ware.

Form, decoration, and surface treatment

Prehistoric forms

As prehistoric vessels are lacking in uniformity, a fairly general approach to form definition, avoiding over fine distinctions, has been taken. The material has been classified primarily according to general profile shape (curving, straight, necked, etc) and orientation (out-turned, upright, etc). Other criteria such as size, overall proportions, and thickness of walls, were only loosely applied, as it was often difficult to make consistent distinctions using such typological characteristics. The distinction between some vessel classes, such as jars and bowls and jars and saucepans, has therefore been blurred, a situation which accurately reflects the character of the material itself.

Fig 56

Form 1.0: Bowl with curving profile and long expanded downturned rim. Perhaps an Upper Thames Valley type (Harding, 1972, 151, pl 44). Fabric 15

Form 2.0: Bowl with straight out-turned profile and short expanded out-turned rim. Fabric 15.

Form 3.0: Bowl or dish with curving profile and expanded rim. Fabric 3.

Form 4.0: Vessel with upright profile, open mouth, and expanded rim. Fabric 3.

Form 5.0: Vessel with upright profile, open mouth, and thick rounded rim. Fabric 15.

Form 6.0: *Not used*.

Form 7.0: Dish with carinated profile and plain out-turned rim. Fabric 2.

Form 8.0: Thin-walled vessel with out-turned profile and plain out-turned rim, similar to Aldermaston Wharf forms 7 and 10 (Bradley *et al* 1980, 233–4). Fabrics 1?, 7, and 8.

Form 9.0: *Not illustrated*. Lid? with plain rim. Fabrics 1?, 3, 7, and 8.

Form 10.0: Urn with straight, upturned profile, internally slightly expanded rim, and cordon on body. Fabrics 13 and 15.

Form 11.0: Tall carinated bowl.

11.1 Thin-walled with upcurving profile above carination. Fabrics 7 and 9.

11.2 As 11.1 but with thicker walls. Fabric 7.

11.3 With relatively thick walls and inturned profile above carination. Fabric 10.

11.4 With relatively thick walls and high rounded shoulder. Fabric 11.

Form 12.0: Tall bowl or squat jar with rounded, in-turned profile and upright or slightly out-turned rim, similar to Aldermaston Wharf form 8 (Bradley *et al* 1980, 233–4).

12.1 With thin walls. Fabrics 4, 7, 8, 9, and 19.

12.2 With thick walls. Fabrics 7 and 8.

Form 13.0: Vessel with straight or slightly curving, in-turned profile and plain or expanded rim.

13.1 With thin walls, straight profile, and plain rim. Fabrics 8 and 9.

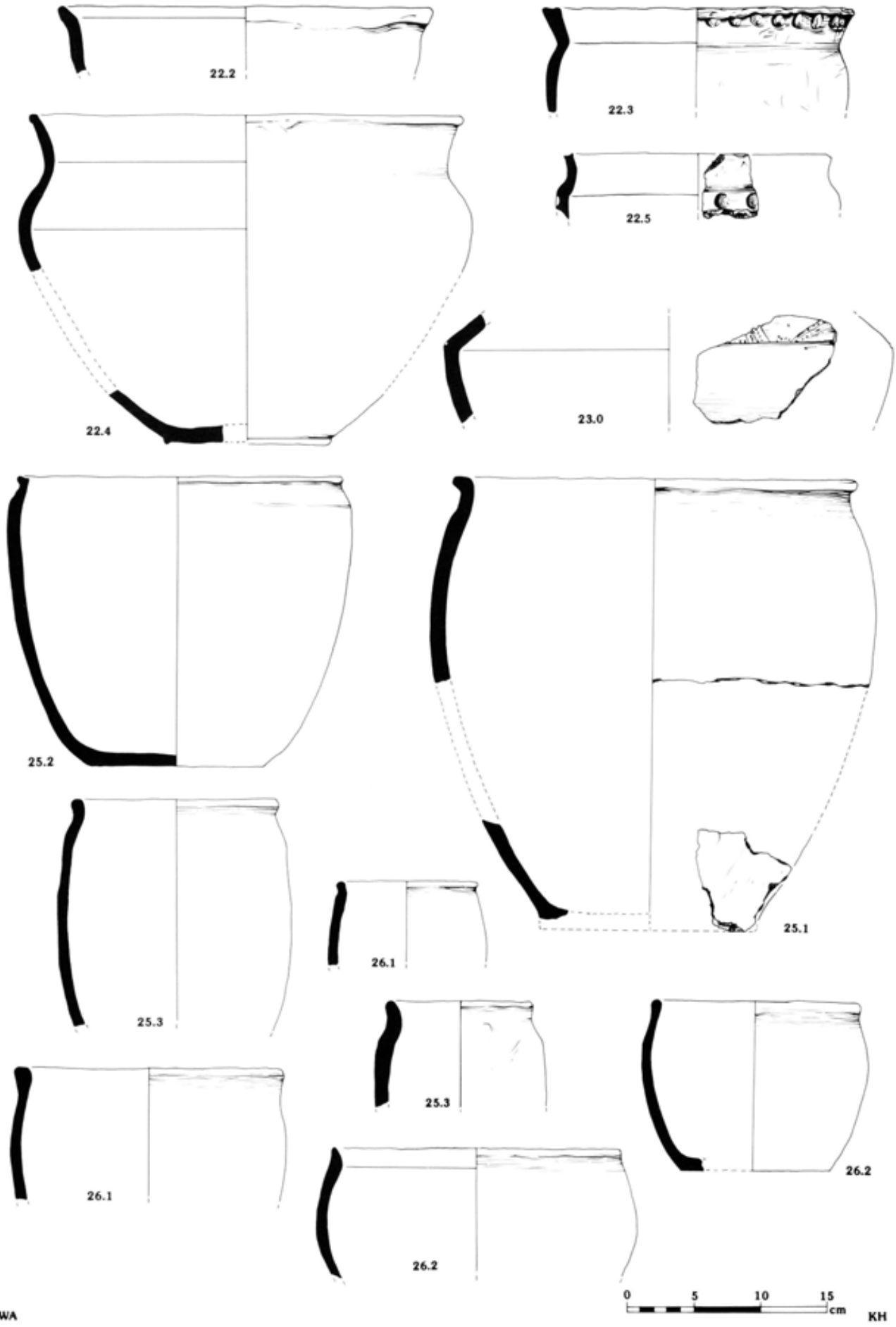

Fig 57 Pottery: vessel type series, forms 22.2–26.2 (scale 1:4)

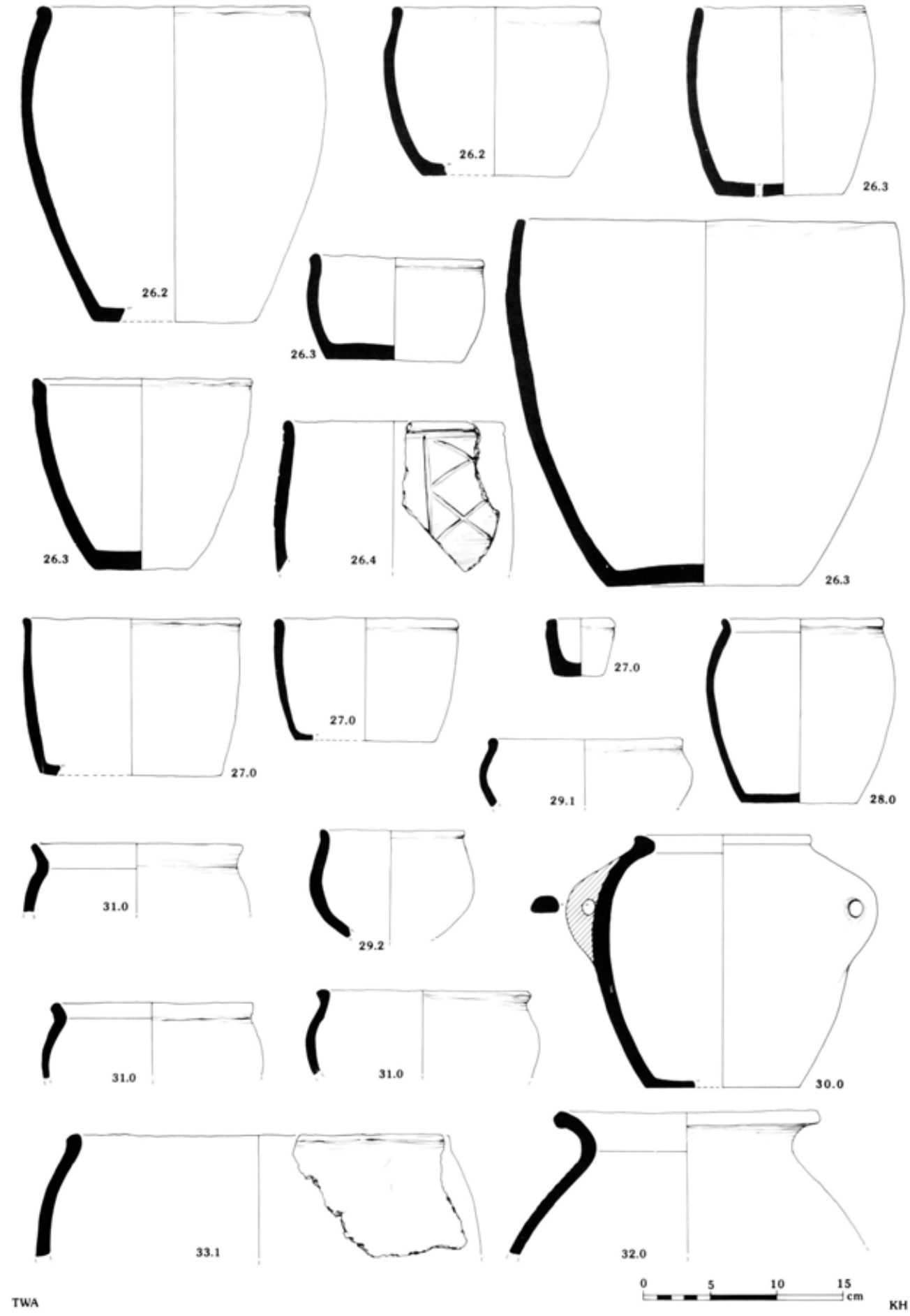

Fig 58 Pottery: vessel type series, forms 26.2–33.1 (scale 1:4)

13.2 As 13.1 but with slightly thicker walls and slightly more curving profile. Fabrics 7, 8, 9, and 19.

13.3 *Not illustrated*. As 13.2 but with internally expanded rim. Fabric 7.

13.4 As 13.1 but with slightly thicker walls. Fabric 7.

Form 14.0: Vessel with plain, straight, markedly out-turned rim. Fabric 7.

Form 15.0: Tall, necked bowl or squat jar with rounded shoulder and plain, upright rim. Fabric 7.

Form 16.0: Vessel with markedly in-turned, plain rim, perhaps similar to Aldermaston Wharf form 16.0 (Bradley *et al* 1980, 233–4). Fabric 9.

Form 17.0: Large vessel with thick walls and expanded out-turned rim. Examples of this form were in very poor and fragmentary condition. Fabric 7.

Form 18.0: Bowl with in-turned profile, rounded shoulder and plain rim. Fabric ll.

Form 19.0: A general classification for thin-walled vessels of Early Iron Age type, with carinated or round-shouldered profiles. The material was largely in very poor and fragmentary condition. Fabrics 1, 2, 2SA, 3, 6, 9, 11, and 14.

Form 20.0: *Not used*

Form 21.0: Necked jar with rounded profile and upright or slightly out-turned rim. Fabrics 1, 2, and 3.

Form 22.0: Long-necked jar or bowl with thick walls, rounded shoulder, and slightly to markedly expanded rim.

22.1 With greater girth than rim diameter and ill-defined junction between neck and shoulder. Fabrics 1, 2, 3, and 7.

Fig 57

22.2 With greater rim diameter than girth and ill-defined junction between neck and shoulder. Fabrics 2, 3, 7, 14, and 20.

22.3 With greater rim diameter than girth and well-defined shoulder. Fabrics 3, and 20.

22.4 With greater girth than rim diameter and well-defined shoulder. Fabrics 1, 3, and 14.

22.5 With marked, nearly carinated shoulder. Fabrics l and 3.

Form 23.0: Very large carinated vessel with thick walls. Fabric 3.

Form 24.0: *Not used*.

Form 25.0: Jar with short neck, vestigial shoulder and upright, slightly expanded rim.

25.1 Large jar with ovoid profile. Fabrics 2 and 3.

25.2 Large jar with upright or out-turned, only slightly rounded profile. Fabrics 3 and 14.

25.3 As 25.2 but rather smaller. Fabrics 1, 2, 3 8, and 14.

Form 26.0: Vessel with curving walls and plain or slightly expanded rim. The distinction between variations 2 and 3 is not clear-cut.

26.1 Vessel with upright, slightly S-shaped profile. Fabrics 1, 2, 3, 12, and 15.

Fig 58

26.2 With in-curving profile. Fabrics 1, 2, 3, 12, 14, 15, 16, 17, 18, and 19.

26.3 With upright or out-curving profile. Fabrics 1, 2, 3, 12, 14, 18, and 20.

26.4 With nearly straight upright profile and 'proto-bead' rim. Fabrics 1, 2, and 12.

Form 27.0: Vessel with straight out-turned profile. Fabrics 2, 3, and 12.

Form 28.0: Jar or bowl with rounded, in-turned profile and 'proto-bead' rim. Fabrics 1, 3, 12, 14, and 20.

Form 29.0: Bowl with rounded, in-turned profile and 'proto-bead' rim.

29.1 With high rounded shoulder. Fabric 12.

29.2 With rounded profile. Fabric 2.

Form 30.0: Bead rim jar with horizontally perforated lug at shoulder. Fabric 5.

Form 31.0: Necked jar or bowl with everted rim. Fabrics 1, 2, 3, and 12.

Form 32.0: Narrow-necked jar with everted rim. Fabric 12.

Form 33.0: Large jar with thick walls, incurving profile and expanded 'proto-bead' rim.

Fig 59

33.1 With in-curving profile. Fabrics 2, 3, 12, and 15.

33.2 With markedly in-curving profile. Fabric 2.

Form 34.0: Very large, bead rim jar. Fabrics 2, 12, R8, and 11.

Form 35.0: Medium-sized, bead rim jar or bowl. Fabrics 1, 2, 3, 12, 14, 17, R1, R2, R3, R4, R5, R6, R7, R9, R10, R11, and R17.

Form 36.0: Tall bowl with high, carinated shoulder and beaded or short straight, upturned rim. Fabric R1.

Form 37.0: Tall necked bowl.

37.1 Necked bowl with short, straight, upturned rim and rounded shoulder. Fabrics R9 and R11.

37.2 Small, necked bowl or cup with long, straight, out-turned rim and rounded profile. Fabric R10.

37.3 Bowl with long upright or in-turned neck and carinated profile. Fabrics: R1 and R10.

37.4 Large bowl with long upright or in-turned neck and rounded shoulder. Fabrics R1, R7, and R11.

37.5 Bowl with long upright or in-turned neck and rounded shoulder. Fabrics R1, R3, R5, R7, R9, and R10.

Form 38.0: Tall carinated bowl or squat, girth beaker with everted rim. Fabrics R1 and R7.

Late Iron Age and Roman forms

Much of this material falls into the universally accepted Roman vessel categories (flagon, beaker, jar, etc). However, amongst the earlier closed forms (34.0–39.0), these criteria for definition of types were less easily applied, perhaps due to a tradition of vessel manufacture continuing from the prehistoric period.

Similar to fabric definition, form definition was hampered to a certain extent by the poor condition of sherds and consequent shortness of surviving profiles amongst a large part of the material. Thus, whilst some classifications are based genuinely on vessel form, a few were defined, of necessity, on the rim and upper parts of vessels alone, and potentially represent a variety of vessel forms. A small proportion of coarse ware sherds were sufficiently distinctive to suggest a form

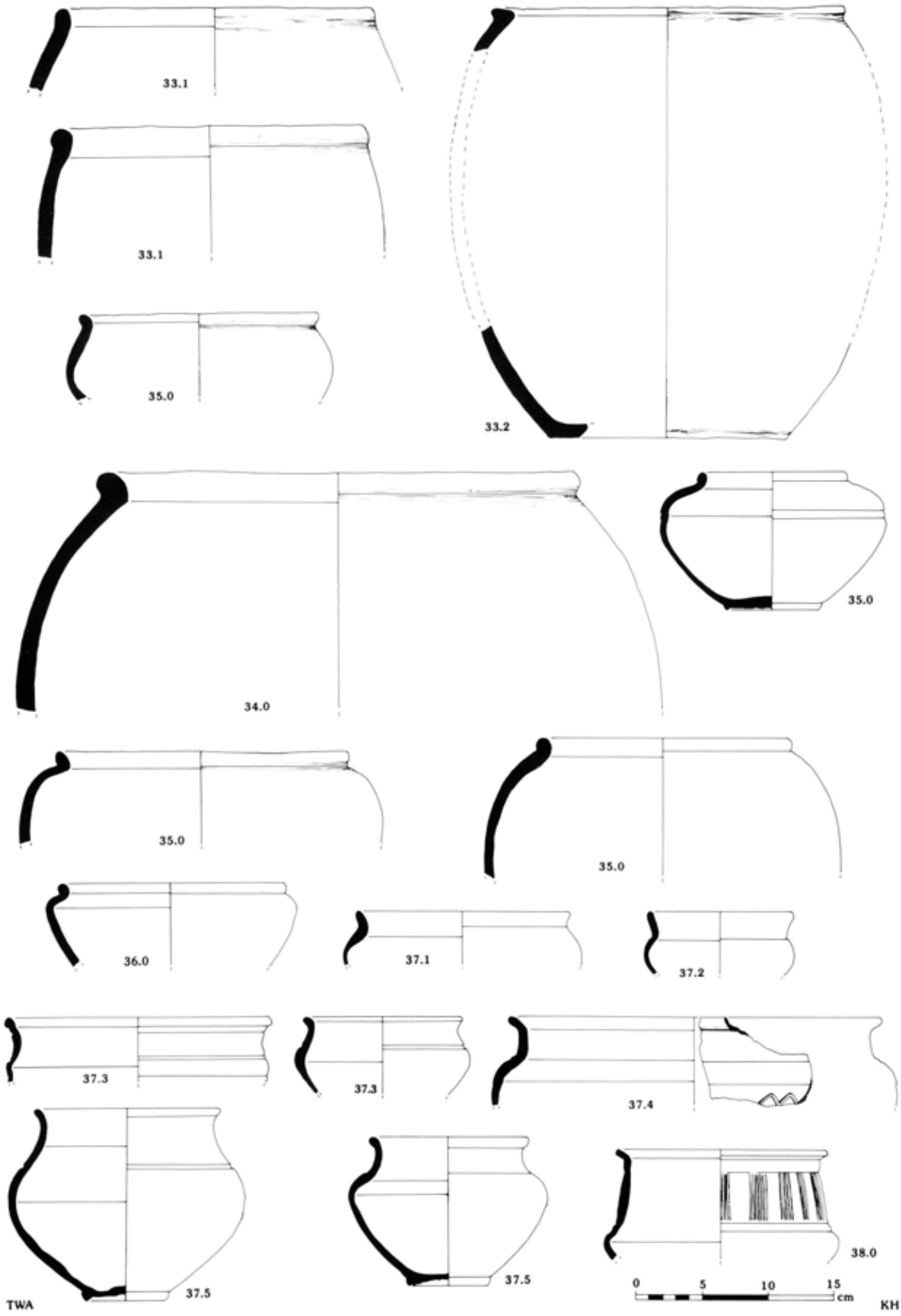

Fig 59 Pottery: vessel type series, forms 33.1–38.0 (scale 1:4)

not otherwise in the series, but were too small and abraded, either to illustrate, or to classify with any degree of certainty. Fragmentary sherds of this type in late Roman fine wares presented fewer problems, since these wares have been exhaustively researched and described. However, as classification of these sherds by form depended on correct identification of the fabrics, some uncertainties remain.

Flagons

Tall narrow vessels; flagons, jugs, bottles, flasks. Most vessels are too fragmentary to enable distinction between these possibilities to be made with certainty.

Fig 60

Form 39.0: Tall, carinated bowl similar to form 38.0, or straight-sided tankard with plain rim. Fabrics R1 and R6, in this case possibly Severn Valley ware (Webster, 1976).

Form 40.0: Tall, narrow-necked vessel with triangular rim. Fabrics R4, R9, R10, and R18.

Form 41.0: Tall, narrow-necked vessel with plain rim and surviving handle. Fabric R18.

Form 42.0: Tall, narrow-necked vessel with flanged rim and plain neck. Fabric R6.

Form 43.0: Tall, narrow-necked vessel with flanged rim and ring neck. Fabrics R10 and R16, in this case possibly a 'creamy sandy ware' (Fulford 1975b, 299).

Form 44.0: Tall, narrow-necked vessel with 'cup' rim. Fabric R10.

Form 45.0: Tall, narrow-necked vessel with 'pulley-wheel' rim. Fabric R4.

Form 46.0: Flagon with everted rim. Fabric: R4.

Form 47.0: Pinched-mouth flagon with double-lipped rim. Fabric R10.

Beakers

Form 48.0: Neckless beaker with rounded profile and bead rim. Fabric R14.

Form 49.0: Globular beaker with long concave in-turned neck and slightly out-turned rim. Fabric R10.

Form 50.0: *Not illustrated*. Fulford type 27 (1975a, 50, 52–3, fig 12) or possibly type 33 (1975, 52, 55, fig 13). 8 body sherds only.

Form 51.0: *Not illustrated*. Fulford type 30 (1975a, 52, 55, fig 13).

Form 52.0: *Not illustrated*. Probably Fulford type 41 (1975a, 56, 59, fig 15). Body sherds only.

Form 53.0: *Not illustrated*. Young form C22 (1977, 152–3, fig 55).

Form 54.0: *Not illustrated*. Fulford type 40? (1975a, 56, 59, fig 15). Fabric identification uncertain.

Form 55.0: *Not illustrated*. Young form C23 (1977, 152–3, fig 55).

Form 56.0: *Not illustrated*. Fulford type 44 (1975a, 56, 58–9, fig 15).

Jars

Form 57.0: Neckless, narrow-mouthed jar with bead rim and rounded profile. Fabrics R10 and R11.

Form 58.0: Narrow-mouthed jar with short, straight, upturned rim and globular or rounded profile.

58.1 With globular profile. Fabric R1.

58.2 With rounded profile. Fabric R4.

Form 59.0: Narrow-mouthed jar with short, everted rim and slightly S-shaped profile, giving the impression of a long, in-turned neck. Fabric R10.

Form 60.0: Narrow-mouthed jar with rolled rim and short, in-turned neck. Fabric R10.

Form 61.0: Jar with upright neck and horizontally expanded rim. Profiles of the majority of the jars with this type of rim did not survive below the neck. Thus, this form potentially incorporates both wide-mouthed and narrow-necked vessels (*cf* Fulford 1975b, type 137, 353, 354, fig 191, type 153, 356, 358, fig 192).

Form 62.0: Narrow-mouthed jar with short neck and straight, out-turned rim. Fabrics R1, R4, and R11.

Form 63.0: *Not illustrated*. Jar with short neck and everted rim, the diameter at the girth being greater than the rim diameter, as originally defined by Gillam (1976, nos 4–9).

Form 64.0: Jar with upright or out-turned narrow neck and rolled rim. Fabrics R4, R9, and R10.

Form 65.0: Wide-mouthed jar with short to medium length neck and everted rim. Fabrics R3, R4, R11, and R12.

Form 66.0: *Not illustrated*. Jar with short neck and everted rim, the diameter at the girth being less than the rim diameter, as originally defined by Gillam (1976, nos 10–14). Fabrics R9, R10, and R17.

Form 67.0: Neckless storage jar with slightly out-turned rim. Fabrics 2 and R2.

Form 68.0: Necked storage jar with rolled rim. Fabrics R2, R3, R4, R6, R7, R8, and R10.

Bowls

Form 69.0: Shallow, necked bowl with 'lid seat' rim and rounded profile. Fabric R3.

Form 70.0: Bowl with fat bead rim and rounded, slightly out-swelling profile. Fabrics R1 and R10.

Form 71.0: Bowl with complex bi or tripartite rim and rounded profile. Fabrics R9 and R10 (but *cf* Fulford types 7 and 8, 1975a, 90–1, figs 30–1, 92, 94).

Form 72.0: Bowl with beaded and flanged rim and rounded profile. Fabric R18.

Form 73.0: Bowl with horizontally out-turned, grooved rim and rounded profile. Fabric R4 (but *cf* Fulford type 9 1975a, 91, fig 31, 94).

Form 74.0: *Not illustrated*. Bowl with beaded and flanged rim and straight out-turned profile.

74.1 With equal beaded and flanged rim, as defined by Gillam (1976, nos 42–4). Fabrics R4, R9, R10, and R17.

74.2 With high bead, as defined by Gillam (1976, nos 45–9). Fabrics R4, R9, R10, R13, and R17.

Form 75.0: *Not illustrated*. Oxfordshire ware form C51 (Young 1977, 160–61, fig 59).

Form 76.0: *Not illustrated*. Necked bowl in fine ware, probably Oxfordshire ware form C75 (Young 1977, 164, 166–7, fig 62).

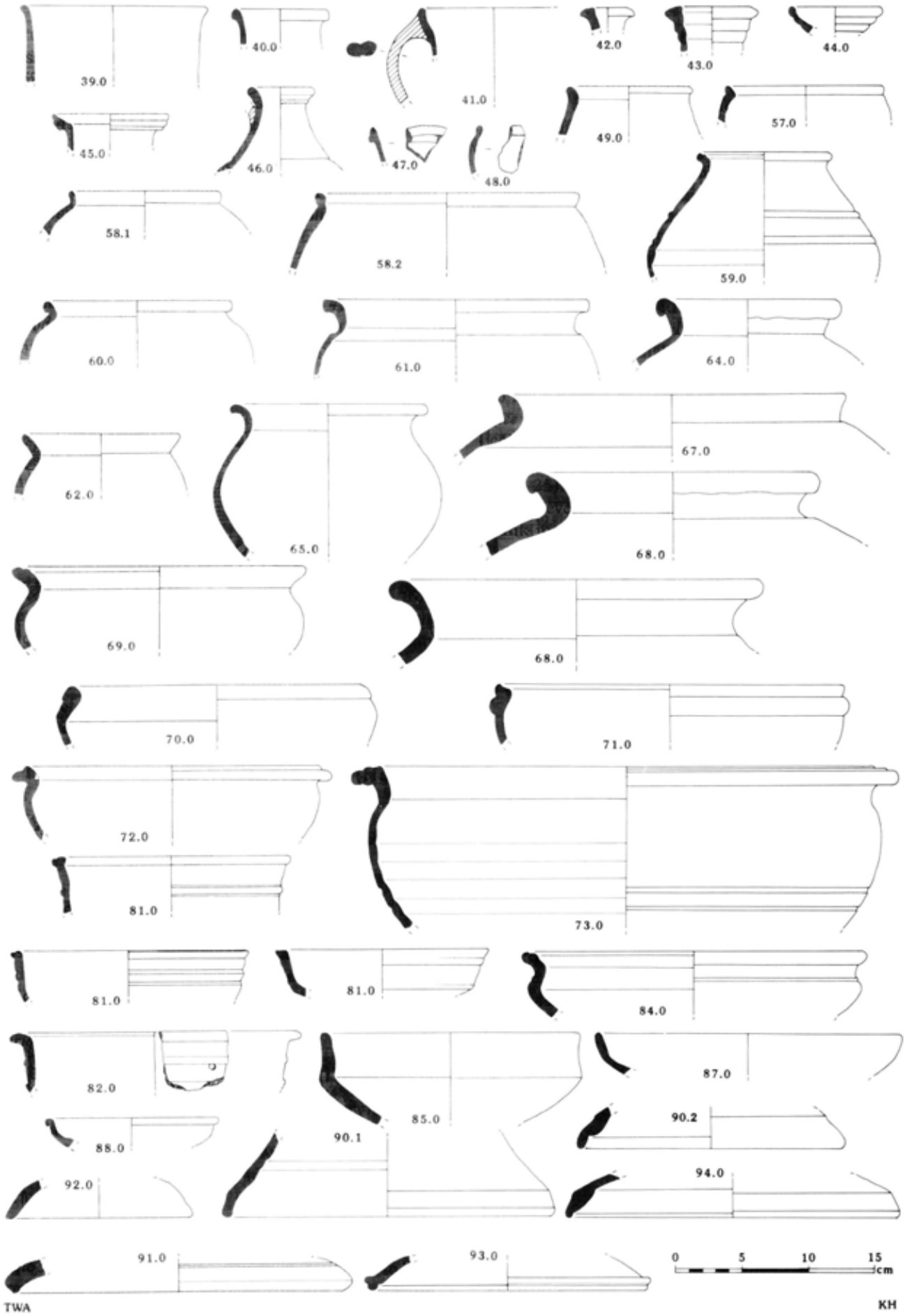

Fig 60 Pottery: vessel type series, forms 39.0–94.0 (scale 1:4)

Mortaria

Form 77.0: *Not illustrated.* Young form M17 (1977, 72, 74, fig 21).
Form 78.0 *Not illustrated.* Young form M22 (*1977, 76–7, fig 23*).
Form 79.0 *Not illustrated.* Young form C100 (1977, 174–5, fig 67).
Form 80.0 *Not illustrated.* Rhineland collared mortarium, dated to *c* AD 150–200 (*K Hartley, personal comment*).

Bowls or dishes

Form 81.0: Bowl or dish with fairly straight or out-turned profile and short, out-turned grooved or faceted rim. One example was a shallow, carinated vessel. Accurate definition of this form is hampered by poor survival of the remaining profiles, which may have been deeper (*cf* Davies 1981, form B15, 88, 137, fig 37, 132). Fabrics R1 and R13.
Form 82.0: Bowl or dish with upright, cordoned profile and horizontally out-turned rim. Fabrics R7 and R10.
Form 83.0: *Not illustrated.* Bowl or dish with straight, out-turned profile and horizontally out-turned rim, as defined by Gillam (1976, nos 34–41 or nos 53–66). Fabric R17.

Dishes and platters

Form 84.0: Fairly deep, necked dish with carinated profile and 'lid seat' rim, similar to but shallower than form 69.0. Fabric R1.
Form 85.0: Fairly deep dish (or possibly lid) with carinated profile and plain rim. Fabric R1.
Form 86.0: *Not illustrated.* Dish with straight profile and plain rim, as defined by Gillam (1976, nos 75–84). Fabrics R4, R7, R9, R10, R11, R13, and R17.
Form 87.0: Dish or platter with rounded or slightly carinated profile and plain rim. Fabrics R1 and R10.
Form 88.0: Shallow dish (or possibly lid) with rounded profile and bead rim. Fabrics R6 and R10.
Form 89.0: *Not illustrated.* Dish with hammered rim in fine ware, probably Young form C41 (1977, 156–7, fig 57).

Lids

Form 90.0: Lid with straight or slightly convex walls.
90.1 With plain rim. Fabrics R3, R4, R9, R10, R11, and R13.
90.2 With internally faceted rim. Fabrics R1 and R9.
Form 91.0: Lid with thick walls, rounded profile and internally faceted rim. Fabric R1.
Form 92.0: Lid with straight or rounded profile and plain rim. Fabric R1.
Form 93.0: Lid with rounded profile and complex internally and externally faceted rim, perhaps intended for use with vessels of form 81.0. Fabrics R1 and R10.
Form 94.0: Lid with carinated profile and internally faceted rim. Fabric R1 and R7.

Surface treatment and decoration on prehistoric vessels

Five types of surface treatment or finish were recognised:

Sl Fine, overall burnishing.
S2 Patterned or linear burnishing.
S3 Wiping, or rough burnishing.
S4 'Haematite-coating' or red slip.
S5 Organic impressions.

Types S3 and S5 were represented on a variety of vessel forms encompassing a wide date range, but were most common during the Early Iron Age and Early to Middle Iron Age ceramic phases. Type Sl occurred on finer Late Bronze to Earliest Iron Age vessels, and, together with type S2, was very common on Middle and Later Iron Age forms.

Recent research into Early Iron Age 'haematite-coated' (type S4) wares has demonstrated that the red surface coating of this material was achieved through a variety of techniques (Middleton 1987). Macroscopic examination suggested that a red-firing slip, not necessarily haematite-rich, was the most common technique employed amongst vessels in the collection from Balksbury, although at least one sherd may genuinely have been coated with crushed haematite before firing (Middleton, forthcoming).

In addition, six main decorative techniques were represented:

Dl Finger-tip and finger-nail impressions.
D2 Impressed, stamped or stabbed decoration, using a tool.
D3 Incised decoration.
D4 Geometric pattern scratched with a fine tool after firing.
D5 Integral cordons and furrows.
D6 Shallow tooled decoration.

The rare Middle Bronze Age vessels exhibited both techniques D1 and D5, but these were otherwise confined to the Early Iron Age, technique D5 occurring alone or in common with technique D4 on the well-known furrowed and scratched-cordoned wares of All Cannings Cross/Meon Hill style (Cunliffe 1978, 355), and technique D1 commonly present on coarse wares of Early Iron Age date. Other early decorative techniques included types D2 and D3 used alone or in combination and sometimes filled with a white substance, possibly chalk, in the Early All Cannings Cross style (*ibid*, 351), and, rarely, type D2 in the form of impressed dimples, circles, or notches. Later saucepan pots and associated vessels were decorated using technique D6, mainly in two motifs. These were either linear, sometimes in combination with technique D2 (stitching) in the St Catherine's Hill/Worthy Down style (*ibid*, 364) or in the form of the wavy lines and arcs of the Yarnbury-Highfield style (*ibid*, 365). Occasionally, technique D2 was used alone on Middle Iron Age vessels.

