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AN IRON AGE ENCLOSURE AT SITE A, KENNEL FARM, BASINGSTOKE, HAMPSHIRE

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ABSTRACT

An archaeological recording action was carried out by Northamptonshire Archaeology in May and June 1996 at Site A, Kennel Farm, Basingstoke, Hampshire as part of the archaeological evaluation and recording of a proposed development site. A single area was excavated, taking in approximately one half of an oval ditched enclosure of 0.34 ha, representing a small domestic settlement of early/middle to middle Iron Age date. Several deep storage pits produced the major part of the recovered finds and faunal assemblages. These included basal deposits of complete or near complete loomweights while the secondary fills of one pit contained partial carcasses of both dogs and immature sheep. No house site lay within the excavated area, and the only identified building was a four-post structure and a contiguous fence-line probably associated with a gateway.

INTRODUCTION

Background

The Kennel Farm development area lies on the south-western side of Basingstoke (Fig. 1). It is bounded to the north-west by the A30 (A33), Winchester road and to the south-east by the M3 motorway. A previous development area to the immediate north-east, Brighton Hill South (Hatch Warren), was subject to extensive archaeological investigation during the 1980s (Fasham *et al.* 1995).

A multi-stage archaeological evaluation of the proposed development site was carried out by Northamptonshire Archaeology in 1994–6, comprising a desk-based assessment, geophysical prospection, trial excavation and fieldwalking survey (Northamptonshire Archaeology 1994a; 1994b; 1995; 1996a). This work supplemented and extended previous investigation in 1987 by The Trust for Wessex Archaeology (Gingell and Trott 1995).

At the north-western corner of the development area and immediately adjacent to the A30 road there was an oval ditched enclosure, listed as Site A in the desk-based assessment report (Fig. 2, NGR SU 59874853; Northamptonshire Archaeology 1994a). It had been identified as a cropmark from aerial photographs (Cambridge University Collection, SU5948/27 (CAP WS62) CUCAP-Crown copyright). Subsequently, the northern half of the enclosure had been occupied by the Blue Hut Café. This stood on a built platform forming a level terrace, which to the east stood up to 2.0 m above the level of the field. At the time of excavation all buildings had been levelled but the platform remained, making the northern half of the enclosure inaccessible (Fig. 3).

A trial excavation of Site A, carried out in 1987 by The Trust for Wessex Archaeology, had characterised the site as a small settlement of middle Iron Age date (Gingell and Trott 1995). The trial excavation had comprised a T-shaped trench 3.5 m wide and 91 m long E.–W. by 80 m long N.–S. It extended across the enclosure and continued beyond it to both the east and south (Fig. 4). In addition, there were three smaller trenches, each 1.5 m wide and from 13 m to 20 m long. Two of these intersected the enclosure ditch while the third branched from the main T-shaped trench beyond the eastern side of the enclosure.

In the initial development proposals the

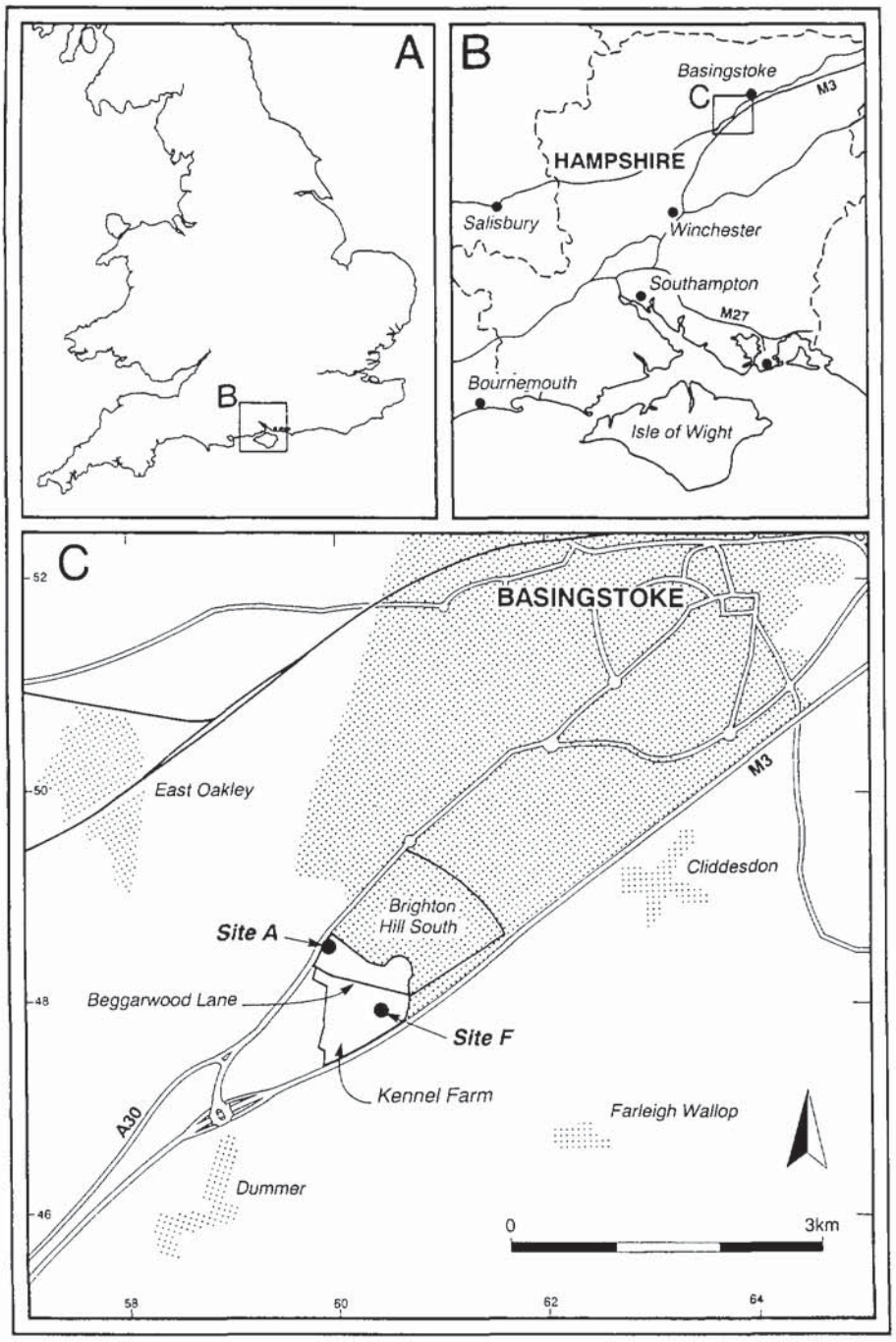

Fig. 1 Kennel Farm, Basingstoke: general location plan

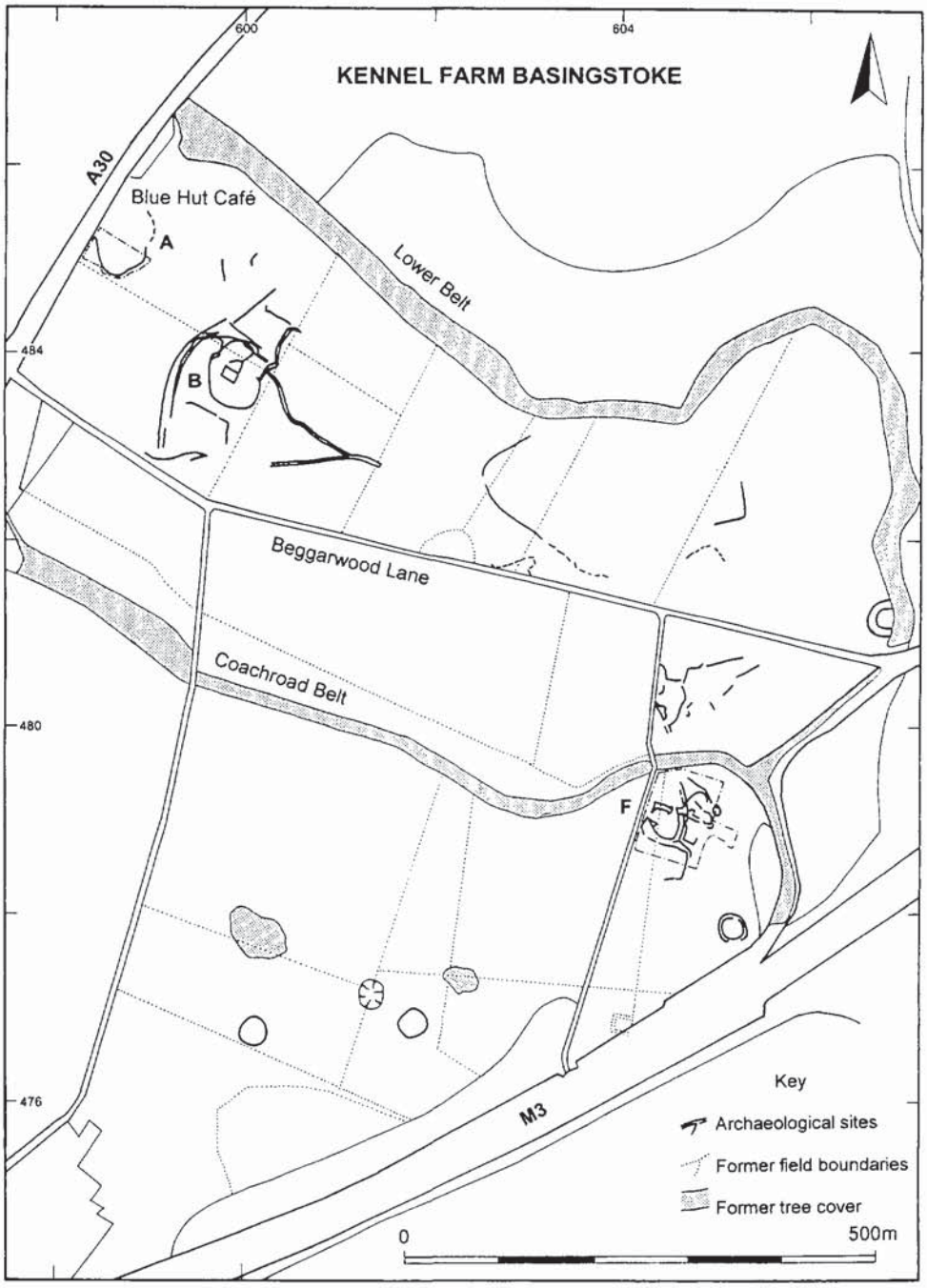

Fig. 2 Archaeological sites at Kennel Farm

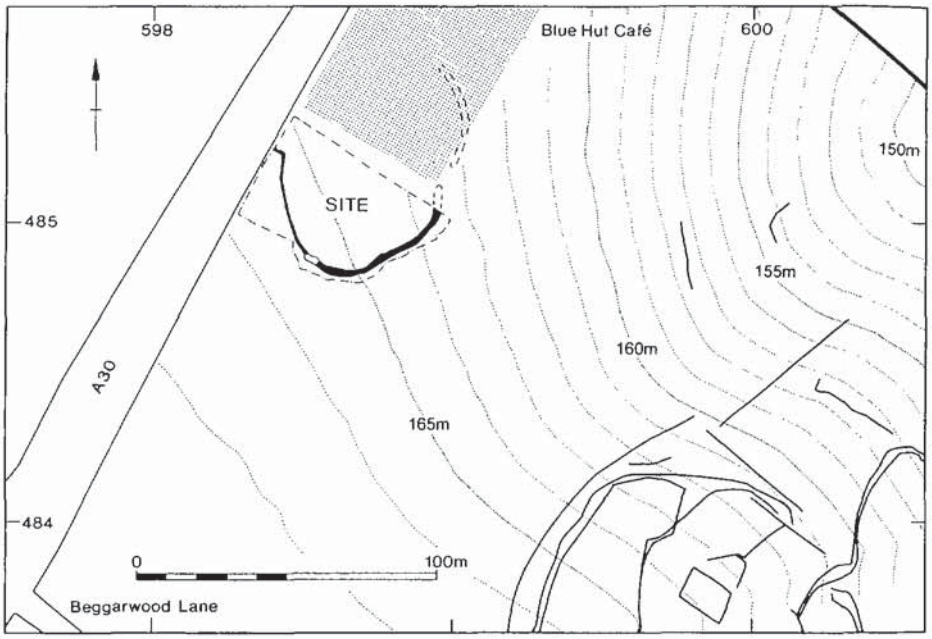

Fig. 3 The Iron Age enclosure and its environs

area including Site A had been due to be preserved as open space, and was therefore excluded from the initial programme of archaeological evaluation conducted by Northamptonshire Archaeology. Following changes to the projected road access, Hampshire County Planning Department identified the need for a pre-emptive excavation, and the excavation was carried out by Northamptonshire Archaeology in May and June 1996.

A further enclosure of Iron Age and early Roman date, lying 800 m to the south-east, was excavated by Northamptonshire Archaeology in 1998 (Fig. 2, Site F). This enclosure system had a longer history, extending from the early Iron Age to the 1st century AD (Thorne and Holmes 2003). Site B, a much larger and more complex enclosure system lying 100 m to the south-east of Site A will be preserved within open space within the new development, and this probable 'banjo' enclosure has not been subject to any excavation (Fasham *et al.* 1995, 67).

Location and topography

The local terrain comprises undulating upland on Upper Chalk. Substantial areas and smaller patches of clay-with-flints have been recorded on the lower slopes at both Brighton Hill South (Fasham *et al.* 1995, 6) and Kennel Farm (Northamptonshire Archaeology 1995, 6). At Site A the geology is chalk with sparse small pockets of pale brown clays either filling shallow, irregular hollows or within narrow, linear faults within the chalk. The site and the surrounding fields were all under arable cultivation at the time of excavation.

The site lay across ground sloping down gently to the east (Fig. 3). The shallow western enclosure ditch ran roughly along the 165.5 m aOD contour, while the southern arm ran down the slope, descending 2.0 m in a length of 45 m to a level of 163.5 m aOD. The site was situated at a distinct break of slope, to the south-west the ground was rising gently, while to the east there was a steep descent into a dry

valley. Site B to the south-east was similarly situated.

Original Objectives and Methodology

The aim of the excavation was to record the date, nature, extent and character of former occupation at Site A by means of an open area excavation taking in the full extent of the southern half of the ditched enclosure (Northamptonshire Archaeology 1996b, 2).

The shallow ploughsoil was removed by mechanical excavator over an area of 2070 m^2, measuring 62 m E.–W. by up to 40 m N.–S. The natural chalk was cleaned by hand to enhance the definition of the archaeological features. The enclosure ditch was investigated in a series of cross-sections set at regular intervals, with additional sections to determine its form at points of change and its relationship to adjacent pit groups (Figs. 5 and 6). All storage pits were sectioned and two that had produced substantial pottery or animal bone assemblages were fully excavated. Approximately one-third of a total of *c* 185 postholes or small pits were sectioned, and five of the eight post-pits of the single identified structure were fully excavated (See Fig. 14 for conventions used in published section drawings). The remaining postholes were planned but not excavated as they formed no interpretable structural arrangements.

THE FORM AND DEVELOPMENT OF THE ENCLOSURE

In this section an overview of the arrangement and chronology of the site is provided; the detailed evidence of the archaeological features and the finds is summarised in subsequent sections.

Form and function

The site comprised an oval ditched enclosure measuring 75–80 m N.–S. by 52 m E.–W., although the northern end was only partially defined on the aerial photographs. It enclosed an area of *c.* 0.34 ha. It is therefore comparable to Meon Hill and only a little smaller than the Winnall Down enclosure, but is around half the internal area of enclosures such as Gussage All Saints and Little Woodbury (Hill 1995, fig. 1.2).

There were probably opposed entrances to both the west and east, but both lay just outside the excavated area (Figs. 3 and 4). There is therefore some doubt as to whether the plan form was really a simple oval, and it is also possible that there may have been associated outworks controlling access to the entrances, particularly to the west where there was an out-turned terminal on the southern side of the entrance, but the remainder has been lost beneath the A30 road. The internal timber structure suggests that the eastern entrance was of some formal pretension, although the aerial photographs do not indicate the presence of major external ditches forming outworks.

The form of the enclosure does suggest that there was a relatively simple and continuous sequence of activity, most probably comprising enclosure formation, use and refurbishment, and subsequent abandonment. Some features pre-dated the shallow western arm of the enclosure ditch and these may denote an early phase of activity in which the settlement was not fully enclosed. The evidence for this is discussed below.

The enclosure evidently formed a small domestic settlement. The internal features included large storage pits arranged in at least four discrete groups, and each included between one and three deep, storage pits (Fig. 4). These may denote a chronological sequence of successive storage areas, and if so they would suggest that the enclosure supported a relatively small population. A length of shallow linear gully, aligned east-west, may indicate that there was some partitioning of the internal space. However, the distribution of features does not indicate the presence of any functional difference between the areas to the north and south, and it may have had some other unknown function.

There was an extensive scatter of small features, these were mainly postholes but the larger examples could either be small pits or large postholes. Those across the western half of the enclosure were typically small and

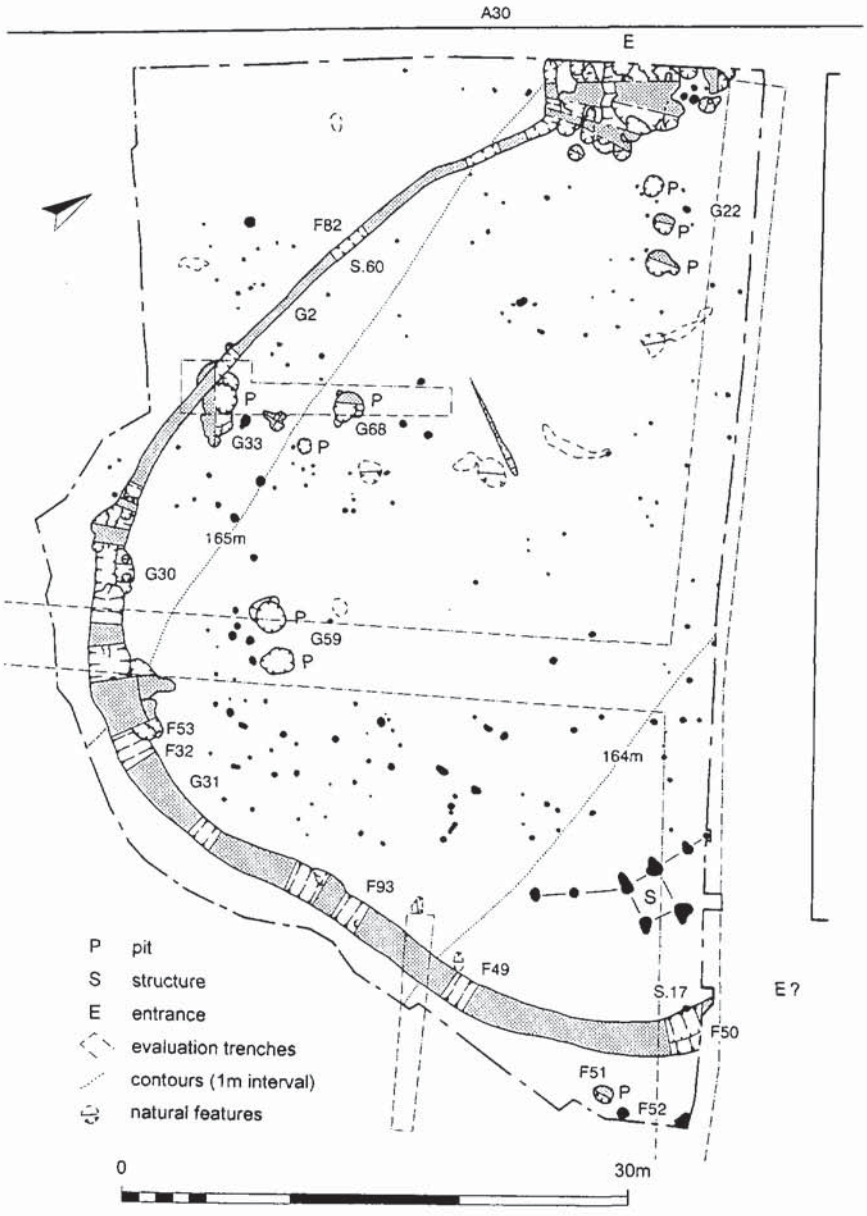

Fig. 4 The Iron Age enclosure, general plan

shallow, while to the east there was a denser scatter including a higher proportion of broader and deeper postholes. However, the postholes cannot be resolved to form any structures, even simple four-post arrangements. It must therefore be presumed that they represented only single or paired post arrangements utilised for external activities related to either domestic industry or agricultural functions, such as looms or haystack posts.

Fig. 5 The Iron Age enclosure, looking north

The only evident structure lay to the east. It comprised a four-post arrangement of substantial post-pits, with ramps to aid post insertion. Further post-pits to the north and south extended the western side of the building, perhaps as a fence line. As discussed below, this entire arrangement may have been part of an elaborate eastern gateway.

The complex of shallow, intercut pits which occupied the probable western entrance causeway had no stratigraphic relationship to the western enclosure ditch, but they seem most likely to be later features situated within a disused entrance causeway. The individual pits were shallow and bowl-shaped, typically no more than 0.50 m deep. They contrasted quite markedly with the other substantial cut features in that they produced only a sparse scatter of potttery, animal bone and, the otherwise ubiquitous, burnt flint.

While there was no evidence for the presence of a roundhouse within the excavated area, it can be seen that the evidence all points towards this being a small domestic enclosure and perhaps most probably a farmstead occupied by a single, extended family group. We must therefore suggest that a main roundhouse, or houses, lay within the unexcavated northern half of the enclosure. From calculations based on grain storage and floor area of houses, it was tentatively suggested that the phase 3 enclosure at Winnall Down, which was 0.4 ha in extent, may have served a population of some 15–34 individuals (Fasham 1985, 138–142). Given that the Basingstoke enclosure is slightly smaller, we may therefore suggest by analogy that the postulated single family group may perhaps have included some 10–20 individuals.

Open settlement or partial enclosure?

While the overall plan form was a simple oval, the sharply marked changes in the nature and depth of the enclosing ditch indicate that there

Fig. 6 The Iron Age enclosure, looking north-east

was a quite complex sequence of development, and one which has only been partially resolved by excavation (Fig. 4).

To the west a cluster of intersecting pits, Group 33, pre-date the shallow western enclosure ditch, suggesting the presence of a pre-ditch phase, and the scatter of postholes further to the west could also belong to this early use. The earliest activity may therefore have been either fully un-enclosed or related to a C-shaped, ditched enclosure that was initially open on its western side.

The earliest enclosure ditch may have been the relatively shallow ditch, Group 30, which only survived for a short length at the south, between the narrow western ditch and the terminal of the later and deeper eastern ditch, Group 31, which would have totally removed the early shallow ditch further to the east.

The later eastern ditch, G31, was V-shaped, and initially *c.* 1.0 m deep. The excavated sections indicate that it was maintained by a pattern of partial recutting. A 17 m length to the south-east, between F32 and F93, had not been recut. Further to the east there was a deeper recut along the outer edge of the ditch that continued to the eastern entrance, where it reached a maximum depth of 1.25 m. To the south, there was a 9.0 m length of recut ditch running from the western terminal to an in-turned terminal, F53. Along this recut the initial secondary fill comprised a fine grey ashy silt including much comminuted charcoal interspersed with lenses of a clean, fine orange silt; frequent fragments of burnt flint were embedded in its surface. This burnt debris did not contain any appreciable quantity of finds or animal bone. It paralleled the deposition of burnt debris along much of the shallow western ditch.

The western ditch, G2, was too shallow, at 0.40 m deep, to have formed an effective physical barrier. The extensive presence of burnt debris

suggests that it had been filled quite rapidly, and before the chalk sides had started to erode, and it may therefore not even have been open over a single winter. An alternative interpretation is that it held a continuous timber palisade. If so, the individual timbers would have been up to *c* 0.30 m in diameter. No evidence was recovered to indicate the former presence of timbers, but the burnt debris in the fill might have come from the burning of timbers following the systematic dismantling of a palisade.

An internal bank?

The variations in the enclosure ditch indicate that at any one time the settlement was probably only partially enclosed by a ditch and perhaps in part by a timber palisade. However, some evidence for the former presence of a bank, as an additional and perhaps continuous physical barrier, was provided by the distribution of the larger internal features. The major groups of storage pits all lay between 4.0 m and 5.5 m from the enclosure ditch, and the post-pits of the timber structure to the east were 5.0–6.0 m from the ditch. This suggests that there may have been a *c.* 4.0 m wide bank, with the storage pits located at the tail of the bank while the timber structure may have formed a timber revetment of the inner face of the bank as part of an elaborate eastern gateway structure. However, to the south-east there was a scatter of smaller postholes that lay closer to the ditch than this.

Material culture, economy and special deposits

The material evidence supports the interpretation of the site as a small domestic settlement. A majority of the pottery, animal bone and other finds was recovered from the fills of the storage pits, with sparser quantities of more fragmented material coming from the fills of the ditches.

The pottery comprises a range of handmade vessels from early forms of shouldered jars through to classic saucepan pot forms (Figs. 18–20). The fabrics are all broadly similar to those recorded at Brighton Hill South (Rees 1995, 35). The presence of shouldered bowls and proto-saucepans indicates an origin in the early/middle Iron Age, no earlier than *c.* 500 BC and perhaps at around *c.* 400 BC. The occurrence of saucepan pots in the St. Catherine's Hill/Worthy Down style (Cunliffe 1978, 46) denotes occupation into the middle Iron Age, while the absence of any late Iron Age or early Romano-British pottery indicates that the site was abandoned sometime prior to 100 BC.

A majority of the non-ceramic finds are related to spinning and weaving; they include a spindle whorl, two bone implements and several complete or near complete triangular loomweights recovered from the storage pits (Figs. 21 and 22). A roughly worked chalk drum with a central perforation, possibly a small loomweight, is decorated on one side with lightly incised spiral and radial lines. This may be a representation of a spiders web, perhaps recognising the shared interest in spinning (Fig. 22, 4).

The presence of triangular loomweights in storage pits, including complete examples, may be contrasted with their absence from the fills of the ditches (a small amount of fired clay was recovered from the ditch fills, but this could all be daub rather than loomweight fragments). The disposal of partial and complete loomweights in pits, including their deposition in basal contexts, provides an example of domestic ritual deposition, as discussed for Wessex sites in general by Hill (1995). Similar instances were also recorded immediately to the north at Brighton Hill South (Fasham and Keevill 1995, 69–71).

Ritualised activity was also evident in the animal bone deposited in the storage pits. Only domestic species are represented comprising, in order of quantity recovered, ovicaprid (most probably sheep), cattle, dog, horse and pig. The majority of this represents food debris derived from joints and extremities. However, a single pit, F23, produced a third of all the bone recovered and among the food debris there were the partial skeletons of several immature sheep and three dogs, the only dog remains recovered. A much smaller pit, F95 only 0.45 m deep, also produced extensive post-cranial remains of at least three immature sheep. These

had all evidently been deposited within the pits as partial carcasses, although a combination of subsequent disturbance and movement of the loose fills had displaced the remains so that they were no longer closely articulated. This would seem to be a further instance of selected deposition, and similar instances have been noted on many other Iron Age sites (Hill 1995).

Mention must also be made of two fragments of human cranium, from separate individuals, recovered within 2 m of each other, from pit F33 and the adjacent length of the western ditch.

Further evidence for ritualised deposition was provided by a pit, F100, cut into the earlier ditch fills at the terminal of the main eastern ditch. It contained a deposit of pottery comprising much of a single large storage jar, but evidently broken and incomplete when deposited, and a single sherd with elaborate curvilinear decoration, the only such sherd recovered from the excavations (Fig. 20; 14 and 15). The pottery appeared to form a foundation deposit at the ditch terminal related to a major reinstatement of the enclosure ditch.

In addition, large quantities of burnt flint were also present on the site. Most came from the storage pits, which included some layers purely or largely comprising burnt flint, but it was also present as a common inclusion in the enclosure ditch and the smaller features. It was only absent from the western pit complex. In the pits, the deposits of burnt flint typically appeared to be single dumps, and not slowly accumulated deposits, and were often associated with burnt soils and charcoal. They therefore derived from single acts comprising the burial of quantities of such material, but whether the burnt flint had been accumulated gradually prior to burial, or was from single episodes creating large quantities of such material cannot be determined.

Analysis of charcoal associated with the two densest accumulations of burnt flint, and likely to be fuel debris from the hearths used to heat the flint, showed that wood from a wide range of trees and shrubs was used. Tree species included oak, ash and field maple, while the shrubby species included hazel, hawthorn/whitebeam, blackthorn/cherry and elder. This shows that there was clearly no special selection of preferred wood involved in the burning of the flint.

Conclusion

The excavated evidence suggests that this site comprised a small domestic settlement, perhaps occupied by a single, extended family group of some 10 to 20 individuals. A house or houses probably lay within the unexcavated half of the enclosure, while in the southern half there were small groups of storage pits. These were probably set immediately inside an internal bank, and represent successive storage pit areas. A scatter of postholes were related to other domestic activities.

An extended period of use is indicated by the recutting of the enclosure ditch, but there was no major change or elaboration in the arrangement of the enclosure. The actual duration of occupation cannot be determined precisely, but is likely to lie between 400 and 100 BC. Most of the finds derived from the casual discarding of domestic rubbish, but there were some small scale ritualised acts involving the deposition of partial carcasses of dogs, immature sheep and complete loomweights in the storage pits, and pottery deposited at a ditch terminal.

THE EXCAVATED EVIDENCE

The following section provides a descriptive catalogue of the excavated features.

The western enclosure ditch (Group 2)

A shallow and narrow V-shaped ditch, consistently 0.65 m wide by 0.30–0.40 m deep with a narrow base only 0.10–0.15 m wide (Figs. 7–9). It was slightly wider towards either end, at 0.80–0.90 m wide, and the northern end was slightly deeper, at 0.50 m. There was no evidence of recutting. At its northern end the ditch turned abruptly north-westward for 4.00 m, running to a rounded, steep-sided terminal.

Along its entire length the chalk sides of the

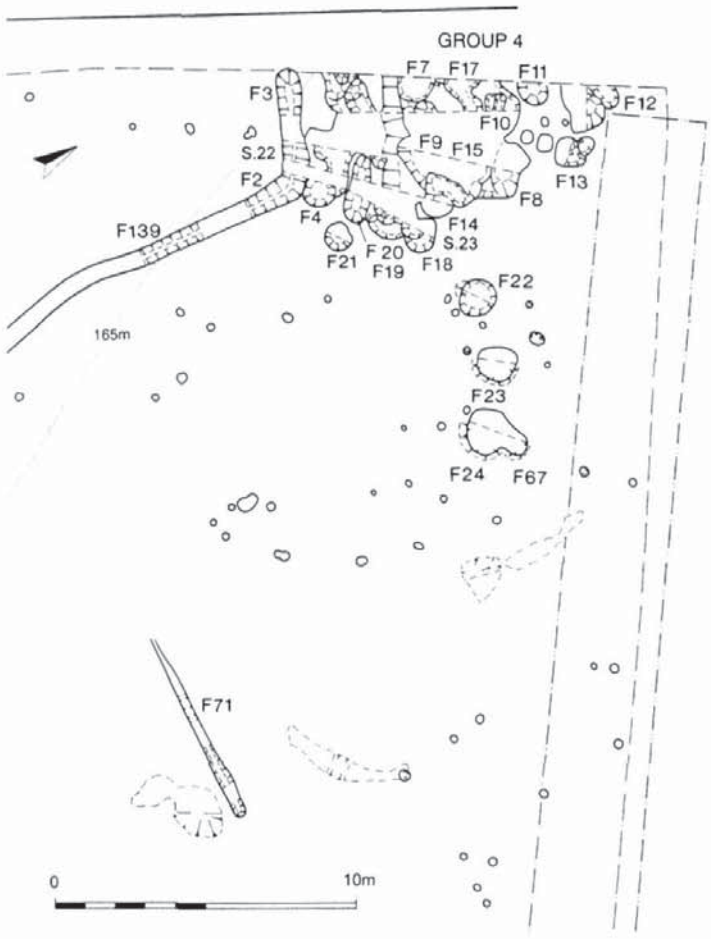

Fig. 7 The excavated features, western area

ditch showed few signs of erosion, suggesting that at least the lower sides were protected from weathering. The primary fill comprised a light brown friable loam with sparse chips and small fragments of chalk. In most excavated sections, this was sealed by a distinctive layer of grey brown fine, ashy, loam, virtually free of any chalk inclusions (Fig. 11, F27, S.1). This layer was not present at the northern terminal or within excavated length, F139. In other sections it varied from a thin and patchy deposit up to a maximum thickness of 100 mm in F82 (Fig. 11, S.60). Here it was mixed with a fine orange-brown ashy material and the natural chalk on the western side of the ditch was patchily discoloured both grey and pale red. This discolouration seems insufficient to derive from burning *in-situ* and may perhaps be better accounted for by scorching resulting from the dumping of hot ashes. Whether these deposits derive from a single episode of extensive dumping or several isolated incidents cannot be determined, but the former seems likely given the consistent nature and widespread occurrence of this material. The upper fills typically comprised

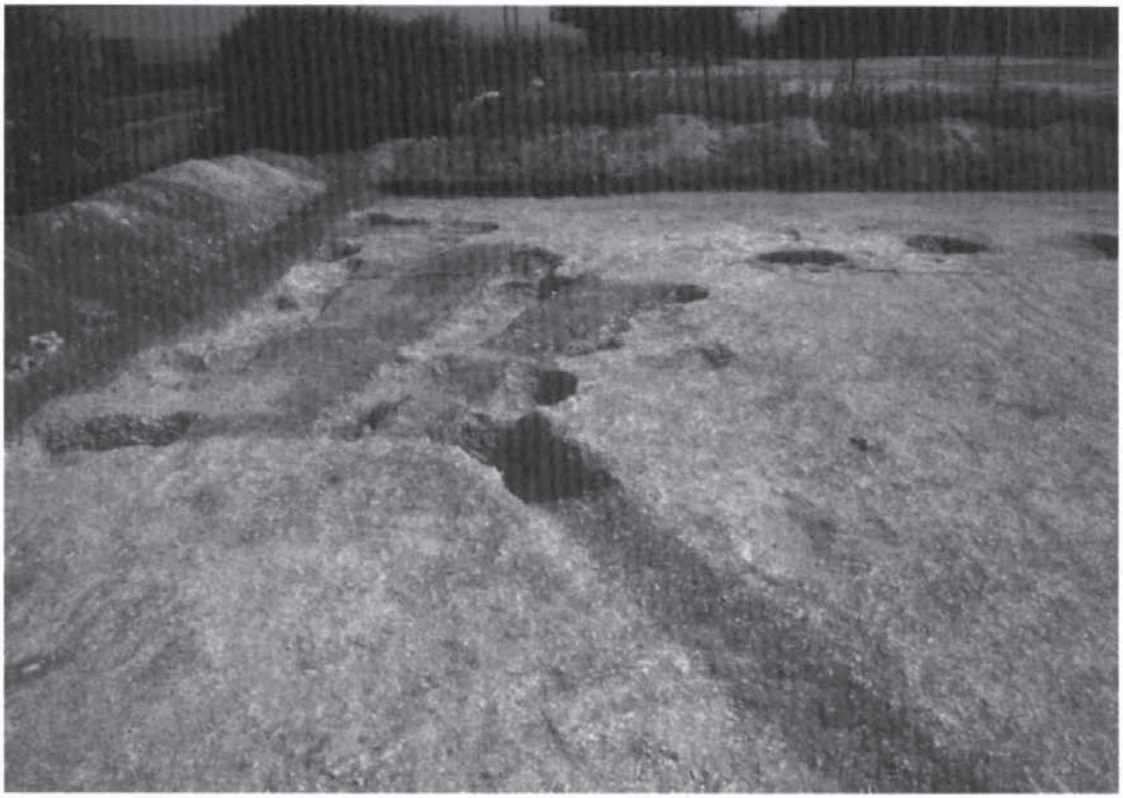

Fig. 8 The western enclosure ditch and pit group 4, looking north

brown friable loam with some to moderate chips and small fragments of chalk and some flint, including the occasional piece of burnt flint.