Decoration on Late Iron Age and Roman vessels

Decorated sherds were uncommon. On the earlier vessels, decoration, where present, takes the form of simple burnished motifs, grooves, and cordons. The range amongst the later materials was wider, including rouletting, combing, and barbotine, in addition to burnished and incised motifs.

The ceramic sequence

In this section, typological contrasts and similarities between vessels both within and between chronological groupings are discussed. This apparently simple and self-evident statement, however, masks a range of difficulties of approach and interpretation. The ultimate aim of any pottery report should be to reach an assessment of ceramic evidence as a reflection of the systems and changes developing within ancient societies in which chronology might be seen as a component, rather than a cause in its own right. Since 'what was there' has been exhaustively discussed and described, especially in Hampshire, over the last ten years (eg Cunliffe 1984a; Davies 1981; J Hawkes 1985; Smith 1977), 'why it was there' is a question to which we must now give priority. However, chronology remains an essential first step in this process, not only in order that areas of legitimate comparison and contrast may be identified, but also because the interpretation of the development of the site itself will rest largely on the ceramic dating evidence, if that site fails to reveal a clear and unequivocal stratigraphic sequence. In this latter respect, the definition of gaps in the sequence is at least of equal importance to the identification of continuity, since such gaps may be indicative of major changes in landscape use at particular times.

Two major factors, not necessarily related to chronology but nevertheless affecting typological contrasts between individual ceramic groups, can be identified.

Distribution factors

Types of pottery which occur in one area within a region such as Wessex may be absent from, or of peripheral importance to, another area. When these types are considered to define a chronological phase in the core area to which they belong, their absence in the peripheral area does not necessarily denote a similar chronological gap. The necessity of allowing for potentially non-existent ceramic phases has been recognised (Cunliffe 1984a, 233–4). This would seem to be a problem relating to the lack of stratigraphy on sites of this type, the consequent need to establish a chronological sequence using available external parallels, and the distances within which those parallels might reasonably be considered relevant. On a broader level, the very fact that a relevant distance or radius could in theory be established, given a more complete knowledge of ceramic 'style zones' and how these relate to ceramic production and distribution, is of some significance.

Functional factors

Typological contrasts between vessels of the same date may be due to their function. It is also possible that whole assemblages will exhibit function-linked typological characteristics, if vessels fulfilling a limited range of functions are discarded together in the same feature. Ambiguities of this kind are discussed further in relation to specific ceramic phases, defined as follows:

Middle to Late Bronze Age
Late Bronze to Earliest Iron Age
Early Iron Age
Early to Middle Iron Age
Middle Iron Age
Middle to Later Iron Age
Late Iron Age
Late Iron Age to early Roman
Late Roman

This phasing has been achieved not only by treating particular forms as diagnostic of particular phases, but also through assessment of relative proportions of types in each assemblage, and is therefore more loosely based than the scheme proposed for Danebury (Cunliffe 1984a, 233–4). Its relationship to the chronology of other major sites in Hampshire is illustrated in Figure 61. In this figure Danebury ceramic phases (*ibid*), are taken as the standard as they are the most detailed. As well as sites in the Andover area, Winnall Down (Fasham 1985) and Brighton Hill South (Fasham and Keevill, in press), have been used. Numbers or letters in each field are an abbreviated form of the excavator's or ceramic analyst's phases.

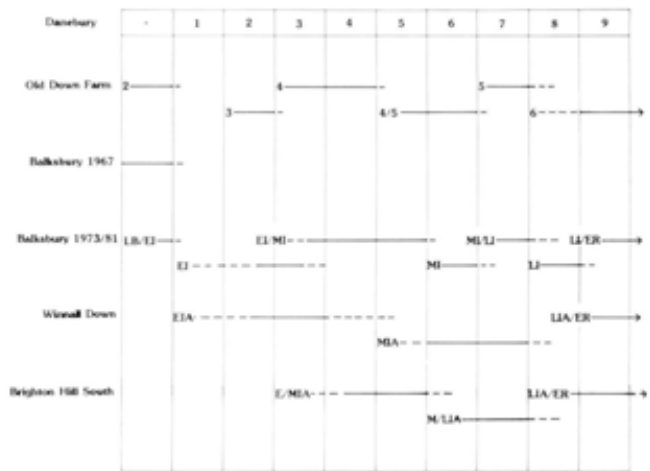

Fig 61 Relationship of site ceramic phases to selected sites in Hampshire.

Information concerning each ceramic phase is presented as follows:

Tables 8–10 summarise the relative popularity of the forms and illustrate quantitative trends through time amongst the more common forms. Estimated Vessel Equivalents (EVEs) (Orton, 1980) for the rare forms in each phase probably merely indicate presence and are not otherwise of significance. The reliability of the sample size is indicated by real totals and actual rim percentages rather than percentages of totals.

The histograms (Figures 62 and 66) summarise the relative popularity of the fabrics.

Figures 63–5, and 67 show representative groups, and include comment on external dating, and where relevant, the reliability of phasing and size of sample.

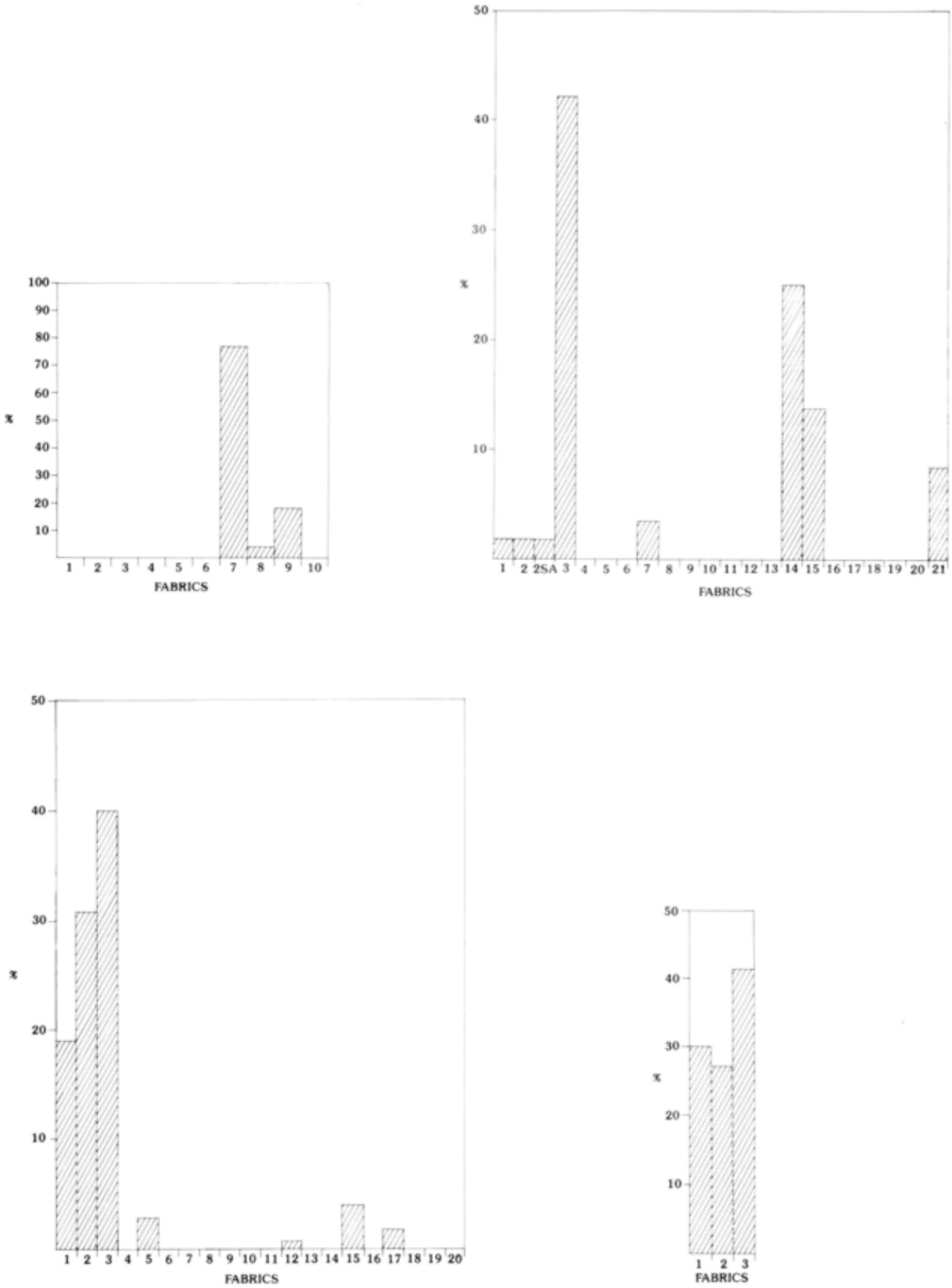

Fig 62 Relative proportions of fabrics occurring in a) Late Bronze to Early Iron Age ceramic phase; b) Early Iron Age ceramic phase; c) Early to Middle Iron Age ceramic Phase; d) Middle Iron Age ceramic phase; (by EVEs)

This format is followed throughout all phases, with the exception of the late Roman phase, in which forms were sufficiently standardised not to warrant further illustration in addition to the type series.

Middle to Late Bronze Age: represented by three sherds, of which only one Fig 63, no 1, (fabric 13, form 10.0, from posthole 3234) was stratified without later material. This vessel is clearly more akin to material from Middle to Late Bronze Age sites in the Andover area (eg Dacre and Ellison 1981) than to other prehistoric assemblages from Balksbury, although it is possible that it was contemporary with the succeeding Late Bronze Age to Earliest Iron Age phase.

Late Bronze to Earliest Iron Age: material assigned to this phase finds its closest parallel at Aldermaston Wharf (Bradley *et al* 1980, 232–42), although it is also similar to phase 2 pottery from Old Down Farm (Davies 1981, 97–9). Thus it clearly belongs to the 'plain' or 'early decorated' phase of the Late Bronze to Early Iron Age (Barrett 1980). The material from the 1967 excavations at Balksbury (Wainwright 1969) also falls into this category (Barrett 1980, 310).

For fabric and form see Table 9 and Fig 62a, key groups are listed below. It may be significant that all of the fabrics represented by rim sherds contain moderate to abundant amounts of flint, and that the most common fabric of stratigraphic phase I in the 1967 collection was also flint-tempered (Wainwright 1969, 36–7). In stratigraphic phase II of the 1967 excavations a fabric with fewer grits predominated.

Key groups:
Group 1, Pit 115:
Fig 63, no 2, fabric 7, form 8; no 3, fabric 7, form 11.2; no 4, fabric 9, form 12.1, with all-over burnish; no 5, fabric 7, form 12.2; no 6, fabric 7, form 13.2.

Group 2, Posthole 3464:
Fig 63, nos 7 and 8, fabric 9, form 11.1, no 7 with all-over burnish; no 9, fabric 7, form 11.2; no 10, fabric 9, form 13.1, with all-over burnish; no 11, fabric 7, form 13.4, wiped; no 12, fabric 7, form 15; no 13, fabric 9, form 16.0; no 14, fabric 7, form 22.1.

Early Iron Age: assemblages of this period were relatively small in quantity and few in number, and the types potentially diagnostic of any chronological subdivisions (ie stab-decorated jars, furrowed and scratched-cordoned bowls) were rare or absent, this phase may cover a relatively long span of time.

See Table 9 and Fig 62b, and for key groups see below. The figures in the table and histogram should

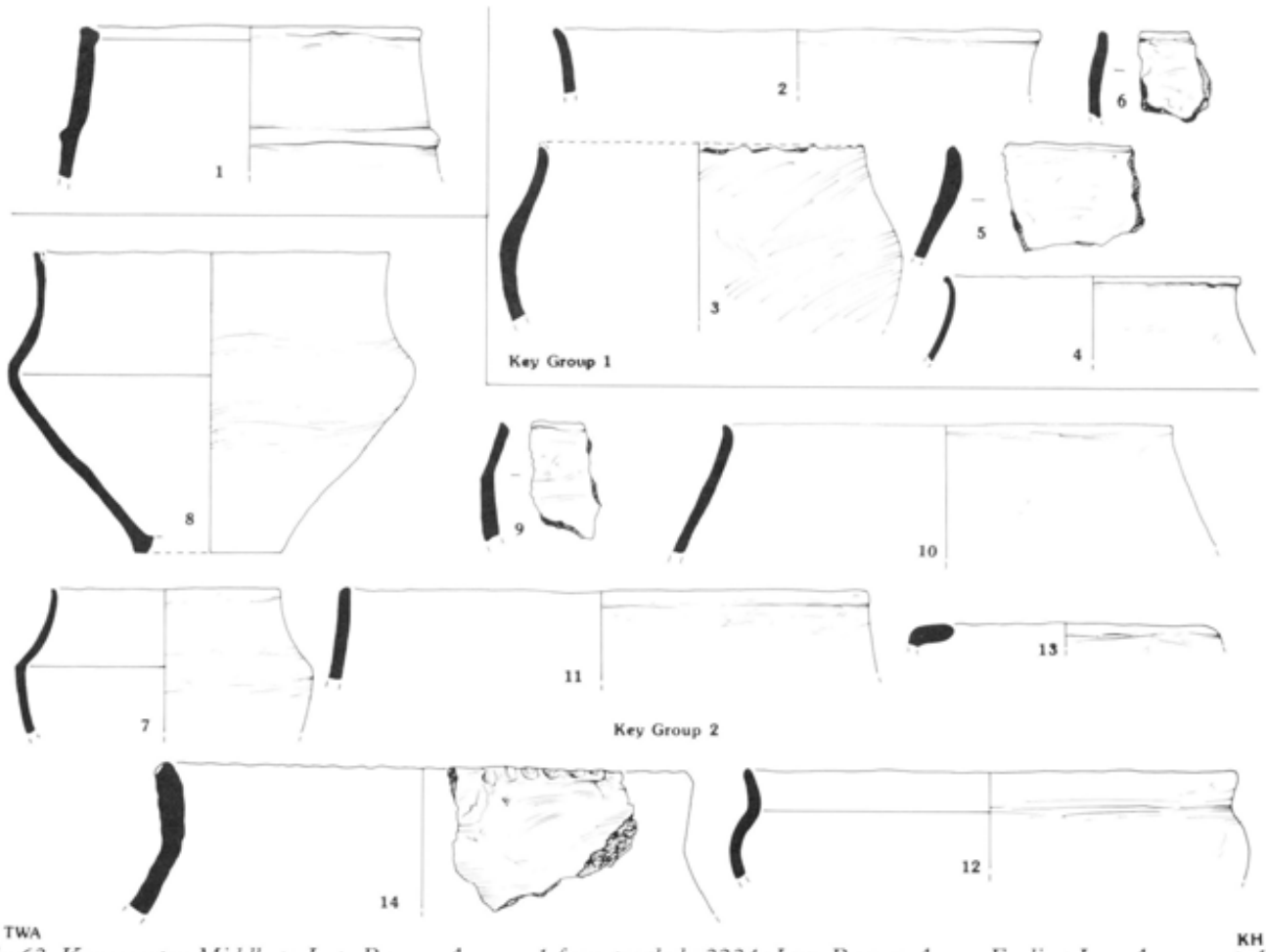

Fig 63 Key groups: Middle to Late Bronze Age: no 1 from posthole 3234; Late Bronze Age to Earliest Iron Age: group 1, Pit 115, nos 2–6; group 2, posthole 3464, nos 7–14 (scale 1:4)

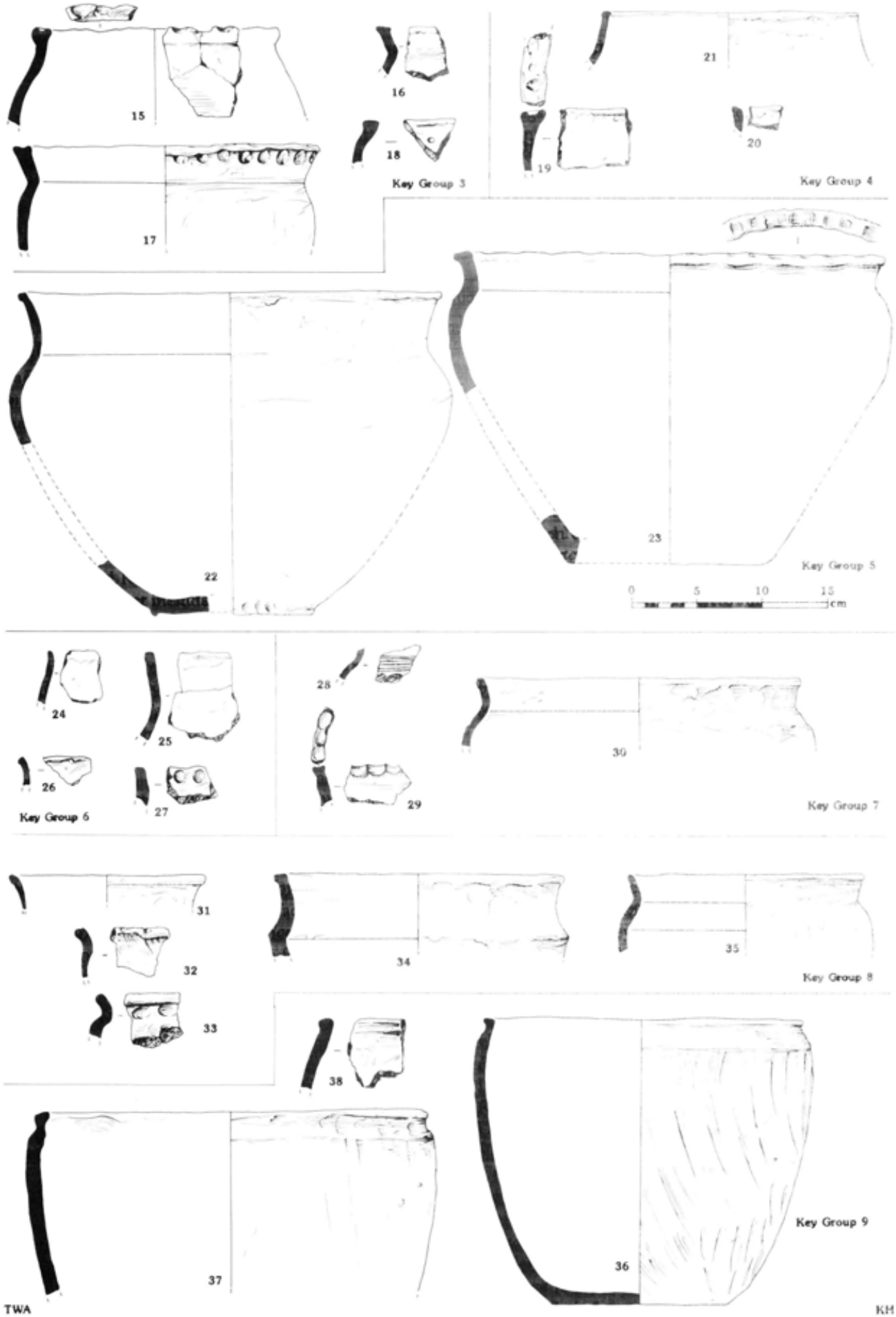

Fig 64 Key groups: Early Iron Age: group 3, pit 914, nos 15–18; group 4, pit 248, nos 19–21; group 5, pit 515, nos 22–3; group 6, pit 181, nos 24–7; group 7, pit 133, nos 28–30; Early to Middle Iron Age: group 8, pit 500, nos 31–5; group 9, pit 24, nos 36–8 (scale 1:4)

be approached with caution, as calculation of the relative proportions of the fabric types using numbers and weights of sherds (Table 9) reveals that the total Estimated Vessel Equivalent is too small to be a representative sample.

Key groups

Group 3, Pit 914:
Fig 64: no 15, fabric 3, form 22.1; no 16, fabric 3, form 22.3; no 17, fabric 21, form 22.3, with organic impressions; no 18, fabric 1, form 25.0.

Group 4, Pit 248:
Fig 64: no 19, fabric 3, form 4.0; nos 20 and 21, fabric 3, form 19.0.

Group 5, Pit 515:
Fig 64: no 22, fabric 3, 22.4, wiped; no 23, fabric 14, form 22.4.

Group 6, Pit 181
Fig 64: no 24, fabric 2, form 19.0; no 25, fabric 3, form 19.0, with red slip? (abraded); no 26, fabric 3, form uncertain; no 27, fabric 8, form 22.0.

Group 7, Pit 133:
Fig 64: no 28, fabric 9, form 19.0; no 29, fabric 3, form 22.0; no 30, fabric 7, form 22.1.

Table 8 Relative proportions of fabrics occurring in the Early Iron Age ceramic phase

Fabric description and code	*% by sherd count*	*% by weight in grams*
Sandy (1/2/3)	79.37	63.67
Fine 'haematite-coated' (2SA)	0.60	0.25
Coarse flint (7/8)	5.53	5.08
Fine flint (8/9)	4.48	2.18
Sand and shell (14)	6.58	21.28
Shell (15)	2.39	5.91
Limestone (17/18)	0.90	0.19
Organic (21)	0.15	1.43
Sherd totals	669 gm	9422 gm

Early to Middle Iron Age: This represents a transitional period in which Early Iron Age types are increasingly less common, and plain jars both reminiscent of early forms and anticipating later ones are in currency.

For relative popularity of form types and fabric see Table 9 and Fig 62c. The two key groups (below) show marked differences, which may indicate that they have been erroneously phased. However, key group 8 appears to be compatible with Danebury ceramic phases 4 to 5 (Cunliffe 1984a, 314–18), and key group 9 with phase 4 at Old Down Farm (Davies 1981, 114–18). The typological contrast may, therefore, be interpreted as either random or functional, particularly as key group 9 consists almost exclusively of two large storage jars.

Table 9 Relative proportions of forms occurring in Late Bronze to Late Iron Age ceramic phases (by EVES)

Form	*LB/EI*	*EI*	*E/MI*	*MI*	*M/LI*	*LI*	*Total*
1.0	–	0.12	–	–	–	–	0.12
2.0	–	0.24	–	–	–	–	0.24
3.0	–	–	–	0.19	–	–	0.19
4.0	–	0.07	–	–	–	–	0.07
8.0	0.22	–	–	–	–	–	0.22
9.0	–	–	–	0.05	–	–	0.05
10.0	–	–	–	0.17	–	–	0.17
11.1	0.13	–	–	–	–	–	0.13
11.2	0.39	–	–	–	–	–	0.39
12.1	0.16	–	–	–	–	–	0.16
12.2	0	–	–	–	–	–	0
13.1	0.17	–	–	–	–	–	0.17
13.2	0.50	–	–	–	–	–	0.50
13.4	0.13	–	–	–	–	–	0.13
15.0	0.10	–	–	–	–	–	0.10
16.0	0	–	–	–	–	–	0
17.0	0	–	–	–	–	–	0
19.0*	–	0.31	0.14	0.09	0.16	0.20	0.90
21.0	–	–	–	0.28	–	–	0.42
22.0	–	0.23	0.18	0.38	–	–	0.79
22.1	0.14	0.18	–	0.15	–	–	0.33
22.2	0.09	–	0.12	0.22	–	–	0.43
22.3	–	0.24	–	–	–	–	0.24
22.4	–	1.04	0.56	–	–	–	1.60
22.5	–	–	0.38	–	–	–	0.38
25.0	–	0	–	–	–	–	0
25.1	–	–	–	1.12	–	–	1.12
25.2	–	–	0.53	–	–	0.08	0.61
25.3	–	–	0.33	2.22	–	–	2.55
26.0	–	–	–	0.19	0.08	–	0.27
26.1*	–	–	0.23	1.40	0.46	0.34	2.43
26.2*	–	0.09	0.81	1.56	2.82	2.13	7.41
26.3*	–	–	0.29	5.10	1.93	0.60	7.92
26.4*	–	–	–	–	0.30	0.92	1.22
27.0	–	–	–	1.38	4.15	1.56	7.09
28.0	–	–	–	0.10	0.05	1.23	1.38
29.1	–	–	–	–	–	0.16	0.16
29.2	–	–	–	–	–	0.05	0.05
30.0	–	–	–	0.52	–	–	0.52
31.0	–	–	0.28	0.89	0.08	–	1.25
32.0*	–	–	–	–	0.77	0.11	0.88
33.1	–	–	–	1.14	1.10	0.66	2.90
33.2	–	–	–	0.22	–	–	0.22
34.0*	–	–	–	–	–	0.43	0.43
35.0*	–	–	–	–	–	2.38	2.38
37.5*	–	–	–	–	–	0.08	0.08
?	–	–	–	0.15	0.16	0.61	0.92
Total	2.03	2.52	3.85	17.52	12.06	11.54	49.52

Abbreviations:
LB/EI = Late Bronze to Earliest Iron Age
EI = Early Iron Age
E/MI = Early to Middle Iron Age
LI = Late Iron Age
0 = form present without measureable rim
** see also Table 10*

Key groups

Group 8, Pit 500:

Fig 64: no 31, fabric 2, form 19.0, with all-over burnish; no 32, fabric 3, form 22.2, wiped; nos 33 and 34, fabric 1, form 22.5; no 35, fabric 2, form 31.0, with all-over burnish.

Group 9, Pit 24:

Fig 64: nos 36 and 37, fabric 3, form 25.2; no 38, fabric 3, form 26.2.

Middle Iron Age: this phase is roughly equivalent to Danebury ceramic phase 6 (Cunliffe 1984a, 316, 320–1, 323) and to Old Down Farm phase 4/5 (Davies 1981, 118–20), in which plain saucepan pots become common. For relative proportions of forms and fabrics see Table 9 and Fig 62d.

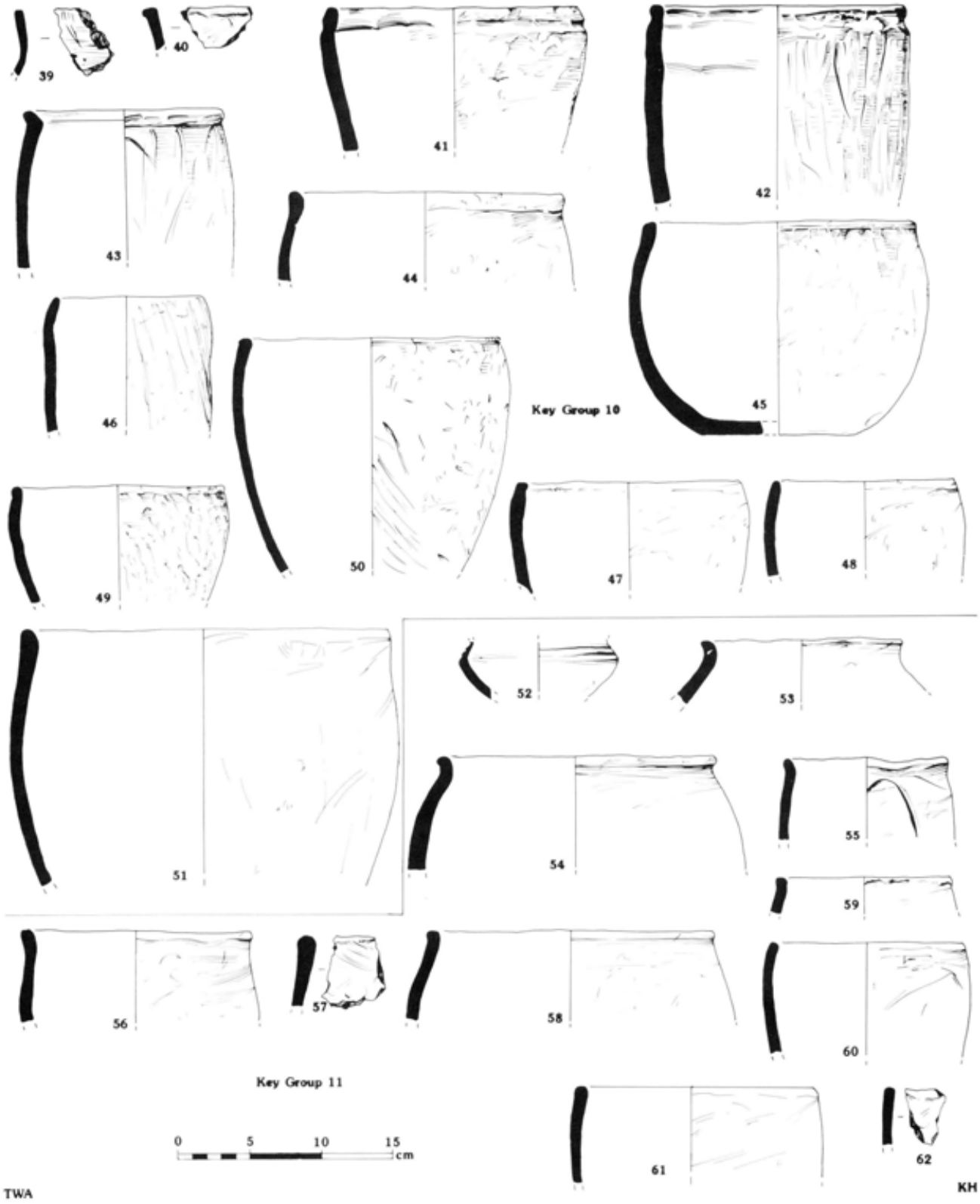

Fig 65 Key groups: Middle Iron Age: group 10, pit 352, nos 39–51; group 11, pit 52, nos 52–62 (scale 1:4)

Key groups
Group 10, Pit 352:
Fig 65: no 39, fabric 1, form 19.0; no 40, fabric 3, form 22.0, with linear burnish; no 41, fabric 1, form 25.3; no 42, fabric 3, form 25.3, with linear burnish; no 43, fabric 2, form 25.3, with organic impressions; no 44, fabric 3, form 26.1; no 45, fabric 2, form 26.2, with all-over burnish; nos 46–48, fabric 2, form 26.3, no 47 with all-over burnish; no 49, fabric 3, form 26.3; no 50, fabric 1, form 26.3, with organic impressions; no 51, fabric 2, form 26.3, with all-over burnish.

Group 11, Pit 52:
Fig 65: no 52, fabric 2, form 19.0, with linear burnish; no 53, fabric 3, form 21.0; no 54, fabric 3, form 25.1; no 55, fabric 1, form 26.1, wiped; no 56, fabric 15, form 26.1; no 57, fabric 1, form 26.1, with all-over burnish; nos 58 and 59, fabric 1, form 26.2, with all-over burnish; nos 60 and 61, fabric 1, form 26.3, with all-over burnish; no 62, fabric 12, form 26.3, with all-over burnish.

Middle to Late Iron Age: phase is characterised by the earliest appearance of decorated saucepan-type pottery and is broadly equivalent to Danebury ceramic phase 7 (Cunliffe 1984a, 322–5) and Old Down Farm phase 5 (Davies 1981, 122–33). See Table 9, and Fig 66a.

Key group
Group 12, Pit 65:
Fig 67: nos 63 and 64, fabric 2, form 26.2, with all-over burnish; no 65, fabric 3, form 26.3; no 66, fabric 2, form 27.0, with all-over burnish; no 67, fabric 2, form 26.4/27.0, with all-over burnish; no 68, fabric 2, form 33.1, with all-over burnish; no 69, fabric 12, form 35.0.

Late Iron Age: assemblages containing wheel-turned 'Atrebatic-style' pottery in very small quantities and bead-rimmed jars with high, rounded shoulders have been assigned to the Late Iron Age phase, represented at Danebury by ceramic phases 7 to 8 (Cunliffe 1984a, 326–30). See Table 9, and Fig 66b.

Key group
Group 13, Pit 213:
Fig 67: no 70, fabric 6, form 19.0, with all-over burnish; no 71, fabric 3, form 22.0; no 72, fabric 12, form 26.2, with all-over burnish; no 73, fabric 1, form 26.3, with all-over burnish, no 74, fabric 2, form 26.4, with linear burnish; no 75, fabric 12, form 26.4, with all-over burnish; no 76, fabric 12, form 27.0; no 77, fabric 12, form 33.1, with all-over burnish; no 78, fabric 17, form 35.0; no 79, fabric R2, form 35.0, with all-over burnish.