Lengths of the ditch fill, F82 and F139, were taken down in plan in an attempt to locate any indications that the feature may have held posts left to decay *in-situ*, but no indications of this were observed. However, the fill of the feature could include debris derived from the burning of a timber palisade that had been systematically dismantled.

At the southernmost end of the western ditch a sub-rectangular pit (Fig. 9, F29), 1.50 m long by 0.40 m deep, was 100 mm deeper than the adjacent length of ditch. It may have formed a terminal pit, perhaps even a post-pit at the end of the postulated palisade.

The southern ditch and pits (Group 30)

A 5.5 m length of ditch and some associated pits lay between the western and eastern ditches (Fig. 10). The primary ditch, F43, was 0.40 m deep. Its northern side had been removed by its successor, F44, which was a narrow bottomed U-shaped to V-shaped ditch, 0.80 m wide by 0.40 m deep (Figs. 9 and 11, S.4). Both phases appear to have silted naturally, with chalky primary fills derived from erosion of the sides of the open ditch, and followed by progressively less chalky loams for the secondary and final fills.

To the south, two sub-rectangular pits, F38 and F39, steep-sided and flat-bottomed, and respectively 1.50 m long by 0.60 m deep and 1.0 m long by 0.37 m deep, were cut through the fills of the earlier ditch. Their fills were similar

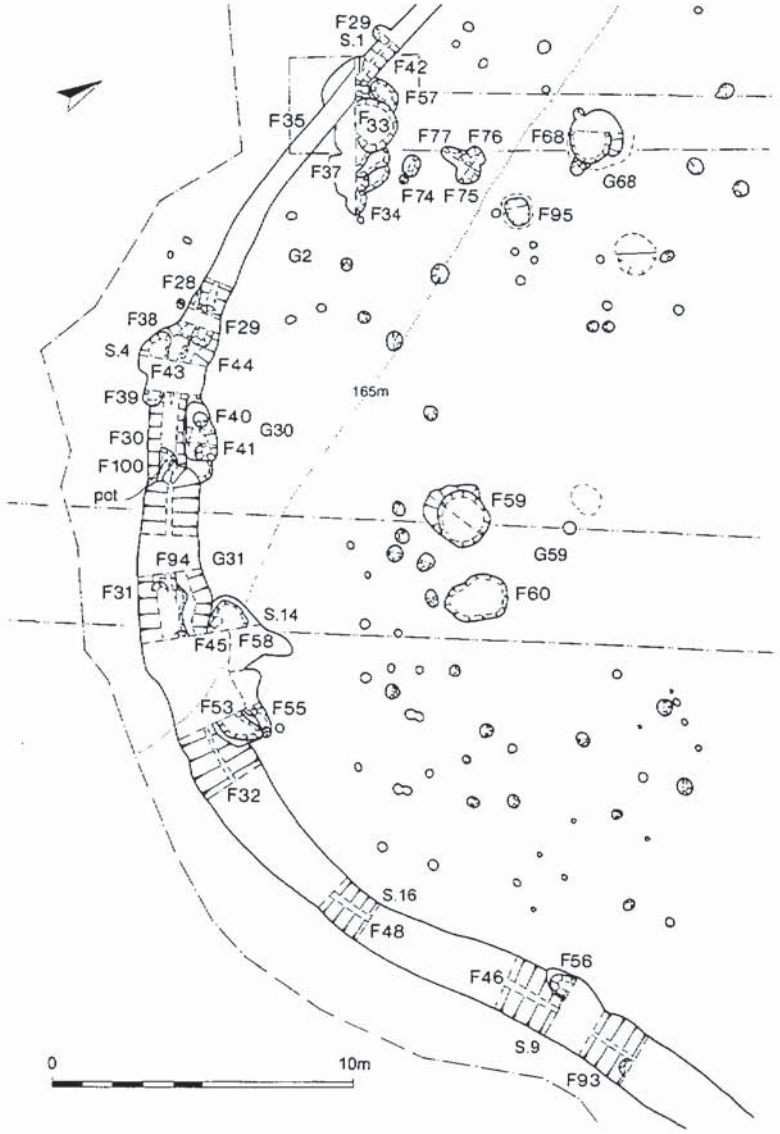

Fig. 9 The excavated features, southern area

to the ditch fills, and also appeared to derive from natural silting. Another pit or pits, F40/F41, lay to the north of the ditch (Fig. 9). The eastern end was 1.10 m wide by 0.35 m deep with a broad flat bottom, and it narrowed in to the west suggesting that there were two intersecting pits. There was a shallow hollow in the base of the eastern pit and a shallow cut into the final fill of the western pit, F40. This may suggest the former presence of posts, but again the fill only appeared to derive from natural silting. None of the pits produced any significant quantity of finds.

All of the pits could have been contemporary

Fig. 10 The southern enclosure ditch, looking west

with ditch F44 or later in date, and therefore contemporary with the eastern ditch, G31. They have no clear function but it is possible that they relate to the western terminal of the intermediate ditch, perhaps having held posts marking this terminal.

The eastern enclosure ditch (Group 31)

The eastern enclosure ditch possessed three distinct sections formed by differential patterns of recutting: a southern length with one or two recuts and an in-turned eastern terminal; a south-eastern length with only a single cut; and an eastern length with a single recut.

A 17 m length of ditch to the south-east, encompassing F32, F48, F46 and F93, showed only a single, V-shaped cut and appeared to be a survival of the original eastern ditch. It was also consistently shallow, at 0.80–1.00 m deep (Figs. 9 and 12, F48, S.16). The fills derived from natural silting but the secondary fill was a particularly dark brown to grey-brown loam. A steep-sided, elongated oval pit, F56, 0.75 m deep, lay adjacent to the inner edge of the ditch towards the northern end of this length (Fig. 12, S.9). The lower pit fill comprised loose chalk debris, and the final fill appeared to predate the final filling of the adjacent ditch.

A 9.00 m length at the western end of the ditch was 1.00–1.10 m deep, with a rounded, steep-sided terminal cutting through the fills of the earlier ditch, Group 30. It was V-shaped with a single recut, but the profile to the east was more complex (Fig. 12, S.14), perhaps indicating the presence of two recuts. Further to the east the recut swung northward to a broad, flat-bottomed, in-turned terminal, F53 (Fig. 9). The fills appeared to derive from natural silting with the exception of a layer of burnt soils that formed the initial secondary fill along the entire 9.00 m length. It comprised fine (ashy) grey silt with comminuted charcoal, overlain in places by fine orange brown silt. It was thickest towards the western terminal where there was also a concentration of burnt flint directly over and embedded into the burnt debris. No concentration of pottery or animal bone was associated with this material.

At the ditch terminal a pit, F100, V-shaped and 1.0 m long by 0.53 m deep, was cut through the earlier ditch fills. Above a chalky primary fill there was a 100 mm thick secondary fill containing a dense pottery spread. This comprised much, but not all, of a large storage jar that appeared to have been inserted as a stack of several large fragments laid near horizontally. On top of this stack there was a single large body sherd from a vessel decorated with a curvilinear motif (Fig. 20; 14 and 15). Some small fragments of burnt flint were scattered over and around the pottery.

The final recut at the western end of the ditch post-dated a complex of intercut pits along its inner edge, F45, F58 (Fig. 12, S.14) and F55. They varied from 0.45–0.80 m deep. The fills of pit F45 comprised particularly dark brown loams, while the upper fill of F58 comprised a clean orange brown loam, perhaps a deliberate

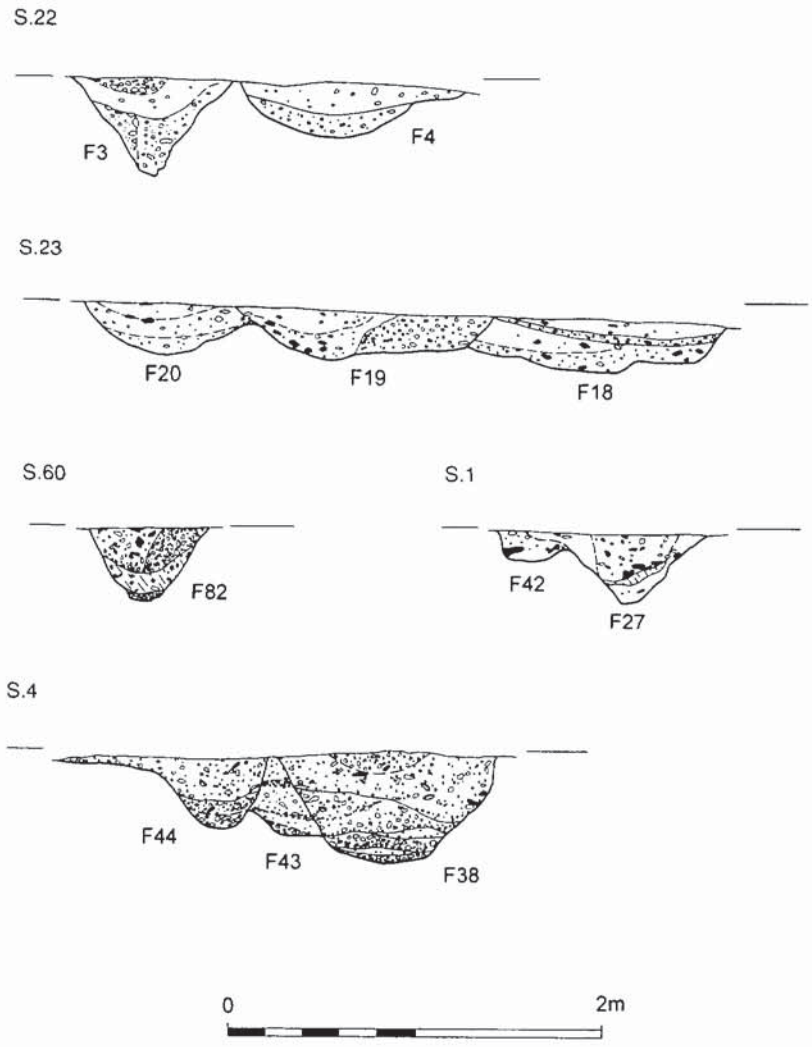

Fig. 11 Ditch sections, the western and southern ditches

backfill. Very little pottery or animal bone was recovered from these features, which bore no similarity to the storage pit groups.

The eastern length of the ditch, F49 and F50, had a single recut along the outer side, with a western terminal within section F93. At the northern end, F50, the ditch was at its deepest, 2.80 m wide by 1.25 m deep, with a 0.85 m deep, recut (Fig. 12, S.17). It is presumed to have deepened as it approached an eastern entrance. The lower fill of the primary cut contained much loose chalk debris.

The four-post structure (Group 91)

A four-post structure was defined by deep, square post-pits, with further deep postholes continuing the line of the western wall to the north and south (Fig. 13). The structure may have been part of a more extensive arrange-

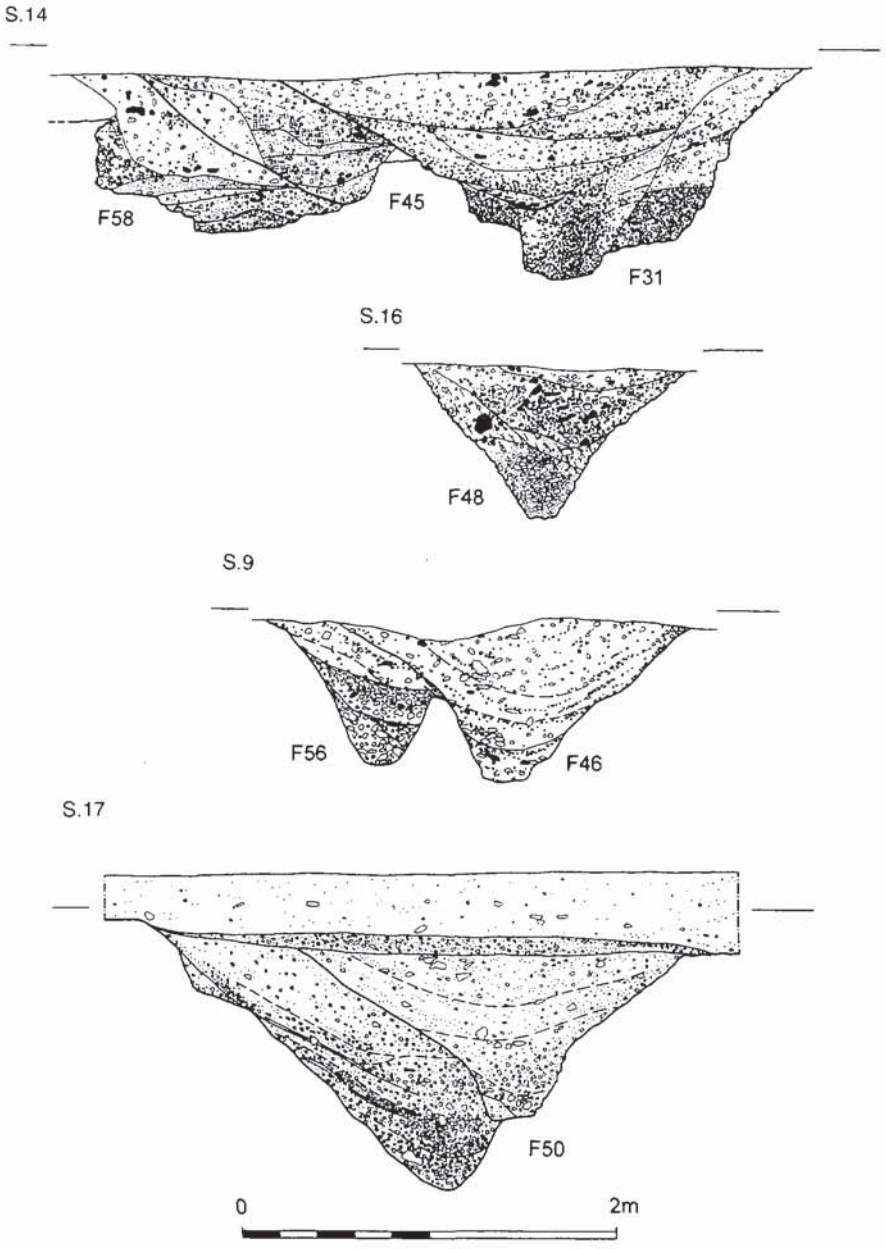

Fig. 12 Ditch sections, the eastern ditch

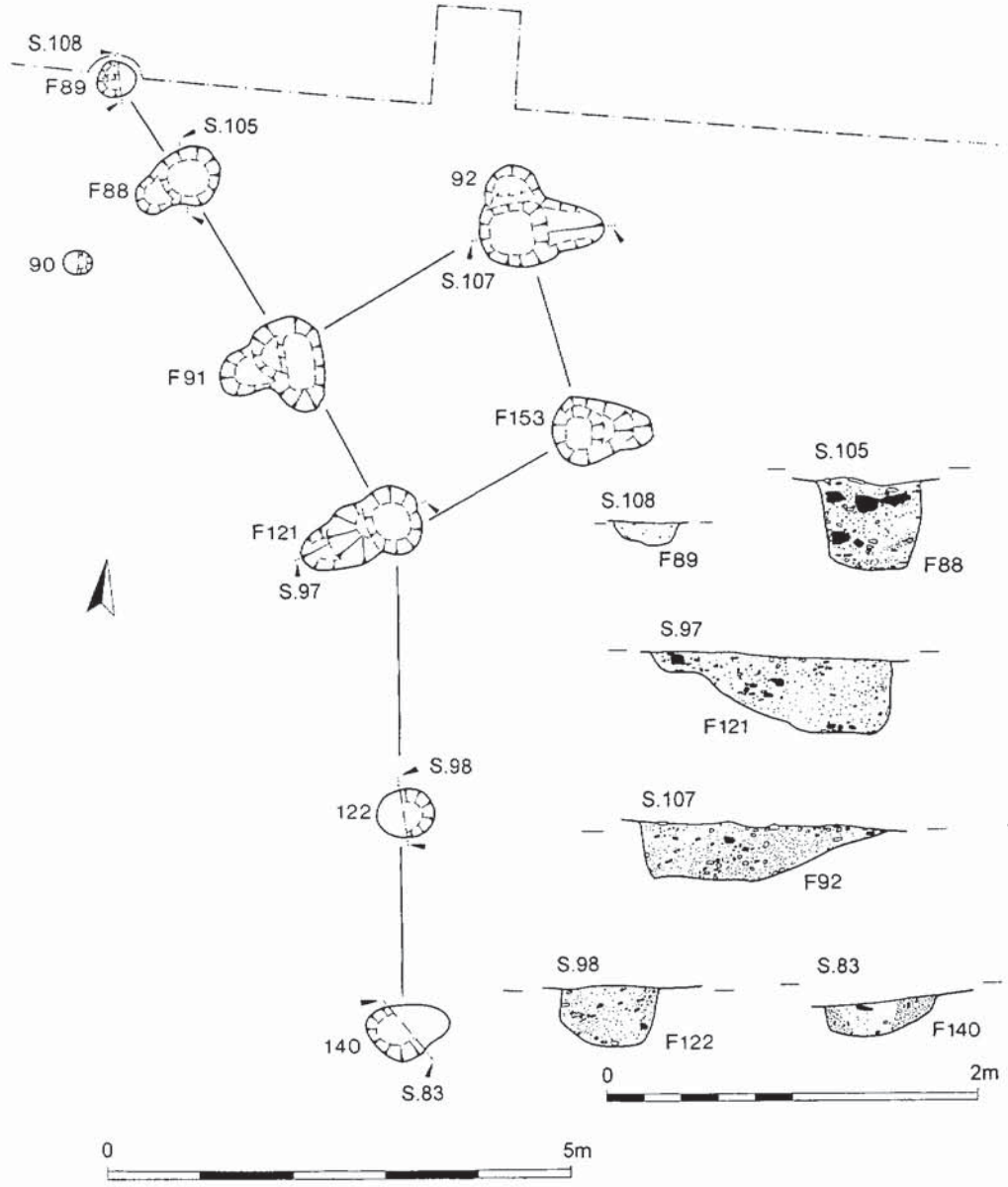

Fig. 13 The timber structure

Table 1 Dimensions of storage pits

Pit	*Depth (m)*		*Diameters (m)*	
		"surface"	*maximum*	*basal*
F22	0.96	1.20 (0.98)	1.60	1.10
F23	1.96	1.10	1.56	1.10
F24	0.78	1.55 (1.15)	1.60	1.20
F67	0.78	0.75	*c* 1.40	*c* 1.10
F68	1.43	1.80 (1.14)	2.10	1.90
F95	0.45	0.77	1.00	0.85
F33	1.40	2.20	1.80	1.30
F59	1.15	2.30	1.80	1.70
F60 (F26)	1.50	1.54	2.12	2.08
F51	1.26	0.86	1.58	1.25

ment set within an eastern entrance, perhaps a gateway with flanking lengths of revetment along inner face of the bank.

The four posts formed an irregular square plan measuring from 2.20–2.60 m between centres. The square to rectangular post-pits were all steep-side and flat-bottomed, and 0.40 m deep. However, on the sides facing outwards from the square each one had a shallowly sloping ramp. These may have been to aid the insertion of large squared posts, which would suggest a structure of some considerable height. The fills were of chalky yellow brown clay loam with small pieces of chalk and flint. There was no indication of the former presence of posts, suggesting that the structure had been systematically dismantled. Additional cuts on the northern two post-pits may suggest either that the posts were replaced or that holes were dug alongside the main posts to ease their removal.

The postholes continuing the line of the west wall were from 0.12–0.48 m deep, with the shallower posts at the two ends F89 and F140. Both F88 and F122 were near vertically sided, and the fill of F88 contained large flint nodules that may have been displaced packing stones. Post-pits F88, F91 and F121 all appear to have shallow recuts on their western margins, as if the main posts were replaced or supplemented by smaller, more shallowly found posts at some stage.

Other postholes and post-pits (Group 25)

Approximately 185 postholes, small pits, and post-pits were identified, and all but about 20 lay within the ditched enclosure (Fig. 4). As none of these formed recognisable circular or rectangular structures, some 64 were sectioned while the others were merely recorded in plan. They were typically circular to sub-square in plan, varying from 0.20–0.50 m in diameter and from 0.05–0.40 m deep. The fills were of chalk debris in brown loam, although some contained larger fragments of chalk or flint that may have been displaced post-packing. In no instance was there evidence for the decay of posts *in-situ*. Burnt flint was present in many of them.

They were widely scattered across the enclosure, but there was distinct concentration to the east, between pit group 59 and the timber structure. This area also contained a

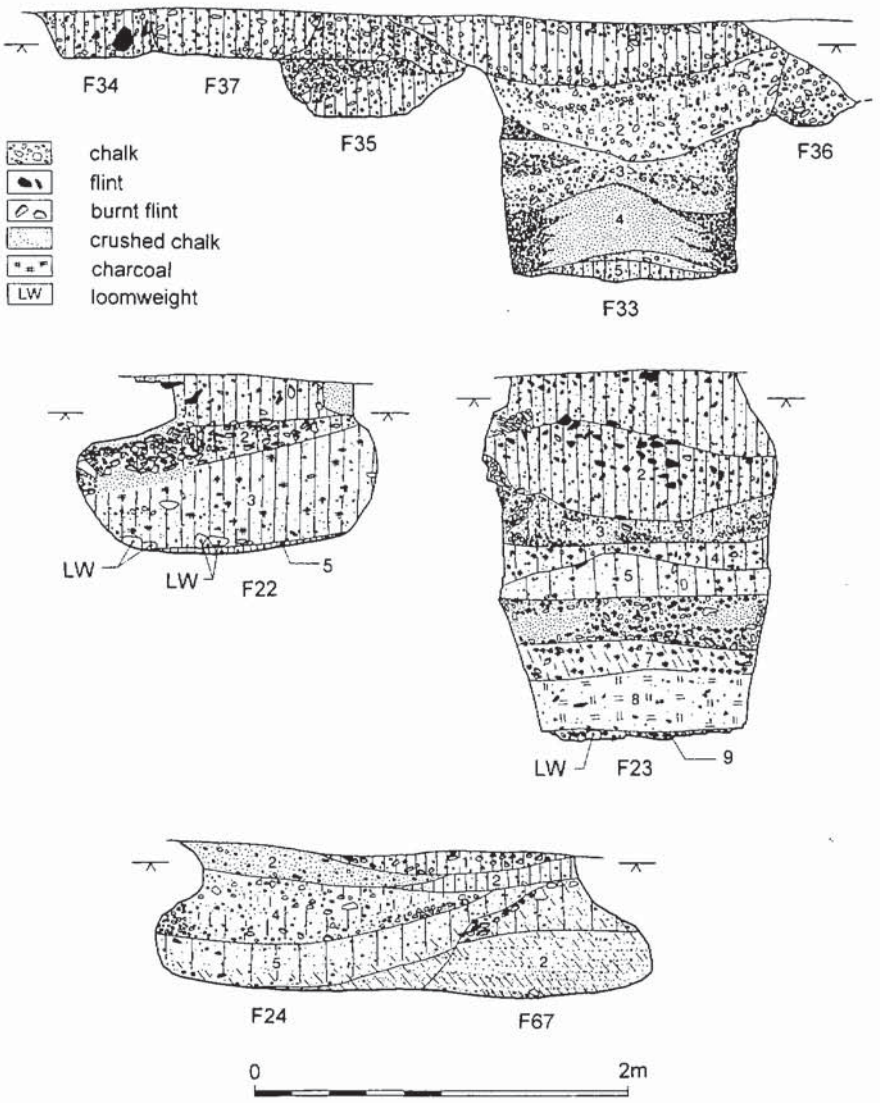

Fig. 14 Pit sections: F33, F22, F23 & F24/67

high percentage of the larger and deeper small pits/postholes. There was also a marked cluster of five small pits to the immediate south of pits F59 and F60 (Fig. 9).

To the east their distribution respected the timber structure, but to the south of this there were examples within one or two metres of the ditch. These would either pre-date, or relate to timber supports for, the postulated internal bank.

The linear gully (Group 71)

The only linear feature, F71, was up to 0.50 m wide by 0.13 m deep, with shallow sloping sides (Fig. 7). It was observed for a length of 6.50 m.

Table 2a Finds and bone deposits within pit fills (major deposits in bold capitals)

PIT F22 Depth 0.96m **POTTERY** **(32 sherds 1.54kg)** Animal bone	**PIT F23** **Depth 1.96m** **ANIMAL BONE (2.89kg)** Pottery	**PIT F24/F67** Depth 0.78m **SPARSE FINDS** Animal bone Pottery	**PIT F33** Depth 1.40m **SPARSE FINDS** Animal bone Pottery
Layer (1)	(1)	(1) **some burnt flint**	(1)
		(2)	
	(2)	(3)	(2)
Layer (2) **BURNT FLINT** **LOOMWEIGHT** **FRAGMENTS** **POTTERY:** **2 VESSELS**	(3) **HORSE PELVES** (4)	(4) **some burnt flint**	(3) **PART OF HUMAN** **CRANIUM**
Layer (3)	(5) **3 IMMATURE SHEEP**		
	(6) **2 IMMATURE SHEEP** **2 DOGS**	(5):	(4)
	(7) **DOG**	(6) **BONE IMPLEMENT** **(SF 9)**	
3 LOOMWEIGHTS **(FRAGMENTS)**	(8)	**F67** (1) **some burnt flint**	
Layer (5)	(9) **LOOMWEIGHT** **FRAGMENTS**	**F67**	(5):

There was a terminal to the east but to the west it became gradually shallower; it may therefore have formerly extended further westward. Much of a single pottery vessel lay flattened against the side of the cut.

The storage pits (Figs. 14 – 15)

Introduction

Seven storage pits, 0.8–2.0 m deep, lay around the periphery of the enclosure in three discrete separate groups, Groups 22, 68 and 59 (Fig. 4). A deep pit and a group of shallower pits, Group 33, pre-dated the western enclosure ditch, and a pair of pits lay outside the enclosure at the east, F51 and F52. The overall dimensions of the pits are tabulated in Table 1 and the finds and animal bones, particularly those that appear to result from acts of special deposition, are summarised in Tables 2a and 2b.

Group 33

A compact group, cut by the western enclosure ditch, in which all pits intercut at least one

Table 2b Finds and bone deposits within pit fills (major deposits in bold capitals)

PIT F68	**PIT F95**	**PIT F59**	**PIT F51**
Depth 1.43m	Depth 0.45m	Depth 1.15m	Depth 1.26m
POTTERY (267 sherds, 2.46 kg)	**ANIMAL BONE (0.85kg)**	**POTTERY (333 sherds, 3.48kg)**	**SPARSE FINDS**
Animal bone	**POTTERY (97 sherds, 0.72kg)**	Animal bone	Animal bone
			Pottery
Layer (1)	(1)	(1)	(1)
	POTTERY: 1 VESSEL	**BURNT FLINT SPINDLE WHORL (SF 10)**	
Layer (2)		**POTTERY: 2 VESSELS & PARTS OF 4 VESSELS**	(2) **BONE IMPLEMENT (SF 11)**
Layer (3)	(2)	(2)	
POTTERY (1.1kg): SAUCEPAN POT & BURNISHED BOWL	**3 IMMATURE SHEEP**	**CYLINDRICAL CLAY WEIGHT**	
LOOMWEIGHT (UNFIRED)	**IMMATURE PIG SKULL**	**LOOMWEIGHT (TWO HALVES)**	
	DECORATED CHALK WEIGHT (SF 12)		
Layer (4)			(3)
BURNT FLINT		(3)	(4)
		BURNT FLINT	
(5)		(4)	(5)

neighbouring pit. There were at least five smaller pits of circular to oval plan, *c.* 1.00–1.50 m in diameter and 0.25–0.60 m deep, and probably with another couple of similar pits in the unexcavated area (Figs. 14 and 16). Pits F35, F36 and F57 had fairly clean fills containing much chalk debris but few finds, and were cut by the central pit, F33. Only the eastern pits, F34 and F37, which had darker fills, could have been contemporary with F33. F34 contained several large flint nodules, which may have been packing stones within a post-pit.

Further small pits of similar character lay immediately to the north (Fig. 9, F74-F77).

The central pit, F33 (Fig. 16), was cylindrical but there was a marked erosion cone where it cut the fills of the smaller pits. The upper secondary fills, which extended to the base of the erosion cone, comprised mixed loam and smaller chalk rubble, progressively becoming more horizontally bedded, and contained a part of a human cranium. The small pottery assemblage is consistent with an early/middle Iron Age date.

Group 22

To the west there was an east-west line of three pits, F22, F23 and F67, of which the easternmost had been recut, by F24 (Figs. 7 and 14). They were of variable profiles and depths, with little similarity in either their fills or the finds and faunal assemblages from them. Both F22 and F23 contained basal deposits of loomweights. However, while F22 produced a pottery assemblage that contained large parts of two early/middle Iron Age jars (Fig. 18; 1 and 2), F23, the deepest pit on the site, produced a major bone assemblage that included partial

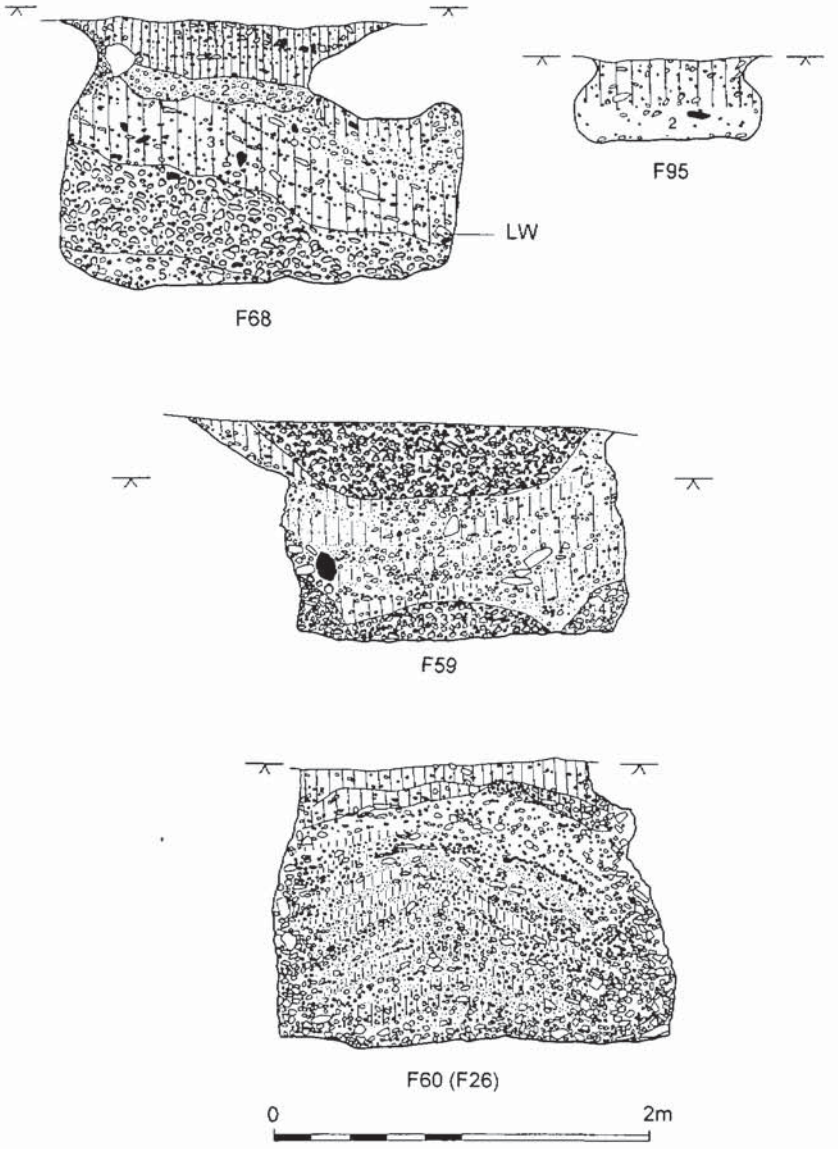

Fig. 15 Pit sections: F68, F95, F59 & F60

carcasses from several dogs and immature sheep. This is discussed in detail in the animal bone report. F22 also contained a substantial deposit of burnt flint. Pits F24 and F67 were largely devoid of animal bone, but there was a little pottery (Fig. 18; 5 and 6) and a single worked bone point (Fig. 22; 2). The pottery dating suggests that this was the earliest of the internal pit groups.