Late Iron Age to early Roman: latest parallels for this assemblage were from phase 6 at Old Down Farm (Davies 1981, 136–8) and phase 3 at Bury Hill

Table 10 Relative proportions of forms occurring in Late Iron Age to late Roman ceramic phases (by EVES)

Form	*LI/ER*	*LR*	*Total*
19.0*	–	0.12	0.12
26.1*	0.11	–	0.11
26.2*	–	0.25	0.25
26.3*	0.04	0.09	0.13
32.0*	–	0.27	0.27
34.0*	0.11	0.13	0.24
35.0*	2.80	0.33	3.13
37.0	0.15	–	0.15
37.2	0.18	–	0.18
37.4	0.03	–	0.03
37.5*	2.16	0.16	2.32
38.0	0.22	–	0.22
40.0	–	0.23	0.23
41.0	–	0.15	0.15
42.0	–	1.00	1.00
44.0	–	0.12	0.12
46.0	–	1.00	1.00
51.0	–	0.29	0.29
53.0	–	0.15	0.15
54.0	–	0.38	0.38
55.0	–	0.32	0.32
56.0	–	0.16	0.16
57.0	–	0.07	0.07
58.1	0.33	–	0.33
59.0	0.40	0.10	0.50
61.0	–	1.08	1.08
62.0	–	0.22	0.22
63.0	–	0.91	0.91
64.0	0.22	0.60	0.82
65.0	–	1.57	1.57
66.0	–	0.77	0.77
68.0	0.21	0.35	0.56
71.0	–	0.26	0.26
72.0	–	0.25	0.25
73.0	–	0.21	0.21
74.1	–	0.24	0.24
74.2	–	0.82	0.82
76.0	–	0.23	0.23
84.0	0.14	–	0.14
86.0	–	1.00	1.00
87.0	–	0.20	0.20
90.1	0.22	0.15	0.35
90.2	0.06	–	0.06
93.0	0.08	–	0.08
94.0	–	0.04	0.04
?	0.39	2.69	3.08
Total	7.85	16.91	24.76

Abbreviations:
LI/ER = Late Iron Age to early Roman
LR = late Roman
** see also Table 9*

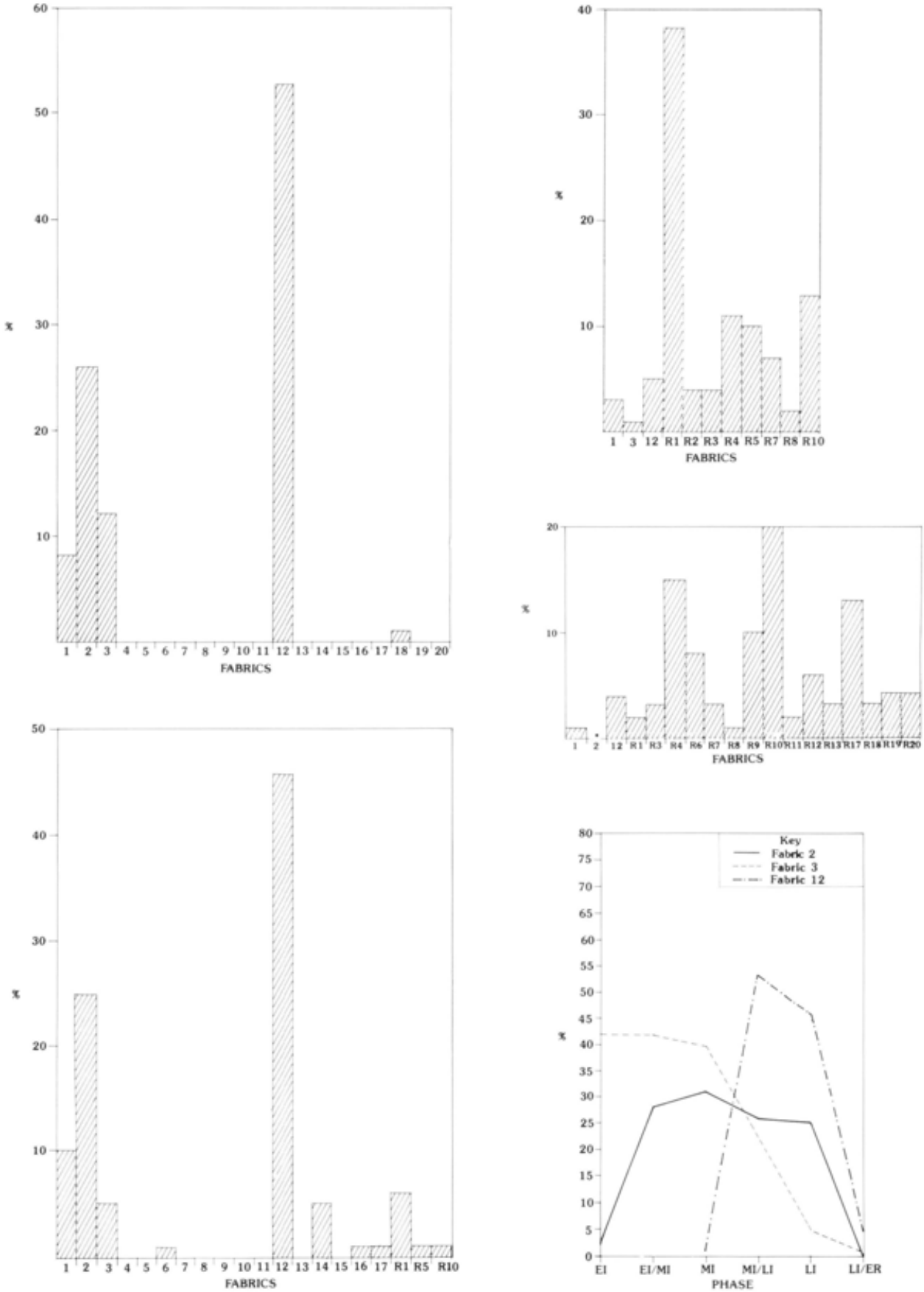

Fig 66 Relative proportions of fabrics occurring in a) the Middle to Late Iron Age ceramic phase; b) Late Iron Age ceramic Phase; c) Late Iron Age to early Roman ceramic phase; d) the late Roman ceramic phase (the dot in fabric 2 indicates less than 1) (by EVEs); e) Quantitative relationship of common fabrics from Early Iron Age to Early Roman period (fabric 1 omitted as it is a general classification)

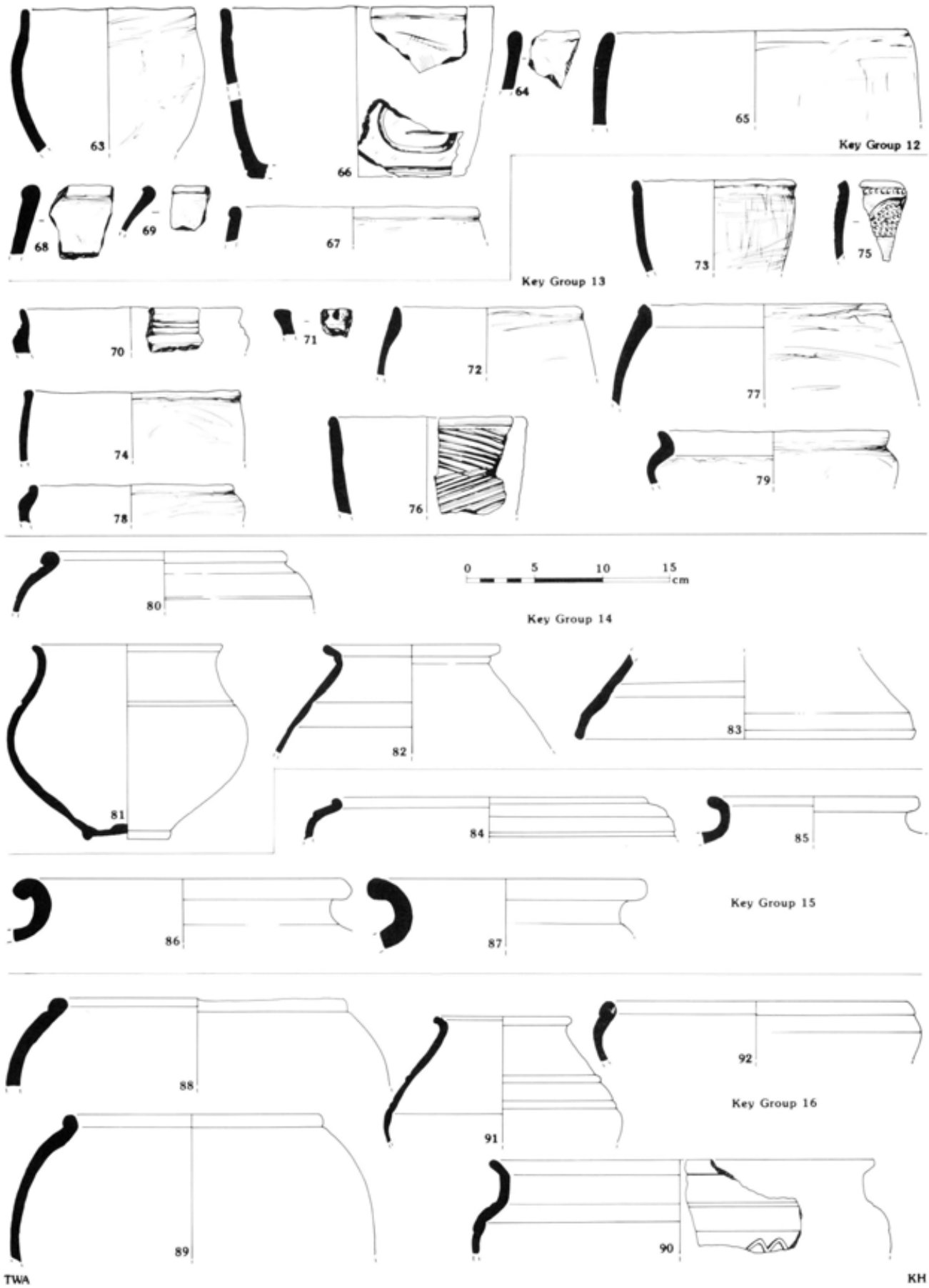

Fig 67 Key groups: Middle to Late Iron Age: group 12, pit 65, nos 63–9; Late Iron Age: group 13, pit 213, nos 70–79; Late Iron Age to early Roman: group 14, pit 187, nos 80–83; group 15, pit 432, nos 84–7; group 16, pit 529, nos 88–92 (scale 1:4)

(J Hawkes 1940, 327–9). Some of the Late Iron Age to early Roman forms are also represented amongst Cunliffe's 'Northern and Southern Atrebatic types' (1978, 380), and a fabric closely resembling Balksbury fabric R1 occurs further afield in early Roman deposits from Winchester (*C Matthews, personal comment*).

The full date range of the Late Iron Age to early Roman phase is uncertain, as closely dated pottery was absent. Whilst it is possible that some Late Iron Age to early Roman assemblages were deposited before the conquest, a date in the mid or late first century AD is equally likely. The presence of Dorset Black-Burnished ware (not represented by Estimated Vessel Equivalent: fabric R17) in some assemblages may indicate that the phase continued to or beyond *c* AD 120. The absence of this fabric at Old Down Farm suggests that the Andover area was not located within the primary distribution of early Dorset Black Burnished ware 1 (*cf* Gillam 1976, 57); however, the sherds at Balksbury were all very small and uncertainly identified. See Table 10 and Fig 66c.

Key groups

Group 14, Pit 187:
Fig 67: no 80, fabric R7, form 35.0; no 81, fabric R1, form 37.5; no 82, fabric R10, form 59.0; no 83, fabric R10, form 90.1.

Group 15, Pit 432:
Fig 67: no 84, fabric R11, form 35.0; no 85, fabric R4, form 64.0; no 86, fabric R2, form 68.0; no 87, fabric R4, form 68.0.

Group 16, Pit 529:
Fig 67: nos 88 and 89, fabric R3, form 35.0, no 88 with a burnished band; no 90, fabric R7, form 37.5; no 91, fabric R10, form 59.0, with bands of red slip; no 92, fabric R1, form 70.0, with all-over burnish.

Late Roman: assemblages were classified as this phase if they contained well-dated late Roman fabrics such as New Forest or Oxfordshire red-slipped tableware (Fulford 1975a; Young 1977), or late Roman forms in BB1 or related fabrics (Gillam 1976). A few of the less certainly dated forms were represented amongst late Roman assemblages of the region, such as that of Porchester Castle (Fulford 1975b), whilst others were sufficiently common in assemblages of late Roman phase to be treated as diagnostic of this phase. In general, the assemblage ranges in date from the mid or late third century to the end of the fourth. Within this, it may be suggested that at least one assemblage, which was recovered from the destruction layer over phase I of the building 562, was deposited before AD 350. See Table 10 and Fig 66d.

Discussion

The ceramic evidence for continuity and change in the usage of a site is dependent on the identification of gaps in the ceramic sequence. The evidence for such chronological hiatus may be of two kinds:

When a fabric is plotted quantitatively through time, if it has been accurately defined, the curve will exhibit a gradual increase, reach a peak, fall away and then fluctuate in a random fashion, suggesting residuality (see eg Carver 1980, fig 52; Peacock 1982, 162–3). Unexpected breaks or fluctuations in the curve can therefore serve to identify absence of continuity.

Types of pottery present on other sites during particular periods may be absent or poorly represented. Assessment of the significance of this absence is, however, affected by external factors such as contrasts between the nature and size of features of different phases, whether pottery was generally more or less common as an artefact at different times, and the distance of the site under consideration from the site which supplies the external parallel. Three possible areas of hiatus can be identified:

Early Iron Age: between phase Late Bronze Age to Earliest Iron Age and the Early Iron Age phase, flint-tempered fabric 7 (the most common fabric in the Late Bronze to Earliest Iron Age phase) displays a marked decline (Fig 62a and b). Correspondingly, sandy fabrics 1, 2, and 3 are virtually absent in the Late Bronze to Earliest Iron Age phase (there were a few body sherds) but form a substantial proportion of the assemblage in the Early Iron Age phase. This suggests a chronological hiatus in the Early Iron Age period, which is corroborated by the paucity of types diagnostic of non-flinty fabrics in phase II of the 1967 excavations (Wainwright 1969). The relative length of this hiatus is difficult to assess. The absence of material characteristic of Danebury ceramic phase 1 (Cunliffe 1984a, 234) need not signify a chronological gap as this is defined on material from central Wessex, and may not exist as a separate chronological phenomenon in Hampshire (see also Barrett 1980, 309–11). That this hiatus coincides with a shift in occupation from the periphery of the enclosure to the central area of the site is of some significance, but it should not be over-emphasised as the 'gap' might be completely filled by material of phase II in the 1967 excavations.

Later Iron Age: the high proportion of decorated material of this phase at Old Down Farm (Davies 1981, 125, fig 28) and at Danebury (Cunliffe 1984a, 322–30) contrasts somewhat with its paucity at Balksbury (see especially key group 12, but also key groups 13 and 14. The sudden decline in flint-tempered fabric 12 from 46% in the Late Iron Age phase (Fig 66b) to 5% in the Late Iron Age to early Roman phase (Fig 66c) might also suggest a gap between these two phases. However, this phenomenon is not matched in the forms, which seem to represent a continuous sequence. Therefore, it is possible that types which have been interpreted as contemporary for the purpose of defining the ceramic phase were in some cases residual. Alternatively, the discrepancy may relate to the function of the site, although there is no other evidence to suggest this.

Mid-Roman period: very little pottery could be ascribed with certainty to the mid-Roman period *c* AD 120–240. A few sherds of second-century AD samian were present (*G Simpson, site archive*) but these were either poorly stratified, or (the majority) associated with late Roman pottery. A single mortarium of second-century AD date (form 80.0) was also present. This has been identified as a general problem for the early years of the third century (Fulford 1975a, 106–11), but a separate phase covering the period from *c* AD 120–80 can normally be isolated if it exists. Therefore it must be concluded that occupation was, at least, sporadic during this period.

Fabric, form, and function

In recent years specialists have begun to pay more attention to the function of pottery vessels. An approach to this has been to define functional categories on the basis of form or of fabric and form combined, resulting in schemes such as that of Cunliffe (1984a, 249–51), in which (despite changes in form) the basic continuity of the functional components of assemblages through time has been identified.

Three functional categories (fine wares, everyday wares, and heavy duty wares) have been defined for pottery of the Middle Bronze Age (Ellison 1980). This scheme is applicable to vessels of Late Bronze to Earliest Iron Age phase, the fine ware element being represented (Fig 56) by forms 11.1, 13.1, and 16.0; the everyday ware by forms 11.2, 12.1, 13.3, and 13.4; the heavy duty component by forms 12.2, 17.0, and 22.1. However, divisions between functional types are less clear-cut in the Late Bronze Age period than in earlier periods and ceramic containers, to judge by the increased range of forms, have assumed a wider range of functions (Barrett 1980, 303). Barrett's interpretation of the breakdown of Ellison's functional categories seems to be of increasing relevance throughout the Iron Age period, firstly with blurring of the everyday and heavy duty categories (eg compare variations of form 25.0, Fig 57), and secondly with the loss of the fine ware element, evidenced in the gradual disappearance of haematite-coated cordoned bowls and related thin-walled carinated or shouldered vessels. Thus, we are left by the Middle Iron Age period with an undifferentiated mass of everyday and not-very-heavy duty wares. The absence of a clear-cut heavy duty component in the Middle and Later Iron Age period might be explained by the increased use of pits rather than pots for long-term storage.

A second approach (and one which has become increasingly common for pottery of all periods in recent years), is that of identifying and recording the usage-related deposits on vessels. This appears to be of use in defining functional differences between everyday wares. Two kinds of deposits, sooting, usually indicating the use of vessels as cooking pots (eg Hally 1983), and limescale, suggesting the use of a vessel for water storage and boiling, can be identified. In the context of a chalkland site such as Balksbury, the presence of limescale is difficult to assess, as calcareous deposits of this kind might occur after the vessel has been discarded as a result of natural processes in the soil.

The incidence of sooting, shown in Table 11, although not necessarily indicative of exclusive use as a cooking pot, may be of some significance. The designation 'saucepan pot' for certain forms, particularly form 26.0 (Fig 57), would appear to be accurate, but only in certain fabrics. This is particularly notable in the case of fabric 3. Conversely, despite their frequent occurrence in 'saucepan pot' forms, fabric 2 is relatively rarely sooted, and fabric 12 is completely absent from the table. That fabric 1 is sometimes sooted is unsurprising, as it represents a 'catch-all' sandy ware and probably includes some examples of both fabric 2 and fabric 3. Since fabrics 2 and 12 are most frequently burnished, it is possible that sooting deposits failed to adhere to surfaces of vessels in which they occur, despite use over a cooking fire. On the other hand, the fact that sooting and burnishing are nearly mutually exclusive may suggest a difference between vessels bearing these contrasting surface features (see also Lambrick 1984).

Table 11 Incidence of sooting on Iron Age vessels

Fabric / *Form*	*1*	*2*	*3*	*7*	*14*	*17*	*18*
11.2	–	–	–	160	–	–	–
21.0	–	–	0				
			160				
			190	–	–	–	–
22.0	–	–	120?	–	–	–	–
22.1	–	240	–	–	–	–	–
25.1	–	–	180(2)	–	–	–	–
25.3	–	–	150	–	–	–	–
26.1	0	–	0				
	120		110				
			120				
			180	–	–	–	–
26.2	110	180(2)	140(2)				
			220	–	120		
					150	–	–
	140						
26.3	120	–	130				
			160				
			180	–	–	–	140
27.0	–	–	200	–	–	–	–
28.0	140	–	*	–	160	–	–
35.0	–	160	–	–	180	160	–

Recorded rim diameters are in millimetres;
numbers in brackets are the number of separate records of rim diameters;
0 = sherds too fragmentary to record diameter

Sooted vessels are rarely larger than 180mm in rim diameter and occur most frequently within the range 120–180mm. Although sooted vessels usually have rim diameters which are less than their height and range from 'closed' to marginally 'open' forms, details of form are only loosely related to incidence of sooting, suggesting that vessel size rather than detail of shape is the prime indicator of function during the Middle and Later Iron Age period (see Hally 1983, 22–3).

To summarise, it is possible to define a cookware component amongst the everyday wares of the Middle and Later Iron Age period, whilst vessels bearing evidence of careful treatment during manufacture, ie burnishing, might represent a tableware component. The size of the vessel rather than the details of its shape may be most important in identifying its function.

Production, trade, and exchange

By applying ethnoarchaeology to the study of Roman pottery, Peacock (1982) has identified several 'modes' of ceramic production. Two of his modes appear relevant to the study of Iron Age material:

Household production, in which pottery used in a community is produced by that community for its own consumption. This model has, until relatively recently, been assumed to apply to all Iron Age domestic pottery (Harding 1974, 92).

Household industry, in which the beginnings of craft specialisation are observed. Wares produced in this mode may be hand-made or wheel-turned but not thrown on a fast wheel, and are usually clamp-fired. They are characterised by regional distribution from the source of production. Such craft specialisation using the Iron Age period has been identified in the Malvern area of Worcestershire (Peacock 1968).

Through ethnographic study of resource exploitation, Arnold (1981, 31–7) has suggested that potters involved in household production might regularly travel up to *c* 7km in order to obtain raw materials. It is suggested that the optimum radius of distribution for the identification of regional production is 16km or over, whilst fabrics occurring in distributions ranging from 8 to 16km radius might indicate the sharing of resources for household production between communities. This latter possibility has also been discussed by Davies (1981, 146).

Clearly, then, the distance of the site from the putative source of the pottery recovered from it is of relevance to the assessment of exchange mechanisms. However, some confusion may arise if a source supplying a region is located at less than *c* 7km from the site in question. For this reason, the author prefers to reserve the term 'local' for wares produced and distributed solely in the immediate vicinity of the site and will hereafter refer to fabrics with wider distributions as 'regional wares'.

In her case study of regional exchange during the Middle Bronze Age, Ellison (1980) suggests that contrasting but interlocking levels of production and exchange are implied by the differing distributions of the three functional categories of fine wares, everyday wares and heavy duty wares discussed above. She further asserts that the ceramic style zones defined by Cunliffe for Iron Age pottery reflect regional production and exchange, whilst styles with limited distributions might indicate a lower, more localised, level of economic activity (*ibid*, 136). This argument is also put forward by Davies in her consideration of the assemblage from Old Down Farm (Davies 1981, 146). However, due to the homogeneous nature of the regional geology, it has proven very difficult to identify regional production centres in central southern England through petrological analysis, and petrological research into locally available resources at individual sites has been limited (Wandibba 1981). Without the supportive evidence of diagnostic fabrics, it is uncertain whether actual goods rather than merely ideas for styles were exchanged, and also difficult to test the proposed continuity of exchange systems from one period to another.

It is against this background that the following comments concerning the Balksbury assemblage are offered:

A small quantity of probably non-local material, perhaps in some cases representing relatively distant sources, was present throughout the Iron Age period. This included the briquetage, the Early Iron Age 'cauldron', wares containing oolitic and other limestone, and the possible 'Durotrigian' vessel. The occurrence at Balksbury of briquetage is clearly related to its function as a container for salt, but a specialised function for the cauldron may also be the reason for its occurrence so far from its putative source.

The position concerning 'haematite-coated' wares is slightly more complicated. Scratched-cordoned vessels usually occurred in a fine, virtually inclusion-free, slightly sandy fabric (Fabric 2 S4), whilst a minority of sherds exhibiting a red surface slip were in fabrics 3 and 14. These latter fabrics were normally reserved for much coarser Earlier and Middle Iron Age vessels. This is in keeping with previous suggestions that furrowed and earlier wares, from the evidence of their wider variation both in fabric and form, originated at a number of small centres and achieved fairly localised distributions (see Davies 1981, 146; Middleton 1987), whereas scratched-cordoned wares were regionally distributed, perhaps from a centre near Salisbury (Cunliffe 1984a, 254). However, recent petrological examination of samples taken from the Balksbury assemblage (*Williams, AM Lab reports 178/87, 3768, and site archive*) has demonstrated the presence of glauconite, both in coarser and finer examples of the 'haematite-coated' wares, suggesting a non-local source, at least for those samples.

In areas exhibiting a varied and distinctive regional geology, such as that of the south-west Midlands and the Welsh Marches, the two modes of ceramic production discussed above can be clearly observed to operate during the Middle Iron Age period (Morris 1983, 33, 338). Moreover, local and regional wares display contrasting secondary characteristics, the most obvious being that regional wares are more frequently decorated below the rim with stamps, and/or deep or shallow tooling. They are also more often burnished than local wares. However, it has been observed (Davies 1981; J W Hawkes 1985) that the presence of these kinds of surface treatment on Middle Iron Age vessels from central and southern England is related to chronology (eg compare key groups 8 and 9 with key groups 10 and 14). Using the Midlands analogy, it is possible that this pattern of increased decoration and burnishing reflects an increased popularity of regional wares at the expense of local sources through time. In this case, one would not only expect decorative styles to be correlated to certain fabrics, but that those fabrics would themselves form an increasing proportion of the assemblage through time, at the expense of others.

Figure 66e shows the most common fabrics at Balksbury plotted quantitatively throughout the Iron Age period. Fabric 3 (medium/coarse sandy ware) when it occurs in Early Iron Age forms is sometimes decorated with fingertip impressions, but is rarely burnished and never bears shallow tooling. Fabrics 2 (fine sandy ware) and 12 (medium-sized flint), on the other hand, are often burnished and occasionally decorated either in the Yarnbury/Highfield style (fabric 2) or the St Catherine's Hill/Worthy Down style (fabric 12). It may be tentatively suggested, therefore, that fabric 3 is local whilst fabrics 2 and 12 are regional wares. It is significant that fabric 3 is also more frequently sooted than fabrics 2 and 12. It is also of interest that fabric 2 is in currency at an earlier date than fabric 12, a pattern which has been observed elsewhere (Lock 1984). This argument will remain somewhat circular until the existence of regional sources is demonstrated petrologically and the range of variation within fabric amongst the products of those sources consistently assessed. At the moment, a Wiltshire source for fabric 2 seems probable, although this cannot be demonstrated so unequivocally as at Danebury (*Williams, AM Lab reports 178/87, 3768, and site archive*). The source of fabric 12 is presumably to be found in Hampshire, but as flint is so ubiquitous in central southern England, sophisticated methods of petrological analysis such as scanning electron microscopy (Freestone 1987, 34) may be required to identify it.

To summarise, the pottery assemblage from Balksbury produced some evidence of exchange between sites, but the significance of this evidence is dogged by petrological uncertainties. At present, it seems likely that this exchange increased in intensity throughout the Iron Age period

Human remains

Beaker burial

by Janet Henderson

The skeletal remains from a single inhumation burial (2286, Figs 9 and 10) were submitted to the Ancient Monuments Laboratory for examination prior to submission for radiocarbon dating (*AM Lab report no 3729, Har-5124, see Table 36*). The bone clearly came from one individual and was in a moderate state of preservation, although there was some damage to the extremities of the long bones. Observations were made for age, sex, stature, health, and dental, cranial, and post-cranial morphology and metrics.

Age at death was estimated on the development of the dentition, the degree of epiphyseal union, and fusion of the spheno-occipital synchondrosis (Schour and Massler 1941; McKern and Stewart 1957; Stewart 1979). Sex was assessed on the maximum diameters of the femoral and humeral heads, discriminant function analysis of the talus and calcaneus (Steele 1976), and on the general size of the skeleton. Stature was estimated using the maximum length of the left humerus and the regression equations for females of Trotter (1970).

The individual was aged at approximately 15–20 years. The metric methods used here allow for approximately 85–95% accuracy. The size of the bone, particularly the left humerus which was complete, strongly suggested an individual of the female sex, but the fact that growth and maturation of the skeleton were incomplete precluded a firm attribution of sex. Stature was estimated at 1.56m±0.445m. There was no evidence for any pathology on either the dentition or the bones of this individual.

Late Roman burials

by Justine Bayley and Stephanie Garwood

Five inhumations of the Romano-British period (see Figs 37 and 38) were examined, together with some fragments of human bone from other contexts (*AM Lab report no 2106*). The bone condition was generally good although many of the bones were fragmented.

Age at death was calculated from dental eruption (McCall and Wald 1963) and epiphyseal fusion (Brothwell 1972) for immature individuals, and from dental wear (Brothwell 1972) for adults. Stature was calculated from the formulae of Trotter and Gleser (1958).

Inhumation burials

Burial 75: a female aged between 17 and 25 years. Maximum stature was 1.65m. (*For skull measurements see site archive*). There was one lambdoid wormian bone. On the frontal bone there was an area of bone resorption, about 10mm in diameter. The dental formula was:

NP		OC												A	NP
8	7	6	5	4	3	2	1	1	2	3	4	5	X	/	8
8	7	6	5	4	3	2	1	1	2	3	4	5	X	7	8
NP															

Key: A : abscess; LaC : labial caries; LiC : lingual caries; NP : not present; OC : occlusal caries; X : lost ante-mortem; / : lost post-mortem; — : area missing

Burial 257: *Not illustrated*. The fragmentary remains of a juvenile aged 3–4 years.

Burial 258: the remains of an adult aged 25–35 years and probably female. The skull was fairly complete but badly deformed due to pressure post mortem. The sutures were also obliterated, so no useful skull measurements could be taken. The dental formula was:

													OC		
8	—		5	4	3	2	1	1	2	3	4	5	6	—	
8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
OC	OC	OC											OC	OC	NP
LiC		LaC													

The teeth displayed slight overbite. The lower right canine root was double. The teeth were crowded in both jaws and slight hypoplasia was noted on some teeth, especially the upper incisors. Estimated maximum stature was 1.55m.

Burial 266: the fragmentary remains of a juvenile aged between 2 and 3 years.

Burial 562: the skeleton of an individual aged 25–35 years, and probably male. Estimated maximum stature was 1.80m. (*For skull measurements see site archive*). The dental formula was:

A						LiC									
8	7	6	5	4	3	2	1	/	/	3	4	5	6	7	8
8	7	6	5	/	3	/	1	/	2	3	4	5	6	7	8
										OC				OC	

The skull has three lamboid, and one parietal wormian bone.

Other human remains

Three stray occurrences of fragments of human bone were also found in the central area of the site.

1 A fairly substantial part of a skull vault comprising the major portions of occipital and both parietals. Possibly from a male individual. In upper silting layer , *Pit 14, layer 3; late Roman period*
2 Fragments of the parietals from an adult skull vault, *Pit 1B, layer 8; Middle to Late Iron Age period*
3 Fragments of a frontal bone, probably from an adult individual, *Gully 8, layer A3; late Roman period*

Animal bone

by J M Maltby

Summary of AML Lab report no 2918

The animal bone assemblage was derived mainly from the Middle to Late Iron Age pits (Tables 16 and 17). Samples from other periods (Tables 12–5, 18–21) were generally too small to make detailed comparisons and consequently chronological variations in the exploitation of animals at the settlement were difficult to detect. Such comparisons were made more complex by variations in the standards of preservation of

Table 12 Species present in Late Bronze Age to Earliest Iron Age contexts

	Pits	*Postholes*	*Layers*	*Total*	%
Cattle	2	20	9	31	35.2
Sheep/goat	11	36	6	53	60.3
Pig	–	1	–	1	1.1
Horse	1	–	2	3	3.4
Unidentified large mammal	8	23	22	53	28.0
Sheep-sized mammal	25	42	19	86	45.5
Unidentified mammal	11	15	24	50	26.5
Toad	5	1	–	6	
Total	63	138	82	283	

Table 13 Fragments of major species in Late Bronze Age to Earliest Iron Age contexts

	Cattle	*Sheep/goat*	*Pig*	*Horse*	*Unidentified large mammal*	*Sheep-sized mammal*
Skull fragments	4	3	–	–	–	–
Mandible	4	9	–	–	–	–
Loose teeth	5	11	1	2	–	–
Upper fore limb	5	10	–	1	–	–
Upper hind limb	5	8	–	–	–	–
Tarsals	5	7	–	–	–	–
Metapodials	–	1	–	–	–	–
Phalanges	2	1	–	–	–	–
Vertebrae	–	1	–	–	–	–
Ribs	1	2	–	–	–	–
Ribs and vertebrae	–	–	–	–	6	16
Other	–	–	–	–	47	70
Total	31	53	1	3	53	86

bones within and between periods. Analysis of the anatomical elements represented showed that, in general, the assemblages from the lower layers of the pits of all periods were better preserved than those from the upper layers. Bones from the shallow Romano-British gullies and hollows were least well preserved. The analysis showed that observations of the abundance of particular elements can, with care, be used as markers of the standard of preservation of faunal samples. Increases in the percentage of loose teeth, in particular, coincided with poorer preservation conditions. Sheep/goat bones survived less well and consequently loose teeth formed a greater proportion of the sheep/goat assemblage (see Tables 13, 15, 17, 19, 21), particularly in contexts with poor preservation conditions. Such calculations assume equal recovery standards between pits of each period and other features. It was shown that the recovery of the smaller sheep/goat bones, including loose teeth, was less efficient than for cattle. It was not clear, however, whether this bias varied significantly between different feature types. Such variability made studies of disposal strategies a largely fruitless exercise, although there were some variations detected in the locations of articulated bones of different species in the Middle to Late Iron Age pits.

In all periods sheep and cattle were the most common sources of meat. Although the percentage of cattle fragments increased in the late Roman period contexts, this can partially be explained by the poorer preservation of the sheep/goat sample, particularly from the gullies. Comparisons between the number of fragments of the major domestic species from the pits of each period showed relatively little variation (although the types of bone element represented varied more: Tables 13, 15, 17, 19, 21), and there is no clear evidence for any significant change in the relative number of these species eaten. What this means in absolute terms is difficult to gauge. If the best-surviving elements

Table 14 Species present in Early Iron Age contexts

	Pits	*Postholes*	*Total*	*%*
Cattle	177	–	177	21.4
Sheep/goat	409	2	411	49.9
Pig	45	–	45	5.5
Horse	102	–	102	12.4
Dog	89	–	89	10.8
Unidentified large mammal	118	–	118	33.0
Sheep-sized mammal	233	2	235	65.6
Unidentified mammal	5	–	5	1.4
Badger	2	–	2	–
Raven	1	–	1	–
Mallard	2	–	2	–
Water vole	3	–	3	–
Short-tailed vole	3	–	3	–
Unidentified rodent	8	–	8	–
Amphibian	19	–	19	–
Total	1216	4	1220	–

Table 16 Species present in Middle to Late Iron Age contexts

	Pits	*%*
Cattle	1490	24.7
Sheep/goat	2606	43.1
Pig	810	13.4
Horse	512	8.5
Dog	604	10.0
Red deer	16	0.2
Roe deer	4	0.1
Unidentified large mammal	1682	43.1
Sheep-sized mammal	2143	55.0
Unidentified mammal	72	1.8
Unidentified bird	3	0.1
Stoat	2	–
Mallard	8	–
Goose	1	–
Raven	15	–
Grey heron	6	–
Water vole	50	–
Short-tailed vole	15	–
Wood mouse	5	–
Unidentified rodent	65	–
Amphibian	118	–
Fish	1	–
Total	10,228	–

Table 15 Fragments of major species in Early Iron Age contexts

	Cattle	*Sheep/goat*	*Pig*	*Horse*	*Dog*	*Unidentified large mammal*	*Sheep-sized mammal*
Skull fragments	27	27	4	3	5	–	–
Mandible	24	41	6	6	3	–	–
Loose teeth	23	62	4	6	–	–	–
Upper fore limb	44	68	12	17	24	–	–
Upper hind limb	32	72	7	16	13	–	–
Tarsals	2	5	2	5	–	–	–
Metapodials	15	54	6	24	1	–	–
Phalanges	2	13	1	15	–	–	–
Vertebrae	3	37	2	10	–	–	–
Ribs	5	32	1	–	43	–	–
Ribs and vertebrae	–	–	–	–	–	40	113
Other	–	–	–	–	–	78	122
Total	177	411	45	102	89	118	235

are considered, it would seem that the number of sheep represented outnumbered cattle by a ratio of about 3:1 in all periods. This should perhaps be regarded as a minimum figure. On the other hand, we cannot be positive that an equal proportion of the original number of bones of the cattle and sheep carcasses exploited were deposited in these contexts. Butchery evidence showed that meat was often stripped from the limb bones of the large mammals. Disposal of their bones may have been different from those of sheep, whose meat may more often have been eaten on the bone.