Group 68

To the south (Fig. 9) there was a single deep pit,

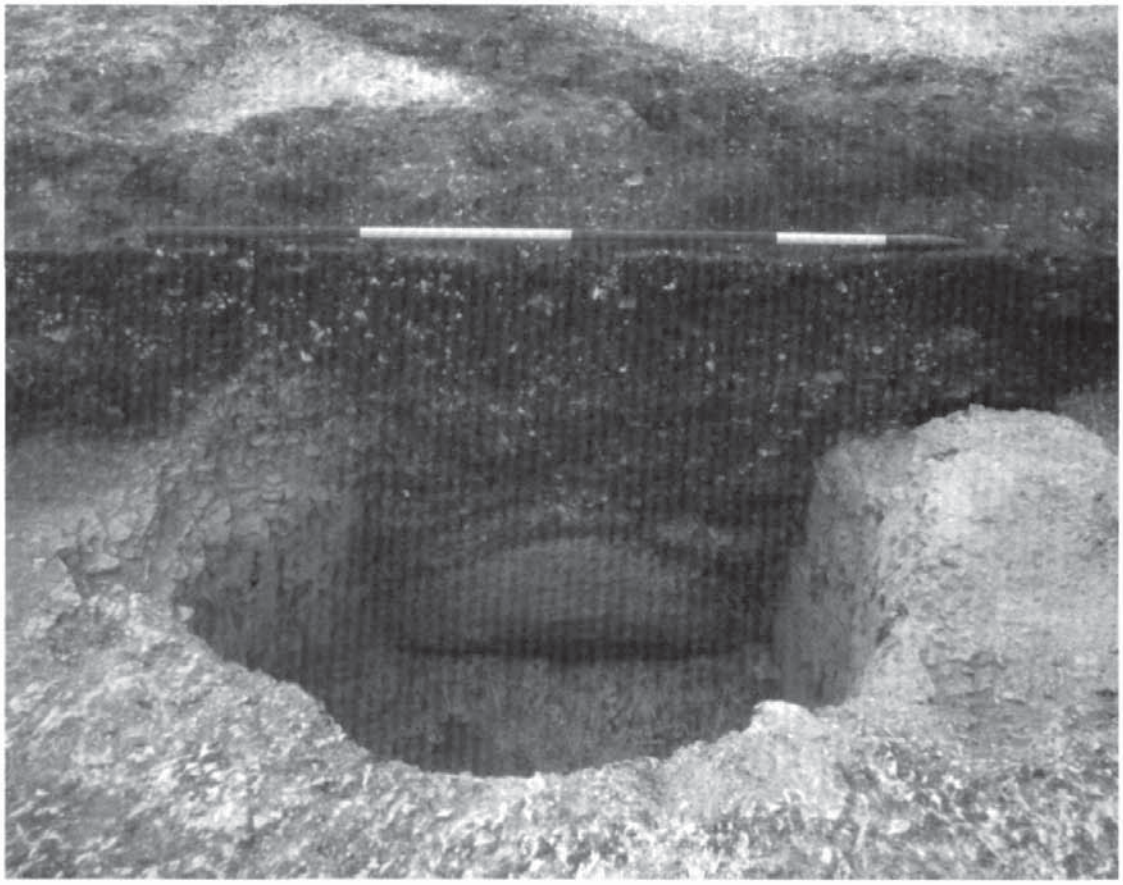

Fig. 16 Pit F33, showing domed primary fills

F68, and a nearby small and shallow pit, F95, which contained a bone assemblage comparable to that from pit F23. Pit F68 undercut the natural on one side by up to 0.80 m (Fig. 15). Its lower fill comprised a deposit of burnt flint. Associated charcoal was mainly derived from shrubby species such as hazel, blackthorn/cherry and hawthorn/whitebeam, but some tree species were also represented. A complete but unfired loomweight was recovered in the lower part of the layer overlying the burnt flint, and beneath the overhang. This fill also produced a substantial pottery assemblage (Fig. 19; 7), which dates the pit to the beginning of the middle Iron Age. Pit F95 was only 0.45 m deep but the lower fill produced part of an immature pig skull, and part carcasses of three immature sheep, and also a decorated chalk weight and small pottery assemblage (Figs. 15 and 22, 4).

Group 59

To the south there was a pair of similar pits, F59 (Fig. 17) and F60, 1.15 m and 1.45 m deep respectively. Pit F59 contained primary and final fills of burnt flint, the latter 0.40 m deep with a volume of *c.* 0.70 m^3 (Figs. 15 and 17). Charcoal associated with the burnt flint predominantly comprised oak heartwood and ash, but shrubby species were also represented. Within the burnt flint there was a large pottery assemblage con-

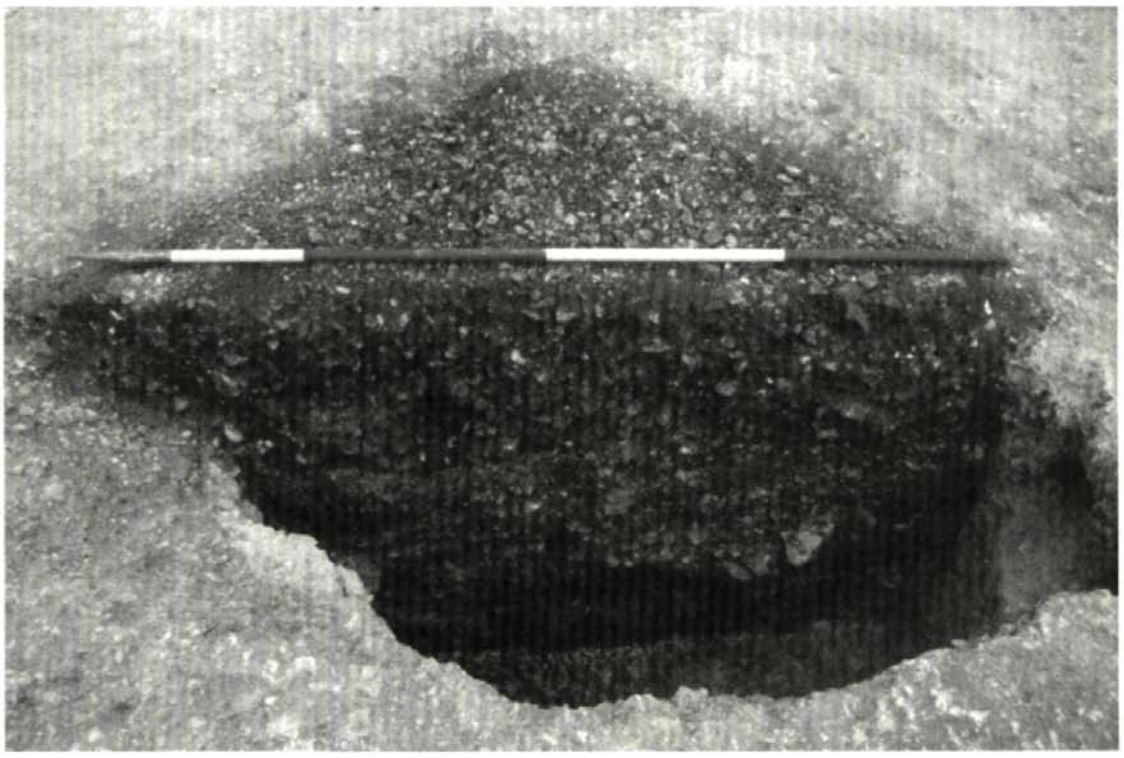

Fig. 17 Pit F59, showing primary and final fills of burnt flint

taining substantial parts of two vessels and parts of a further four (Fig. 18; 4 and Fig. 19; 9–11), which includes saucepan pots dating to the middle Iron Age. The only spindle whorl also came from here (Fig. 22; 3) together with part of a cylindrical clay weight. Pit F60 was excavated in the original trial trenching and the evaluation report makes no direct reference to any specific finds from this feature.

Group 51

To the east, immediately outside the enclosure near the eastern entrance there were two dissimilar pits (Fig. 4). F51 was undercut and 1.26 m deep. It contained a little animal bone, very little pottery, but a bone implement was recovered (Fig. 22; 1). The presence of saucepan pot sherds suggests a middle Iron Age date. Pit F51 was 0.70 m in diameter by 0.25 m deep, with near vertical sides. The fill contained several large flint nodules.

Discussion

The pits ranged in depth from 0.78–1.96 m. They showed a broad range of profiles from cylindrical to beehive, and three examples had been drastically undercut on one side, F22, F68 and F51, so that the natural was overhanging by 0.50–0.80 m at depths of 0.30–0.04 m below the surface. They were typically circular to oval in plan, with maximum diameters of 1.40–2.10 m. A single much smaller pit, F95, has been included with the storage pits because the finds from it are of a similar character.

There was considerable variation in the patterns of filling. A number of pits contained thin primary fills of darker, often charcoal-flecked loam, F33, F22, F23 and F68. In one

instance a near complete loomweight lay on the base of the pit, F23, while in another fragments from at least two loomweights lay on top of the primary fill, F22. In these instances the primary fills clearly derived from the deposition of a small quantity of occupation debris, but none contained dense concentrations of burnt material, as was noted in a few instances at Brighton Hill South (Fasham and Keevill 1995, 70–71 and plate 7).

A number of pits had domed lower fills, F33, F59, F60 and F51. In F33 these comprised clean crushed chalk and loose chalk rubble, while the domed lower fill of pit F59 was of loose burnt flint, and in F51 a thin layer of grey loam was sealed beneath clean chalk debris.

In a number of pits there was a relatively simple sequence of filling. In F22 up to 0.55 m of fairly chalk-free loam was overlain by a dump of burnt flint. In F68 the primary fill was directly overlain by up to 0.55 m of burnt flint, and above this there was loam containing some chalk rubble, which had accumulated as a succession of tips. The bulk of the fill of F59 comprised multiple tips of loam containing chalk rubble, but the upper 0.40 m comprised a single dump of burnt flint. The most complex sequence of fills was in the deepest pit, F23, where nine layers of different character were identified along with a complex sequence of animal bone deposition, discussed below.

The pattern of artefact and animal bone distribution showed considerable variation, and provides several instances of special deposition. The occurrence of basal deposits of loomweights has already been mentioned, but there were further examples of complete, F68, and partial loomweights, F22, in secondary fills. Pit F33, which pre-dated the western ditch, and F51, lying outside the eastern arm of the enclosure are notable for their paucity of both finds and animal bone, although a fragment of human cranium came from pit F33. Of the internal pits, only F24/F67 produced little material.

Three pits produced substantial quantities of pottery, F22, F59 and F68, and these included substantial parts, but not all, of a number of individual vessels. Two pits produced bone assemblages of particular interest. In pit F23 there were partial carcasses of three dogs, and partial carcasses from a number of immature sheep, and a pair of immature horse pelves. These had all been deposited as partial carcasses, but subsequent movement of the pit fills had disarticulated the bones. The small pit, F95, while only 0.45m deep also produced a bone assemblage that included part of an immature pig skull and partial carcasses from a further three immature sheep.

It may also be noted how the pattern of filling and material deposition appears to repeat itself for the three groups of pits set around the inside of the enclosure. To the west, Group 22 included one pit with deposits of burnt flint and pottery and another with animal bone deposits. To the south-west, Group 68 included a pit with burnt flint and pottery and a small pit with animal bone deposits. To the south, Group 59 also included a pit with burnt flint and pottery, but the published evaluation report makes no reference to any specific animal bone deposits in the other pit. The evidence is therefore not conclusive, but if the groups did represent a chronological succession of storage pits it would seem that to a considerable degree there was also a repetition of the pattern of deposition of burnt flint, pottery and animal bone. At least one pit in each of these three groups, and always the pit containing the burnt flint and pottery, also contained at least one triangular clay loomweight.

The western pit complex (Group 4)

This group comprised a central area of multiple intercut pits, measuring 7.0 m N.–S. by at least 4.5 m E.–W., and a marginal area in which pits were either semi- or fully-detached from their neighbours (Figs. 7; 8 and 11, S.22 and S.23). They were typically bowl-shaped, up to 0.50 m deep, and the marginal pits were typically circular to oval, and around 1.00 m in diameter. Along the southern margin there were some more elongated pits or gullies, such as F20.

The fills were typically of chalk debris in brown loam, and showed only a narrow range of variation. They produced only sparse quantities of domestic debris, with very little animal bone (only 0.16 kg) but slightly more pottery. This was mostly in smaller sherds but

parts of a single vessel, a proto-saucepan, were recovered from pits F7 and F10. Most notably, the otherwise ubiquitous burnt flint was absent. The fill of the hollow over the pits was a homogeneous dark brown loam, with few inclusions, indicating a lengthy period of slow silting.

Most of the activity apparently derived from a single episode of use, but a stratigraphic relationship to the western ditch was not established. However, the evident respect between the ditch and the pits suggests that the excavation of the pits within the confines of a previously established entrance causeway is perhaps the most likely sequence.

Other features

Both within and outside the enclosure there was a scatter of sub-circular and curvilinear disturbances of the natural chalk. They were all characterised by irregular profiles and clean fills, and they are probably vegetational disturbances, possibly tree-holes.

They are depicted on plan with dashed outlines (Figs. 4, 7 and 9).

THE IRON AGE POTTERY *by* Andy Chapman *with* Tora Hylton (Figs. 18–20)

Introduction

A total of 18.6 kg, 1599 sherds, of pottery was recovered from the excavation, forming an assemblage of early/middle to middle Iron Age pottery directly related to the occupation of the enclosure. The range of fabrics and forms represented parallels the material recovered at the nearby Iron Age sites at Brighton Hill South (Rees 1995a). The fabric, form and chronological analysis provided in the reporting of that assemblage has been used as the model for the study of the Kennel Farm pottery. The assemblage recovered from the 1987 evaluation of the site, and at a second nearby enclosure, produced just over 4 kg of pottery and these assemblages were also reported on in the Brighton Hill South volume (Rees 1995b). The pottery from a further nearby site, Kennel Farm Site F, excavated in 1998 has been analysed following the completion of the work on the material from Site A (Lyne 2001, archive report for Northamptonshire Archaeology).

Fabrics

The material was classified into four general fabric groups, 1–4, which includes 99% of the total assemblage. A further two Iron Age fabric types, 5 and 6, are represented by only 8 and 7 sherds respectively, with a majority coming from only 2 vessels. Four abraded sherds recovered from fills of the enclosure ditch are of Roman date, fabric 7.

The fabrics have been identified macroscopically only, with no microscopic or petrological examination.

Fabric 1: handmade: fairly soft, variable colour but most typically reduced, abundant small flint, 1–2mm.

Fabric 2: handmade: fairly soft, variable colour with abundant coarse quartz sand. Shows a wide range in the coarseness and density of the sand.

Fabric 3: handmade: soft to fairly soft, sparse to moderate iron ore and fine quartz, with a soapy to slightly sandy texture.

Fabric 4: handmade: fairly soft, variable colour with abundant quartz sand. Sandy fabric the same as 2 but characterised by the occurrence of sparse small to large flint, up to 7mm.

Fabric 5: handmade: soft, slightly sandy, light grey core; abundant small pellets of grog/clay and sparse iron ore to give a marbled surface, 'Belgic grog-tempered ware'.

Fabric 6: handmade; soft, reduced core with oxidised inner or outer surface; virtually inclusion free but with some fine quartz to give a soapy to slightly sandy texture.

Fabric 7: Roman fabrics

Fabrics 1–3 may be directly equated with fabrics 1–3 at Brighton Hill South (BHS: Rees 1995a, 35). Fabric 4 is a variant of the sandy fabric, fabric 2, but distinguished by the presence of sparse large pieces of detrital flint. Its use in some vessels with oxidised and flaking burnished surfaces suggests that there is a partial correlation with the glauconite sandy

Table 3 Iron Age fabrics by weight and sherd count

Fabric	*Weight(kg)*	*%*	*Sherd count*	*%*
1	6.87	37	452	28
2	6.98	38	884	55
3	2.31	12	155	10
4	2.19	12	89	6
5	0.11	0.5	8	0.5
6	0.90	0.4	7	0.4
7	0.03	0.1	4	0.1
Totals	18.58		1599	

Table 4 Iron Age pottery fabric/form correlation

Fabric / *Vessel type*	*1*	*2*	*3*	*4*	*Total*
Forms 1 and 2 Shouldered jar/Proto-saucepan	1	3	–	3	7
Form 3 Saucepan-pot	3	2	–	–	5
Form 4 Carinated bowl	–	1	–	1	2
Form 5 Rounded jar/bowl	1	2	1	1	5
Form 8 Bead rim jar	6	–	–	–	6
Total	11	8	1	5	25

ware identified in a reassessment of the pottery from the evaluation trenches at the Kennel Farm enclosure (Rees 1995b, 65–66).

Fabric 5 is equated to BHS fabric 7, Belgic grog-tempered ware. Fabric 6 cannot be equated to any of the BHS fabrics, but it is a sandy fabric with particularly fine quartz inclusions. No attempt has been made to identify any individual Roman fabrics. The occurrence of the fabrics is listed in Table 3.

Forms

As the specific forms of only a limited number of vessels may be determined they have been classified within a small group of broadly defined forms, correlated to those utilised at Brighton Hill South (Rees 1995a, 36–39). Forms 2 and 6 at Brighton Hill South are not represented. The correlation of fabrics and forms is listed in Table 4, and is discussed in the description of the forms.

Forms 1 and 2: Shouldered jars, typically with a flat-topped rim and an expanded base, either in a sandy fabric (fabric 2) or more crudely made (fabric 4) with less pronounced shoulders that tend towards the proto-saucepan type, BHS form 2 (Fig. 18; 1 – 4). The two forms have been kept together as defining variations of a single jar form.

Form 3: Saucepan pots, typically well finished and often burnished and in a flint-tempered fabric, fabric 1 (Fig. 19; 7 and 8).

Form 4: Carinated and high-shouldered bowls, only

two examples recovered, in fabrics 2 and 4 (Fig. 19; 10).

Form 5: Rounded jar/bowl, typically flint-tempered, fabric 1, well finished and often burnished, and closely comparable to the saucepan pots (Fig. 19; 11 and 12).

Form 7: Small jar/bowl with high shouldered or carinated profile. A single example was recovered (Fig. 20; 13), in an uncommon, fine sandy fabric, fabric 6.

Form 8: Bead rim jar, in fabric 1 but typically softer and with even more abundant small flint; includes some very large storage jars (Fig. 20; 14).

Decoration

The majority of the recovered pottery is plain and undecorated. Only two rim sherds are decorated; both are jars from pit F67 with fingertip impressions along flat-topped rims (Fig. 18; 5 and 6). A number of the shouldered jars exhibit shallow thumb impressions on the shoulders and neck, but perhaps derived from the shaping of the shoulders during the potting of these crudely finished vessel rather than as specific decoration (Fig. 18; 2). In complete contrast, a single sherd from a rounded bowl possesses an elaborate and deeply moulded, curvilinear motif, the only such vessel recovered from the site (Fig. 20; 15).

Ceramic chronology

The ceramic chronology utilised in this analysis follows the definitions and dating used in the analysis of the Brighton Hill South material (Rees 1995a, 36 and fig. 22).

Early/middle Iron Age

There is a predominance of shouldered jars with flat-topped rims in a sandy fabric, fabric 2, associated with expanded bases, and some cruder jars with less pronounced shoulders which tend towards the proto-saucepan form, typically in fabric 4. The presence of these vessels in a wide range of contexts, including primary deposits in pit fills, indicates that the origin of the enclosure lay within the early to middle Iron Age (Brighton Hill South (BHS), ceramic phase A). A particularly fine assemblage from pit group 22 includes substantial parts of two, crudely- made jars from F22 (Fig. 18; 1 and 2) and two decorated rims from pit F67 (Fig. 18; 5 and 6). This suggests that pit group 22 was probably the earliest of the three internal pit groups. Pit group 68 was dominated by shouldered jars but also included a single probable saucepan pot suggesting a slightly later date (BHS, ceramic phase A-B).