Horse and pig bones were found in smaller numbers throughout the deposits. Pig bones may have been particularly susceptible to adverse preservation conditions and they were very poorly represented in the Romano-British gullies and hollows (Tables 18 and 20). Even in the Middle to Late Iron Age pits, there is evidence to suggest that, apart from the burial of immature pigs, their bones were less well preserved than those of the other domestic species (Tables 16 and 17). Horse bones continued to be found in some quantity in the late Roman deposits. This is a common feature of assemblages from rural settlements of that date, whereas horse bones are found much more rarely on urban sites. Neonatal mortalities and burials of young animals would suggest that sheep, cattle, pigs, and dogs, at least, were bred by the inhabitants in the Iron Age. There is no evidence for the breeding of horses, although this does not preclude the likelihood that this occurred. Domestic fowl do not appear to have been kept until the late Roman period. No wild species were exploited in large numbers. Ageing data revealed that a large number of lambs were deposited in the Middle to Late Iron Age pits and indicated that few other sheep were killed before adulthood. The Romano-British deposits contained a greater proportion of second and third-year mortalities, perhaps indicating an increase in the importance of meat production. Cattle and horses were not usually killed until fully mature in the Iron Age, but there are slight indications that more immature cattle were eaten at the settlement in the late Roman period. Pigs eaten were usually killed between one and three years old. The Early Iron Age and Middle to Late Iron Age pits contained burials of animals of under a year old which do not appear to have been butchered. Dogs were an occasional source of food in the Iron Age, but most probably were not eaten, and the Early Iron Age and Middle to Late Iron Age deposits were notable for the number of burials of newborn puppies dumped in the pits.

Metrical data showed the usual range of small Iron Age domestic stock with one or two larger cattle and sheep making an appearance in the late Roman period. Butchery was performed mainly with a knife throughout and the techniques of dismemberment and filleting employed were similar to those encountered on other Iron Age settlements in Hampshire.

Indeed, one of the most remarkable aspects of the Iron Age assemblage at Balksbury is its similarity to samples taken from other chalkland settlements in Wessex. Broadly speaking, the relative proportion of species exploited, their mortality profiles, butchery practices, and the size of the stock were similar to those

Table 18 Species present in Late Iron Age to early Roman contexts

	Pits	*Gullies*	*Hollows*	*Total*	*%*
Cattle	63	31	4	98	19.4
Sheep/goat	123	28	60	211	41.7
Pig	150	4	–	154	30.4
Horse	22	5	1	28	5.5
Dog	11	3	–	14	2.8
Red deer	1	–	–	1	0.2
Unidentified large mammal	79	51	3	133	51.9
Sheep-sized mammal	70	28	12	110	43.0
Unidentified mammal	2	9	2	13	5.1
Mallard	1	–	–	1	
Water vole	1	–	–	1	
Total	523	159	82	764	

Table 17 Fragments of major species in Middle to Late Iron Age contexts

	Cattle	*Sheep/goat*	*Pig*	*Horse*	*Dog*	*Red deer*	*Roe deer*	*Unidentified large mammal*	*Sheep-sized mammal*
Skull fragments	190	191	66	24	31	–	–	–	–
Mandible	205	273	54	59	20	–	–	–	–
Loose teeth	174	362	32	77	10	–	–	–	–
Upper fore limb	353	455	126	91	94	–	–	–	–
Upper hind limb	257	440	101	106	68	–	–	–	–
Tarsals	38	37	34	23	11	–	–	–	–
Metapodials	146	374	88	57	78	–	–	–	–
Phalanges	49	56	49	35	30	–	–	–	–
Vertebrae	81	280	169	28	102	–	–	–	–
Ribs	6	138	91	12	160	–	–	–	–
Antler	–	–	–	–	–	8	2	–	–
Post-cranial	–	–	–	–	–	8	2	–	–
Ribs and vertebrae	–	–	–	–	–	–	–	583	974
Other	–	–	–	–	–	–	–	1099	1169
Total	1499	2606	810	512	604	16	4	1682	2143

Table 19 Fragments of major species in Late Iron Age to early Roman contexts

	Cattle	*Sheep/goat*	*Pig*	*Horse*	*Dog*	*Red deer*	*Unidentified large mammal*	*Sheep-sized mammal*
Skull fragments	7	15	10	–	3	–	–	–
Mandible	12	17	14	5	1	–	–	–
Loose teeth	21	60	7	6	1	–	–	–
Upper fore limb	18	32	18	2	2	–	–	–
Upper hind limb	15	45	10	5	2	–	–	–
Tarsals	6	2	9	–	–	–	–	–
Metapodials	14	21	20	5	5	–	–	–
Phalanges	1	4	–	1	–	–	–	–
Vertebrae	4	14	29	3	–	–	–	–
Ribs	–	1	37	–	–	–	–	–
Antler	–	–	–	–	–	1	–	–
Ribs and vertebrae	–	–	–	–	–	–	34	40
Others	–	–	–	–	–	–	99	70
Total	98	211	154	27	14	1	133	110

Table 20 Species present in late Roman contexts

	Pits	*Gullies*	*Hollows*	*Layers*	*Corn-dryer*	*Total*	*%*
Cattle	84	68	138	8	1	299	35.6
Sheep/goat	130	58	186	4	5	383	45.6
Pig	12	6	9	11	–	38	4.5
Horse	18	36	46	1	–	101	12.0
Dog	2	6	5	–	–	13	1.6
Red deer	3	–	–	2	–	5	0.6
Roe deer	–	1	–	–	–	1	0.1
Unidentified large mammal	62	72	175	22	2	333	56.8
Sheep-sized mammal	102	33	88	5	1	229	39.1
Unidentified mammal	8	2	3	11	–	24	4.1
Duck	–	1	–	–	–	1	–
Goose	1	–	–	–	–	1	–
Domestic fowl	–	1	1	–	–	2	–
Short-tailed vole	1	–	–	–	–	1	–
Wood mouse	1	–	–	–	–	1	–
Unidentified rodent	6	–	–	1	–	7	–
Amphibian	120	–	–	–	–	120	–
Total	550	284	651	65	9	1559	–

Table 21 Fragments of major species in late Roman contexts

	Cattle	*Sheep/goat*	*Pig*	*Horse*	*Dog*	*Red deer*	*Roe deer*	*Unidentified large mammal*	*Sheep-sized mammal*
Skull fragments	31	15	1	3	2	–	–	–	–
Mandible	41	44	4	8	6	–	–	–	–
Loose teeth	76	143	10	22	1	–	–	–	–
Upper fore limb	44	49	13	13	–	–	–	–	–
Upper hind limb	33	62	5	11	3	–	–	–	–
Tarsals	14	2	1	9	–	–	–	–	–
Metapodials	23	55	1	23	1	–	–	–	–
Phalanges	1	1	–	8	–	–	–	–	–
Vertebrae	36	12	2	4	–	–	–	–	–
Ribs	–	–	1	–	–	–	–	–	–
Antler	–	–	–	–	–	3	–	–	–
Post-cranial	–	–	–	–	–	2	1	–	–
Ribs and vertebrae	–	–	–	–	–	–	–	157	67
Other	–	–	–	–	–	–	–	176	162
Total	299	383	38	101	13	5	1	333	229

observed at smaller settlements such as Old Down Farm, Chilbolton Down, and Winnall Down (Maltby 1981; 1984; 1985). The inhabitants of Balksbury, therefore, appear to have exploited their stock in very similar ways to the inhabitants of other downland settlements in the area. There is no indication from the faunal remains that Balksbury played a significant role in the acquisition or redistribution of the stock.

Charred plant remains

by D de Moulins

Summary of a full report (February 1984) available in the site archive

During the course of the excavation in 1973, a series of samples was collected from the site for botanical analysis. The seeds were removed from the soil samples of approximately 3–4 litres of soil by flotation during the excavation and were sorted on site, but were not analysed until ten years later.

Interpretation of this material is affected by two special factors. First, nearly all the samples contained a low proportion of modern, uncharred seeds, which suggests the possibility that some of the charred material may have been displaced from its original context. Second, there is no means of knowing whether all charred material was retained during the original sorting process in 1973 (the flots had not been kept and so could not be checked): the material extant consists mostly of charred seeds and some chaff, and the possibility that additional chaff was not recognised and was discarded during sorting cannot be discounted.

The state of preservation of the charred material varied. Among the cereals, wheat grains were better preserved than barley grains, and the material from the Romano-British corndryer was in a better state than that from the Early Iron Age pits.

Table 22 Charred plant remains; Early Iron Age

Context	*Pit 2*	*Pit 45*	*Pit 48*	*Pit 67*	*Pit 98*		*Pit 191*	*Pit 381*		*Pit 483*	*Posthole 485*		*Pit 500*	*Pit 914*
Layer	*11*	*3*	*5*	*3*	*4*	*7*	*8*	*3*	*5*	*3*	*3*	*4*	*3*	*4*
Triticum dicoccum/spelta														
grains	–	–	1	–	1	–	–	18	–	–	–	–	–	–
from fragments*	–	–	–	–	–	–	–	15	–	–	–	–	–	–
Triticum sp.														
grains	–	–	–	–	–	–	1	–	2	6	1	–	–	–
from fragments*	–	3	3	–	–	–	1	–	1	–	–	–	–	–
glumes	–	–	–	–	–	–	7	–	–	–	–	–	–	–
spikelet forks	–	–	–	–	–	–	1	–	–	–	–	–	–	–
Hordeum sativum														
grains														
straight	–	–	–	–	–	–	–	–	–	5	–	–	–	–
assymmetrical	–	1	–	–	–	–	–	–	–	–	–	–	–	–
indefinite	–	1	1	–	–	1	–	6	2	–	–	–	–	–
from fragments*	–	–	4	–	–	–	–	2	–	6	–	–	–	–
Cereal indeterminate														
from fragments*	–	2	–	2	1	3	5	60	10	6	–	1	3	3
Fumaria cf officinalis	–	–	–	–	–	–	–	–	1	–	–	–	–	–
cf Chenopodium sp.	9	–	–	–	–	–	–	10	–	–	–	1	–	–
Vicia/Lathyrus sp.	–	–	–	–	–	–	–	2	–	–	–	–	–	–
Vicia sp.	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Polygonum cf convulvus	–	–	–	–	–	–	–	4	–	–	–	–	–	–
Rumex sp.	–	–	–	–	–	–	–	2	–	–	–	–	–	–
Galium sp.	1	–	–	–	–	2	–	–	35	–	–	–	–	–
Cirsium sp.	–	–	–	–	–	–	3	–	–	–	–	–	–	–
Carex sp.	2	–	–	–	–	–	–	–	–	–	–	–	–	–
Avena sp.														
grains	–	–	–	–	–	–	1	18	3	–	–	–	–	–
from fragments*	–	1	3	2	1	–	–	13	–	1	–	–	–	–
Buds	–	–	–	–	–	–	–	–	6	–	–	–	–	–
Total charred items	12	9	12	4	3	6	19	150	60	24	1	2	3	3
Modern seeds (uncharred)														
Chenopodium album	–	5	–	–	–	–	2	–	–	–	12	–	6	2
Carex sp.	–	–	–	–	–	–	–	1	–	–	–	–	–	–

*Pits are all Type B except pits 67 and 381, which are Type C. * Whole grains calculated from fragments by eye, or by weight equivalent if too many to judge by eye*

Table 23: Charred plant remains; Middle to Late Iron Age pits

Context	*23*	*25*	*28*	*32*	*<-33->*		*36*	*51*	*65*	*66*	*<110>*		*111*	*118*	*130*	*131*	*154*	*<168>*		*178*	*193*	*194*	*204*	*<213>*		*237*	*238*	*<----239----->*			*<----241----->*			*<----299----->*			*<----351----->*			*< 435 >*		*437*	*494*
Layer	*3*	*3*	*4*	*9*	*4*	*6*	*5*	*4*	*3*	*4*	*8*	*10*	*6*	*4*	*3*	*8*	*6*	*6*	*11*	*6*	*3*	*4*	*6*	*7*	*9*	*5*	*5*	*3*	*4*	*5*	*3*	*11*	*13*	*4*	*8*	*10*	*4*	*6*	*23*	*3*	*13*	*4*	*8*
Triticum dicoccum/spelta																																											
grains	–	–	–	13	–	–	–	–	–	–	2	–	–	–	–	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	11	–	–	–	9	7	–	–	–	–
from fragments	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	0	2	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	6	–	–	–	–	–
Triticum sp.																																											
grains	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	12	2	–	–	21	1	4	–	–	–	–	2	–	–	–	1	–	–	4	–	2	11	25	3	40
from fragments	–	–	1	–	2	–	2	–	–	3	–	–	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	4	2	1	4	–	–	7	12	–	4
glumes	–	–	2	2	1	–	3	–	–	1	3	–	–	2	–	1	–	–	–	–	3	–	1	5	4	–	3	1	–	–	–	17	1	–	–	1	1	2	2	–	–	–	5
spikelet forks	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hordeum sativum																																											
grains:																																											
straight	–	–	–	4	–	–	3	–	–	4	–	–	–	–	–	–	2	–	–	–	–	–	5	–	–	2	–	–	–	–	–	–	–	9	2	4	2	5	1	–	5	–	4
assymmetrical	–	–	–	–	–	2	–	–	–	4	–	–	–	–	–	–	–	–	–	–	2	–	3	–	–	–	–	3	1	1	–	–	–	14	3	–	–	5	3	–	1	–	4
indefinite	–	1	–	4	–	–	–	–	–	11	–	–	–	–	–	–	5	6	–	–	–	2	4	2	2	2	–	3	1	–	–	–	–	9	–	3	–	3	–	–	15	1	3
from fragments	–	–	–	–	–	–	2	–	–	7	–	–	–	4	–	–	–	2	–	–	1	–	5	–	–	–	–	1	1	–	–	–	–	13	–	3	3	5	–	–	–	–	–
Avena sp.																																											
grains	–	–	–	–	–	–	1	–	–	–	1	–	–	–	–	3	–	–	–	1	–	–	4	2	–	–	2	–	–	–	–	–	–	3	–	–	1	5	3	–	6	2	40
from fragments	1	–	–	5	–	–	–	–	–	–	2	–	–	–	–	3	–	1	–	–	1	–	–	1	–	1	–	–	1	3	–	–	–	3	1	–	–	–	–	–	–	–	–
Cereal indeterminate																																											
grains	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	8	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–
from fragments	3	1	1	16	–	–	4	3	4	7	–	3	–	8	1	12	3	34	8	1	1	–	13	–	–	2	2	13	3	–	–	–	1	9	–	7	–	25	13	4	7	6	40
culm node	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	11	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–
awn fragments	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–
Fumaria																																											
cf officinalis	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1	–	–	–	2	–	1	–	–	–
cf Stellaria																																											
holostea frags	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–
cf Chenopodium sp	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	7	–	–	–	–	–	–	–	–	–	5	–	–	–	–	–	–	–	1	–	–	1	–	3	–	–
Brassica sp	–	–	–	–	–	–	480	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Malva sp.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	–	–	–	–	–
Vicia/Lathyrus sp.	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1	–	–	–	–	–	1	–	11	–	–	–	–	2
Vicia sp.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Leguminosa indeterminate	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Polygonum convulvus	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	–	–	–	–	–	–	4	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–
Polygonum sp.	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	3	1	–	–	–	1	–	–	–	–	1	–	–	–	1	–	1	–	1	2	–	6	–	–
Rumex cf acetosa	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	3
Rumex cf crispus	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	7	–	–	–	–	–	1	–	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	1	–	–
Rumex sp.	–	–	1	–	–	–	–	–	–	–	1	–	–	–	–	–	–	3	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1	–	–	–	3	–	–	–	–	–
Lithospermum arvense	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	3	–	–	1	–	–	1	–	–	2	–	–	2	–	–	–	–	–	–	1	1	–	1	–	–	2	–	1
Plantago sp.	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Galium sp.	–	–	1	10	–	1	–	–	–	–	–	–	–	–	–	–	5	3	3	–	–	–	–	1	–	–	1	–	–	–	–	–	–	6	–	6	1	10	1	2	11	6	5
Sherardia arvensis	–	–	–	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1	–	1	–	–	1	–	–	–	4	–	–
Cirsium sp.	–	–	–	8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1	–	–	–	–	–	–	–
cf Carduus sp.	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Carex sp.	–	–	–	3	–	–	1	–	–	–	–	–	–	–	–	3	–	5	–	–	–	–	–	–	–	–	–	2	–	–	–	17	–	–	–	–	–	–	–	2	–	1	1
Lolium/Festuca	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	7	1	2	–	2	–	1	–	–	–	–	–	–	–	–	–
Bromus sterilis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	14	–	–	–	–	–	–	–	–	–	–	–
from fragments	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	22	–	–	–	–	–	–	–	–	–	–
Gramineae																																											
indeterminate fragments	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–
Grass tubers	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	5	–	4
Buds	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Total charred items	4	3	6	73	3	3	497	4	5	38	10	3	4	16	1	30	25	80	24	7	10	4	56	14	13	10	23	51	8	10	1	80	2	97	11	35	17	95	35	32	99	19	156
Modern seeds (uncharred)																																											
Brassica sp.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	*1*	–	–	–	–	–	–	–	–	–
Silene sp.	–	–	–	–	–	–	1	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–
Chenopodium album	4	2	1	–	–	1	–	3	3	12	–	–	1	–	–	–	1	–	–	–	–	1	–	–	–	3	4	20	78	33	30	–	1	26	–	–	1	7	–	9	7	8	4
Polygonum sp.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

All pits type B, except 118 which is type B

Identification of the material was carried out using a binocular microscope at magnification ×12 to ×50 and the modern seed reference collections at the AM Lab and at the University College London Institute of Archaeology. Some of the identification was checked by Gordon Hillman and Susan Colledge of the University College London Institute of Archaeology. Nomenclature and taxonomic order of the weed taxa follow those of Clapham *et al* 1962.

Cereals

Wheat grains were common, but since there was little chaff (which can be identified more precisely than grains), specific identification was often impossible. Much of the wheat was either emmer (*Triticum dicoccum*) or spelt (*Triticum spelta*); bread-wheat (*Triticum aestivo-compactum*) may have been present but definitively identifiable remains were lacking. Hulled barley (*Hordeum sativum*) was frequent in the early layers; the grains were often twisted, suggesting the presence of six-row hulled barley. Oats (*Avena* spp.) were not especially abundant in any period, they may have been a crop in their own right, or a contaminant of the wheat or barley crops. It is not possible to distinguish cultivated oat from the wild species in the absence of the floret bases. Many of the cereal grains were too badly charred to be identified to species or even to genus, which suggests that they were exposed to an intense or prolonged fire.

Weed seeds

About 25 different species of weed seeds were found and they were more frequent in the Early and the Middle Iron Age contexts than in the Romano-British corndryer. One sample had 480 seeds of a Brassica (cabbage or mustard), tentatively identified as Black Mustard (*B nigra*). Tubers, probably of the Onion Couch (*Arrhenatherum elatius var. bulbosum*) were recovered from several levels. The other seeds belonged to species typical of disturbed habitats and/or arable land: *Polygonum convolvulus* and spp., *Lithospermum arvense*, *Sherardia arvensis*, *Anthemis cotula*, *Rumex* sp., *Galium* sp., *Carduus/Cirsium* sp. The weed seeds were well scattered in the samples and, with the exception of the Brassica referred to above, showed no great concentration either as to species or to layer.

Early Iron Age

Eleven pits and one posthole yielded small amounts of charred plant remains except two assemblages from pit 483 (of pit type C). These were composed of *T. spelta*, spelt wheat and *Avena* sp., oat, with a little barley and a few weed seeds. Oat may have been a contaminant of the spelt crop (Table 22).

Middle to Late Iron Age

Most of the samples from the site dated from this period and came from 30 pits (all of pit type B) except pit 118 (of type A). Wheat and barley were present in roughly the same proportion. Most of the weed seeds belonged to segetal species. One of the samples (from pit 36, layer 5) included a cache of 480 seeds of *Brassica* sp., tentatively identified as *B. nigra*, black mustard. This type of seed is often recovered in great numbers from Iron Age features (Green 1981); they might represent an occasional collection for flavouring or, as Green pointed out *ibid*, they may represent the seeds kept aside for the next year's crop of green vegetables. Some of the seeds may have been accidentally thrown into a fire (see Table 23).

Late Iron Age and Romano-British

Pit 200 (Table 24) included charred plant assemblages in nearly all its layers, these included mainly barley and some indeterminate wheat. Despite the large number of samples obtained, the rest of the period yielded very little material, except for corndryer 511 (Table 25).

Table 24 Plant remains: Late Iron Age to early Roman

Context	*Pit 220*				*Gulley 391*	
Layer	*3*	*4*	*5*	*6*	*7*	*3*
Triticum dicoccum/spelta						
grains	–	–	4	–	–	–
Triticum sp.						
grains	10	12	11	–	–	–
from fragments*	9	1	–	–	–	–
glumes	–	1	–	–	–	–
Hordeum sativum						
grains						
straight	2	5	–	1	3	–
assymmetrical	3	2	–	3	3	–
indefinite	20	7	–	–	–	–
from fragments*	6	7	2	–	–	–
Avena sp.						
grains	2	3	14	–	–	–
from fragments*	5	2	3	–	–	–
Cereal indeterminate						
grains	–	2	8	1	–	–
from fragments*	39	10	17	5	9	–
Vicia/Lathyrus sp.	2	–	2	–	–	–
Polygonum cf convulvus	1	–	–	–	–	–
Polygonum sp.	–	1	–	–	1	1
Galium sp.	4	3	5	2	2	–
Carex sp.	–	1	–	–	–	–
Lolium/Festuca	15	2	7	–	–	–
Total charred items	118	59	73	12	18	1
Modern seeds (uncharred)						
Brassica sp.	2	3	3	–	7	–
Silene sp.	1	–	–	–	–	–
Chenopodium album	16	2	22	1	11	8
Polygonum sp.	–	1	2	–	–	–
Rumex sp.	–	–	–	–	–	1

* *Whole grains calculated from fragments by eye, or by weight equivalent if too many to judge by eye*

Table 25 Plant remains: late Roman

Context	*Gully*	*Pit*	*Pit*		*Corndryer*
	59	*64*	*555*		*511*
Layer	*3*	*4*	*14*	*21*	*Total**
Triticum dicoccum/spelta					
grains	–	–	–	–	482
Triticum cf dicoccum/spelta	–	–	–	–	71
Triticum cf aestivo-compactum					
grains	–	–	–	–	68
from fragments*	–	–	–	–	5
Triticum sp.					
grains	1	1	–	–	44
from fragments*	–	–	–	–	136
glumes	–	–	–	–	96
cf Triticum sp.	–	–	–	–	14
Hordeum sativum					
grains					
straight	–	–	–	–	57
assymmetrical	–	–	–	–	64
indefinite	1	3	2	–	66
from fragments*	–	–	2	–	21
cf Hordeum sativum	–	–	–	–	13
Avena sp.					
grains	–	5	–	–	–
from fragments*	1	–	–	–	3
Cereal indeterminate					
grains	–	–	–	–	35
from fragments*	1	4	–	–	341
cf Silene sp.	–	–	–	–	1
Chenopodium sp.	–	–	–	–	1
Vicia/Lathyrus sp.	–	–	–	–	12
cf Vicia/Lathyrus sp.	–	–	–	–	3
Pisum sativum	–	–	–	–	3
Rubus fruticosus	–	–	–	–	3
cf P convulvus	–	–	–	–	1
Polygonum sp.	–	–	–	–	3
Rumex cf crispus	–	–	–	–	11
Rumex sp.	–	–	–	–	16
Lithospermum arvense	–	–	–	–	91
Galium sp.	–	–	–	–	40
Sheradia arvensis	–	–	–	–	7
Anthemis cotula	–	–	–	–	3
Carduus/Cirsium sp.	–	–	–	–	1
Compositae indeterminate	–	–	–	–	1
Juncus sp.	–	–	–	–	13
Lolium/Festuca sp.	–	–	–	–	47
cf Phleum pratense	–	–	–	–	1
Gramineae indeterminate	–	–	2	1	4
Grass tubers	–	–	–	–	23
Total charred items	3	13	6	3	1806
Modern seeds (uncharred)					
Chenopodium album	–	7	–	5	63
Polygonum aviculae	–	–	–	–	1
Polygonum sp.	–•	–	–	–	1

* *Whole grains calculated from fragments by eye, or by weight equivalent if too many to judge by eye*

Late Roman corndryer

All material classified as Late Roman derived from a corndryer (context 511), from which thirteen samples were taken (Table 26). These contained the best seed assemblages from Balksbury. Weed seeds and some chaff predominated in the lower layers and grain in the upper layers along with 'onion couch' tubers. Most of the surviving grains were of wheat; the few glume-bases present were identified as those of spelt (*Triticum spelta*), using Hillman's methods of distinguishing this species from emmer (*Triticum dicoccum*) (Hillman personal comment). It is probable that most of the grains were of this species. The presence of bread-wheat (*Triticum aestivo-compactum*) was also suspected, but its presence was not proved. Relatively little barley was recovered and very few oats.

Discussion

The percentages in the summary table (Table 27) should be looked at with caution as one Middle Iron Age sample contained a cache of seeds, and the Late Roman corndryer 511 contained most of the plant remains of that period, thus distorting the overall figures. However it shows that in the assemblages of the Middle and Late Iron Age the proportion of barley was higher than that of wheat. Glume wheat, especially emmer and spelt are often recovered from Iron Age sites and are likely to be preserved by charring as they may come into contact with fire for various reasons; removing the husk or hardening the grain before milling. Likewise hulled barley would need parching to dehusk it for human consumption.

It seems therefore that the equal representation of both barley and wheat is a real one rather than being due to differential preservation.

Weeds were difficult to control in the Iron Age, and in any case may have been tolerated because they added flavour to the crop or enhanced its nutritional value (Hillman 1981), a view still found among some present-day practitioners of primitive methods of agriculture. The fact that so many weed seeds remained among the cereal grains suggests a very high incidence of weeds in the crops. A few of the weed species may have been gathered intentionally to add flavour to the food. This could be the case with the *Brassica* seeds; such seeds are often recovered from Iron Age features (Green 1981), and are thought to represent the seeds kept aside for the following year's crop of cabbage, although the seeds themselves could have been eaten for their nutritional value or as a condiment. The same could be said of the 'onion couch' tubers, but their presence might mean that uprooting was sometimes used for harvesting the cereals (Jones 1981). The tubers appear in some of the Middle Iron Age

Table 26 Plant remains from corndryer 511

Sample	*top* *4a*	*4/5a*	*4/5b*	*4/5c*	*4/5d*	*5*	*6a*	*6b*	*8*	*(8+10 +11)*	*(8+10 +11b)*	*12a*	*bottom* *12b*
Triticum dicoccum/spelta													
grains	–	87	128	40	59	5	–	58	15	74	–	16	–
Triticum cf dicoccum/spelta	–	–	10	–	–	–	–	–	–	–	58	–	3
Triticum cf aestivo-compactum													
grains	–	26	7	–	–	–	–	7	2	13	12	1	–
from fragments*	–	5	–	–	–	–	–	–	–	–	–	–	–
Triticum sp.													
grains	–	11	33	–	–	–	–	–	–	–	–	–	–
from fragments*	1	17	46	1	–	14	2	14	18	–	–	–	23
glumes	–	2	4	4	4	5	1	2	6	19	40	2	7
cf Triticum sp.	–	11	–	–	–	3	–	–	–	–	–	–	–
Hordeum sativum													
assymmetrical	1	13	20	5	10	2	–	7	–	3	–	2	1
straight	1	12	15	4	4	1	–	8	–	5	2	1	4
indefinite	–	15	9	5	5	1	2	9	5	3	12	–	–
from fragments*	1	4	12	–	–	–	–	4	–	–	–	–	–
cf Hordeum sativum	–	10	–	–	–	–	–	–	3	–	–	–	–
Cereal indeterminate													
grains	–	9	–	–	5	–	–	21	–	–	–	–	–
from fragments*	8	28	13	5	20	56	12	44	31	–	–	64	60
Avena sp.													
from fragments*	1	–	2	–	–	–	–	–	–	–	–	–	–
cf Silene sp.	–	–	–	–	–	–	–	–	1	–	–	–	–
Chenopodium sp.	–	1	–	–	–	–	–	–	–	–	–	–	–
Vicia/Lathyrus sp.	–	–	5	–	5	–	–	–	–	1	–	–	1
cf Vicia/Lathyrus sp.	–	–	–	–	–	–	1	–	1	1	–	–	–
Pisum sativum	3	–	–	–	–	–	–	–	–	–	–	–	–
Rubus fruticosus	–	–	–	–	–	–	–	–	3	–	–	–	–
cf P convulvus	–	–	–	–	–	–	–	–	–	1	–	–	–
Polygonum sp.	–	–	1	–	–	–	–	–	–	–	–	1	1
Rumex cf crispus	–	1	2	–	–	–	–	–	3	4	–	–	1
Rumex sp.	–	–	–	–	–	–	–	–	10	5	–	1	–
Lithospermum arvense	–	2	–	–	–	1	–	–	19	61	8	–	–
Galium sp.	–	3	–	–	–	4	–	–	2	7	22	2	1
2 spp.	–	–	3	–	–	–	–	–	–	–	–	–	–
Sheradia arvensis	–	–	–	–	–	–	–	–	1	5	–	1	–
Anthemis cotula	–	–	–	–	–	–	–	–	3	–	–	–	–
Carduus/Cirsium sp.	–	–	–	–	–	–	–	–	–	1	–	–	–
Compositae indeterminate	–	–	–	–	–	–	–	–	–	–	–	1	–
Juncus sp.	–	–	–	–	–	–	–	–	9	–	–	–	4
Lolium/Festuca sp.	–	–	–	1	1	3	–	–	10	15	5	3	9
cf Phleum pratense	–	–	–	–	–	–	–	–	1	–	–	–	–
Gramineae indeterminate	–	–	–	–	–	–	1	–	2	–	–	–	1
Grass tubers													
cf Arrhenatherum	–	2	1	4	3	2	–	–	1	9	–	1	–
Total charred items	16	259	311	69	116	97	19	174	146	227	159	96	116
Modern seeds (uncharred)													
Chenopodium album	1	–	3	6	3	1	3	–	–	12	8	6	20
Polygonum aviculae	1	–	–	–	–	–	–	–	–	–	–	–	–
Polygonum sp.	1	–	–	–	–	–	–	–	–	–	–	–	–

* *Whole grains calculated from fragments by eye, or by weight equivalent if too many to judge by eye*

Table 27 Summary of plant remains

Period	*Early Iron Age*	*Middle to Late Iron Age*	*Late Iron Age to early Roman*	*Late Roman mainly 511*
Total no of cereals	226	883	232	1529
wheat				
grain	53	250	47	822
*chaff**	5	32	1	96
Barley	29	222	64	221
Oats	43	97	29	9
Indeterminate cereals	96	269	91	381
% of wheat	23.0	28.3	20.0	53.0
% of barley	12.8	25.0	27.0	14.0
% of oats	19.0	10.9	12.5	0.5
% of indeterminate cereals	43.4	30.4	39.0	25.0
Total no of weed seeds	73	795	49	285
Weed seed % of total	23.7	47.3	35.5	15.7
Ratio of cereal:weed seeds	1:0.33	1:0.90	1:0.23	1:0.18

* *½ the number of glume bases have been included in the calculations (2 glume bases for 1 grain or 1 spikelet fork)*

levels but are most abundant in the Late Roman corndryer 511 where they may indicate the use of turves for fuel.

The charred plant remains found in the pits may have been redeposited from the hearths of nearby habitations and could therefore be the result of domestic activities such as the cleaning of grain before use. They may also represent the by-products of crop processing (the fine cleaning resulting from sieving through a fine meshed sieve) discarded into the pits. They may also have been caused by the occasional cleaning of the pits if these were used as rubbish pits. It is also possible that the remains result from an accumulation of different crops stored in association (but we have no evidence of how large amounts of grain were stored at this period).

The corndryer contained a different composition of material from that of other features. Weed seeds seem to have accumulated at the bottom of the kiln; they form a much smaller proportion of the total seed assemblage from this structure than they do in the earlier features. A kiln used for drying grain would normally be expected to contain a higher proportion of 'good' seeds, by the period in which the corndryer was in use, and the weed seeds may have been eliminated by sieving prior to putting the cereal grains in the corndryer, or alternatively better methods may have existed to control weeds, for example through changes in ploughing techniques.

Of all the possible functions identified for Romano-British kilns (Hillman 1982), that of hardening the grain before milling is thought to be the most likely function of the one at Balksbury. Had the kiln been used to dry sheaves as opposed to processed grain, a much greater proportion of chaff, and possibly weed seeds, would have been expected in the samples.

Land molluscs

by M J Allen

Summary of a full report available in the site archive

Samples from the 1981 excavations taken by N Balaam were processed in the A M Lab by Helen Porter and Joy Ede. The samples were disaggregated in water and hydrogen peroxide (H), the flot was then washed through a 0.5mm mesh sieve and later dry sieved into 0.5mm, 1mm and 2mm fractions (fractions greater than 4mm were discarded unrecorded). Mollusc fragments were extracted under a x10 stereo-binocular microscope. The extracted shell fragments were relieved after soaking in water and hydrogen peroxide. The extracted mollusc fragments were identified and quantified using a x10–30 stereo-binocular microscope and the nomenclature followed Walden (1976) for terrestrial mollusc, and Kerney (1976a) for fresh and brackish-water mollusc.

Samples from twelve pits excavated during 1973, available as flots and extracted molluscs only were also quickly scanned.

The 1981 excavation samples were taken in a series of four columns from the 'hollow-way' (3167, segment 3287); a circular feature (2110); buried soils beneath the bank on the western side of the enclosure samples (59A and 59B); and a series of five separate samples from a tree-hollow (2052) in the western area. Complementary soil analyses have been undertaken by R Macphail on all contexts except feature 2110 (1985 *and below*).

Unfortunately the original field records do not survive, the locations of the columns were ascertained in consultation with N Balaam and R I Macphail using the archive drawings, context records and R I Macphail's soil report. Detailed location of the tree-hollow samples was provided by R I Macphail, as this feature was not recorded in the field.

Molluscan evidence

Feature 2110

Circular in plan, approximately 1.8m in diameter and at least 1.1m deep, with steeply sloping sides and an indeterminate bottom. The fill (2111) was comprised of a series of interdigitating lenses with patches of both large flints and chalk pieces. It is suggested that this is a natural feature caused by solution and weathering processes. A column of eleven contiguous samples was taken through this feature for molluscs. The results of mollusc analysis are presented in Table 28 and as histograms of relative abundance in Fig 68.

The basal sample (1m+) produced only 34 individuals, in which *Acanthinula aculeata*, *Aegopinella* spp, and *Cochlicopa lubrica* predominate in a shade-loving assemblage. Of particular note is the occurrence of the rare Vertiginid *Vertigo pusilla* which today is extinct in southern England and furthermore has not even been recorded as Flandrian fossil in the Andover area (Kerney 1976b). The impoverished assemblage represents a moist woodland habitat and in view of the overlying deposits (discussed below), the presence of *Carychium tridentatum* and *Discus rotundatus* in low numbers, and the absence of *Pomatias elegans*, which first arrived in Britain in *c* 6000 BC (Kerney 1966), it is possible to postulate that this assemblage belongs to Kerney's mollusc biozone 'c' (1977), ie Boreal period, 7500–5500 BC (pollen zone VI).

The deposits immediately overlying this produced extremely impoverished faunas, but by 0.60–0.70m 25 individuals were recovered. The upper deposits contain much higher mollusc numbers, the assemblages being characterised by high proportions of *Carychium tridentatum*, with *Discus rotundatus* and *Aegopinella* spp. *Vertigo pusilla*, a rare species typical of woodland environments, especially in moss and dead leaves, is consistently present throughout the upper fills. *Vertigo pusilla* is significantly more common in the earlier part of the Postglacial; its distribution was severely restricted by the onset of (Neolithic) forest clearance (Evans 1972, 142). The assemblages are typical of broad-leaved woodland providing humid conditions and a developed leaf litter zone. The presence of *Vertigo pusilla*, *Columella edentula*, and *Lauria cylindracea*, together with the rarity/absence of the *Punctum Vitrina* group, allows these assemblages to be closely paralleled with the Avebury subsoil hollow samples III 1 and III 2 which belong to the Climatic Optimum, ie Atlantic period (Evans 1972, 272). Furthermore, the Avebury subsoil sample III 3, which is attributed to the Boreal, is similar to the basal deposit here. The upper assemblages at Balksbury contain *Pomatias elegans* and *Oxychilus cellarius* and can also be paralleled with Brook and two Postglacial assemblages from south-west England described by Kerney (1968 and 1976c) as belonging to the Thermal Optimum (5500–3200 BC). The Balksbury assemblages can also be paralleled with those attributed to pollen zone VIIa (ie Atlantic) from Kerney's Late glacial and Postglacial sites in south-eastern England (1963).

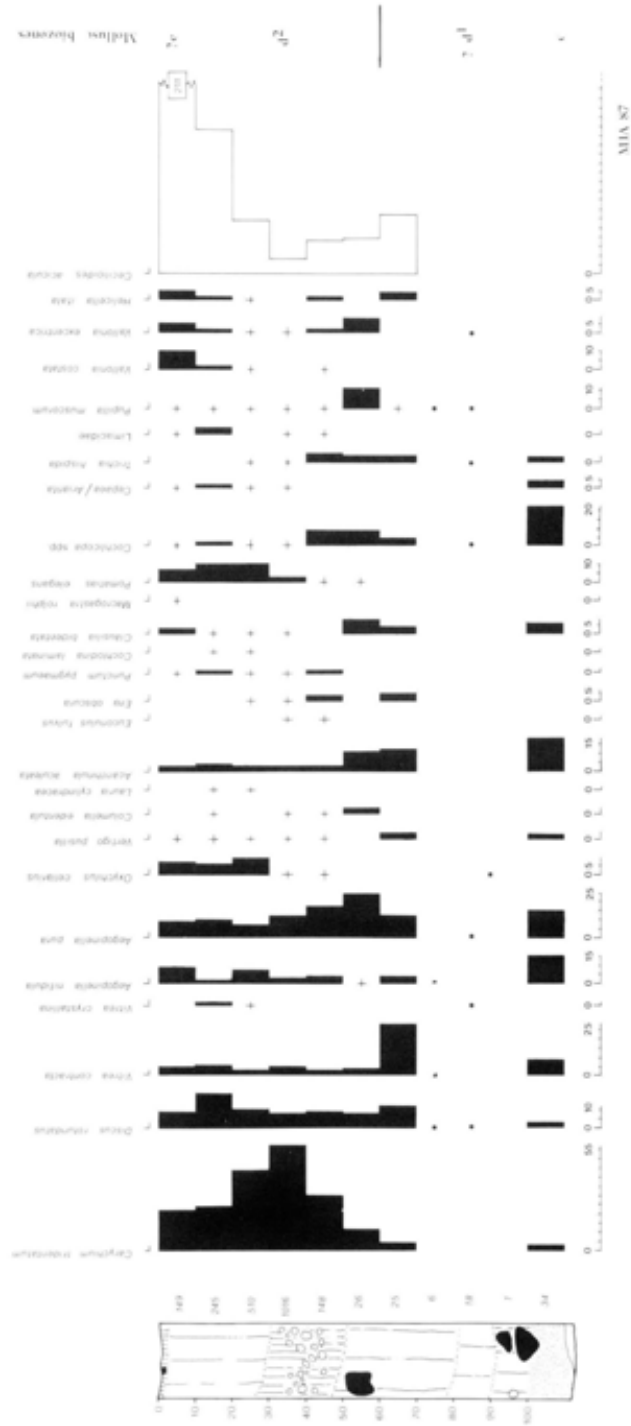

Fig 68 Land mollusca: early postglacial sequence from context 2110; • = species present

Table 28 Mollusc data, early post-glacial feature 2110 and tree-hollow 2052

Feature	<----------2110---------->											<----------2052---------->				
Depth (in metres)	*1.0+*	*0.90–1.0*	*0.80–0.90*	*0.70–0.80*	*0.60–0.70*	*0.50–0.60*	*0.40–0.50*	*0.30–0.40*	*0.20–0.30*	*0.10–0.20*	*0–0.10*	*Sample no*				
Mollusca												*3*	*1*	*5*	*2*	*4*
Pomatias elegans (Müller)	+	–	–	–	–	+	2	32	49	25	10	7	–	+	–	+
Carychium tridentatum (Risso)	1	–	–	–	1	3	18	272	110	28	16	40	1	1	–	–
Carychium spp.	–	–	–	–	–	–	26	311	114	30	17	9	–	–	–	–
Cochlicopa lubrica (Müller)	7	–	2	–	1	–	2	1	–	–	–	–	–	–	–	–
Cochlicopa spp.	–	–	–	–	–	1	10	10	4	4	1	–	–	–	–	–
Columella edentula (Draparnaud)	–	–	–	–	–	1	6	3	–	2	–	–	–	–	–	–
Vertigo pusilla Müller	1	–	–	–	1	–	1	1	2	1	1	–	–	–	–	–
Pupilla muscorum (Linnaeus)	–	–	2	1	+	3	2	5	4	2	2	2	–	–	–	3
Lauria cylindracea (Da costa)	–	–	–	–	–	–	–	–	2	1	–	–	–	–	–	–
Vallonia costata (Müller)	–	–	–	–	–	–	1	–	2	4	15	3	–	–	–	5
Vallonia excentrica Sterki	–	–	–	+	–	2	3	7	4	4	9	5	1	–	4	–
Acanthinula aculeata (Müller)	6	–	–	–	3	3	4	32	14	10	5	6	–	–	–	–
Ena montana (Draparnaud)	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–
Ena obscura (Müller)	–	–	–	–	1	–	5	5	1	–	–	–	–	–	–	–
Punctum pygmaeum (Draparnaud)	–	–	–	–	–	–	3	13	2	4	1	4	1	–	–	–
Discus rotundatus (Müller)	1	–	1	3	3	2	13	78	52	47	14	42	1	+	–	1
Vitrina pellucida (Müller)	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–
Vitrea crystallina (Müller)	–	–	1	–	–	–	–	–	4	6	–	5	–	–	–	–
Vitrea contracta (Westerlund)	3	–	–	1	7	1	5	52	15	15	8	15	–	–	–	–
Aegopinella pura (Alder)	5	–	3	–	3	6	25	124	35	25	14	7	–	–	–	–
Aegopinella nitidula (Draparnaud)	5	–	–	1	1	+	7	35	37	5	13	10	1	–	–	1
Oxychilus cellarius (Müller)	–	1	6	–	–	–	1	13	45	15	10	12	–	–	–	–
Limacidae	–	–	–	–	–	–	2	1	–	4	1	3	–	–	–	1
Euconulus fulvus (Müller)	2	–	–	–	–	–	1	4	–	–	–	–	–	–	–	–
Cecilioides acicula (Müller)	1	1	4	8	8	5	27	83	142	190	314	164	8	10	43	113
Cochlodina laminata (Monatgu)	–	–	–	–	–	–	–	–	1	1	–	1	–	–	–	–
Macrogastra rolphii (Turton)	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–
Clausilia bidentata (Ström)	2	–	–	–	1	2	–	8	7	3	4	3	+	–	–	–
Helicella itala (Linnaeus)	–	–	–	–	1	–	3	–	3	4	7	5	1	–	–	5
cf Ashfordia granulata (Alder)	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–
Trichia hispida (Linnaeus)	1	–	3	–	1	1	8	5	1	–	–	3	–	–	–	–
Arianta arbustorum (Linnaeus)	–	–	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Helicigona lapicida (Linnaeus)	–	–	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Cepaea nemoralis (Linnaeus)	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–
Cepaea Arianta spp.	+	–	–	–	1	–	–	4	2	5	+	2	–	+	–	–
Helix aspersa (Müller)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	+
Taxa	13	1	7	5	14	13	20	20	22	22	19	22	9	4	1	8
Total	34	1	18	6	25	25	148	1016	510	245	149	188	8	1	4	16
Percentage shade-loving species	73.5	100	61.1	83.3	84.0	69.2	77.7	93.6	86.5	78.8	69.8	82.4	62.5	100	–	12.5
Percentage catholic species	26.5	0	27.7	0	12.0	11.5	16.2	5.2	11.1	15.5	8.1	9.6	25.0	0	–	6.3
Percentage open country species	0	0	11.1	16.6	4.0	19.2	6.1	1.2	2.5	5.7	22.1	8.0	17.5	0	–	81.3

Notes: all totals and percentages exclude *Ceciliodes acicula*
+ = *non-apical fragment*

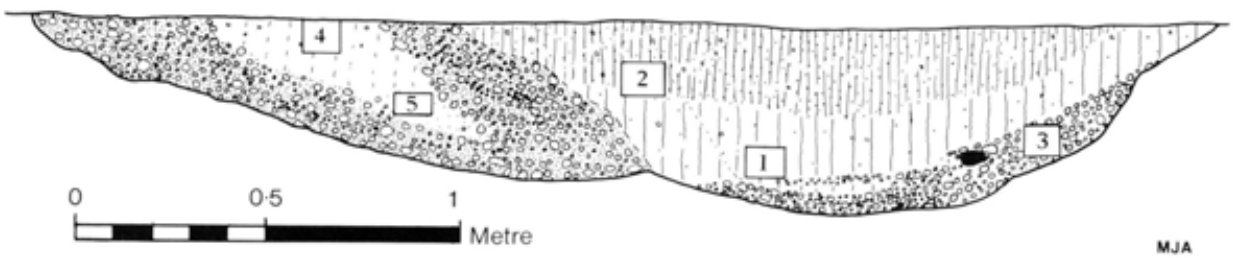

Fig 69 Schematic section of the tree-hollow 2052, showing location of mollusca samples, based on field notes and drawings by R I McPhail

Thus it can be seen that the assemblages from *c* 6.60–0.70m upwards belong to mollusc biozone d2 (Kerney 1977), and represent dense humid broad-leafed Atlantic forest. Towards the top of the feature *Carychium tridentatum* declines, and in the uppermost sample (0–100mm) *Vallonia costata*, *Vallonia excentrica*, and *Helicella itala* become more significant, indicating slightly more open conditions and possibly signifying the onset of mollusc biozone 'e', the Sub-boreal (3200–2000 BC).

The overall trends displayed in the mollusc diagram (Fig 68), that is the absence of *Pomatias elegans* at the base, the increase and subsequent decrease of *Carychium tridentatum* etc, can be seen to compare well with zones c, d, and e of Ellis's idealised diagram of the molluscan biozones from the South Downs (1986, 176, fig 19.2). Thus this feature shows a natural succession from the Boreal through the Atlantic to the onset of the Sub-boreal periods (mollusc biozones c, d2, and e) during which no anthropogenic activity in the Mesolithic is detected which significantly affected the local vegetation. Furthermore, the hint of more open conditions in the top of the feature is attributable to a natural climatic succession from Atlantic to Sub-boreal rather than any anthropogenic clearance.

Tree-hollow 2052

This was sub-circular in plan and measured approximately 2m across: one half contained a crescentic soil infill and the other half was infilled with a chalky rubble subsoil. Five samples were taken from subsoil hollow 2052 in the western area of the site (Fig 69), sample 1 [B2], 7.5YR 4/6, silty clay loam, many small flints; sample 2 [B1], 7.5Y 4/4, silty clay loam, abundany small to large flints; sample 3 [B/C]; sample 4 [B/C], 7.5YR 6/4, clay loam, many small flints, abundant chalk fragments; sample 5 [B/C]. Such features are described by Evans (1972) and Limbrey (1975, 286–90), and have been interpreted as tree-hollows.

The soil infill, a calcareous brown earth (Macphail 1985 *and below*), had two distinct phases. The earlier phase consisted of the B2 and associated B/C horizon of a shallow argillic brown earth from which samples 1 and 3 respectively were taken. This was interpreted as forest soil by Macphail (1985). The later phase, possibly separated by a considerable time lapse, consisted of the Bl horizon (calcareous brown earth) and associated chalky subsoil contexts.

Sample 3: from the calcareous B/C horizon displayed a typical woodland assemblage dominated by *Carychinum tridentatum*, *Discus rotundatus*, and *Vitrea* spp, and contains the rupestral species *Clausilia bidentata*, *Cochlodina laminata*, and *Acanthinula aculeata*. *Carychium*, *Discus*, and the predatory Zonitids are commonly associated with decaying plant matter under leaf litter on a deciduous woodland floor. The presence of *Ena montana*, an anthrophobic species intolerant of cultivation or disturbance (Boycott 1939), requires warmer summer conditions and is often found in old, undisturbed mixed oak woodland.

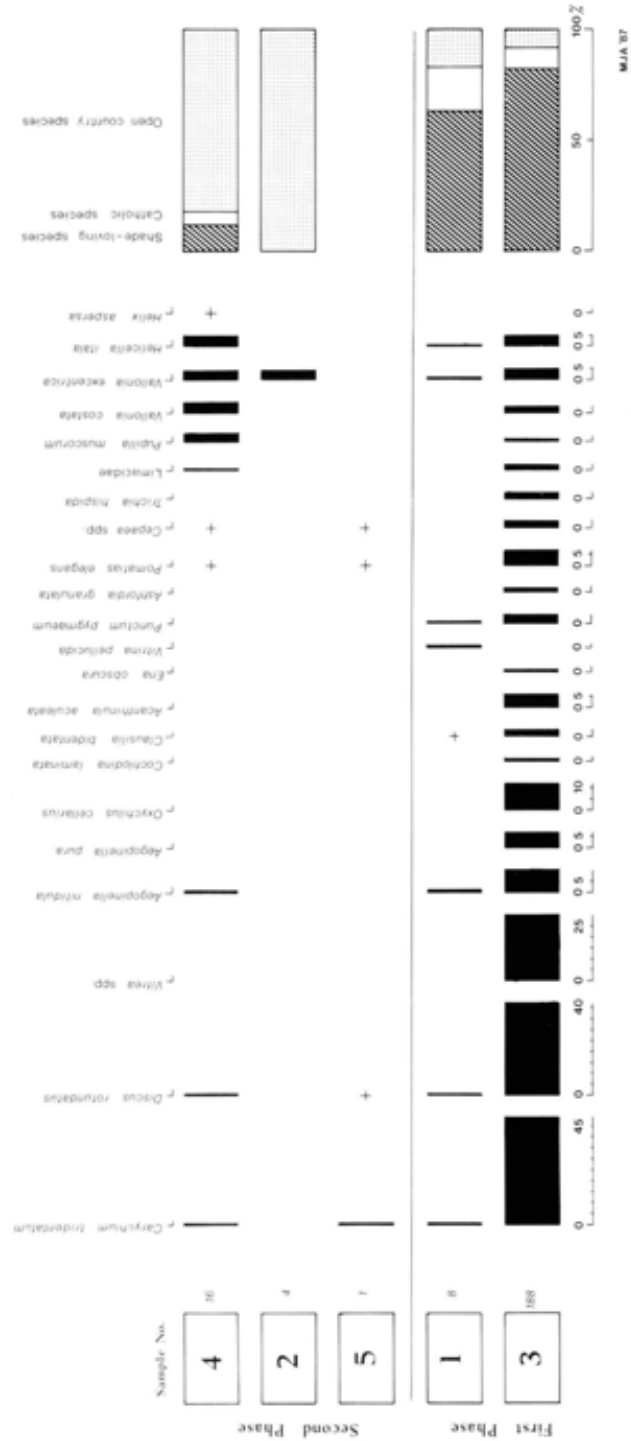

Fig 70 Absolute mollusc abundance from tree-hollow 2052

Sample 1: from the B2 horizon contained only eight molluscs, probably due to the calcium carbonate deficient nature of the shallow argillic brown earths in which they were deposited. This horizon was later calcified due to mixing by fauna attracted to the organic matter in the tree-hollow. The assemblage did, however, produce predominantly shade-loving species (Fig 70).

After initial infill the upper B2 horizon and associated chalky subsoil horizons were deposited. Molluscs were extremely sparse in all the samples.

Sample 4: from the subsoil material, produced an open country assemblage with *Pupilla muscorum*, *Vallonia excentrica*, *Vallonia costata*, and *Helicella itala* indicating open, possibly cultivated, ground. Furthermore, non-apical fragments of *Helix aspersa* in this sample may suggest a Roman date, but equally could be intrusive fragments.

The mollusc data confirm this feature as a tree-hollow and corroborate the soil evidence; the associated woodland fauna may be Atlantic, as seen in context 2110, but is probably later, ie Sub-boreal (Neolithic to Bronze Age). The ensuing open conditions indicate clearance associated with pasture and possibly arable conditions.

Western enclosure bank buried soils

Samples from the brown earth soil sealed beneath both the phase I bank and the phase II bank on the western side of the enclosure (layer 2018) (Macphail 1985; 1986b, 290) were examined for mollusca. Both soil profiles displayed humic mull A horizons, though the soil beneath the phase I bank (sample 59A) was several millimetres thicker.

Buried soil beneath the phase I bank (sample 59A) (context 2018) was a 7.5 YR 3/2–6/4 silty clay loam with a few small and large stones and a medium blocky to prismatic structure.

Four samples were taken from this soil (see Table 29):

Sample 1 0–50mm depth (bA1)
Sample 2 50–100mm depth (bA1)
Sample 3 100–150mm depth (bBW)
Sample 4 250–300mm (bB/C)

Table 29 Mollusc data from the western enclosure bank buried soils and samples from other features

Context	*<--Phase I, bank 59A-->*				*<-----Phase II, bank 59B----->*					*Pit*	*Pit*	*Post-hole*	*Gully*	*Pit*
Depth (in metres) or layer	*0.25–0.30*	*0.10–0.15*	*0.5–0.10*	*0–0.5*	*0.20–0.25*	*0.15–0.20*	*0.10–0.15*	*0.5–0.10*	*0–0.5*	*168 11*	*193 3*	*661 3*	*391 3*	*918 4*
Terrestrial mollusca														
Pomatias elegans (Müller)	–	–	+	–	+	+	+	+	1	–	–	–	–	–
Carychium tridentatum (Risso)	–	–	–	–	–	–	–	–	7	1	–	–	–	–
Carychium spp.	–	–	–	–	–	–	–	–	3	–	–	–	–	–
Cochlicopa spp.	–	–	–	–	–	–	–	1	7	1	–	–	–	–
Vertigo pygmaea (Draparnaud)	–	–	–	–	–	–	–	–	5	–	–	1	–	–
Vertigo moulinsiana (Dupuy)	–	–	–	–	–	–	–	–	1	–	–	–	–	–
Vertigo angustior Jeffreys	–	–	–	–	–	–	–	–	–	1	–	–	–	–
Pupilla muscorum (Linnaeus)	–	–	–	1	–	–	–	–	14	–	–	–	–	–
Vallonia costata (Müller)	–	1	–	–	–	–	–	3	164	–	–	–	–	–
Vallonia pulchella (Müller)	–	–	–	–	–	–	–	–	–	2	–	–	–	–
Vallonia excentrica Sterki	–	–	–	–	1	–	1	5	15	–	1	–	1	1
Acanthinula aculeata (Müller)	–	–	–	–	–	–	–	–	1	–	–	–	–	–
Ena obscura (Müller)	–	–	–	–	–	–	–	–	1	1	–	–	–	–
Discus rotundatus (Müller)	–	–	–	–	+	–	–	4	9	–	–	–	–	–
Vitrea contracta (Westerlund)	–	–	–	–	–	–	–	1	2	–	–	–	–	–
Aegopinella nitidula (Draparnaud)	–	–	–	–	–	–	–	–	2	–	–	–	–	–
Oxychilus cellarius (Müller)	–	–	–	–	–	–	–	–	2	–	–	–	–	–
Cecilioides acicula (Müller)	1	–	–	2	–	–	–	–	3	7	–	*	*	*
Clausilia bidentata (Ström)	1	–	–	–	–	–	–	–	4	–	–	–	–	–
Helicella itala (Linnaeus)	–	1	–	–	–	–	–	–	3	–	1	1	–	–
Trichia striolata (C. Peiffer)	–	–	–	–	–	–	–	–	3	–	–	–	–	–
Trichia hispida (Linnaeus)	–	–	–	–	–	–	–	–	7	–	1	1	–	–
Cepaea spp.	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Fresh-brackish-water mollusca														
Grayulus albus (Müller)	–	–	–	–	–	–	–	–	–	2	–	–	–	–
Taxa	1	2	1	1	3	1	2	6	19	6	3	3	1	1
Total	1	2	+	1	1	+	1	14	251	8	3	3	1	1
Percentage shade-loving species	0	100	–	100	100	–	100	35.7	13.9	25.0	0	0	0	0
Percentage catholic species	0	0	–	0	0	–	0	7.2	6.0	12.5	33.3	33.3	0	0
Percentage open country species	100	0	–	0	0	–	0	57.1	80.1	25.0	66.7	66.7	100	100
Percentage slum species								37.5						

Notes: all totals and percentages exclude Cecilioides acicula
+ = *non-apical fragment*
* = *present but not quantified*

Very few molluscs were recovered from the four samples (Table 29), with no more than two apices in a single sample. The lack of molluscs in this buried soil can be explained by the calcium carbonate deficient nature of the argillic brown earth/brown earth at the time of burial (see Macphail 1985, appendix 2:3). Although such soils can support mollusc faunas, they are not highly conducive to their preservation. It is of note, however, that the basal sample from the B/C horizon produced the only shade-loving species, *Clausilia bidentata*, a rupestral species common in woodland, and also found in both tree-hollow 2052 and feature 2110. The apical fragments in all the other samples from the buried soil here produced entirely open country species, typical of open calcareous grassland.

Buried soil beneath the phase II bank (Sample 59B) (context 2018) was a 7.5 YR 3/2–5/6 silty clay loam with a few small flints.

Five samples were taken from this soil:

Sample 1 0–50mm depth (bA1)
Sample 2 50–100mm depth (bA1)
Sample 3 100–150mm depth (bBt)
Sample 4 150–200mm depth (bBw)
Sample 5 200–250mm depth (bBw–bB/C)

In common with sample 59A, few molluscs were recovered, except in the upper sample (0–50mm) of the bAl horizon (Table 29). The basal sample produced non-apical fragments of *Discus rotundatus* and *Pomatias elegans*, perhaps indicating shade-loving conditions as with the earlier buried soil. The samples above tended to indicate more open conditions. The upper bA1 horizon, however, contained 251 molluscs, probably preserved here due to the reworking of the calcareous material from the adjacent phase I bank by earthworms (Macphail 1985). This re-calcification of the upper mull horizon would account for the good mollusc preservation in only the bA1 horizon, ie the earthworm-worked horizon.

Eighty per cent of the mollusc assemblage can be classified as open country according to Evans's ecological groupings (1972, 198). *Vallonia costata* predominates, comprising 65% of the assemblage, with *Vallonia excentrica* and *Pupilla muscorum* being the other main components. *Vallonia costata* poorly vegetated habitats (Ellis 1986), may indicate that vegetation had only recently been cleared. Certainly *Pupilla muscorum* inhabits short grassland with a modicum of bare ground; however, *Pomatias elegans*, which is often indicative of disturbed ground created by clearance, is only represented by a single specimen. The sample produced ten shade-loving taxa representing 14%, perhaps a recently relict fauna of a more shady environment. The assemblage as a whole, though, is indicative of short grassland. In all probability the relict shade-loving component does not belong to the dense Atlantic and Sub-boreal woodland represented in feature 2110 and tree-hollow 2052, but is indicative of local regeneration adjacent to the bank between the first and second phases of monument construction. Unfortunately, unlike Danebury, not enough detailed mollusc analysis has been undertaken from pits to confirm a phase of vegetation regeneration during the sites occupation history. At Danebury an extensive sampling regime of pits and occupation layers revealed evidence for an episode of woodland regeneration (Evans 1984) which conveniently corresponded to archaeological evidence for temporary hillfort abandonment.

Pits

Single samples from twelve features in the central area were examined. These produced few, or no, molluscs, with the exception of the burrowing (thus palaeoecologically insignificant) species *Cecilioides acicula*, which was recorded as present rather than extracted and quantified. Samples from pits 193 and 918, posthole 661, and gully 391 produced specimens of *Helicella itala*, *Trichia hispida*, *Vertigo pygmaea* and *Vallonia excentrica* (Table 29), all species common in open short grassland and arable contexts. The lack of mollusca may be due to preservation/taphonomic effects, but it may also possibly be that the samples provided only represent flots and not extracted molluscs too. Only the sample from pit 168 (basal layer 11) produced enough molluscs to make any meaningful palaeoenvironmental statements.

Pit 168: although only eight molluscs were recovered from the basal layer (11) of pit 168 (Table 29), the assemblage was extremely interesting. The assemblage included the very rare species *Vertigo angustior*, the first identified in this region. *Vangustior* is a rare species peculiar to marshes which does not generally occur in either freshwater or drier terrestrial habitats (Evans 1972, 199). Together with this were two specimens of *Gyraulus (Planorbis) albus*, which is a fresh/brackish-water species which lives amongst weeds and on stems of plants in fresh water (Ellis 1969, 125). Further, the *Vallonia* species represented is *Vallonia pulchella*, which favours more mesic habitats (wetter than *Vallonia costata* and *Vallonia excentrica*), particularly at the base of grasses in moist fields and meadows (Ellis 1969, 162). The presence of these marsh species is of great interest. It is highly unlikely that they lived in the micro-environments of the pit or even on Balksbury Camp at all.

It is probable that these species originated from marshes in the Anna or Anton Valley and were brought on site with mud or vegetation. The reason for their occurrence in the pit is uncertain, but they may have been deposited with reeds or mud used to line the pit or deposited in the pit as rubbish cleared from floor levels etc. Indeed, the layer is described as a 'very fine grey layer', which may indicate an alluvial component. These species certainly indicate that the riverine resources were being exploited and can be paralleled

with aquatic species found in a pit at the Winklebury Camp hillfort, Basingstoke (K D Thomas 1977). The rest of the assemblage from this pit, in contrast to all the others, produced *Carychium tridentatum*, *Ena obscura*, and *Cochlicopa* spp, all shade-loving or catholic species.

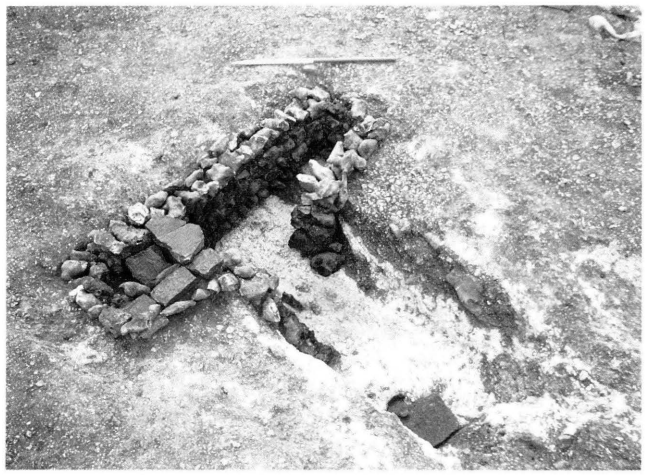

Fig 71 Hollow-way 3167 under excavation, from the north-west

Hollow-way

The hollow-way (3167, Fig 71) ran diagonally through the south-eastern entrance (Fig 26) and was probably infilled after the late Roman period, though as Macphail demonstrates the basal (pre-archaeological) deposits are of considerable age. A column sample through the deposits adjacent to the soil profile described by Macphail (1985) in segment 3287 was examined and the results of mollusc analysis are presented in Table 30 and Fig 72.

Context 3303: sample depth 0–100mm 5YR/6 silty clay, many small and medium stones

Context 3285: sample depth 100–200mm 7.5YR5/6 silty clay, common small and medium flints
Sample depth 200–250mm
Sample depth 250–300mm

Context 3285/3290: sample depth 300–350mm

Context 3290: sample depth 350–400mm 7.5YR6/6 clay loam, abundant small chalk and flints

No samples deeper than 0.40m contained molluscs, and these were discarded in 1982. The basal sample (0.35–0.40m) from the B/C horizon produced only three molluscs, all open country species. Above this (0.30–0.35m) mollusc numbers increase and are dominated by *Vallonia costata* and *Helicella itala*, indicating open country conditions, though the presence of the shade-loving species *Ena obscura*, *Discus rotundatus*, and *Oxychilus cellarius* might be taken to indicate some shade, or the onset of the ensuing shady conditions, and indicates that this assemblage is Postglacial.