Middle Iron Age

Saucepan pots and rounded bowls in carefully finished flint tempered wares, typically well burnished (fabric 1), some carinated or high-shouldered bowls, and coarse, flint-tempered storage jars, occur less frequently and only within certain pits and the fills of the eastern enclosure ditch. This indicates that use of the enclosure continued into the middle Iron Age (BHS, ceramic phase B-C), but with a slightly lower level of pottery deposition, at least within the excavated area.

Pit F59 contained three saucepan pots and a rounded jar suggesting it was the latest of the internal pit groups, while the external pit to the east, F51, also produced two saucepan pots (Fig. 19; 8). The distinctive, flint-gritted large storage jars were only recovered from the enclosure ditch, most notably as a single deposit, accompanied by a curvilinear decorated sherd, in the southern terminal of the eastern enclosure ditch (Fig. 20; 14 and 15).

Saucepan pots had formed a major part of the assemblage recovered in the evaluation trenches leading to the conclusion that the peak of activity was in the middle Iron Age (Rees 1995a). However, the major part of the middle Iron Age assemblage from the evaluation came from broad shallow ditches that lay outside the enclosure on its eastern side, and not further excavated in 1996. The overall dating was therefore based on material from outside the enclosure that may relate to some completely separate later activity. The incomplete excavation of the enclosure and its immediate environs does however leave the picture incomplete.

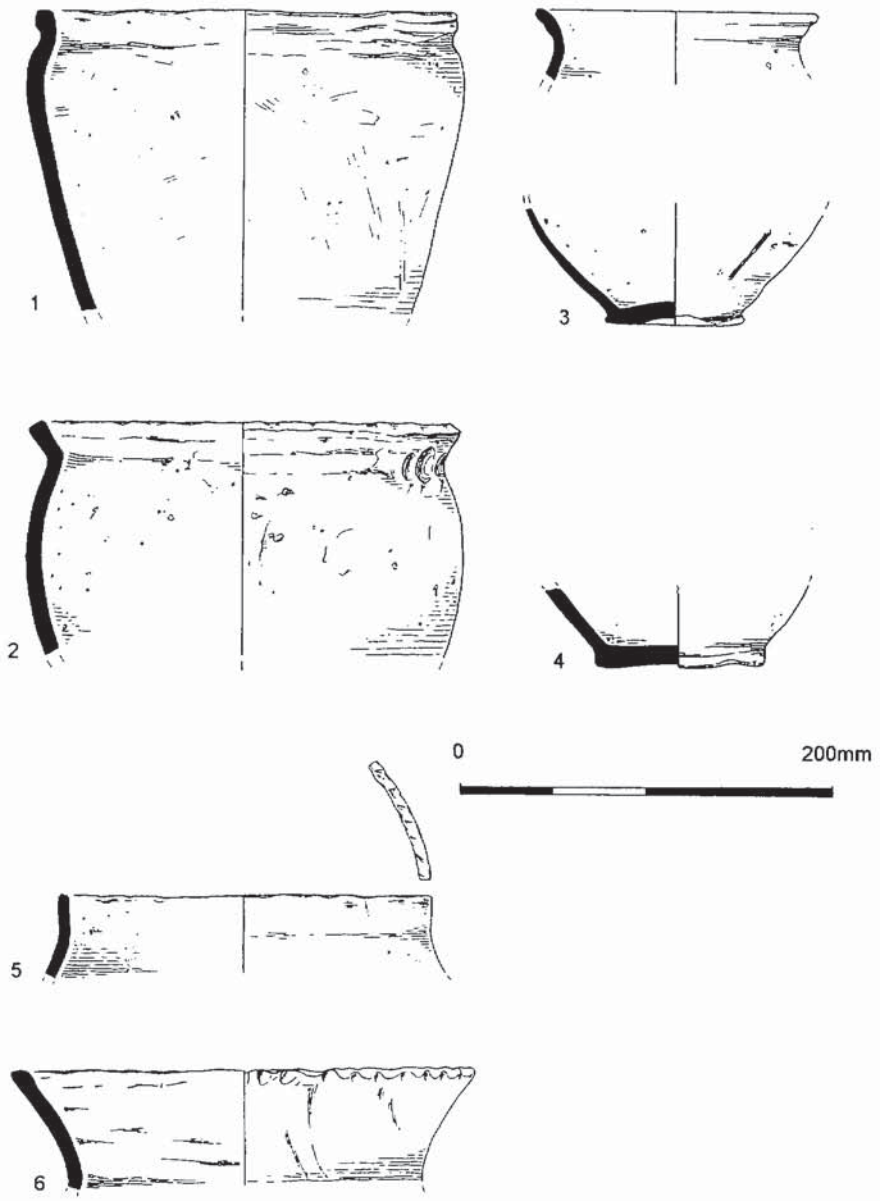

Fig. 18 Iron Age pottery: vessels 1–6

On balance, the evidence must be taken to denote that occupation of the enclosure was from the early-middle to middle Iron Age, with the earlier activity dominating the western part of the enclosure while the later activity lay mainly across the eastern part of the enclosure and immediately beyond it.

Later Activity

A single Belgic grogged ware vessel, fabric 5, and

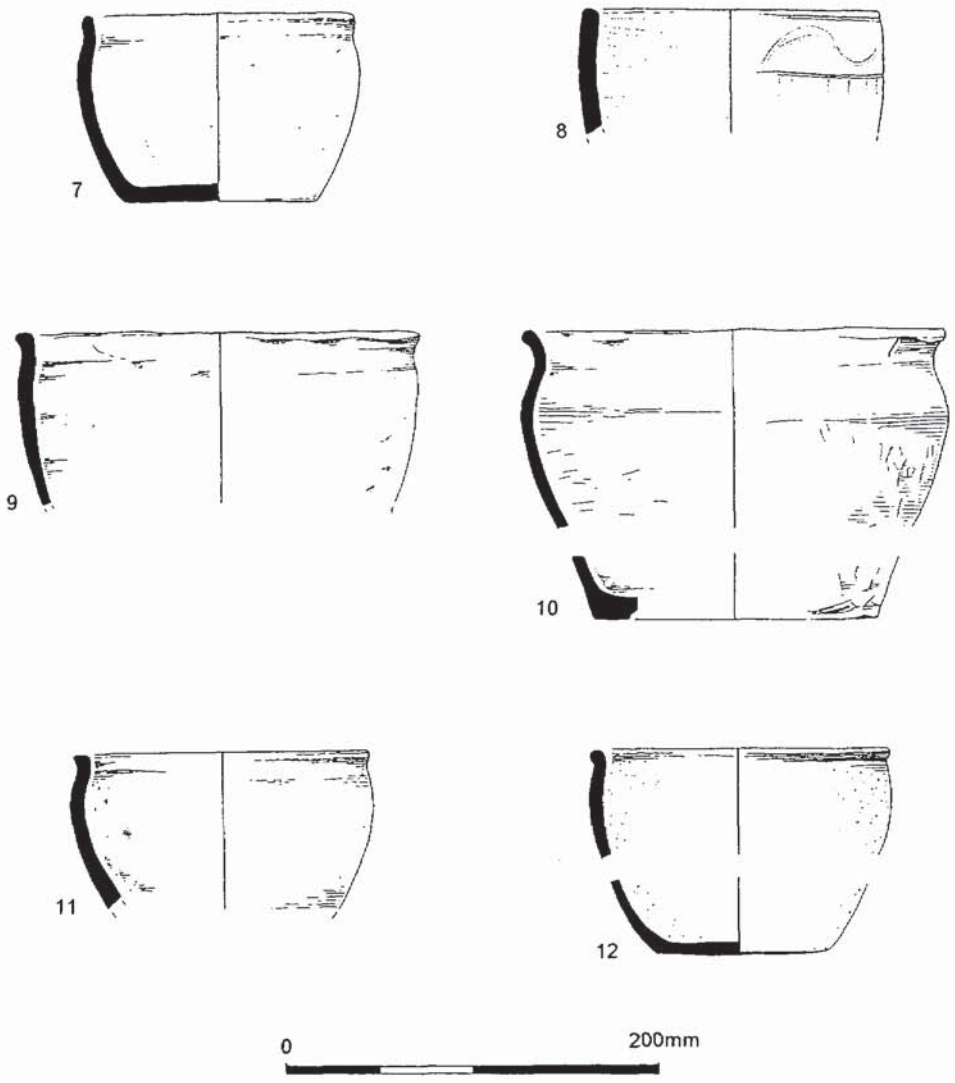

Fig. 19 Iron Age pottery: vessels 7–12

a few abraded sherds of Roman pottery in the final fills of the eastern enclosure ditch indicate that there was some later nearby activity dating to the 1st century AD This may relate to the unexcavated enclosure system, Site B, which lies 100 m to the south-east (Fig. 2).

Catalogue of illustrated pottery (Figs. 18–20)

1 Shouldered jar (form 1), fabric 4, oxidised throughout but with isolated area of external surface and core reduced. Poorly finished with pieces of flint erupting from surface. Pit F22, layers 2 & 3, pit group 22

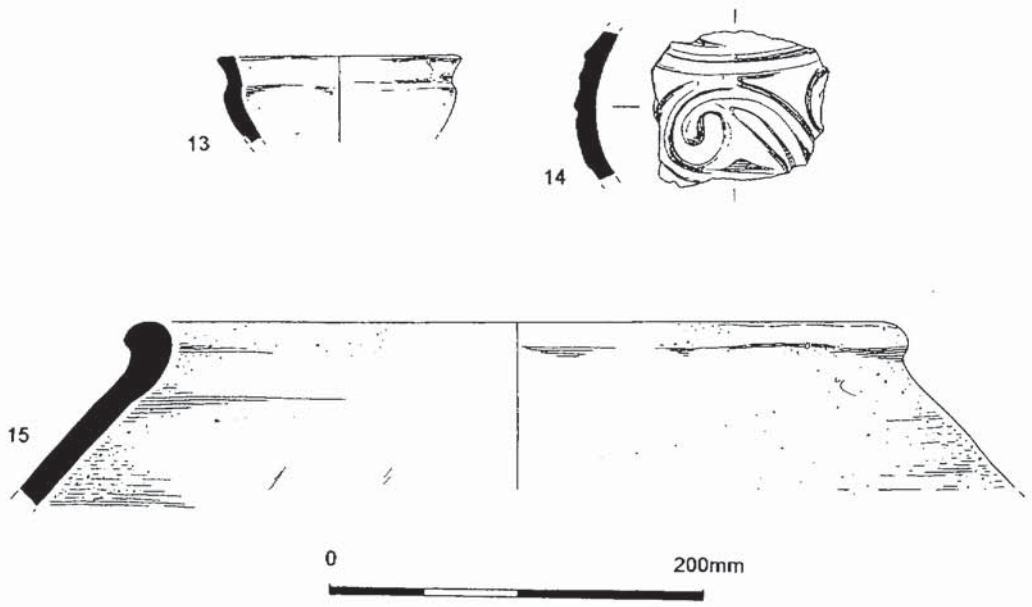

Fig. 20 Iron Age pottery: vessels 13–15

2 Shouldered jar (form 1), thumb impressions on neck, fabric 4, reduced exterior and core, oxidised interior. Very poorly finished with large pieces of flint erupting from surface. Pit F22, layer 3, pit group 22

3 Jar (forms 1 & 2), fabric 3, base and rim sherds, reduced surfaces, dark red iron rich core. Pit 95, layer 1

4 Expanded base, fabric 2, reduced surfaces and core. Pit F59, layer 1

5 Jar (forms 1 and 2), fabric 4, reduced, finger nail impressions along flat-topped rim. Pit F67, pit group 22

6 Jar (forms 1 and 2), fabric 4, shallow thumb/finger impressions along outer margin of flat-topped rim. Pit F67, pit group 22

7 Saucepan pot (form 3), fabric 1, burnished exterior, reduced throughout. Pit F68, layer 3

8 Saucepan pot (form 3), fabric 2, reduced core, oxidised surfaces, burnished exterior and interior, lightly incised curvilinear decoration between slightly more deeply incised encircling lines. Pit F51

9 Saucepan pot (form 3), fabric 2, lightly burnished, oxidised exterior, reduced core and interior. Pit F59, layer 1

10 High shouldered bowl (form 4), fabric 4, reduced core largely oxidised surfaces. Pit F59, layer 1

11 Rounded jar/bowl (form 5), fabric 1, burnished, reduced throughout. Pit F59, layer 1

12 Rounded jar/bowl (form 5), fabric 1, bead rim. Reduced throughout, finely potted with burnished exterior and wiped interior. Pit F68, layer 3

13 Small, high shouldered bowl (form 7), fabric 6, reduced exterior, oxidised core and interior. Pit F22, layer 2, pit group 22

14 Rounded bowl, deeply incised curvilinear decoration, fabric 3, reduced core and interior, mottled brown to grey exterior. Pit F100, layer 2

15 Large bead rim storage jar (form 8), fabric 1, densely flint tempered, friable, oxidised throughout. Pit F100, layer 2

THE CLAY WEIGHTS *by* Andy Chapman

Introduction

A total of 10.25 kg of fragments derived from triangular clay loomweights with corner perforations was recovered (Fig. 21). It largely

Table 5 Clay weights

Context/layer	*Feature type*	*Weight (kg)*	*Comments*
22/2	pit	1.55	Fragments of single loomweight
22/3	pit	3.23	Fragments, of 2 or more (Fig 21; 3)
23/9	pit	1.82	Complete, fragmented (Fig 21; 4)
59/2	pit	1.65	Complete, 2 pieces (Fig 21; 1)
68/3	pit	1.10	Complete, unfired (Fig 21; 2)
68/1 and 4	pit	0.27	Small fragments
33/3	pit	0.03	Small fragments
59/2	pit	0.47	Cylindrical weight
Total		10.25	

comprises complete or near complete weights recovered from four of the storage pits, with only small quantities, 0.20 kg each, coming from the eastern ditch and two postholes, including post-pit F88 of the timber structure, Group 91. One end of a cylindrical clay weight was also recovered. The material from the major pits is tabulated above (Table 5).

Form/manufacture

The weights are typically in a sandy fabric with frequent inclusions of chalk and flint, occasionally as much as 15–20 mm in length, with these larger pieces frequently erupting through the surface. The clays had been poorly mixed so that one example appears to have fractured along a plane of weakness during firing, while others had fractured along less marked planes following burial. The unfired weight is atypical in that it contains no flint inclusions. It is formed in pale brown silty clay that is indistinguishable from the clays filling depressions and linear faults in the chalk, suggesting that the weights were manufactured on-site from the clays immediately to hand. The surfaces of the weights had been roughly smoothed prior to firing, and all of the near complete examples have perforations at each corner, but none of them possessed any signs of wear. The weights typically had bright orange to dull red surfaces, with grey to black cores.

The complete examples range in weight from 1.10–1.80 kg, varying from 80–103 mm thick and standing from 132–170 mm high. All four examples were thicker towards one end, the lower as illustrated, and so had a natural upper apex. Other comparable but much larger assemblages have come from broadly contemporary Wessex sites such as Winnall Down (Fasham 1985, 90–92) and Danebury hillfort (Cunliffe and Poole 1991, 372–380).

Distribution

The assemblage comprises at least six complete weights. Single weights were recovered from pits F23, F59 and F68, and in pit F68 there were further fragments of other partially represented weights, although as pits F23 and F68 were only sectioned further fragments may have been present but not recovered.

The largest single assemblage is from pit F22. On the basis of total weight and the number of fragments with perforations, at least four complete weights are represented. Differences in appearance indicate that the assemblage actually represents substantial parts, but not the whole, of perhaps some 4–6 weights.

In two instances, F22 and F23, weights were

recovered as basal deposits in storage pits, having presumably been specially deposited.

Catalogue of illustrated loomweights (Fig. 21)

1 Found as two fragments within the same layer, burning of the fractured surface indicates that the weight had been broken and burnt prior to deposition. Fabric: dark grey with inclusions of chalk and flint of up to 15 mm, often erupting from surface. Surface dull orange-brown, including much of one surface of the break; indicating the presence of at least a major crack at firing, and it is most probable that it split in two during firing. Dimensions: Weight 1.65 kg, Thickness 103 mm, Height 132 mm Small Find (SF) 2 and 3, Pit F59, layer 2

2 Found complete but unfired. Pale brown clay with moderate inclusions of small rounded pieces of chalk up to 5mm. Dimensions: Weight 1.10 kg, Thickness 79 mm, Height 142 mm SF 6, Pit 68, layer 3

3 Inclusions as for (Fig. 21, 1), entire surface, including broken surface uniformly oxidized to a bright orange-brown. Dimensions: Weight 1.01 kg (estimated total 1.70 kg), Thickness 88 mm, Height *c.* 160 mm SF 1, Pit 22, layer 3

4 This comprised two or three major fragments but fragmented further on lifting. Fabric: dark grey brown core but some areas of orange brown probably resulting from oxidation in cracks within the loosely packed and friable matrix. Sparse inclusions of small pieces of chalk, 1–5 mm, occasional piece of flint of up to *c.* 20 mm. Surface oxidized, orange; patchy grey discoloration across surface caused by subsequent heating. Dimensions: Weight 1.82 kg, Thickness 100 mm, Height 170 mm SF 4; Pit F23, layer 9

OTHER FINDS *by* Tora Hylton

Four bone and stone finds comprise objects that would have been used to manufacture textiles. A spindle whorl (Fig. 22; 3) relates to the basic activity of hand spinning, while a small decorated weight and the two bone implements may all be associated with weaving (Fig. 22; 1, 2 and 4). They are complemented by the assemblage of clay loomweights discussed above.

The bone implements, similar to those illustrated by Cunliffe (1974, fig. 14:1, 10–11) may have been pin beaters, used to separate the threads during weaving. The example with a blunt terminal (Fig. 22, 1) resembles two bone tools from Abingdon, Oxfordshire (Parrington 1978, fig. 60, 35–36).

A small, roughly worked drum of chalk has been smoothed on one face and decorated with a lightly incised motif which may have been intended to represent a spider's web, perhaps to reflect the common interest in spinning and weaving (Fig. 22; 4). It displays similarities to the crude limestone spindle-whorls from Maiden Castle, Dorset (Wheeler 1943, plate 33). However, excessive wear of the perforation adjacent to the damaged or truncated side of the drum indicates that it had been suspended and may therefore have been utilised as a small loomweight.

The single iron object (not illustrated) is incomplete and comprises a flat strip, measuring 42 mm by 17 mm, with a rounded terminal pierced by a rivet. It was from the exposed surface of the subsidence fill of the enclosure ditch (46.1), and is likely to be post-Iron Age in date.

Finds Catalogue (Fig. 22; 1–4)

1 Bone implement, sheep metapodial, incomplete one terminal missing. Trimmed lengthways to form a blunt terminal. The exterior surfaces are both extensively scratched and highly polished. Length (incomplete): 114 mm. Small Find (SF) 9, Context 24.6, Primary fill of pit F24

2 Bone implement, sheep metacarpal. Trimmed lengthways to form a pointed terminal. Scratching and polishing on worked point only. Length: 94 mm. SF 11, Context 51, fill of pit F51

3 Spindle whorl, limestone (damaged). Discoid, parallel-sided, may have been turned on a lathe. Perforation slightly off-centre, 7.5mm diameter. Diameter: 40 mm Thickness: 20 mm Weight: 45.5 g. SF 10, Context 59.1, Final fill of pit F59

4 Loomweight, chalk. Sub-circular, central perforation drilled from both sides. The upper surface is smoothed and has a lightly incised decorative motif comprising irregularly spaced lines radiating from the centre

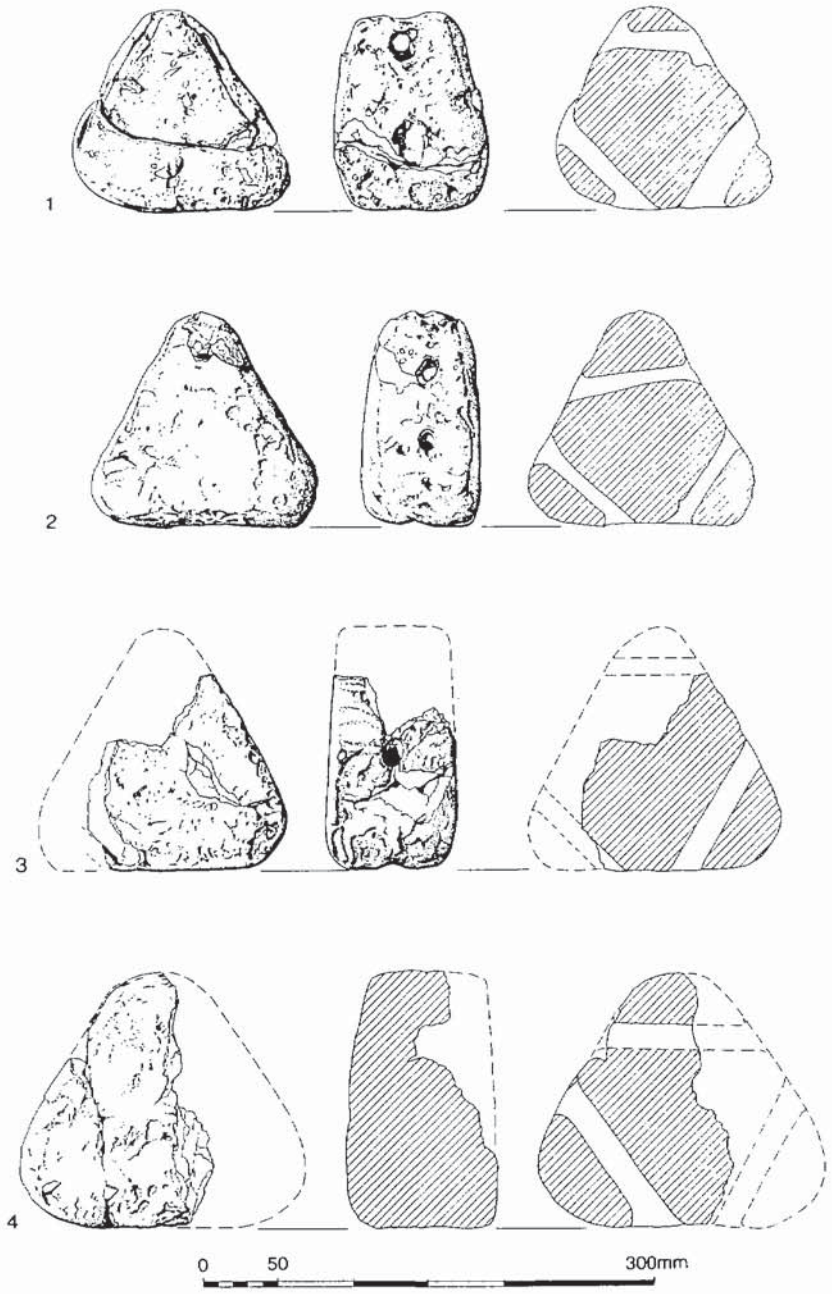

Fig. 21 Triangular clay weights: 1–4

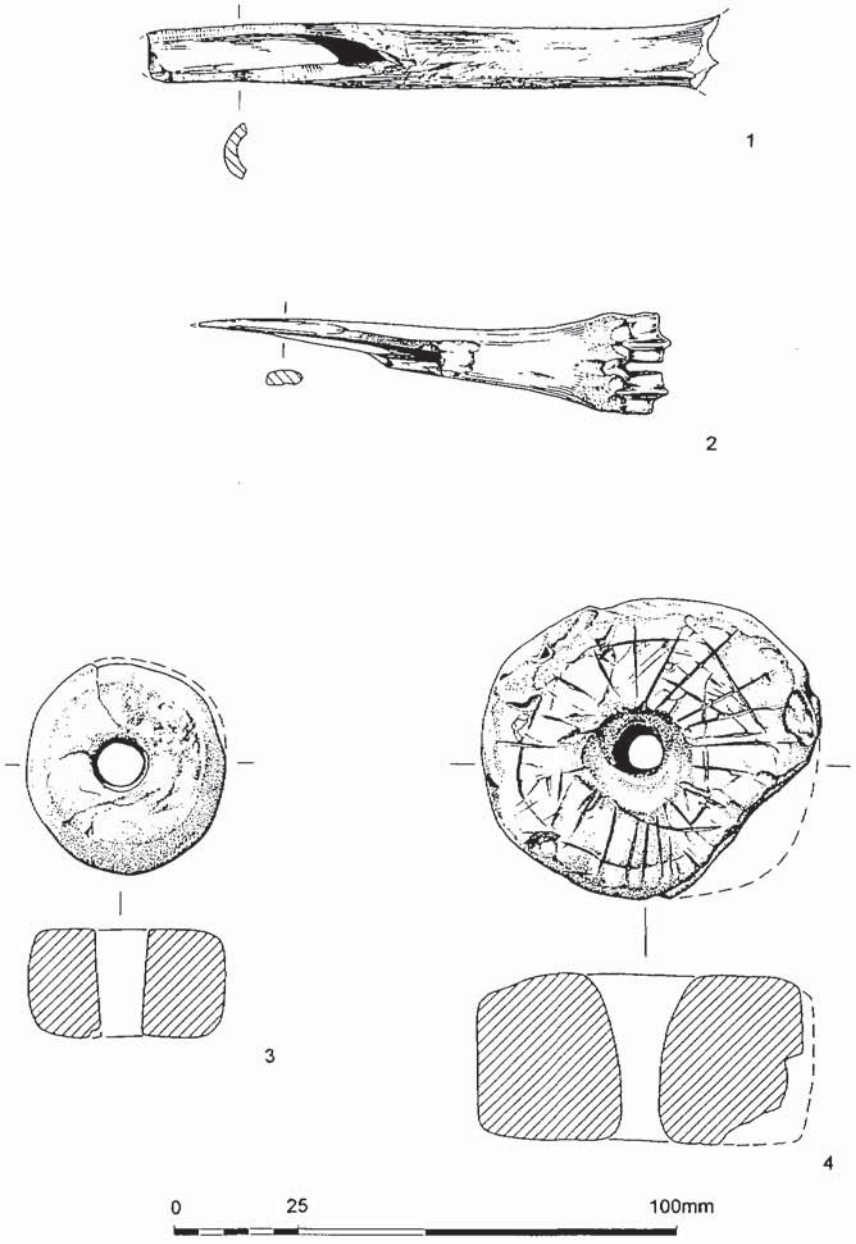

Fig. 22 Bone implements: 1 & 2; spindle whorl: 3; 'loomweight': 4

and curvilinear lines forming a spiral. Diameter: 64 mm Thickness: 32 mm Weight: 116.2 g. SF 12, Context 95, lower fill of pit F95

THE BURNT FLINT

Large quantities of burnt flint were present on the site. It formed a notable inclusion within the fills of most of the storage pits, and in some instances there were layers 400–600 mm thick comprising largely burnt flint and associated burnt and ashy debris (Figs. 15 and 17, F59 and F68). The final fill of pit F59 comprised burnt flint and associated charcoal debris with a volume of 0.70 m^3. These deposits showed no internal layering, and so appeared to be the result of single episodes of deposition.

Burnt flint was also a common inclusion in the fills of the enclosure ditch, and pieces were frequently recovered from the postholes and post-pits. The notable exception was the western pit complex, Group 4, where the fills of the intercut pits contained no burnt flint.

The burnt flint was typically a light to dark grey colour and, sometimes, blue grey. The surface was crazed by multiple fine cracks, and often was densely pitted where small spalls of flint had been lost during heating. In size the pieces typically ranged from 50–100 mm. The analysis of associated charcoal has shown that it was burnt on fires or hearths fuelled with wood coming from a wide range of tree and shrub species, see below.

THE FAUNAL REMAINS *by* Alison Locker

Introduction

A small assemblage of hand collected animal bones (1174 pieces, 9.98 kg) was recovered from the enclosure ditch (3.83 kg), the storage pits (5.70 kg), and the smaller pits and postholes (0.45 kg). Apart from some remains of small mammals and frog/toad found at the base of some pits only domestic species were represented; horse (*Equus* sp. domestic), cattle (*Bos* sp. domestic), ovicaprid (*Ovis* sp. domestic/*Capra* sp. domestic), pig (*Sus* sp. domestic) and dog (*Canis* sp. domestic). No goats were positively identified and it is likely that all the ovicaprids are sheep. Measurements were taken using von den Driesch (1976) and mandibles were aged using Grant (1982).

Summaries of the numbers of bones per species/context group are given in the text as well as in Tables 6–8, showing the total number of bones in each group and the distribution by species and anatomy in particular features.

The enclosure ditch

Bone was recovered from all parts of the ditch, although the deeper, eastern half produced the most (Tables 6 and 7).

In the western half (Group 2), the bones from sections at either end of the ditch (F2 layer 1 and F29 layer 1) were eroded compared to the rest and were only identifiable to group level. The cattle and ovicaprid remains show no particular distribution of body parts, both skull and post cranial elements are represented, all from mature animals except for a porous cattle metatarsal fragment. Horse was identified from two upper molars. A piece of human cranium was present in ditch section F27 layer 1.

The short length of ditch linking the western and eastern halves of the circuit (Group 30) also produced little bone, and this too was of variable condition, fragmentary with no clear evidence of butchery.

In the eastern enclosure ditch (Group 31), 75% of the material comprised teeth, ribs, long bones and indeterminate fragments. The horse remains included a broken right mandible from an adult animal (from F31 layer 4) in which the pattern of tooth wear was unusual. The molars were more heavily worn than the premolars giving a curved silhouette to the height of the teeth from front to back, a canine and three heavily worn loose incisors are likely to belong to this mandible. Without the occluding teeth from the maxilla the cause of this unusual wear is unclear, the height of the teeth can be used to estimate age (after Levine 1982) but only when the wear pattern

Table 6 Summary of the animal bone

Context	*Horse*	*Cattle*	*O/C*	*Pig*	*Dog*	*Cattle size*	*O/C size*	*Indet.*	*Total*
Enclosure Ditch									
Group 2	2	1	6	0	0	14	5	15	43
Group 30	3	4	3	0	0	8	1	8	27
Group 31	10	25	29	6	1	73	23	67	234
Minor pits									
Group 45	0	0	1	1	0	0	0	0	2
Group 4 (western pits)	0	1	2	3	0	9	0	0	15
Storage pits									
G.22, Pit 23	4	32	157	0	563	43	97	0	386
G.22, Pit 22, 24 & 67	0	16	5	3	0	18	10	12	64
Group 33	5	0	7	3	0	5	8	5	33
G68, Pit 59	5	9	18	3	0	16	9	16	76
Pit 68	1	5	9	2	0	8	22	6	53
Pit 95	2	1	33	9	0	15	112	0	172
Ext'l Pit 51	0	3	2	0	0	18	0	0	23
Postholes & post-pits									
General	0	1	5	0	0	32	7	0	45
Structure G91	0	1	0	0	0	0	0	0	1
Total	32	99	277	30	54	259	294	129	1174

Key to Tables 6-14:
O/C = Ovicaprid
Indet. = Indeterminate

is normal. Three deciduous teeth from a foal (from F48 layer 1) are estimated to be from an animal of less than 1 month old (Huidekoper 1903). Apart from a molar (from F31 layer 1) the remaining occurrences of horse were from post cranial bones, all adult including a complete metacarpal (from F94 layer 3) from a pony of around 13 hands, 1333mm withers height, after Keisewalter (1889). Dog was identified from a single skull, broken into many pieces, with all teeth in wear (from F46 layer 3). Cattle bones showed heavy fragmentation. A horn core attached to a skull fragment (from F93 layer 1) was, at 100 mm long, at the lower end of the range given for short horn and the top of the range for small horn, the latter being typical of Iron Age sites (Armitage and Clutton Brock 1976). A third molar in a mandible showed the third cusp to be absent, a congenital abnormality (from F31 layer 2). Cattle bones were from mature animals except for a porous radius shaft and although many bones were fragmentary there were no clear signs of butchery (from F31 layer 4). Ovicaprid

Table 7 Animal bone: the eastern enclosure ditch (Group 31)

Body part	*Horse*	*Cattle*	*O/C*	*Pig*	*Dog*	*Cattle size*	*O/C size*	*Indet.*	*Total*
Skull	0	1	1	0	1	2	0	0	5
Horncore	0	0	1	0	0	0	0	0	1
Maxilla	0	2	0	1	0	0	0	0	3
Mandible	1	3	2	1	0	5	1	0	13
Teeth	5	13	17	3	0	2	0	0	40
Vertebrae	0	0	0	0	0	2	1	0	3
Scapula	0	1	0	0	0	2	1	0	4
Humerus	0	2	1	0	0	2	0	0	5
Radius	1	1	2	0	0	1	1	0	6
Ulna	0	1	0	0	0	0	0	0	1
Metacarpal	1	0	0	0	0	0	0	0	1
Pelvis	0	0	0	1	0	0	0	0	1
Femur	0	0	0	0	0	1	0	0	1
Patella	1	0	0	0	0	0	0	0	1
Tibia	1	0	2	0	0	2	3	0	8
Metatarsal	0	0	2	0	0	1	1	0	4
Phalanges	0	1	1	0	0	0	0	0	2
Rib	0	0	0	0	0	6	0	0	6
Long bone fragment	0	0	0	0	0	24	9	0	33
Fragment	0	0	0	0	0	23	6	67	96
Total	10	25	29	6	1	73	23	67	234

Table 8 Animal bone: Pit 23, layer 1

Body part	*Cattle*	*O/C*	*O/C size*	*Total*
Skull	1	0	0	1
Vertebrae	0	1	1	2
Total	1	1	1	3

bones were also fragmentary, the shafts of limb bones were often all that remained, there were loose teeth but too few mandibles for any ageing; two long bone fragments were burnt. Pig occurred in three sections (F31 layer 3, F46 layer 2 and F50 layer 2) and apart from a pelvis fragment was identified from mandible and tooth fragments.

The western pits

Little bone was recovered from the cluster

Table 9 Animal bone: Pit 23, layer 2

Body part	*Horse*	*Cattle*	*O/C*	*Dog*	*Cattle size*	*Total*
Skull	0	0	0	0	1	1
Maxilla	0	0	0	2	0	2
Mandible	0	0	1	0	0	1
Teeth	1	5	4	2	0	12
Vertebrae	1	0	2	1	1	5
Humerus	0	0	0	0	1	1
Radius	0	0	1	0	0	1
Tibia	0	0	1	0	0	1
Rib	0	0	0	0	8	8
Fragment	0	0	0	0	10	10
Total	2	5	9	5	21	42

Table 10 Animal bone: Pit 23, layer 3

Body part	*Horse*	*O/C*	*Dog*	*Cattle size*	*O/C size*	*Total*
Mandible	0	0	0	2	0	2
Teeth	0	3	0	0	0	3
Scapula	0	0	0	1	0	1
Pelvis	2	0	0	0	0	2
Tibia	0	1	1	0	0	2
Rib	0	0	0	5	1	6
Long bone frag.	0	0	0	0	1	1
Fragment	0	0	0	6	0	6
Total	2	4	1	14	2	23

of shallow intercut pits to the west, Group 4, 15 pieces (Table 6). The small assemblage included a fragmented skull of a young pig, in which the first molar was just erupting.