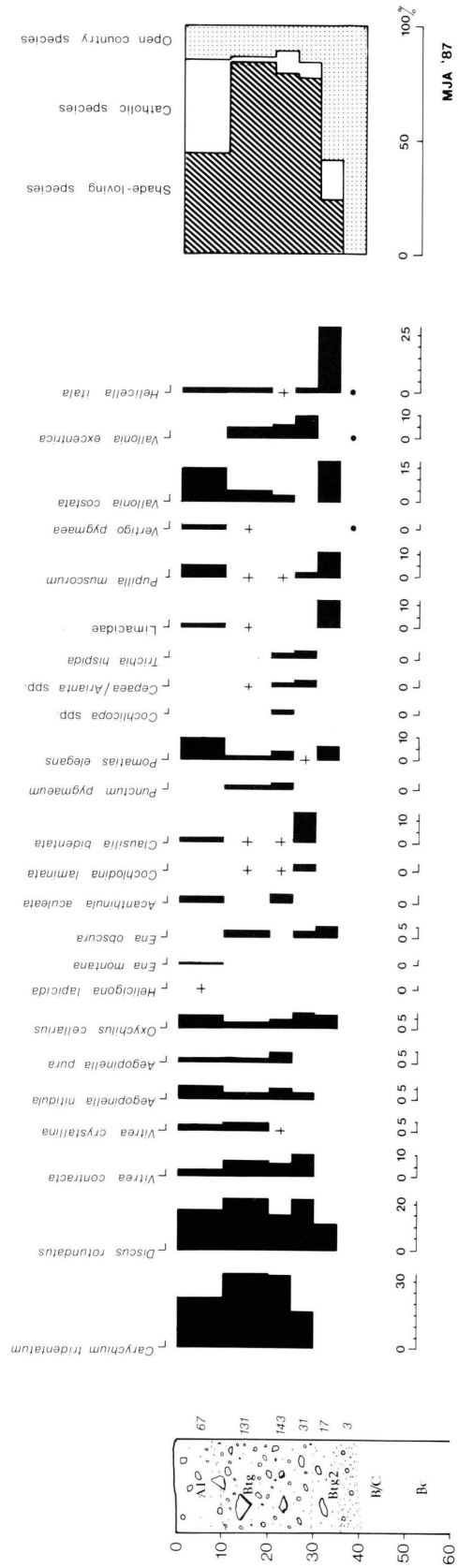

Fig 72 Relative mollusc abundance: Roman sequence from hollow-way 3167; • = species present

Above these assemblages, in the Romano-British context 3285, mollusc numbers increase significantly and display markedly different conditions. A shade-loving assemblage dominated by *Carychium tridentatum* and *Discus rotundatus* prevails throughout, and together with ten other shade-loving taxa representing about 80% of the assemblage (Fig 72), suggest that the hollow-way had become rapidly overgrown by tall deciduous woody species affording shade but also providing a developed ground leaf litter.

The uppermost sample (0–100mm) from context 3303 displays a reduction in both *Carychium tridentatum* and *Discus rotundatus*, whilst *Pomatias elegans*, a species associated with disturbed ground and clearance, becomes more significant. This coincides with an increase in the open country species *Pupilla muscorum* and *Vallonia costata*, which provides a hint of clearance and more open conditions. Although this feature is considered to be Romano-British, no specimens of *Helix aspersa*, which arrived in Britain during the Roman period, were recovered; also, none of the Introduced species of the medieval period were identified.

No mollusc faunas survived from this feature to provide corroborative evidence for Macphail's statements of fluvial environments in the basal Bc and B/C horizons or indeed of standing water in the lower portion of the overlying Btg2 (350–400mm) horizons. However, the small open country assemblage at the base of the mollusc profile (Fig 72) may be a relict reworked Late Glacial fauna (biozone Z), and this would support the Late Quaternary environments and loess deposition described by MacPhail (*below*). Further, it was surprising, but not irreconcilable, that no fragments of the Romano-British species *Helix aspersa* were recovered.

The mollusc evidence indicates that rapid generation of woodland conditions occurred in the hollow-way during its silting, which suggests the closeness of a woodland environment.

Table 30 Mollusc data from the hollow-way 3167 (segment 3287)

Depth (in metres)	*0.35–0.40*	*0.30–0.35*	*0.25–0.30*	*0.20–0.25*	*0.10–0.20*	*0–0.10*
Pomatias elegans (Müller)	–	1	1	6	3	7
Carychium tridentatum (Risso)	–	–	4	23	19	5
Carychium sp.	–	–	1	24	24	10
Cochlicopa lubrica (Müller)	–	–	–	1	–	–
Cochlicopa sp.	–	–	–	2	–	–
Vertigo pygmaea (Draparnaud)	1	–	–	–	1	1
Pupilla muscorum (Linnaeus)	–	2	1	2	1	3
Vallonia costata (Müller)	–	3	–	4	7	10
Vallonia excentrica Sterki	1	–	3	8	6	–
Acanthinula aculeata (Müller)	–	–	–	5	4	2
Ena montana (Draparnaud)	–	–	–	–	–	1
Ena obscura (Müller)	–	1	1	–	2	–
Punctum pygmaeum (Draparnaud)	–	–	–	4	2	–
Discus rotundatus (Müller)	–	2	7	23	32	12
Vitrea crystallina (Müller)	–	–	–	1	5	2
Vitrea contracta (Westerlund)	–	–	3	9	9	2
Aegopinella pura (Alder)	–	–	–	7	3	1
Aegopinella nitudula (Draparnaud)	–	–	1	7	4	4
Oxychilus cellarius (Müller)	–	1	2	6	1	4
Limacidae	–	2	–	–	4	1
Cecilioides acicula (Müller)	14	37	107	108	201	231
Cochlodina laminata (Monatgu)	–	–	1	1	1	–
Clausilia bidgentata (Ström)	–	–	4	1	+	1
Helicella itala (Linnaeus)	1	5	1	2	3	1
Trichia hispida (Linnaeus)	–	–	1	3	–	–
Helicigona lapicida (Linnaeus)	–	–	–	1	–	+
Cepaea sp.	–	–	1	3	+	–
Taxa	3	8	15	20	20	17
Total	3	17	32	143	131	67
Percentage shade-loving species	0	23.5	77.4	79	84	44
Percentage catholic species	0	17.6	6.5	9.8	2.3	8
Percentage open country species	100	58.8	16.1	11.2	13.7	15

Notes: all totals and percentages exclude Cecilioides acicula
+ = *non-apical fragment*

Table 31 Summary of environmental history from the molluscan evidence

Period	*Mollusc biozone*	*Environment*	*Activity*
Post-Roman	f		?clearance
Late Roman/post-Roman	f	woodland regeneration	abandonment
Early Iron Age-early Roman		open country regeneration	pasture/arable ?neglect (temporary abandonment)
Late Bronze Age/ Earliest Iron Age		open conditions	pasture following clearance
Sub-Boreal (Neolithic-BA)	e	open woodland	
Atlantic	d^2	mature broad-leafed Atlantic forest	
Boreal	c	deciduous woodland	
Late Quaternary ?late glacial	z	open conditions	

Discussion and conclusion

Mollusc analysis has allowed an interpretation of the early Postglacial and Flandrian history of Balksbury Camp (Table 31). The earliest secure mollusc evidence indicates a flourishing broad-leafed woodland, tentatively ascribed to the Boreal period. A natural climatic succession followed and a mature deciduous, broad-leafed Atlantic forest was identified, probably of mixed oak. No evidence for any localised clearance or modification of the vegetation cover in the Mesolithic was identified. Woodland conditions seem to have persisted though into the Sub-boreal (7190–5950 BP), and evidence from the tree-hollow indicate that the Sub-boreal Neolithic woodland survived for some considerable length of time. Although clearance of the woodland followed, unfortunately no dated clearance phase was identified; however, this activity is prior to, rather than directly before, the construction of the enclosure bank. Thus we can infer a Bronze Age date for clearance, but no finer resolution is available to indicate whether the opening of the landscape here was associated with the Beaker funerary activity, as the author suspects (Allen 1988), or during Later Bronze Age activity identified on the site.

By the time of the construction of the phase I bank, open, possibly grazed, downland had become established. However, between the construction of the first and second phases of the defensive circuit, there was a period of neglect and vegetation was allowed to grow, enabling shady environments to become established along the bank at least. We have no detailed information to ascertain how widespread this regeneration was. It may have been confined to neglect of the rampart and site boundary or may represent a total, temporary, abandonment of the site. Nevertheless the phase of neglect or abandonment was short-lived and open grazed/tilled downland was established and existed prior to the construction of the secondary bank of the southern rampart.

Mollusca from the Iron Age pits examined were extremely sparse and thus no evidence for the environments during the occupation of the central area of the site itself was gained. Nevertheless, the marsh species from pit 168 indicate the exploitation of resources in the nearby river valleys during the Middle to Late Iron Age period.

During or after the late Roman period when the hollow-way was being infilled, there seems to have been a rapid regeneration of deciduous woodland conditions. The speed of this regeneration and the rapid arrival of a full shade-loving mollusc fauna indicates that the environment around Balksbury was never totally cleared of woodland. Indeed today Andover Wood and Hareswood exist to the north-east and south-east respectively, on the Carsten series soils in the areas covered with tertiary clay-with-flints (*sensu stricto*). The top of this feature displayed some evidence for the onset of more open conditions later.

Soils

by R I Macphail

Summary of AM Lab report 4621 and site archive

Turf stripping prior to excavation had exposed the chalk parent material or shallow mineral soil (in such features such as the tree-hollow 2052) across much of the site, except for the low ground towards the south-eastern entrance where deeper brown soils were present.

In 1981, buried soils were examined from beneath the bank on the western side of the enclosure at the entrance in the south-east. To put these buried soils in context, a typical tree-hollow (feature 2052) and a sequence of deposits and soils in the hollow-way (3167) were also investigated.

Samples were analysed for grain size, pH, loss on ignition, and organic carbon (Avery and Bascomb 1974). Ten thin sections from these four contexts were also examined (Bullock *et al* 1985; Courty *et al* 1989). In addition, A horizons buried by two phases of southern rampart construction were analyses for nutrients and cations (Peter Loveland, Rothamsted Experimental Station).

Results

The two unburied sequences in the hollow-way 3167 and the tree-hollow 2052 give evidence of the environment both before and after the occupation of the site.

Hollow-way 3167

The hollow-way was infilled to a depth of approximately 0.6m with mineral deposits, so a section through these (in segment 3287) was examined to see how they related to the archaeology.

Profile description, chemical analyses, and micromorphological studies (Tables 32–4) show the hollow-way to be a stream-cut channel in the chalk, presumably cut during the last Glacial period. The deposits themselves appear to be of Late Devensian origin, the soils developed in them only affected by Holocene pedogenesis (*Bullock, personal comment*).

Table 32 Soil analytical chemistry

Depth in metres (after stripping)		*pH*	*Loss on ignition*	*Organic carbon*	*Thin section*
Hollow-way (3287)					
0.8–0.20	Btg	8.1	2.28	0.15	Y
0.21–0.44	Btg2	8.0	2.40	0.27	Y
0.45–0.47	B/C	8.5	2.51	0.46	Y
0.48–0.59	Bc	8.4	1.93	0.19	Y
South-eastern enclosure bank					
0–0.16	bAl/Eb	8.4	3.03	0.48	
0.22–0.33	bBtg	8.0	1.47	0.19	
0.34–0.58	bBtg2	8.0	2.09	0.22	Y
Western enclosure bank (phase I) buried soil (2018)					
0–0.14	bA	8.3	2.96	0.78	Y
0.15–0.27	bB	–	1.10	0.29	
0.28–0.36	bB/C	–	2.96*	0.12	
Western enclosure bank (phase II) buried soil (2018)					
0–0.10	bA	8.3	4.18*	0.79	
0.10–0.16	bBt	8.2	3.14	0.39	Y
0.16–0.30	bB2	8.3	9.81*	0.24	
Tree-hollow (2052)					
0–0.12	Bl	8.3	9.12*	0.83	Y
0.13–0.39	B2	8.3	9.00*	0.71	Y
0.40–0.44	B/C	N/D			

* *probably over-estimated because of calcium carbonate present*

Firstly, the chalk is a permeable medium and such a channel could only be cut when the rock was affected by permafrost. The basal deposit (Bc horizon) is enigmatic, but appears to represent the deposition of aeolian silts and eroded soil fragments, presumably of earlier Quaternary age after wind sorting and transportation (*Bullock, personal comment*). Similar loose-packed sediments of rounded soil fragments were reported from Layer 13a of the Lower Breccia at Brean Down, Somerset (Cornwall in Apsimon *et al* 1961). A review of the thin section, and Cornwall's interpretation, may also support a wind-blown origin, although colluvial reworking is a possibility at Brean Down.

The next horizon (B/C) probably represents a high energy fluvial or soliflucted deposit because of the predominance of small stone-sized chalk fragments. Finer chalk fragments, soil pellets (as in the Bc below), and fine mineral soil infill the voids. This horizon may be the source of the calcareous solutions affecting the Bc horizon.

The porosity in this horizon has been influenced by calcareous impregnation, and also filtered-out clay, translocated from the overlying deposits. It is interesting that these clay coatings are very dusty.

The overlying horizons (0–440mm) represent Holocene pedogenesis of an argillic brown earth (Avery 1981) in a silty clay deposit. The Eb horizon has been completely homogenised by biological activity, whereas the Btg 2 horizon exhibits relict parent material layering. The deposition of loessial deposits in southern England has been investigated by Catt (1978; 1979), and similar clay and silty layering has been noted by Avery *et al* (1959). The experimental work of Mücher and de Ploey (1977) suggest this layering is not the result of colluvial deposition after water erosion of the loess, rather the clear clay and silt layers suggest possible sorting of a loessial deposit in 'standing' water (something like a varve) or by stream flows of alternating (seasonal?) velocity (*Bullock, personal comment*).

The material has subsequently been affected by Holocene decalcification and lessivage (clay translocation), and minor hydromorphism. Textural coatings can be divided into a generally earlier phase of limpid clay, followed by later micro-laminated and dusty clay types. Analyses of such coatings elsewhere (Scapha and

Table 33 Nutrient chemistry

Moisture	P	N	H+	Ca	Mg	K	Na	CEC	Sat	C/N	*Section*
59a bA	1.89	12.1	0.06	0	0.8	0.05	0.04	0.02	0.9	97	13*
59b bA	1.92	8.5	0.06	0	28.5	0.03	0.20	0.10	29.1	100	13*

Notes: P = Ext P mg/L
N = total N %
exchangeable cations = %
CEC = by addition m e/100gr
Sat = saturation, bases %
data from Rothamstead Experimental Station

Table 34 Grain size

Depth in metres (after stripping)		*Clay*	*FZ*	*MZ*	*CZ*	*Silt total*	*FS*	*MS*	*CS*	*Sand total*	*Texture*	*Thin section*
Hollow-way												
0–0.8	Eb	36	11	24	22	57	4	2	1	7	silty clay	Y
0.8–0.20	Btgl	38	7	22	26	55	7	–	–	7	silty clay	
0.21–0.44	Btg2	36	7	27	24	58	6	–	–	6	silty clay	Y
0.45–0.47	B/C	32	19	15	11	45	14	5	4	23	clay loam	Y
0.48–0.59	Bc	31	10	26	23	59	5	4	1	10	silty clay	Y
Western enclosure bank Sample 59B												
0–0.10	bA	32	12	19	26	57	9	2	–	11	silty clay	Y
0.11–0.16	bBt	33	6	20	31	57	9	1	–	10	silty clay	Y
0.17–0.30	bB2	28	17	22	26	65	11	1	1	12	silty clay loam	Y
Western enclosure bank (Sample 59A)												
0.27–0.36	bB/C	23	18	18	15	51	19	3	4	26	clay loam	
Tree-hollow												
0–0.12	Bl	30	13	20	26	59	6	3	2	11	silty clay loam	Y
0.13–0.39	B2	30	11	20	28	59	8	3	2	13	silty clay loam	Y

Macphail 1983; Romans and Robertson 1983; Macphail 1986a) suggest a pedogenic history affected by clay translocation, first under undisturbed forest, and later under conditions of woodland clearance and other more intense anthropogenic disturbance such as tillage. This succession of textural coatings, which can be compared with those of a buried soil at the entrance are believed to represent, at this depth, mainly features of the prehistoric history of the site (ie primary forest, clearance and tillage) whereas the very dusty coatings in the Eb horizon must relate to modern cultivation practices.

Tree-hollow 2052

This feature was one of many circular soil features, which can be described as asymmetrical or banana-shaped soil infills of hollows in the chalk revealed during the 1981 excavation. Similar features, interpreted as tree-hollows, have been described elsewhere (Evans 1972; Limbrey 1975).

Tree-hollow 2052 was approximately 2m across, one half comprising mainly a chalk subsoil, the other with a calcareous brown earth (Avery 1981) make-up. The fill had two horizons of similar organic status and texture (Tables 32–4). The lower B2 horizon reveals that the original woodland on the site had produced probable shallow argillic brown earths, but tree-throw (Lutz and Griswold 1939) mixed calcareous subsoil horizons with the decalcified upper soil. It is evident that the hollow filled up in two distinct phases and that these two phases were separated by many years. The first phase of hollow infill is represented by the B2 horizon, which is characterised by evidence of high biological activity, fauna presumably attracted by organic matter accumulating in the hollow. This 'faunal fabric' was then impregnated by calcitic material, helping to preserve its structure, and much void-space was infilled with dusty calcite or fine chalky, dusty material. The latter may derive from the surrounding calcareous soil brought in by solution, or relate to the washing-in of fine chalk mobilised by tillage 'eroding down' to the chalk substrate.

The second phase represented by the Bl horizon is a dense colluvial deposit little affected by biological activity. It shows evidence of having a physically mixed fabric and possibly results from a ploughwash infill.

As tree-hollows elsewhere have been associated with an Atlantic Forest cover (Evans 1971; 1972; Limbrey 1975; Macphail 1986a), these features at Balksbury may be of similar date although there is no evidence for this. Therefore the B2 horizon may be of early prehistoric date. It is tempting to suggest that the later calcitic features and the B1 horizon may relate to the first period of major anthropogenic activity on the site.

Western enclosure bank

Soils were examined from beneath the phase I bank (sample 59A) and phase II refurbishment (sample 59B) banks (Tables 32–4). Both phases of bank bury moderately humic mull Al horizons, but the later soil (Sample 59B) is several centimetres shallower. The parent materials in this section, over the chalk, are superficial deposits of weak light brown clay loam, overlain by discontinuous layers of yellowish red silty clay loam, acting as bB/C and bBt horizons respectively. It may be suggested that these horizons relate to soil formation in Late Devensian deposits of wind-transported soil pellets in the lower, and loess in the upper, as described from the 'hollow-way'.

Both the nutrient chemistry (Table 33) and the micromorphology show the phase I bank to bury a probably fully decalcified and moderately leached, earthworm-worked mull A1 horizon. The soil had also been affected by anthropogenic activity mixing in fragments of pottery and much charcoal (charred material producing a rather high C:N (Macphail 1986a). The moderately high phosphate level may relate to

anthropogenic activity. In contrast, the phase II bank buries a very much more calcareous (see CEC) mull A1 horizon, suggesting significant reworking of calcareous material, probably from the local primary bank, by earthworms. At first glance the buried Bt horizon appears as an earthworm-worked Bw horizon. However, close inspection shows numerous relic areas of an argillic fabric, have reworked the original void and channel coatings into the matrix. It is difficult to clearly interpret these earlier coatings, but they possibly relate to a history of lessivage under forest, and later clay, and dusty clay translocation during anthropogenic usage of the site, possibly including cultivation. Because of the shallow nature of the horizons, and the lack of biological working of the subsoil, it may be inferred that some soil erosion took place under cultivation, and that the upper soil was converted into a mull by earthworms during a grassland phase, before burial.

South-eastern enclosure bank

A section of the buried soil under the bank at the entrance was examined. Both profile description and organic matter analysis suggest erosion of the A horizon prior to burial, the soil having no humic A horizon as compared with the bank on the western side. The deep argillic brown earth is developed on thick superficial deposits of clay-with-flints which with increasing depth become more heavy-textured and stoney and less affected by Holocene pedogenesis. On this receiving site, thicknesses of periglacially soliflucted head may have been thickened by additions of reworked loess present in protected areas higher up the slope (eg in the hollow-way 3167), as identified in thin section (Table 34).

In common with the hollow-way and the western enclosure bank, a pedogenic history of biological working of the primarily loessial parent material of the Btg2 horizon is accompanied by clay translocation. A primary phase of limpid/microlaminated clay coatings is succeeded by illuviation of more ferruginous clay containing higher quantities of micro-contracted particles. This sequence may relate to Atlantic lessivage causing the soil to become less well drained, as suggested by Pegwell Bay Loess, in Kent (Weir *et al* 1971). Alternatively, or partially, the later phase may relate to soil disturbance as a result of ploughing – allowing the washing-in of matrix clay rather than clay purely from the eluviated Eb horizon.

Soil cover

A variety of soil types developed on superficial deposits and on the chalk proper. The modern soils are mainly of the Andover (silty clay loam brown rendzinas) Association (Jarvis *et al* 1983; Clayden and Hollis 1984), the patterned ground (periglacial features) being typical. Deeper pockets of soil in tree-hollow features may be described as typical brown calcareous earths (Panholes series). The hollow-way preserves an area of mainly silty clay typical argillic brown earths (Charity 2 series), which as we have seen (beneath the western enclosure bank) were probably more widespread in the Late Bronze to Early Iron Age. The phase II bank buried a shallower silty clay loam version of the above soil (Charity 1 series). Iron Age activities also produced a spread of colluvial brown calcareous earth (?Millington series) against the entrance rampart, although these may bury examples of the Batcombe

Table 35 Summary of the environmental history from the pedological evidence

Period	*Phase*	*Soil*	*Event*
Later Prehistoric	Cultivation/pasture	Rendzinas, brown calcareous earths, colluvial soils	Erosion Recalcification
	Cultivation/(pasture)	Argillic brown earths	Erosion/dusty clay translocation
	(Clearance)	Argillic brown earths	Dusty clay translocation
Early Holocene	Broad-leaved forest	Argillic brown earths	Lessivage (fine clay translocation)
	Broad-leaved forest	Argillic brown earths	Minor hydromorphism
			Acidification
			Decalcification
Late Quaternary	Aeolian/fluvial/stillwater	Deposition of löess	
	?Solifluction/fluvial	Deposition of chalk gravel	
	Aeolian	Deposition of soil pellets	
	Fluvial Cryogenic/solifluction	Stream cut channel Patterned ground; erosion of clay-with-flints	

series (typical stagnogleyic paleoargillic brown earths), developed on clay-with-flints head. However, micromorphology shows that the fabric of the upper soil formed in silty clay loessial material is Holocene, and thus is non paleoargillic.

Site history

Late Quaternary

A probable clay-with-flints cover on the exhumed sub-Eocene surface (Hodgson *et al* 1967) of the chalk at Balksbury Camp was eroded into areas of low ground, possibly in the Late Devensian. Cryogenic activity, leading to the solifluction of these deposits downslope, also produced patterned ground on the chalk plateau, in areas now carrying soils of the Andover Association. During the periglacial regime surface water probably cut a channel into the frozen chalk (hollow-way 3167; Tables 32 and 34). At this time there may have been very little superficial cover on the chalk. However, a phase of soil erosion and wind sorting (aeolian activity) gave rise to the deposition of silt size quartz (loessial origin) and very fine sand-size soil pellets into the new dry hollow-way and possibly also across much of the area. Microfabric analysis of these soil pellets suggests that they derive from a variety of horizons from earlier palaeosols. Similar, but unsorted, soil pellets have also been noted from Pleistocene deposits at, for example, Boxgrove, Sussex (Macphail and McConnell 1986).

A further phase of possible solifluction fluvial activity produced a slurry of chalk gravel and soil to be deposited over the primary aeolian layer, although no major cryogenic mixing occurred.

The area was then affected by a loessial cover, typical of the Late Devensian (Avery *et al* 1959; Hodgson *et al* 1967; Catt 1979). In the hollow-way persisting cold conditions allowed standing water or seasonal water alternations to produce silt and clay layers from reworked loess .

Early Holocene

Post-Devensian climatic amelioration and vegetation development continued the trend of soil decalcification begun under the cooler but more efficient (in terms of more rapid decalcification) conditions of the Late Devensian (Macphail 1987). There is no doubt that by the Atlantic period a forest cover (*see Allen, above*) occurred over decalcified and acid soils of varying depths (eg deep by the entrance, shallow in the tree-hollows). Early Flandrian lessivage and minor hydromorphism on loess has been reported from Pegwell Bay, Kent (Weir *et al* 1971), and the microfabrics across the site suggest similar argillic brown earth (Avery 1981) formation at Balksbury. The large number of tree-hollow features across the site may infer a dense forest cover on the chalk at this time, which is supported by pollen evidence from southern England in general (Scapha 1987).

Radiocarbon dating

Seven samples were submitted to by the Ancient Monuments Laboratory to Harwell for radiocarbon determination (Table 36). The date obtained from Har-443 is anomalous although there is no apparent reason for this as the sample was apparently from the securely stratified middle layers of pit 500, which contained a coherent group of Early Iron Age pottery. Har-5124 provides a secure date for the Beaker burial. Har-442 and Har-5127 were both derived from contexts which have been independently ascribed to the Late Bronze to Earliest Iron Age period on the basis of stratigraphic relationships and associated pottery, and therefore can be used to date that phase. Har-444 came from a pit (36) which had pottery which has been ascribed to the Late Iron Age ceramic phase. The other two dates (Har-445, Har-446) came from pits which contained no other dating evidence and consequently cannot be used to provide absolute dates for the phasing of the site.

Table 36 ^{14}C age determinations

Context	*Dating lab*	*Sample*	*^{14}C age*	*Calibrated dates (Stuiver and Pearson 1986)* *1 sigma**	*2 sigma**
Phase II bank (BCI (10)	HAR-442	antler	2740±170	cal BC 1100– 790	cal BC 1395– 410
Pit 500, layer 5/8	HAR-443	charcoal	1310±100	cal AD 640– 790	cal AD 550– 950
Pit 36, layer 6	HAR-444	charcoal	2140± 80	cal BC 360– 95	cal BC 390– 20 cal AD
Pit 182, layer 4	HAR-445	charcoal	2000± 80	cal BC 105– 75 cal AD	cal BC 200– 140 cal AD
Pit 106, layer 4	HAR-446	charcoal	2180±150	cal BC 400– 40	cal BC 760– 120 cal AD
Beaker burial 2286 (context 2326)	HAR-5124	human bone	3530± 80	cal BC 2010–1750	cal BC 2130–1680
Posthole 3464, layer 3465 (context 2326)	HAR-5127	charcoal	2800± 70	cal BC 1035– 895	cal BC 1160– 820

* *maximum intercept calibrated range*

Chapter 4 Discussion

The following section is an attempt to summarise the information gained from all the excavations at Balksbury, including those conducted in 1973 (Wainwright 1969, 21–55). This involves an examination of the role of the developing settlements, particularly those of the later prehistoric and Roman periods, in the local area set against the environmental background. The excavations examined a large proportion of the total area of the site during the three seasons of work, and whilst not all individual features could be investigated, the overall chronological sequence and and spatial organisation of the site were well established. Although the initial size of the site in the Late Bronze Age to Earliest Iron Age appears to mark out the site as one of high status and importance, it is apparent that its economic base bears great similarities to the moderately sized enclosed and open settlements in the surrounding area. Despite this, the enclosure at Balksbury is unique in the area in its initial character and size and its intended role may originally have been akin to that suggested for the later and more strongly defended sites such as Danebury or Bury Hill.

Environmental history

The extensive environmental analyses have provided a detailed Late Glacial and periglacial history of the site (Tables 31 and 35), which can be summarised as follows.

Many of the features on the site were the result of periglacial conditions; the 'hollow-way', for example, was a natural feature probably formed by surface water cutting a channel into the frozen Chalk. The open landscape would have allowed considerable aeolian soil erosion and subsequently loess deposition in the Late Devensian. As a result of climatic changes in the post-Devensian, considerable woodland would have developed by the Boreal period and by the Atlantic period a soil cover of thick, argillic brown earths supporting extensive deciduous mixed oak woodland had developed. Despite the evidence for Mesolithic activity in the area, the extensive woodland survived at Balksbury virtually intact until the Bronze Age and even then clearance was not on any large scale.

The first large-scale clearance was in the Late Bronze Age, with the construction of the enclosure on the plateau. Within the area enclosed open grassland developed, but the apparent period of neglect between the first and second phase of enclosure modification and the rapid re-colonisation of part of the site by a woodland molluscan fauna indicate that the site was not located in an extensively cleared landscape and that woodland must have existed close by. Further activity and ploughing in the interior in the Iron Age and Romano-British periods resulted in the erosion of soils and the development of colluvial deposits against the enclosure bank, particularly on the south-eastern side. As a consequence calcareous rendzinas developed over most of the site, as on much of the chalk downland today. The site apparently reverted to woodland in the post-Roman period.

The ecological setting

The location of settlement sites in the later prehistoric and Romano-British periods must have been influenced by the needs of the site economy as much as any sociological influences such as territorial dominance, boundary definition, or hierarchy. Any site is likely to have been located to make full use of the natural resources of its hinterland, and Balksbury is ideally positioned to exploit a number of ecological zones. Sited on a low spur of downland at the confluence of the River Anton and the Pillhill Brook, Balksbury has easy and direct access to water for animal and human consumption, lying only 500m from the nearest permanent water source. Many of the known Late Bronze Age and Iron Age sites in the vicinity (Fig 1) appear to be some distance from a current permanent water supply, adjacent to valleys now dry. But many of these 'dry' valleys are known to have contained running water within the last half century; Balksbury is virtually surrounded by rivers and streams.

Cunliffe (1984a, 475–6) identified a series of five ecological zones lying within the greater 'territory' of Danebury hillfort which lies some 7km to the south of Balksbury. These zones are equally applicable to Balksbury and it could be argued that Balksbury is rather better located for direct access to some of them. The suggested location of the defined zones in relation to Balksbury is shown in Figure 73.

Floodplains: Balksbury is located directly above the floodplain of the Anton Basin. The alluvial terraces provide excellent potential for cereal cultivation (depending on the water table). Their variable nature, some only a few metres wide, some several hundred, would have represented an invaluable resource: water meadows providing pasture for cattle; marshy areas providing reeds, rushes, and willow for thatching, and wattle for house construction and basketry.

Watered downland: Cunliffe defines an arbitrary boundary of 1km as a reasonable limit within which cattle could be permanently pastured in easy reach of a water supply. Balksbury is situated in this zone, next to the floodplain, an ideal site for extensive cattle farming, which can be inferred from the faunal record of the later prehistoric and Romano-British phases. However, the suggestion by Allen (*chapter 3*) that there was also much woodland in the vicinity implies that Cunliffe's generalised ecological picture is not necessarily locally accurate and must be viewed with caution.

Dry downland: this is defined as downland more than 1km from a permanent water supply. It is likely that the boundaries of this zone defined in Figure 73 could be moved further away for the purposes of Iron Age agriculture, as the water table was probably higher. This being the case, Balksbury could have lain at

some distance from this zone. The extent to which the 'high' plateau around Balksbury was cultivated in the Iron Age is uncertain, but the sheer number of contemporary settlements exploiting the same set of ecological zones (see Figs 1 and 73) suggests that all land was utilised to its full capacity.

Isolated woodland: Allen suggests that isolated woodlands lay on the clay-with-flints to the south and south-west of Balksbury. It is possible that there were also more immediately adjacent woodlands and that use was made of these neighbouring areas for timber, pannage, and browsing, and the supply of herbs and fungi.

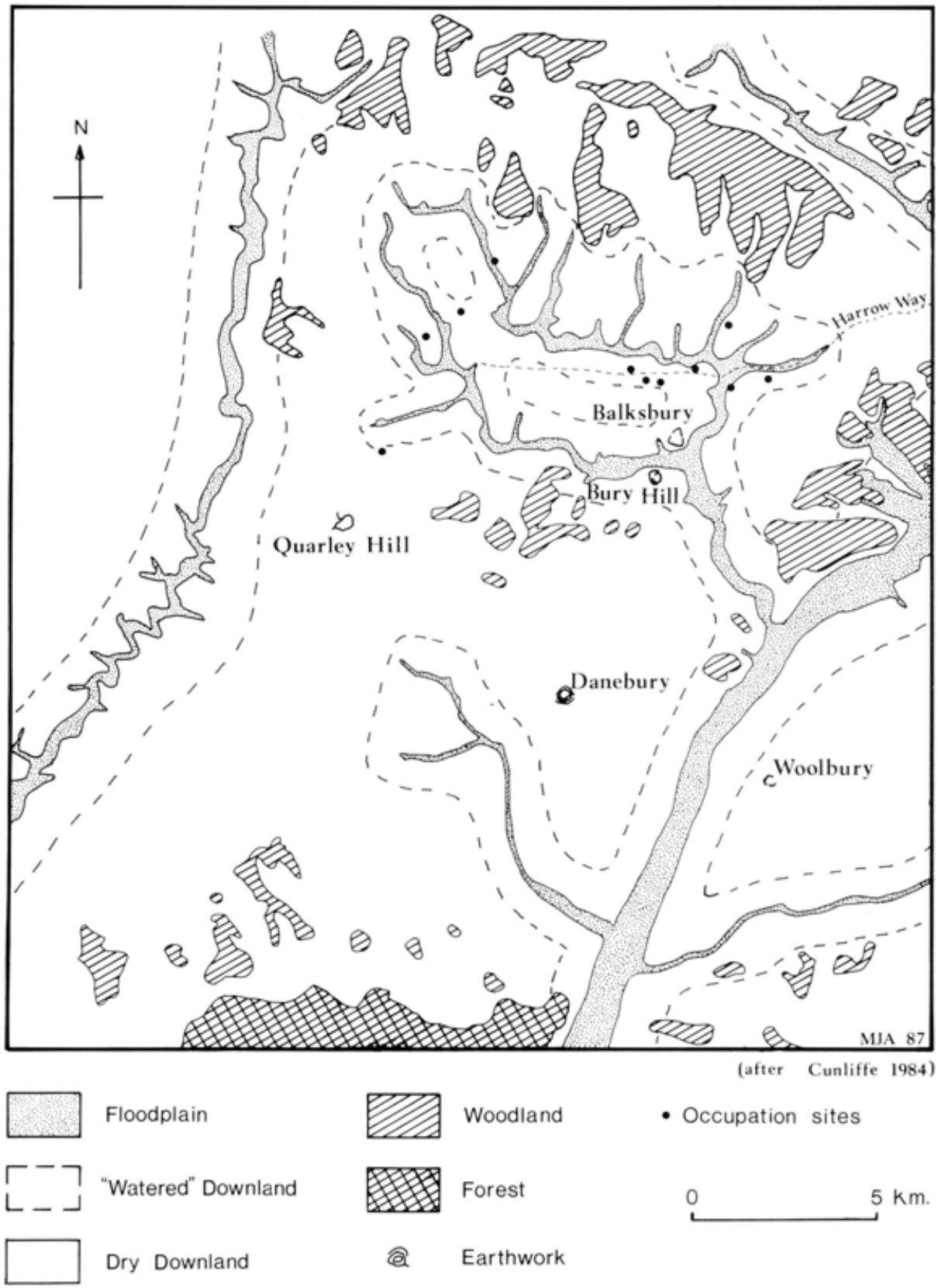

Fig 73 Environmental zones in the region (after Cunliffe 1984a)

The apparent lack of exploitation of wild animals, however, could be indicative of a lack of close woodland cover.

Forest: The Reading Beds some 20km to the south in the Dean Hill syncline could have provided extensive supplies of timber and woodland products as well as potting clay. In addition, the steep-sided valleys to the north and north-east are heavily wooded today and may have provided a more accessible timber source than the area to the south of Danebury hillfort, by utilising water transportation.

The definition of such 'ecological' zones on a broad basis can only be a guess at what must have been a complex mosaic of ever-changing micro-environments. The social barriers affecting access to exploitation of any one of the zones are even less tangible.

Site development

Pre-enclosure activity: Neolithic and Bronze Age

No structural remains or features dated to the Neolithic were found, and the sole evidence for any activity is the presence of a small number of worked flints (some of which could be later) and two axe fragments, one flint and one a probable Group IV import from Cornwall (Amphibolite) (*Buckley, chapter 3*). Molluscan data suggest that the site was covered in dense woodland at this period, and there is nothing to suggest any clearance.

Activity in the late third or early second millennium BC is reflected by four hearths associated with Beaker pottery (Southern British Tradition and Domestic types) and worked flints, found in the southern part of the site in 1967. The pottery is dated stylistically by Dr Longworth to *c* 1550 BC. In addition, in the west part of the site there was a single crouched burial, that of an adolescent female accompanied by a complete Beaker. This vessel, in contrast to the pottery associated with the hearths, is akin to Clarke 1970, Wessex/Middle Rhine group and to Lanting and van der Waals 1972, step 2 type. The burial is dated to 2130–1680 cal BC (HAR-5124; *Table 36*) (*Cleal, chapter 3*).

There is again a lack of environmental evidence for substantial activity, including woodland clearance. Evidence for the Middle Bronze Age is limited to a small number of Globular Urn sherds recovered from the fills of later features, and whilst the nature of the activity is impossible to define exactly, it was perhaps, on balance, possibly more likely to have been associated with burial than settlement.

Inception of the enclosure: Late Bronze to Earliest Iron Age

This period saw the first large-scale clearance of woodland, with the construction of the plateau enclosure covering some 18ha. The enclosure had a single, gated entrance in the south-east corner, and was defined by a ditch and bank. Three phases of ditch and bank construction and modification were apparent:

Phase I: A shallow ditch, at least 0.9m deep, fronting a chalk and soil bank about 3m wide which survived to a height of 0.5m. The width of the ditch is uncertain as later modification had removed most of it.

Phase II: The ditch was enlarged to an average depth of 1.8m, and a width of about 7m. The bank was widened to about 5m, and, at least near the entrance, may have been strengthened with timber supports.

Phase III: The ditch was enlarged again, to a depth of 3.3m and average width of 7.3m; the bank, enhanced with excavated material, appears to have been about 6.4m wide. At the entrance the rampart bank was still wider, producing an 8m-wide corridor from the gate.

Internal features (*Fig 11*) comprise scatters of postholes around the periphery of the site, four small pits and a number of four and five-post structures. The dating evidence for the last two groups is not extensive (pottery from a single posthole) and they may belong to a later phase. The period is dated by 'plain' and 'early decorated' pottery, found both on deposits associated with the defences and in the pits and postholes excavated. A radiocarbon date of 1395–410 cal BC (HAR-442) was obtained from layers associated with the second phase bank, and one of 1160–820 cal BC (HAR- 5127) was obtained from a posthole (*see Table 36*). The apparent period of neglect suggested by Allen between refurbishment episodes two and three implies that this period is a lengthy one, despite the very coherent nature of the pottery assemblage.

Early Iron Age

The first substantial evidence for settlement occurs in this phase, with the presence of at least three post-built structures in the southern part of the enclosure and twenty-seven storage pits, mainly in the central area (*Fig 18*). It is unclear whether the defensive circuit was still maintained, and indeed the ceramic evidence supports the suggestion that it had fallen into disuse. However, it is possible that the third phase of refurbishment of defences is contemporary with at least one of the round houses, particularly if parallels at local sites such as Old Down Farm (Davies 1981, 81–163) are taken into account. Even if the ditch and bank were not being actively maintained, they would still have formed a significant boundary both for definition of 'ownership' and for stock-keeping.

The earlier part of the phase is dated by the presence of furrowed bowls and decorated jars of early All Cannings Cross type, whilst later stages include the haematite-coated scratched-cordoned bowls of Meon Hill type and other similarly decorated wares. A single radiocarbon assay from pit 500 produced an aberrant date (cal AD 550–950), (*see Table 36*). The pit's ceramic assemblage is a coherent Early Iron Age one, apart from a little Roman material in the uppermost silting layers.

Middle to Late Iron Age

Evidence for activity in this period is confined exclusively to the central area excavated in 1973. No structures were identified, but a series of 90 pits and 1 posthole can be assigned to the period (*Fig 23*). There is no evidence to suggest that the enclosure is still functioning in this phase, and parallels elsewhere would suggest that it is far more likely that the settlement was an open one, or that its boundaries were defined by more ephemeral structures such as hedges or fences.

It is possible that some of the interior was under cultivation at this stage, as the environmental record suggests that soils were being eroded and colluvial deposits forming. As the majority of the features of this period are central to the site, it would be quite feasible for the surrounding parts to be under the plough.

Late Iron Age to Early Roman

Activity in the first centuries BC and AD was again apparently focused in the central area, although the enclosure entrance in the south-east corner of the site was also modified in this phase. Seventeen pits and a series of shallow gullies, probably small enclosures or fields, as well as thirty-one postholes, are attributed to the period (*Fig 25*).

The date range of this period is not well defined, as closely datable pottery is not present. Whether the activity dates to the pre-conquest period, or whether it commences in the mid or late first century, is uncertain, but the phase may well have continued until AD 120 or later.

Late Roman

As might be expected, this period contains perhaps the widest variety of feature types in the entire site sequence. Concentrated in the centre of the (out of use?) enclosure is a series of enclosures or fields, which continue the developments of the early Roman phase (Fig 30). This suggests that settlement was continuous, rather than disrupted, as perhaps implied by the ceramics. Associated with the small enclosures are pits, hollows, postholes forming fence-alignments, a corndryer, burials, and a substantial building with ovens. The presence of painted wall plaster within the building might suggest that it was initially of some quality or pretension, though there is little else to imply anything other than a straightforward domestic structure.

The pottery assemblage includes a wide variety of coarse and fine products, both local and imported, with a date range of mid-third century to *c* AD 400 plus. Coin dating suggests the building was constructed before AD 341, though its period of use is uncertain. The burial discovered within the building, possibly inserted well after the structure had fallen into disuse and disrepair, was not inhumed in a coffin. Whilst this burial may date to the late fourth century, it could be of post-Roman, possibly Saxon date.

Chronology

The main basis of the site phasing and chronology is the pottery assemblage, which provides a good relative dating framework; there are too few radiocarbon dates to provide an absolute dating scheme for Balksbury. However, the ceramic sequence outlined by Rees (*chapter 3*) is comparable with a number of sites in the immediate area, notably Danebury (Cunliffe 1984a), and those further afield, and this can be used to build up a wider chronological sequence based on absolute dates.

The ceramic sequence at Danebury (*ibid*) has been allocated a timescale on the basis of an a number of radiocarbon dates. However, Balksbury had phases of activity (Late Beaker to Early Iron Age ceramic phase) not found at Danebury. It is possible to suggest that the dates of 550–450 BC put forward by Cunliffe for Danebury ceramic phases 1–3 (*ibid*) (roughly equivalent to Balksbury Early Iron Age ceramic phase) may be misleading because the lack of earlier material from the hillfort. This would imply that the earlier part of the date range produced by the radiocarbon analysis for Danebury ceramic phase 1–3 may be contracted. It is unfortunate that there are too few radiocarbon dates from Balksbury to construct an independent chronology for the earlier part of the first millennium BC and hence to clarify the problem. However, preliminary radiocarbon dates are available from Potterne, Wiltshire, (Gingell and Lawson 1984) for assemblages containing furrowed haematite-coated bowls (Balksbury Early Iron Age ceramic phase). The four available dates from Potterne produce a range for this ceramic phase of 987 to 400 cal BC, three of them lying between 987 and 510 cal BC. A single archaeomagnetic date from Potterne of 800–650 cal BC also falls within this date range. This would suggest that a more realistic date range for Danebury ceramic phases 1–3 would be *c* 950–450 BC. The earliest part of the Balksbury sequence (Late Bronze to Early Iron Age ceramic phase) is not well dated other than by two radiocarbon dates of 1395–410 cal BC and 1160–820 cal BC (HAR-442 and HAR-5127, *Table 36*).

Taking into account the calibrated dates from Potterne, the following date ranges are suggested for the major ceramic phases at Balksbury:

Late Bronze to Early Iron Age ceramic phase: 1100–900 BC (site phase Late Bronze Age to Earliest Iron Age)

Early Iron Age ceramic phase: 900–500 BC (site phase Early Iron Age)

Early to Middle Iron Age ceramic phase: 500–400 BC (site phase Early Iron Age)

Middle Iron Age ceramic phase: 400–300 BC (site phase Middle to Late Iron Age)

Middle to Late Iron Age ceramic phase: 300–50 BC (site phase Middle to Late Iron Age)

Late Iron Age ceramic phase: 50 BC–AD 50 (site phase Late Iron Age to early Roman)

Late Iron Age to early Roman ceramic phase: AD 50–150 (site phase Late Iron Age to early Roman)

Late Roman ceramic phase: AD 200–400 plus (site phase Late Roman)

The above suggestions are obviously speculative, but there are hints that the earlier part of this ceramic sequence may be less truncated in its chronology than is proposed by the analysis of an incomplete sequence of ceramics from Danebury.

Economy

The evidence for farming practices in the major periods of site occupation complements the exploitation of the suggested ecological zones. In all periods sheep/goat and cattle were the most common sources of meat, and it appears from the surviving remains that the former outnumbered the latter by a ratio of about 3:1 in all phases. This figure could be misleading, however, as the butchery, consumption and disposal practices of the remains of the two animal types may have been radically different. Butchery evidence indicates that meat was often stripped from the bones of cattle and that sheep/goat meat may more often have been eaten on the bone. Horse and pig bones were also found throughout the Iron Age and Roman deposits, but in smaller numbers. The only new species in the Roman period was the domestic fowl.

Evidence from neonatal mortality and articulated burials of young animals indicate that in the Iron Age sheep/goat, cattle, pigs, and dogs were being bred on site. However, the extent to which these burials are 'ritual' deposits, or 'special animal deposits' (Grant 1984), and thus not necessarily representative of farming practice, is not clear.

The lack of exploitation of wild species at any time could be indicative of either choice, a lack of access to the resource, or that Balksbury lay within a highly cultivated landscape and there was a lack of need to seek out wild species for food to any extent. Antler for bone-working, for which there is a small amount of evidence in the Iron Age phases, could have been 'traded' as a separate commodity or collected if it were shed.

The similarity of the Late Bronze/Iron Age assemblage at Balksbury to other chalkland settlement sites (as opposed to hillforts) is remarkable. In all aspects, from proportions of species exploited to mortality profiles and butchery, the assemblage shows that the farming regime at Balksbury was almost identical to those suggested for small, contemporary enclosed and open settlements in the immediate area and further afield of the Hampshire chalk downlands. There is nothing in the animal bone assemblage to indicate that the Late Bronze Age/Iron Age settlement at Balksbury was functionally or socially different from apparently much smaller sites such as Old Down Farm (Davies 1981), Lains Farm (Bellamy 1992), High View Farm (Dacre in prep), or Winnall Down (Fasham 1985).

The archaeobotanical remains indicate the cultivation in the Iron Age of a standard range of cereals, though the evidence for the Roman period is limited to grain from a single corndryer and may be somewhat unrepresentive. Barley comprises 55% of the remains from the earlier part of the Iron Age, with 25% wheat and 20% unidentified. In the Middle and Later Iron Age wheat became more important, at 32%, with 26% barley and 11% oats, and large numbers of querns were recovered from features dated to this period. Crops of all periods were not well processed and there was high contamination with weed species. There is little artefactual material connected with crop-processing on a large scale, though reaping hooks are present. This contrasts markedly with the collection from Danebury hillfort (Selwood in Cunliffe 1984a, 346ff), and even with the number found at the settlement at Old Down Farm (Davies 1981), less than 2km away and potentially exploiting the same resource area. The environmental evidence suggests some tilling of land within the site boundary, probably in the Iron Age as well as in the Roman period and it is possible that the actual settlement at Balksbury never achieved any great size and was able to support itself from within its immediate environs.

Evidence for other aspects of site economy can also be gleaned from the artefact record. Tables 37 and 38 summarise the range of types present in the later prehistoric phases compared to other contemporary sites of various scales. The combs, weights, and spindle whorls attest to textile manufacture throughout the later first millennium, in keeping with all other sites except Lains Farm, where the excavation was on a very small scale. But in the earlier period Balksbury shows a marked paucity in scale and variety of artefact type, even when compared to the partially excavated enclosure at High View Farm. However, since the range of types generally at Balksbury is very limited in this period, this may be only a reflection of a lack of substantial rubbish deposits, rather than a true reflection of site activities. There is little evidence for other craft or industrial processes, with the possible exception of pottery production in the Late Bronze or Early Iron Age, and the evidence for working, perhaps casting, copper alloy in the Mid to Later Iron Age, as well as production of bone and antler tools.

The question of pottery production has been discussed by Helen Rees, who suggests (*chapter 3*) that two likely modes are applicable to all ceramic production in the Iron Age: household production and household industry (termed by Rees 'local' and 'regional' wares). Much of the pottery assemblage could perfectly well be the product of on-site work, utilising 'local' clays, but a small number of vessels can be identified as definite

imports in the earlier Iron Age, from the Upper Thames area of the Jurassic Ridge, and possibly from Dorset. The red-slipped or haematite-coated bowls, whether the earlier furrowed types or of the later scratched-cordoned style, are also likely to have been imported to the sites from production centres clustering in the Avon Valley area to the west. From the Middle Iron Age the ceramic assemblage narrows in its form and fabric ranges, suggesting a formalisation of larger-scale production centres with wider-scale distribution networks. Throughout the Later Bronze Age and Iron Age the ceramic groups from Balksbury show marked similarities in form, decoration, and fabric to material from other contemporary local sites in north-west Hampshire and Wiltshire, particularly the settlement sites of Old Down Farm, Lains Farm, High View Farm, Vigo Road, and Spine Road. Such similarities are obviously symptomatic of the close relationships between the sites and of their interdependence.

The pottery assemblages of the Roman period also conform to locally attested patterns, though production may now be rather more reliant on 'industrial' centres, local work being small-scale. Identifiable centres include the Poole Harbour area and in the later period the New Forest, Oxford, and Alice Holt factories. The paucity of southern British fine ware products and continental imports may well indicate the relatively low status of the farming settlement in this period.

The participation of Balksbury in the established trade networks is also shown by other imported products; the querns from a variety of sources in the Iron Age and Roman periods, briquetage, shale, and metal goods. Recent research has shown (*pace Buckley, chapter 3*) that almost all the saddle and rotary querns originate from the Lodsworth quarries in Sussex (Peacock 1987). Other sources include the Hampshire Basin, Purbeck, and the continent. The shale and possibly the briquetage would have been imported from Purbeck, although the briquetage fabrics are not well-matched by the known Purbeck fabrics, and the metals would have come from a number of sources.

Most of the artefact assemblages from Balksbury resemble those of many other settlement sites, in quantity as well as quality, and in this respect the similarities between Iron Age hillforts and non-hillfort settlements is worth emphasising (see, eg, Bowden and McOrmish 1987; Stopford 1987). There is nothing in the material that suggests specific functional or status variation from these settlements or that points to a site at the apex of the social structure.

Hierarchy and society

The scale of investigation of the interior of the enclosure at Balksbury should enable a reasonably objective assessment of site organisation and function through time. Most areas within it have been explored to some extent, though perhaps the area immediately inside the line of the defences is less well covered than others.

The most immediate question concerns the function of the earliest major site activity: the construction of the enclosure and its subsequent modifications and related internal features. The enclosure at Balksbury stands out

Table 37 Earlier Iron Age artefacts and industry

	Balksbury	*Old Down*	*High View*	*Lains Farm*	*Winnall Down*	*Danebury*
Personal adornment/dress						
Copper alloy	+	+	–	–	–	+
Iron	–	–	–	–	–	+
Shale	–	–	–	–	–	+
Glass/amber	–	–	–	–	–	+
Stone	–	–	–	–	+	–
Bone	–	–	–	–	+	+
Textile manufacture						
Stone	–	+	+	–	+	–
Chalk	–	+	–	–	+	+
Clay	+	+	+	+	+	+
Bone	–	+	+	–	+	+
Household						
Querns	+	+	–	+	+	+
Weights	+	–	–	–	–	+
Hones	–	+	–	+	–	+
Agricultural tools	–	–	–	–	–	+
Other tools						
Iron	+	+	+	–	+	+
Bone	+	+	+	–	+	+
Weapons	–	–	–	–	–	+
Craft and Industry						
Copper alloy	–	–	–	–	–	–
Iron	–	+	–	–	–	–
Bone	–	+	+	–	+	+

from other sites, certainly on the chalk downlands at least, because of its massive size; not because of the scale or even construction sequence of the actual defences themselves, which can be matched at much smaller enclosures such as Old Down Farm, Lains Farm, or Winnall Down, but by virtue of the area enclosed, over 18ha. Such a vast circuit, on a fairly flat plateau, is effectively incapable of defence. Contemporary features or structures are few in number and do not imply extensive usage.

Evidence tends towards the enclosure circuit falling into disuse relatively quickly. The construction of the enclosure ditches and accompanying banks would have required considerable effort and manpower, available not only for the initial work but for the modifications as well. It is likely that the effort to construct the enclosure was a communal one involving manpower from a wide area. This obviously implies an organised society and probably a communal need or function for the enclosed area. The physical remains from the site do not assist in interpreting this communal function, though its primary role is unlikely to have been defensive. More likely is the suggestion already made (by, eg, Wainwright 1969, 50) that the main function was as a stock enclosure, ideally located close to a permanent water source and good pasture. It may have performed this role as a seasonal or periodic one, connected with annual redistribution or exchange of stock, but no tangible remains would necessarily be left from such a use. However, in this scenario, the four-post structures could be interpreted as the bases of fodder ricks (Cunliffe 1984b, 17–18), as could the two-post 'structures'. Alternative explanations in terms of definition of social or status boundaries are equally possible, but current evidence does nothing to assist in interpretation. Whatever its intended initial function, the description of Balksbury Camp as a 'hillfort' is singularly inappropriate. Its role in display rather than defence (*cf* Bowden and McOrmish 1989) may have been the more important.

After the initial use of the enclosure, most of the Iron Age activity was located in the central area of the site, with scattered structures elsewhere. All evidence points to a series of settlements, probably unenclosed or defined by fence or boundaries, of no great scale or status, with an economic base akin to that of contemporary sites in the area. It is possible that some breaks in the occupation sequence existed (*as suggested by Rees in chapter 3*), but it is also feasible that the apparent gaps in the ceramic sequence reflect low-key activity rather than none at all. The defences may still have had some presence, and much of the evidence would be compatible with the scant occupation of early hilltop enclosures; perhaps the most appropriate parallel would be from Winklebury, phase 1 (Smith 1977; Fischer 1985).

Table 38 Middle and Later Iron Age artefacts and industry

	Balksbury	*Old Down*	*High View*	*Lains Farm*	*Winnall Down*	*Danebury*
Personal adornment/dress						
Copper alloy	+	+	–	–	+	–
Iron	+	+	–	–	+	+
Shale	+	–	–	–	–	+
Glass/amber	+	–	–	–	–	+
Stone	–	–	–	–	+	–
Bone	–	–	–	–	+	+
Textile manufacture						
Stone	–	+	+	+	+	–
Chalk	+	+	+	+	+	+
Clay	+	+	+	+	+	+
Bone	+	+	+	–	+	+
Household						
Querns	+	+	+	–	+	+
Weights	+	–	–	–	+	+
Hones	+	+	–	–	+	+
Briquetage	+	–	–	–	+	+
Agricultural tools	+	+	–	–	+	+
Other tools						
Copper Alloy	+	–	–	–	–	–
Iron	+	+	+	–	+	+
Bone	+	+	+	–	–	+
Wood	–	–	–	–	–	+
Weapons	+	–	–	–	–	+
Horse/vehicle trappings	+	+	–	–	–	+
Craft and industry						
Copper Alloy	+	–	–	–	–	+
Iron	+	+	+	–	+	+
Bone	+	+	–	–	+	+
Shale	+	–	–	–	–	+

The nature of occupation in the Roman period similarly reflects a familiar pattern for the area, with small fields enclosed by fences, the layout amended and adapted from time to time, with associated structures and burials. The settlement function appears to be agricultural, seemingly fairly low-key. It could represent an outlying farmstead attached to a villa, though which one is not immediately obvious. The presence of the corndryer might support this, and there are a number of such dryers associated with local sites, such as East Anton Crossroads (D Startin, in prep) and Spine Road (Dacre, in prep), usually found as individual features, not as part of a large group on any one site. This might imply a network of small farms, processing crops mainly for their own consumption or contributing to the needs of the villa, rather than 'industrial-scale' supply, and concentrating on a pastoral (or even a market garden) regime.

The continuity of site use, not only at Balksbury but at many other sites, from the Late Bronze Age and Iron Age to the Roman period, argues for a stable society, exploiting the natural resources of a rich hinterland. The intangible complexities of social organisation and structure which lay behind the recorded remains at sites such as Balksbury will never be fully explained, but the investigation and publication of these sites will bring some glimmers of understanding.

Appendix 1: dating evidence

For features dated by radiocarbon dates see chapter 3, Table 36

Late Roman features dated by coins

(see coin list chapter 3)

Context	*Feature type*	*Location plan*	*Coins (issue date)*
337	posthole	Fiche Fig 9	AD 290–91
395	posthole	Fiche Fig 8	AD 310, 323–4, 24–5/6
542	hollow	Fiche Fig 5	AD 323–4
553	pit (C)	Fiche Fig 11	AD 270–73
3450	silting layer in entrance		AD 353–60
3362	silting layer in entrance		c AD 270
3289	silting layer in entrance		AD 364–78

Features dated by pottery

Late Bronze Age to Earliest Iron Age ceramic phase

Context	*Feature type*	*Location plan*	*Comment*
166	posthole	Fiche Fig 3 (G6)	
574	posthole	Fiche Fig 9	
641	hollow	–	
696	posthole	Fiche Fig 12	
709	posthole	Fiche Fig 9	from 4 post struct J
723	hollow	Fiche Fig 12	
988	posthole	Fiche Fig 1	double posthole
2006/2007	posthole	–	
2115/2116	pit (C)	Fiche Fig 4	
2328/2285/ 2287	hollow	–	very disturbed
2342/2343	posthole	Fiche Fig 4	
2196/2484	posthole	Fiche Fig 4	
3003/3005	buried vessel	–	
3007/3008/ 3009/3016	layers	–	occupation layer behind bank
3036/3037	pit (rectangular)	–	
3127/3132	layer	–	occupation layer behind bank
3134	layer	–	silt layer sealed by phase II bank
3210/3211	posthole	–	
3349/3396	layer	–	behind bank
3455/3456	posthole	–	
3464/3465/ 3468/3469	posthole	–	
3476/3477	posthole	–	
3673/3484	posthole	–	
3491/3492/ 3502	posthole	–	
3500/3501	posthole	–	
3664/3549	posthole	–	

Early Iron Age ceramic phase

Context	*Feature type*	*Location plan*	*Comment*
2	pit (B)	Fiche Fig 3 (G8)	
31	pit (B)	Fiche Fig 3 (G8)	
45	pit (B)	Fiche Fig 3 (F7)	layers 4–7 only
67	pit (C)	Fiche Fig 3 (F7)	
74	pit (B)	Fiche Fig 3 (F7)	
92	posthole	Fiche Fig 3 (G7)	
96	pit (C)	Fiche Fig 3 (F6)	
133	pit (C)	Fiche Fig 3 (G8)	
144	pit (B)	Fiche Fig 3 (F8)	
181	pit (B)	Fiche Fig 3 (F6)	
191	pit (unclassified)	Fiche Fig 3 (F6)	
192	pit (B)	Fiche Fig 3 (F6)	layer 4 only
248	pit (B)	Fiche Fig 5	
265	pit (B)	Fiche Fig 9	
357	posthole	Fiche Fig 9	
381	pit (C)	Fiche Fig 8	
385	posthole	Fiche Fig 8	
418	posthole	Fiche Fig 5	
483	pit (B)	Fiche Fig 10	
485	posthole	Fiche Fig 10	
515	pit (C)	Fiche Fig 10	layers 4–5 only
627	posthole	Fiche Fig 3 (D6)	
635	hollow	Fiche Fig 3 (D6)	
715	posthole	Fiche Fig 5	
745	posthole	Fiche Fig 12	part of round-house A
914	pit (B)	Fiche Fig 3 (G8)	

Early to Middle Iron Age ceramic phase

Context	*Feature type*	*Location plan*	*Comment*
1	pit (A)	Fiche Fig 3 (G8)	layers 9–14 only
24	pit (B)	Fiche Fig 3 (F8)	layers 4–8 only
48	pit (B)	Fiche Fig 3 (F7)	layers 4–7 only
49	pit (B)	Fiche Fig 3 (F7)	layers 4–5 only
97	pit (B)	Fiche Fig 3 (F7)	
98	pit (unclassified)	Fiche Fig 3 (F7)	
143	pit (B)	Fiche Fig 3 (F8)	
229	posthole	Fiche Fig 3 (E7)	
240	pit (B)	Fiche Fig 3 (E7)	
500	pit (B)	Fiche Fig 10	layers 4–11 only
501	pit (B)	Fiche Fig 10	

Middle Iron Age ceramic phase

Context	*Feature type*	*Location plan*	*Comment*
4	pit (B)	Fiche Fig 3 (G8)	
7	pit (B)	Fiche Fig 3 (G8)	
10	pit (B)	Fiche Fig 3 (G8)	
11	pit (B)	Fiche Fig 3 (G8)	
23	pit (B)	Fiche Fig 3 (F8)	layers 4–13 only
25	pit (B)	Fiche Fig 3 (G8)	
27	pit (B)	Fiche Fig 3 (G8)	
28	pit (B)	Fiche Fig 3 (E8)	
30	pit (B)	Fiche Fig 3 (G8)	layers 5–11 only
32	pit (B)	Fiche Fig 3 (G8)	
40	pit (B)	Fiche Fig 3 (G7)	
52	pit (B)	Fiche Fig 3 (E7)	
68	pit (B)	Fiche Fig 3 (F7)	
71	pit (B)	Fiche Fig 3 (F7)	
72	pit (B)	Fiche Fig 3 (G7)	layers 4–6 only
103	pit (A)	Fiche Fig 3 (F7)	
110	pit (B)	Fiche Fig 3 (F8)	
111	pit (B)	Fiche Fig 3 (F7)	
116	pit (A)	Fiche Fig 3 (E6)	
118	pit (A)	Fiche Fig 3 (E6)	
130	pit (B)	Fiche Fig 3 (G8)	layers 4–12 only
131	pit (B)	Fiche Fig 3 (G8)	
135	pit (B)	Fiche Fig 3 (G8)	
178	pit (B)	Fiche Fig 3 (E6)	
193	pit (B)	Fiche Fig 3 (E6)	
194	pit (B)	Fiche Fig 3 (F6)	
211	pit (B)	Fiche Fig 3 (E6)	
227	pit (B)	Fiche Fig 3 (E7)	
351	pit (B)	Fiche Fig 9	
352	pit (B)	Fiche Fig 9	
382	pit (B)	Fiche Fig 8	
436	pit (B)	Fiche Fig 5	
437	pit (B)	Fiche Fig 5	
488	pit (B)	Fiche Fig 5	
505	pit (B)	Fiche Fig 10	
716	pit (B)	Fiche Fig 3 (H8)	
916	pit (A)	Fiche Fig 3 (G8)	
917	pit (B)	Fiche Fig 3 (F7)	layers 4–7 only
918	pit (B)	Fiche Fig 3 (F7)	
931	pit (B)	Fiche Fig 3 (F7)	
959	posthole	Fiche Fig 9	
1027	pit (B)	Fiche Fig 3 (D6)	

Middle to Late Iron Age ceramic phase

Context	*Feature type*	*Location plan*	*Comment*
12	pit (B)	Fiche Fig 3 (F8)	layers 5–6 only
14	pit (A)	Fiche Fig 3 (F8)	layers 4–6 only
18	pit (C)	Fiche Fig 3 (F8)	
19	pit (B)	Fiche Fig 3 (D6)	
33	pit (B)	Fiche Fig 3 (G8)	
44	pit (B)	Fiche Fig 3 (G7)	
51	pit (B)	Fiche Fig 3 (F7)	layers 4–5 only
54	pit (B)	Fiche Fig 3 (E8)	
65	pit (B)	Fiche Fig 3 (E7)	
66	pit (unclassified)	Fiche Fig 3 (G7)	layers 5–8 only
84	pit (B)	Fiche Fig 3 (F8)	
123	pit (B)	Fiche Fig 3 (F8)	layer 4 only
124	pit (B)	Fiche Fig 3 (G8)	
126	pit (B)	Fiche Fig 3 (D6)	layers 5–8 only
134	pit (B)	Fiche Fig 3 (G8)	
146	pit (C)	Fiche Fig 3 (E8)	
154	pit (B)	Fiche Fig 3 (F8)	
168	pit (B)	Fiche Fig 3 (F6)	layers 4–11 only
195	pit (B)	Fiche Fig 3 (F6)	
237	pit (B)	Fiche Fig 3 (E7)	
238	pit (B)	Fiche Fig 3 (E7)	
241	pit (B)	Fiche Fig 3 (D7)	
245	pit (B)	Fiche Fig 3 (E8)	
255	pit (C)	Fiche Fig 3 (D7)	
435	pit (B)	Fiche Fig 5	
905	pit (B)	Fiche Fig 3 (E6)	layers 4–9 only
929	pit (B)	Fiche Fig 3 (F7)	layers 4–8 only
993	pit (B)	Fiche Fig 9	layers 4–7 only
1026	pit (unclassified)	Fiche Fig 3 (D6)	

Late Iron Age ceramic phase

Context	*Feature type*	*Location plan*	*Comment*
1	pit (B)	Fiche Fig 3 (G8)	middle layers (7–8)
13	gully	Fiche Fig 3 (F6)	
30	pit (B)	Fiche Fig 3 (G8)	upper layers (3–4)
36	pit (B)	Fiche Fig 3 (F8)	
37	pit (B)	Fiche Fig 3 (G8)	
45	pit (B)	Fiche Fig 3 (F7)	upper layer(s) only
49	pit (B)	Fiche Fig 3 (F7)	upper layer(s) only
53	pit (A)	Fiche Fig 3 (E7)	
55	pit (B)	Fiche Fig 3 (G8)	layers (4–9) only
112	pit (B)	Fiche Fig 3 (E6)	
117	pit (B)	Fiche Fig 3 (F7)	
148	pit (B)	Fiche Fig 3 (F8)	
189	pit (B)	Fiche Fig 3 (F6)	
204	pit (B)	Fiche Fig 3 (E6)	
213	pit (B)	Fiche Fig 3 (E6)	
239	pit (B)	Fiche Fig 3 (E7)	
242	pit (B)	Fiche Fig 3 (E7)	
299	pit (B)	Fiche Fig 9	
314	posthole	Fiche Fig 9	
462	pit (B)	Fiche Fig 5	
494	pit (unclassified)	Fiche Fig 5	
628	pit (B)	Fiche Fig 3 (D6)	
630	pit (B)	Fiche Fig 3 (D6)	

Late Iron Age to early Roman ceramic phase

Context	*Feature type*	*Location plan*	*Comment*
1	pit (B)	Fiche Fig 3 (G8)	silting layers (3–5) only
3	pit (B)	Fiche Fig 3 (G8)	
12	pit (B)	Fiche Fig 3 (F8)	silting layer (3) only
20	pit (C)	Fiche Fig 3 (E8)	
29	linear feature	Fiche Fig 5	
60	gully	Fiche Fig 3 (H7,8)	
66	pit (unclassified)	Fiche Fig 3 (G7)	silting layers (3–4) only
69	pit (A)	Fiche Fig 3 (F7)	
72	pit (B)	Fiche Fig 3 (G7)	silting layer (3) only
120	pit (B)	Fiche Fig 3 (E6)	
132	pit (B)	Fiche Fig 3 (H8)	
155	hollow	Fiche Fig 3 (F8)	
158	pit (C)	Fiche Fig 3 (E6)	rectangular pit
168	pit (B)	Fiche Fig 3 (F6)	silting layer (3) only
183	gully	Fiche Fig 3 (F7, D, E, F, 6)	'L' shaped, joins gullies 13 & 624
187	pit (C)	Fiche Fig 3 (F6)	
197	pit (B)	Fiche Fig 3 (F6)	
220	pit (B)	Fiche Fig 3 (E7)	
249	gully	Fiche Fig 9	cut gully 391
251	pit (C)	Fiche Fig 3 (E8)	
252	pit (C)	Fiche Fig 3 (D8)	rectangular pit
391	gully	Fiche Fig 8	3 segments, cut by gully 249
428	pit (C)	Fiche Fig 3 (F8)	
432	hollow	Fiche Fig 5	
467	hollow	Fiche Fig 5	
500	pit (B)	Fiche Fig 10	silting layer (3) only
515	pit (C)	Fiche Fig 10	silting layer (3) only
528	pit (C)	Fiche Fig 6	rectangular pit
529	pit (C)	Fiche Fig 6	
559	gully	Fiche Fig 3 (D, E7–8)	
629	pit (B)	Fiche Fig 3 (D6)	
930	pit (C)	Fiche Fig 3 (F7)	
990	pit (C)	Fiche Fig 3 (F7)	

Late Roman ceramic phase

Context	*Feature type*	*Location plan*	*Comment*
8	gully	Fiche Fig 3 (F, G8)	
9	hollow	Fiche Fig 3 (F8)	contained flint nodules
15	pit (C)	Fiche Fig 3 (F8)	rectangular
16	hollow	Fiche Fig 3 (F8)	top fill of pits 686 and 87
21	pit (C)	Fiche Fig 3 (G8)	square
41	gully	Fiche Fig 3 (G7–8)	joined gully 59
46	hollow	Fiche Fig 3 (F7)	
58	hollow	Fiche Fig 3 (G8)	
59	gully	Fiche Fig 3 (G, H8)	joined gully 41
63	hollow	Fiche Fig 3 (F7)	
64	pit (B)	Fiche Fig 3 (F7)	
78	hollow	Fiche Fig 3 (F6)	contained flint nodules
86	pit (B)	Fiche Fig 3 (F8)	
108	linear feature	Fiche Fig 3 (F, G7)	
114	pit (B)	Fiche Fig 3 (F7)	
119	pit (B)	Fiche Fig 3 (F8)	cut by 428, finds probably from latter
129	gully	Fiche Fig 3 (G7)	cut by gully 246
139	hollow	Fiche Fig 3 (F8)	
140	linear feature	Fiche Fig 3 (F8)	
145/243	gully	Fiche Fig 3 (E8)	
150	pit (C)	Fiche Fig 3 (E8)	
151	pit (unclassified)	Fiche Fig 3 (E8)	
153	hollow	Fiche Fig 3 (F8)	
176	hollow	Fiche Fig 3 (E6)	
270	quarry hollow	Fiche Fig 7	
383	gully	Fiche Fig 8	
422	posthole	Fiche Fig 5	
429	hollow	Fiche Fig 3 (D8)	
442	hollow	Fiche Fig 9	
444	hollow	Fiche Fig 9	
465	hollow	Fiche Fig 5	packed with flint nodules
511	corndryer	Fiche Fig 10	
554	pit (C)	Fiche Fig 11	sub-rectangular
555	pit (C)	Fiche Fig 11	sub-rectangular
562	building	Fiche Fig 3 (E8, 9)	
692	posthole		
3316	silting layer on trackway		
3357	silting layer on trackway		
3381	silting layer on trackway		

Appendix 2: details of structures, pits and gullies

Structures

Four-post structures

Four-post structures in the central area *(most not illustrated)*

Structure	*Associated postholes*	*Comments*
C	363, 366, 370, 373	Square setting, sides 2.25m long, flint packing in 363, 366 & 370
E	276, 360, 367, 578	Square setting, sides 2.5m long, flint packing in 360, 367 double and 276 triple, ? for replacements
F (Fig 16)	268, 269, 713, 714	Trapezoidal setting, sides 2.2m and 2.25m long
G	285, 286, 290, 711	Trapezoidal setting, sides 1.8m and 2m long, post pipe visible in 285 and 286
H	340, 344, 631, 707	Square setting, sides 2.5m long, flint packing in 340 and 344
J (Fig 16)	262, 263, 709, 710	Square setting, sides 2m long
K	317, 320, 583, 706	Trapezoidal setting, sides 2.25m and 2.5m long, 316 may be associated with one side
L	459, 461, 469, 1021	Square setting, sides 2.5m long
M	541, 543, 546, 548	Square setting, sides 2.75m long

Possible four-post structure

Structure	*Associated postholes*	*Comments*
D	366, 372, 576, -	Square setting, sides 2m long, 366 appears to have been reused in this structure differently aligned to structure C with the fourth post now eroded.

Four-post structures in the north-west area *(see Fiche Fig 2)*

Structure	*Associated postholes*	*Comments*
Q (Fig 16)	883, 884, 885, 886	Square setting, sides 1.5m long
R	882, 1013, 1014, 1015	Trapezoidal setting, sides from 1.25m to 1.75m long
S	888, 889, 1008, 1009	Trapezoidal setting with sides 1.75m to 2m long, overlapping structure T
T	887, 890, 1010, 1011	Trapezoidal setting, sides 1.25m to 2m long, flint packing in 1011, chalk packing in 890
U (fig 16)	873, 875, 876, 877	Trapezoidal setting, sides 1.25m to 2m long
V	895, 899, 900, 977	Trapezoidal setting, sides from 1.75m to 2.25m long
W	896, 897, 898, 978	Trapezoidal setting, sides from 1.75m to 2.25m long
X	846, 851, 1040, 1041	Trapezoidal setting, sides from 1.75m to 2.25m long
Y	841, 844, 1038, 1039	Trapezoidal setting, sides from 1.25m to 1.5m long
Z	834, 836, 845, 852	Trapezoidal setting, sides from 1m to 1.25m long
AA	839, 840, 843, 1024	Square setting, sides 1.5m long
AB	802, 808, 817, 868	Square setting, sides 1.75m long
AC	819, 823, 860, 1042	Trapezoidal setting, sides from 1.75m to 2m long
AD	831, 832, 838, 1023	Trapezoidal setting, sides from 2m to 2.25m long, 838 a double posthole
AE	833, 837, 866, 1022	Square setting, sides 1.5m long
AF	800, 801, 805, 810	Trapezoidal setting, sides from 1.25m to 2.25m long
AG	813, 815, 818, 872	Trapezoidal setting, sides from 1.25m to 1.5m long, flint packing in 872
AH	807, 1031, 1033, 1036	Rectangular setting, sides 1.5m and 1.75m long, 1034 may be associated with one side

Four-post structures in the west areas *(see also Fiche Fig 4)*

Structure	*Associated postholes*	*Comments*
2087	2047, 2094, 2459, 2462	Trapezoidal setting, sides 2m long
2119	2122, 2124, 2142, 2471	Trapezoidal setting, sides from 1.8m to 2m long
2291	2310, 2132, 2182, 2427	Trapezoidal setting, sides from 1.3m to 1.4m long
2292	2262, 2263, 2269, 2278	Trapezoidal setting, sides from 1.7m to 1.9m long
2295	2031, 2032, 2126, 2128	Trapezoidal setting, sides from 1.5m long
2319 (Fig 16)	2218, 2220, 2317, 2320	Trapezoidal setting, sides from 2.5m to 2.8m long
2402	2329, 2346, 2348, 2350	Trapezoidal setting, sides from 1.8m to 2m long
P (Fig 16)	697, 701, 728, 758	Trapezoidal setting, sides from 1.8m to 2m long

Five-post structures

Five-post structures in the central area *(see also Fiche Fig 8)*

Structure	*Associated postholes*	*Comments*
A (Fig 16)	396, 403, 404, 405, 575	Four of the posts on a square, sides 2.25m long, each posthole flint packed
B (Fig 16)	399, 400, 401, 407, 408	Four of the posts on a square, sides 2.25m long, flint packing in all but 408

Possible five-post structure in the central area *(see Fiche Fig 8)*

Structure	*Associated postholes*	*Comments*
N	392, 393, 394, 397	Three posts plus an assumed 4th on a square, sides 2m long

Five-post structure in the west area *(see Fiche Fig 4)*

Structure	*Associated postholes*	*Comments*
2086 (Fig 16)	2021, 2023, 2025, 2033, 2148	Rectangular setting with sides from 2m to 2.2m and a central post

Two-post structures *(see Fiche Fig 4)*

Structure	*Associated postholes*
2447	2188, 2293
2448	2322, 2324
2449	2136, 2138
2450	2144, 2146
2451	2235, 2237
2452	2222, 2239

Pits

There are 197 pits recorded from this site and all but seven (935, 2052, 2114, 2115, 2190, 3036 and 3163) were situated in the central settlement area. The pit profiles have been classified into three basic shapes:

Profile A: cylindrical, the sides straight and vertical.
Profile B: bell-shaped, the sides expanding outwards towards the bottom, either straight or concave.
Profile C: sloping-sided, the sides sloping inwards towards the bottom.

Wherever possible the pits have been assigned one of these forms.

Pits are circular in plan except where stated. For non-circular pits the `diameter' is the long axis of oval pits or the longest side of rectangular pits (marked *). It has not been possible to classify the profile of some pits, usually because of near-destruction by a later feature. The pits fall into two main categories; storage pits (Profiles A and B), and those used for other purposes, (Profile C). (These often have a rather wide top). There are great variations in the depth and diameter of all the pits within each profile classification, particularly in Profile B, which range from straight-sided conical, through concave-sided, to near-cylindrical. The largest group at 68.02% is Profile B. The next largest group is of Profile C (21.82%) followed by Profile A with 5.08%. There were 10 pits whose profile could not be classified, usually because of near destruction by a later feature. The pits of Profile C were generally of the smallest size, most less than 1m deep, varying in width from 0.4 to 2.5m. The majority of the pits (170) were circular in plan, with 15 oval and 12 rectangular. Eleven of the rectangular pits were Profile C.

Abbreviations

IA: Iron Age; EI: Early Iron Age; ML–LI: Middle to Late Iron Age; LI: Late Iron Age; LI–ER: Late Iron Age to early Roman; LR: Late Roman.

Pit	*Location plan*	*Profile*	*Depth*	*Diam*	*Period*	*Comments*
1	Fiche Fig 3 (G8)	A	1.70m	1.45m	EI	Cut and almost completely destroyed by pit 1B
1	Fiche Fig 3 (G8)	B	4.25m	3.10m	ML–LI	Cut 1A, cut by gully 129, very deep
2	Fiche Fig 3 (G8)(and Fig 22)	B	1.90m	1.60m	EI	Two shallow sided pits of indent relationship cut by pit 34
3	Fiche Fig 3 (G8)	B	1.00m	1.22m	LI–ER	Cut by gully 59
4	Fiche Fig 3 (G8)	B	1.15m	2.30m	MI–LI	
5	Fiche Fig 3 (G8)	B	1.75m	2.00m	unphased IA	
7	Fiche Fig 3 (G8)	B	1.21m	0.79m	MI–LI	
10	Fiche Fig 3 (G8)	B	1.60m	1.60m	MI–LI	Cut pit 127
11	Fiche Fig 3 (G8)	B	0.90m	1.60m	MI–LI	
12	Fiche Fig 3 (F8)	B	1.50m	2.70m	MI–LI	
14	Fiche Fig 3 (F8)	A	0.67m	1.30m	MI–LI	
15	Fiche Fig 3 (F8)	C	0.48m	*2.00m	LR	Rectangular pit, min width 1.06m
18	Fiche Fig 3 (F8)	C	0.60m	2.00m	MI–LI	Cut pit 154
19	Fiche Fig 3 (D6)	B	1.40m	*1.85m	MI–LI	Oval pit, min width 1.4m, cut by 624
20	Fiche Fig 3 (E8)	C	0.38m	*1.20m	LI–ER	Oval, min width 0.70m
21	Fiche Fig 3 (G8)	C	0.73m	*1.40m	LR	Square pit, cut gully 59
22	Fiche Fig 3 (E8)	C	0.35m	1.15m	unphased IA	
23	Fiche Fig 3 (F8)	B	2.32m	2.70m	MI–LR	Re-cut pit
24	Fiche Fig 3 (F8)	B	1.34m	1.70m	EI	
25	Fiche Fig 3 (G8)	B	1.55m	1.50m	MI–LI	
27	Fiche Fig 3 (F8)	B	1.49m	2.10m	MI–LI	
28	Fiche Fig 3 (E8)	B	0.80m	1.55m	MI–LI	
30	Fiche Fig 3 (G8)	B	2.21m	3.30m	MI–LI	
31	Fiche Fig 3 (G8)	B	1.55m	1.90m	EI	
32	Fiche Fig 3 (G8)	B	1.70m	2.00m	MI–LI	Cut by gully 41
33	Fiche Fig 3 (G8)	B	1.75m	2.10m	MI–LI	
34	Fiche Fig 3 (G8)	C	0.59m	1.30m	unphased IA	Cut pit 2
36	Fiche Fig 3 (F8)	B	1.80m	1.84m	MI–LI	Cut by gully 8, HAR 444
37	Fiche Fig 3 (G8)	B	1.90m	2.22m	MI–LI	
39	Fiche Fig 3 (G7)	A	1.75m	1.75m	unphased RB	
40	Fiche Fig 3 (G7)	B	1.80m	2.60m	MI–LI	
44	Fiche Fig 3 (G7)	B	1.00m	1.90m	MI–LI	
45	Fiche Fig 3 (F7)	B	1.05m	1.80m	EI	
48	Fiche Fig 3 (F7)(and Fig 22)	B	1.35m	2.00m	EI	
49	Fiche Fig 3 (F7)	B	0.90m	2.15m	EI	
51	Fiche Fig 3 (F7)	B	0.72m	1.52m	MI–LI	
52	Fiche Fig 3 (E7)	B	2.05m	2.75m	MI–LI	
53	Fiche Fig 3 (E7)	A	1.45m	3.10m	MI–LI	A ledge at the top larger at the north side
54	Fiche Fig 3 (E8)	B	1.15m	1.90m	MI–LI	
55	Fiche Fig 3 (G8)	B	1.55m	2.55m	MI–LI	
56	Fiche Fig 3 (G8)	B	1.48m	–	unphased IA	Cut pit 906 and cut by pit 716, diam not evident
57	Fiche Fig 3 (G8)	B	1.90m	3.80m	unphased IA	Cut by hollow 58, there was a ledge at the top
62	Fiche Fig 3 (F7)	B	1.43m	1.25m	unphased IA	
64	Fiche Fig 3 (F7)	B	1.30m	1.90m	LR	
65	Fiche Fig 3 (E7)	B	1.95m	*2.50m	MI–LI	Oval pit, min width 2.1m
66	Fiche Fig 3 (G7)	–	1.90m	3.50m	MI–LI	Irregular profile
67	Fiche Fig 3 (F7)	C	0.47m	1.20m	EI	
68	Fiche Fig 3 (F7)	B	1.55m	1.65m	MI–LI	
69	Fiche Fig 3 (F7)	A	1.60m	2.62m	LI–ER	
71	Fiche Fig 3 (F7)	B	1.80m	2.00m	MI–LI	
72	Fiche Fig 3 (G7)	B	1.05m	1.40m	MI–LI	
74	Fiche Fig 3 (F7)	B	1.45m	1.75m	EI	Under hollow 63
84	Fiche Fig 3 (F8)	B	1.46m	2.64m	MI–LI	
86	Fiche Fig 3 (F8)	B	1.47m	*2.45m	LR	Oval pit, min width 1.7m
87	Fiche Fig 3 (F8)	B	0.80m	1.10m	unphased IA	Under hollow 16 and cuts pits 686
91	Fiche Fig 3 (F7)	B	1.00m	1.53m	unphased IA	
96	Fiche Fig 3 (F6)	C	0.20m	0.40m	EI	
97	Fiche Fig 3 (F7)	B	1.67m	1.80m	EI	
98	Fiche Fig 3 (F7)	–	2.07m	–	EI	Profile and diam undefinable
103	Fiche Fig 3 (F7)	A	1.15m	1.53m	MI–LI	
106	Fiche Fig 3 (G7)	B	0.42m	1.00m	MI–LI	HAR 446
110	Fiche Fig 3 (F8)	B	1.60m	2.10m	MI–LI	Mollusc sample from layer 10
111	Fiche Fig 3 (F7)	B	1.29m	1.73m	MI–LI	
112	Fiche Fig 3 (E6)	B	1.65m	1.80m	MI–LI	Cut by gully 183
114	Fiche Fig 3 (F7)	B	0.87m	1.80m	LR	Cut hollow 104
116	Fiche Fig 3 (E6)	A	1.10m	1.20m	MI–LI	Cut by gully 183

Pit	*Location plan*	*Profile*	*Depth*	*Diam*	*Period*	*Comments*
117	Fiche Fig 3 (F7)	B	1.00m	1.20m	MI–LI	
118	Fiche Fig 3 (E6)	A	0.44m	1.35m	MI–LI	
119	Fiche Fig 3 (F8)	B	1.73m	0.86m	LR	Cut by pit 428
120	Fiche Fig 3 (E6)	B	0.50m	0.90m	LI–ER	Probably two pits, one cut into other
122	Fiche Fig 3 (F8)	B	1.70m	1.22m	unphased IA	Cut by gully 782
123	Fiche Fig 3 (F8)	B	0.94m	1.82m	MI–LI	
124	Fiche Fig 3 (G8)	B	1.75m	1.60m	MI–LI	
126	Fiche Fig 3 (D6)	B	1.80m	3.10m	MI–LI	Cut by gully 624
127	Fiche Fig 3 (G8)	A	0.75m	1.40m	unphased IA	Cut by pit 10
130	Fiche Fig 3 (G8) (and Fig 22)	B	2.10m	2.30m	MI–LI	Cut by gully 129
131	Fiche Fig 3 (G8)	B	1.55m	2.00m	MI–LI	
132	Fiche Fig 3 (H8)	B	2.15m	2.40m	LI–ER	Cut the edge of pit 716
133	Fiche Fig 3 (G8) (and Fig 22)	C	0.80m	1.30m	EI	
134	Fiche Fig 3 (G8)	B	0.93m	1.07m	MI–LI	
135	Fiche Fig 3 (G8)	B	1.04m	1.75m	MI–LI	Cut by gully 8
142	Fiche Fig 6	C	0.40m	0.90m	unphased IA	Cut into pit 528
143	Fiche Fig 3 (F8)	B	2.45m	2.71m	EI	
144	Fiche Fig 3 (F8)	B	0.78m	1.66m	EI	
146	Fiche Fig 3 (E8)	C	0.85m	*1.40m	MI–LI	Oval pit, min width 1.1m
148	Fiche Fig 3 (F8)	B	1.80m	2.70m	MI–LI	
149	Fiche Fig 3 (E8)	C	0.30m	0.85m	unphased IA	
150	Fiche Fig 3 (E8)	C	0.80m	*2.50m	LR	Oval pit, min width 1.4m
151	Fiche Fig 3 (E8)	–	–	*2.80m	LR	Only upper 0.1m, was excavated, oval min diam 2m
154	Fiche Fig 3 (F8)	B	1.64m	0.94m	MI–LI	Cut by pit 18
157	Fiche Fig 3 (F7)	C	0.20m	0.75m	unphased RB	Mollusc sample from layer 3
158	Fiche Fig 3 (E6)	C	0.35m	*1.85m	LI–ER	Rectangular pit, min width 1.05m
168	Fiche Fig 3 (F6)	B	2.00m	2.40m	MI–LI	Mollusc sample from layer 11
175	Fiche Fig 3 (F6)	B	1.28m	2.12m	unphased RB	
177	Fiche Fig 3 (E6)	C	0.82m	1.20m	uphased	
178	Fiche Fig 3 (E6)	B	1.75m	2.15m	MI–LI	Cut hollow 200
181	Fiche Fig 3 (F6)	B	1.45m	1.60m	EI	Cut by pit 189
182	Fiche Fig 3 (F6)	B	1.55m	2.40m	MI–LI	HAR 445
187	Fiche Fig 3 (F6)	C	1.60m	1.80m	LI–ER	
188	Fiche Fig 3 (F6)	B	1.32m	1.60m	unphased IA	
189	Fiche Fig 3 (F6)	B	0.65m	0.92m	MI–LI	Cut pit 181
190	Fiche Fig 3 (F6)	B	0.89m	1.40m	unphased IA	
191	Fiche Fig 3 (F6)	–	1.34m	2.14m	EI	Irregular sides
192	Fiche Fig 3 (F6)	B	0.87m	1.00m	EI	
193	Fiche Fig 3 (E6)	B	1.70m	*2.10m	MI–LI	Oval pit, min width 1.7m, Mollusca from layer 3
194	Fiche Fig 3 (F6)	B	1.70m	1.90m	MI–LI	Mollusc sample from layer 4
195	Fiche Fig 3 (F6)	B	1.85m	3.00m	MI–LI	Cut into hollow 196
197	Fiche Fig 3 (F6)	B	1.55m	1.90m	LI–ER	Beneath hollow 176
199	Fiche Fig 3 (E6)	B	1.10m	2.00m	unphased IA	
204	Fiche Fig 3 (E6)	B	1.55m	–	MI–LI	Excavated as one pit with 205, diam not evident
205	Fiche Fig 3 (E6)	B	1.55m	–	unphased	
211	Fiche Fig 3 (E6)	B	0.97m	1.20m	MI–LI	
212	Fiche Fig 3 (E6)	B	1.25m	1.40m	unphased IA	
213	Fiche Fig 3 (E6)	B	1.85m	2.20m	MI–LI	Cut by gully 183, Mollusc sample from layer 9
214	Fiche Fig 3 (E6)	B	1.70m	1.85m	unphased IA	
215	Fiche Fig 3 (E6)	C	0.26m	0.80m	unphased IA	
220	Fiche Fig 3 (E7)	B	2.20m	0.40m	LI–ER	La Tene I iron brooch (*SF2000*)
224	Fiche Fig 3 (E7)	B	0.70m	1.50m	unphased IA	
227	Fiche Fig 3 (E7)	B	1.35m	1.30m	MI–LI	
234	Fiche Fig 3 (E7)	B	1.20m	1.55m	unphased IA	
236	Fiche Fig 3 (E7)	B	1.54m	2.40m	unphased IA	
237	Fiche Fig 3 (E7)	B	1.52m	*3.80m	MI–LI	Oval pit, min width 2.8m, ledge on one side
238	Fiche Fig 3 (E7)	B	1.40m	1.60m	MI–LI	
239	Fiche Fig 3 (E7)	B	1.74m	–	MI–LI	Irregular in plan, may have been two pits
240	Fiche Fig 3 (E7)	B	1.52m	1.10m	EI	
241	Fiche Fig 3 (D7)	B	1.49m	1.60m	MI–LI	
242	Fiche Fig 3 (E7)	B	1.20m	*1.90m	MI–LI	Oval pit, min width 1.65m
245	Fiche Fig 3 (E8)	B	1.30m	1.90m	MI–LI	
248	Fiche Fig 5	B	1.24m	1.45m	EI	
251	Fiche Fig 3 (E8)	C	0.48m	*2.40m	LI–ER	Oval pit, min width 1.5m, cut by gully 243
252	Fiche Fig 3 (D8)	C	1.40m	2.00m	LI–ER	Rectangular pit, min width 1.7m
254	Fiche Fig 3 (D7)	B	1.75m	1.90m	unphased IA	
255	Fiche Fig 3 (D7)	C	0.68m	1.20m	MI–LI	
264	Fiche Fig 9	C	1.52m	*2.70m	unphased	Rectangular pit, min width 1.65m
265	Fiche Fig 9 (and Fig 22)	B	1.15m	1.20m	EI	
299	Fiche Fig 9	B	1.75m	2.15m	MI–LI	
351	Fiche Fig 9	B	1.85m	2.85m	MI–LI	Cut by pit 352
352	Fiche Fig 9	B	1.40m	1.80m	MI–LI	Cut pit 351, diam is estimate only
379	Fiche Fig 8	B	1.15m	1.25m	unphased IA	
381	Fiche Fig 8	C	0.62m	0.90m	EI	
382	Fiche Fig 8	B	1.74m	1.65m	MI	
428	Fiche Fig 3 (F8)	C	1.55m	*1.73m	MI–LI	Rectangular pit, min width 1.3m, cut pit 119
435	Fiche Fig 5	B	2.50m	2.60m	MI–LI	Cut by gully 246
436	Fiche Fig 5	B	1.40m	1.55m	MI–LI	
437	Fiche Fig 5	B	0.75m	1.05m	MI–LI	
457	Fiche Fig 10	C	0.30m	0.56m	unphased IA	
458	Fiche Fig 5	B	0.71m	1.18m	umphased IA	
462	Fiche Fig 5	B	1.62m	1.56m	MI–LI	
466	Fiche Fig 5	B	0.73m	0.65m	unphased IA	
483		B	1.75m	1.95m	EI	
488	Fiche Fig 5	B	1.30m	1.95m	MI–LI	
493	Fiche Fig 5	B	1.20m	2.20m	unphased	

Pit	*Location plan*	*Profile*	*Depth*	*Diam*	*Period*	*Comments*
494	Fiche Fig 5	–	1.25m	*3.75m	MI–LI	Sub-rectangular, min width 2.75m, max depth 1.75m, cut by gully 59
500	Fiche Fig 10 (and Fig 22)	B	2.40m	2.30m	EI	HAR 443
501	Fiche Fig 10 (and Fig 22)	B	1.30m	1.30m	MI–LI	
505	Fiche Fig 10 (and Fig 22)	B	0.80m	1.40m	MI–LI	
506	Fiche Fig 5	B	1.10m	2.40m	unphased IA	
515	Fiche Fig 10 (and Fig 22)	C	0.58m	2.00m	EI	Combined hollow and small, circular pit
519	Fiche Fig 10	C	0.26m	0.73m	unphased	
522	Fiche Fig 6	–	0.48m	0.84m	unphased IA	Small circular pit with sides belled or outwards-sloping
526	Fiche Fig 6	C	0.25m	*0.98m	unphased RB	Oval pit, min width 0.7m
528	Fiche Fig 6	C	0.52m	*1.96m	LI–ER	Rectangular pit, min width 1.4m, cut by pit 142, copper alloy brooch (*SF1010*)
529	Fiche Fig 6	C	0.62m	2.10m	LI–ER	
553	Fiche Fig 11	C	0.70m	*1.50m	LR	Sub-rectangular, min width 1.25m
554	Fiche Fig 11	C	1.20m	*1.70m	LR	Sub-rectangular, min width 1.3m
555	Fiche Fig 11	C	2.18m	*2.10m	LR	Sub-rectangular, min width 1.7m
628	Fiche Fig 3 (D6)	B	2.00m	2.60m	MI–LI	Cut by gully 183
629	Fiche Fig 3 (D6)	B	1.15m	–	LI–ER	Plan shape and diam unknown, cut pit 1026 and cut by linear feature 975
630	Fiche Fig 3 (D6)	B	1.42m	2.40m	MI–LI	Cut by linear feature 975
660	Fiche Fig 3 (D7)	C	0.45m	*0.70m	unphased	Oval pit, min width 0.6m
686	Fiche Fig 3 (F8)	B	1.44m	2.35m	unphased RB	Cut by pit 87, under hollow 16
716	Fiche Fig 3 (H8)	B	2.05m	2.40m	MI–LI	Cut pit 56, cut by pit 132
760	Fiche Fig 3 (E8)	C	0.40m	*0.90m	unphased	Small oval pit, min width 0.7m
783	Fiche Fig 3 (E6)	C	0.65m	1.40m	unphased IA	
904	Fiche Fig 3 (E6)	C	0.35m	1.40m	unphased RB	Under hollow 176
905	Fiche Fig 3 (E6)	B	1.55m	1.90m	MI–LI	Under hollow 176
906	Fiche Fig 3 (H8)	B	0.61m	–	unphased IA	Cut by pit 56, diam not evident
914	Fiche Fig 3 (G8)	B	1.65m	2.19m	EI	
916	Fiche Fig 3 (G8)	A	1.85m	1.95m	MI–LI	
917	Fiche Fig 3 (F7)	B	1.52m	1.80m	MI–LI	Under hollow 63
918	Fiche Fig 3 (F7)	B	1.00m	1.30m	MI–LI	Under hollow 63, mollusc sample from layer 3
929	Fiche Fig 3 (F7)	B	1.54m	3.04m	MI–LI	Under hollow 63
930	Fiche Fig 3 (F7)	C	0.60m	1.70m	LI–ER	Cut pit 931, under hollow 63
931	Fiche Fig 3 (F7)	B	1.60m	1.70m	MI–LI	Cut by pit 930, under hollow 63
935	–	–	0.50m	0.97m	unphased	Much destroyed by tree-roots
948	Fiche Fig 3 (F7)	B	0.59m	1.40m	unphased RB	Under hollow 63
950	Fiche Fig 3 (F7)	C	0.20m	0.50m	unphased RB	Under hollow 63
990	Fiche Fig 3 (F7)	C	0.30m	*0.97m	LI–ER	Oval pit, min width 0.72m
993	Fiche Fig 5	B	0.78m	1.24m	MI–LI	Cut by gully 129
1026	Fiche Fig 3 (D6)	–	1.60m	–	MI–LI	Cut by pit 629, max diam unknown
1027	Fiche Fig 3 (D6)	B	1.70m	2.20m	MI–LI	Cut by gully 624
2114	Fiche Fig 4	–	0.17m	0.37m	unphased	
2115	Fiche Fig 4	C	0.31m	0.72m	LB–EI	
2190	Fiche Fig 4	C	0.18m	0.70m	unphased IA	Rectangular
3036	–	–	0.26m	*0.72m	LB–EI	
3163	–	C	0.22m	*0.90m	unphased IA	Oval width 0.76m

Gullies

Gully	*Location plan*	*Depth*		*Width*		*Length*	*No*	*Period*	*Comments*
		Max	*Min*	*Max*	*Min*	*exposed*	*Exc*		
8	Fiche Fig 3 (G, F8)	0.56m	0.25m	1.00m	0.41m	28m	?	LR	Cuts pits 36 & 135
13	Fiche Fig 3 (F6)	0.10m	–	0.40m	–	2m	1	MI–LI	Extended from end of gully 183
41	Fiche Fig 3 (G7, 8)	0.20m	–	0.60m	–	36m	1	LR	L-shaped joined gully 59
59	Fiche Fig 3 (G, H8)	0.40m	0.20m	0.80m	0.60m	75m	5	LR	Cuts pits 3 & 494, cut by 21
60	Fiche Fig 3 (H6–8)	0.40m	0.35m	1.15m	0.90m	47m	9	LI–ER	Ran into unexc area
61	Fiche Fig 3 (H7, 8, G5–7)	0.30m	0.10m	0.85m	0.50m	115m	25	unphased IA	Three breaks in its length
129	Fiche Fig 3 (G8) Fiche Fig 5 Fiche Fig 9	0.61m	0.25m	1.65m	0.75m	83.3m	11	LR	Cuts pits 1, 130, cut by gully 129
145	Fiche Fig 3 (E8)	0.48m	0.30m	1.00m	0.70m	10m	3	LR	Returned as 243
183	Fiche Fig 3 (D, E6, F6–7)	0.72m	0.22m	2.10m	0.55m	80m	9	LI–ER	L-shaped, joined gully 13
243	Fiche Fig 3 (E8)	0.48m	0.16m	0.80m	0.45m	28m	3	unphased RB	One break in length
246	Fiche Fig 5	0.17m	0.10m	0.55m	0.50m	15.5m	4	unphased IA	L-shaped, cut pit 435
249	Fiche Fig 9	0.26m	0.14m	1.10m	0.47m	18.2m	4	LI–ER	Cut gully 391 & posthole 348
383	Fiche Fig 8	0.55m	–	1.15m	–	71m	10	unphased IA	L-shaped, ran into unexc area
391	Fiche Fig 8	0.27m	0.90m	0.80m	0.45m	114.5m	10	LI–ER	Ran into unexc area, cut
472	Fiche Fib 10	0.13m	–	0.34m	–	5.2m	1	unphased IA	
474	Fiche Fig 11	0.12m	–	0.60m	0.20m	91.5m	4	unphased RB	Returned as 560
559	Fiche Fig 3 (E, D7–8) & Fiche Fig 11	0.48m	0.20m	1.40m	0.40m	126m	9	LI–ER	
560	Fiche Fig 3 (D7–8) & Fiche Fig 11	0.30m	–	0.60m	–	83.5m	8	unphased	Returned as 474
561	Fiche Fig 11	0.60m	–	1.0m	–	30m	3	unphased RB	Ran into unexc area
624	Fiche Fig 3 (D6)	0.50m	0.16m	1.30m	0.40m	30m	5	unphased	Returned as 183, cut pits 19 & 126
782	Fiche Fig 3 (F7, 8)	0.55m	0.10m	0.90m	0.50m	13.3m	4	unphased	Cut by pit 122, cut hollow 42
3356		0.45m	0.23m	0.75m	–	12m	3	unphased	Cut 3586, entrance
3379		0.60m	–	1.42m	–	15m	2	unphased RB	Entrance
3436		0.12m	–	1.78m	–	6.5m	1	unphased RB	Entrance
3586		0.27m	–	0.60m	–	3.9m	1	unphased	Cut by 3356, entrance
3646		–	–	0.24m	–	3m	1	unphased	Entrance
3681		–	–	1m	–	7m	1	unphased	Entrance
3682		–	–	0.50m	–	9.5m	1	unphased	Entrance

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Front cover
The site under excavation in 1973, viewed from the north-west, with the suburbs of Andover to the far left.