Pit F23

Of the three pits on the western side of the enclosure, Group 22, the largest assemblage was from pit F23 (see Tables 8 to 14). The total of 386 bones from the excavation of one half of the pit amounted to 33% of the assemblage from the entire site.

When fully open pit F23 appears to have acted as a pitfall trap. The remains of at least five field voles (*Microtus agrestis*), five woodmice (*Apodemus sylvaticus*) and a common shrew (*Sorex araneus*) were recovered from the floor of the pit.

Table 11 Animal bone: Pit 23, layer 5

Body part	*Cattle*	*O/C*	*Dog*	*Cattle size*	*O/C size*	*Total*
Skull	0	2	0	2	5	9
Maxilla	1	1	2	0	0	12
Mandible	1	11	0	0	0	12
Teeth	4	5	4	0	0	13
Vertebrae	0	28	0	0	0	28
Scapula	3	3	0	0	3	9
Humerus	0	2	0	0	0	2
Radius	0	3	0	0	0	3
Pelvis	0	5	0	0	1	6
Femur	1	2	0	0	0	3
Tibia	0	3	1	0	0	4
Astragulus	0	1	0	0	0	1
Calcaneum	1	1	0	0	0	2
Metatarsal	0	1	0	0	0	1
Rib	0	0	0	0	27	27
Long bone frag.	0	0	0	2	0	2
Fragment	0	50	0	0	0	50
Total	11	118	7	4	36	176

Only fragments of cattle came from the lower fills, layers 8 and 9 (Fig. 14). In layer 7 part of the post cranial skeleton of a dog, the fibula and 2nd phalanx, displayed a shiny yellow texture compared to other bones from this layers. A cattle maxilla showed knife cuts where the cheek meat had been removed. In layer 6 at least two dogs were identified from mandible fragments and loose teeth. One may be the same animal as represented by bones in layers 3, 5 and 7. It appears that in total three dogs may be present spread through layers 2–7. Ovicaprids included part of a young individual of 1–2 years (Payne 1973), with at least two animals present. Knife cuts were noted on the proximal medial side of a radius, the medial side of an astragalas and a rib fragment. A few fragmentary cattle bones were found. An ovicaprid metacarpal, 2 vertebral fragments and a cattle sized long bone fragment were lustrous compared to the rest of this layer, a localised condition in the pit, or some pre-depositional treatment, possibly cooking? In layer 5 most of the bone is ovicaprid, skull remains suggest at least three individuals, one with horns. Measurements of fused limb bones gave withers height calculations of 540 mm and 560 mm (after Teichert 1975) and two pairs of mandibles from sheep of 6–12 months (Payne 1973). There was no evidence of butchery on these bones. Cattle bones were few, but included three broken scapulae, three little worn upper teeth and an immature mandible fragment. A long bone fragment of frog/toad (*Rana* sp./ *Bufo* sp.) may be part of an animal that fell into the half-filled pit. In layer 3 there was a pair

Table 12 Animal bone: Pit 23, layer 6

Body part	*Cattle*	*O/C*	*Dog*	*Cattle size*	*O/C size*	*Total*
Skull	0	0	3	8	0	11
Maxilla	1	0	0	1	0	2
Mandible	0	4	0	1	0	5
Teeth	0	1	4	0	0	5
Vertebrae	0	6	9	0	0	15
Scapula	0	0	0	1	0	1
Humerus	0	1	0	0	0	1
Radius	0	2	0	0	0	2
Ulna	0	1	1	0	0	2
Metacarpal	0	1	0	0	1	2
Pelvis	0	0	1	0	0	1
Femur	0	1	0	0	0	1
Tibia	0	2	0	0	0	2
Astragulus	0	1	1	0	0	2
Metatarsal	0	1	0	0	0	1
Metapoidal	0	0	7	0	0	7
Phalanges	0	1	4	0	0	5
Rib	0	0	0	6	23	29
Long bone frag.	0	0	0	1	0	1
Fragment	0	0	0	5	0	5
Total	1	22	30	23	25	101

of immature horse pelves, with the symphysis unfused and a light porous texture. There was some evidence of canid gnawing at the edge of the ilium and ischium. There was also complete dog tibia from an animal of around 530 mm (Harcourt 1973), and a few cattle and ovicaprid bones. Layer 2 included a porous horse atlas fragment, possibly from the same animal as the pelves, a dog maxillae and sacrum, and some ovicaprid and cattle fragments.

The presence of partial skeletons of dogs and immature ovicaprids in this pit, particularly in layers 5 and 6, contrasts with the rest of the assemblage in which animals representing domestic food debris were derived from joints and extremities rather than complete carcasses.

Other pits

The other pits at the west, Group 22, F22, and F24/F67, contained fragmentary cattle and ovicaprid fragments, with evidence of burning in F22 and F24, and a shiny greasy texture in F22 and F67. Evidence of dog knawing was seen in F24 and knife cuts in F67.

In the pits at the south-west, Group 33, the large central pit, F33, produced most of the recovered bone. At the base of the pit the

Table 13 Animal bone: Pit 23, layer 7

Body part	*O/C*	*Dog*	*Cattle size*	*O/C size*	*Total*
Maxilla	0	0	1	0	1
Mandible	1	0	0	0	1
Vertebrae	0	5	0	0	5
Scapula	0	1	0	0	1
Radius	1	0	0	0	1
Metacarpal	1	0	0	0	1
Femur	0	1	0	0	1
Fibula	0	1	0	0	1
Metapoidal	0	1	0	0	1
Phalanges	0	1	0	0	1
Rib	0	0	1	2	3
Long bone frag.	0	0	0	2	2
Fragment	0	0	0	10	10
Total	3	10	2	14	29

Table 14 Animal bone: Pit 23, layers 8 & 9 (excluding small mammals)

Body part	*Cattle*
Pelvis	1
Femur	1
Phalanges	1
Rib	1
Long bone frag.	1
Total	5

remains of a wood mouse and a single frog bone suggest that it was open long enough top act as a pitfall. The fills contained fragments of cattle and ovicaprid, a pig mandible from an adult animal and a horse axis. A piece of human cranium was found in layer 3.

The pits towards the south, F59 and F68, contained a mixture of cattle and ovicaprid bones, both cranial and post-cranial. Pig was only represented by mandible and tooth fragments, horse by a mandible, tooth fragments (showing distorted roots) and an astragalas. A few ovicaprid bones showed the shiny condition seen in other features.

The assemblage from a small pit, F95, has some similarities with pit F23 in that the lower fill contained the post cranial remains of at least three immature ovicaprids. The epiphyses of long bones are unfused and the shafts retain some porosity. There is no evidence of butchery except for some knife cuts on the medial side of two astragali and on the proximal end of a radius. Part of an immature pig's skull was also present, together with a broken mandible, two loose horse teeth and some broken and butchered cattle fragments.

The single external pit, F51, produced little bone, but included some cattle sized skull fragments that may be horse.

Postholes and post-pits

The postholes and post-pits produced only a small quantity of unremarkable bone of variable condition.

Discussion

Comparison with the larger assemblage from the nearby hillfort at Winklebury (Jones 1977) shows a more restricted range of species at Kennel Farm, where, apart from the small mammals, only domestic species are represented. Ovicaprids are numerically dominant because of the partial carcasses where young animals are represented. The presence of articulating remains compares with Winklebury where complete and partial skeletons of cattle, pig, horse, fox, badger, hare, fowl, and raven were also found in addition to dog and ovicaprid.

Comparing the data from Kennel Farm with other Iron Age deposits in terms of animal husbandry using the ageing data reviewed by Maltby (1981) is not possible since cattle mandibles are too fragmentary. The complete ovicaprid mandibles tend to be part of whole skeletons unrepresentative of normal husbandry practices since they have not been slaughtered for food. The presence of knife cuts on limb bones suggests either that they may have been skinned before deposition or that the legs may have been cut to facilitate bending the legs if they had been stiffened by *rigor mortis*.

In conclusion, the assemblage from Kennel Farm, Site A is small and represents domestic species, with food debris from cattle, ovicaprids and horse. Ovicaprids were also represented by skeletons of sub adults in two pits. These, and the partial remains of adult dogs in one pit, distort the importance of both species in the overall quantification.

THE HUMAN BONE

Two pieces of human cranium were identified during the analysis of the animal bone. A broken piece of human cranium from an adult, with fused sutures and showing no evidence of any pathology or cut marks, was present in the western arm of the enclosure ditch (F27, layer 1) adjacent to pit F33. A second piece of human cranium but from a younger individual, as the lambda suture was unfused, was recovered 2 m away in layer 3 of pit, F33.

In both instances the condition of the bone is comparable with the rest of the bone from the same deposits, so there is no evidence to suggest that they had been subject to any special form of treatment or redeposition. There is no apparent reason for their presence among domestic debris.

CHARRED PLANT REMAINS *by* Rowena Gale

Introduction

Nine bulk soil samples were taken from pit and ditch fills. They produced small amounts of charcoal and no carbonised grain, and no further analysis has been undertaken. The residues will be retained in the site archive.

Two samples of hand collected charcoal from two deep storage pits, F59 and F68, were submitted for species identification to evaluate the character of the fuel used in the burning of associated deposits of burnt flint, and for environmental evidence.

Materials and methods

The charcoal was mostly well preserved and firm. Samples were prepared for examination using standard methods (Gale and Cutler 2000). The prepared fragments were supported in washed sand and examined using a Nikon Labophot–2 microscope at magnifications up to ×400. The anatomical structures were matched to reference slides.

When possible the maturity of the wood (i.e. heartwood/ sapwood) was assessed and roundwood diameters recorded. It should be noted that during carbonisation stem diameters may be reduced by up to 40%.

Results

The charcoal analysis is summarised in Table 15 and discussed below. Group names are given

Table 15 Charcoal from Iron Age pits F59 and F68 (number of fragments identified)

Species	*Pit 59.1*	*Pit 68.4*
Acer	1	2r
Corylus	8r	41r
Fraxinus	31	2r
Pomoideae	10	21r
Prunus	1r	45r
Quercus	53h	2h
Rhamnus cathartica	1	–
Sambucus	–	2r
Viburnum	1r	4r

Key: h = heartwood; r = roundwood (diameter <20mm)

when anatomical differences between related genera are too slight to allow secure identification to genus level, for example with members of the Pomoideae (*Crataegus, Malus, Pyrus* and *Sorbus*). Where a genus is represented by a single species in the British flora this is named as the most likely origin of the wood, given the provenance and period. However, it should be noted that it is rarely possible to name individual species from wood features, and exotic species of trees and shrubs were introduced to Britain from an early period (Godwin 1956; Mitchell 1974). Classification follows that of *Flora Europaea* (Tutin, Heywood *et al.* 1964–80).

A list of the identified taxa (including groups of taxa) is given below:

Aceraceae. *Acer campestre* L., field maple
Caprifoliaceae. *Sambucus nigra* L, elder; *Viburnum* spp., wayfaring tree and guelder rose
Corylaceae. *Corylus avellana* L., hazel
Fagaceae. *Quercus* spp., oak
Oleaceae. *Fraxinus excelsior* L., ash
Rhamnaceae. *Rhamnus cathartica* L., purging buckthorn
Rosaceae. Subfamilies:
Pomoideae which includes *Crataegus* spp., hawthorn; *Malus* sp., apple; *Pyrus* sp., pear; *Sorbus* spp., rowan, service tree and whitebeam.

These taxa are anatomically similar; one or more taxa may be represented in the charcoal. Prunoideae which includes *P. avium* (L.) L., cherry; *P. padus* L., bird cherry, and *P. spinosa* L., blackthorn. It is frequently difficult or impossible, as in this instance, to identify *Prunus* to species level using anatomical methods.

Pit F59

A dense layer of charcoal and burnt flint occurred in the upper level of Pit F59, layer 1 (Fig. 15). The charcoal consisted mostly of fragments of large wood measuring up to 35 mm long × 10 mm thick × 10 mm wide; a few pieces of narrow roundwood (diameter <20 mm) were also present. The sample was predominantly composed of oak (*Quercus* sp.) heartwood and ash (*Fraxinus excelsior*), the latter probably from wide roundwood although the charcoal was too fragmented to be certain. The following species were sparsely represented: hazel (*Corylus avellana*) (with roundwood measuring 15 mm in diameter), *Prunus* sp. (stem diameter 10 mm), *Viburnum* sp. (stem diameter 6 mm), purging buckthorn (*Rhamnus cathartica*), the hawthorn/*Sorbus* group (Pomoideae) and field maple (*Acer campestre*).

Pit F68

Charcoal was examined from the bottom of pit F68, layer 4 (Fig. 15). The frequency of the charcoal was comparable to that of Pit F59 but in Pit F68 the charcoal included a higher proportion of narrow roundwood (i.e. <20 mm in diameter) and, in general, the fragments were smaller. The bulk of the sample was made up of shrubby species with hazel (*Corylus avellana*), *Prunus* sp. and the hawthorn/ whitebeam group (Pomoideae) occurring with greater frequency than elder (*Sambucus nigra*) and *Viburnum* sp. Tree species included field maple (*Acer campestre*), ash (*Fraxinus excelsior*) and oak (*Quercus* sp.) heartwood.

Discussion

Eight deep storage pits were found during the excavation of the enclosure, of which two, F59 and F68, contained exceptional deposits of burnt flint with associated charcoal. The latter was attributed to fuel debris from heating the flints. The two pits were sited fairly close together (about 10 m apart) near the western boundary of the enclosure, perhaps suggesting that this area may have been used specifically for heating water, cooking or some other (unknown) activity. The fuel debris in both pits indicated the use of wood from a range of trees and shrubs including oak (*Quercus* sp.), ash (*Fraxinus excelsior*), field maple (*Acer campestre*), hazel (*Corylus avellana*), blackthorn and/ or cherry (*Prunus* sp.), the hawthorn/ *Sorbus* group (Pomoideae), elder (*Sambucus nigra*), purging buckthorn (*Rhamnus cathartica*) and wayfaring tree or guelder rose (*Viburnum* sp.). While the species content was more or less similar in both pits the character of the fuel in each appeared to differ. In Pit F59 the greater portion of the fuel seemed to be cordwood or trunkwood from oak heartwood and ash, with relatively sparse use of narrow roundwood from shrubby species, the latter perhaps used for kindling. The oak probably derived from trunks or cordwood of some maturity. In Pit F68, however, most of the fuel consisted of narrow roundwood largely supplied from shrubby species (mainly hazel, blackthorn/ cherry and the hawthorn/ *Sorbus* group), with very little use of oak.

It is difficult to determine the significance (if any) in the divergent types of fuel in the two pits. The species identified would have provided good quality firewood, particularly if well seasoned, although ash can be burnt while still green (Edlin 1949). But the use of large billets and/ or cordwood (e.g. oak heartwood) would have produced a different type of heat source to that fuelled with narrow roundwood (as in Pit F 68). Large billets or logs, especially those of oak heartwood (which is denser than oak sapwood), provide a longer-lasting heat-source than narrow roundwood. Narrow roundwood, however, such as that from Pit F68, allows a higher ratio of atmospheric oxygen to wood surface and consequently produces an intensely hot but short-lived heat, unless the fuel is constantly replenished. The addition of a bundle of faggots or brushwood is an effective method of quickly raising the temperature or boosting a flagging fire.

While it is feasible that the fuel was specifically chosen to promote different burning properties, alternative explanations, such as availability or the selection of wood supplies should also be considered. When Pit F68 was in use, for example, large wood may have been in short supply or reserved for other purposes (e.g. construction work) or, perhaps, the timing of the flint-heating conveniently coincided with woodland or agricultural activities such as tree felling or hedging thereby providing an economic outlet for brushwood, narrow side branches or hedge prunnings. There was no evidence of the use of coppiced wood.

Environmental evidence

The site was located on gently undulating land in a region of Upper Chalk and clay-with-flints. It is probable that the landscape supported a wider range of trees and shrubs than those identified by the charcoal analysis, since fuel gathering would almost certainly have been biased towards preferred taxa.

Larger woodland trees represented in the charcoal included oak (*Quercus* sp.) (probably

the dominant species in the local environment), ash (*Fraxinus excelsior*) and field maple (*Acer campestre*). Members of the Pomoideae, for example whitebeam (*Sorbus aria*) and hawthorn (*Crataegus* sp.), hazel (*Corylus avellana*) and (possibly) cherry (*Prunus avium*) may also have grown in woodland communities. Shrubbier taxa such as hazel (*Corylus avellana*), blackthorn (*Prunus spinosa*), hawthorn (*Crataegus* sp.), *Viburnum* sp., purging buckthorn (*Rhamnus cathartica*) and elder (*Sambucus nigra*) probably occupied woodland margins or scrub and may also have grown in hedgerows.

The range of taxa identified at Kennel Farm is similar to that from middle Iron Age pits sited on downland at Rooksdown I and II, Basingstoke (Gale unpub). These pits contained a range of domestic waste, e.g. pottery, burnt bone, burnt flint, and fuel debris (charcoal) and included oak (*Quercus* sp.), ash (*Fraxinus excelsior*), field maple (*Acer campestre*), hazel (*Corylus avellana*), hawthorn/ *Sorbus* group (Pomoideae), blackthorn (*Prunus spinosa*), wayfaring tree or guelder rose (*Viburnum* sp.), gorse (*Ulex* sp.) or broom (*Cytisus* sp.) and possibly willow (*Salix* sp.) or poplar (*Populus* sp.).

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The site records will be archived, along with the other records from work at Kennel Farm carried out by Northamptonshire Archaeology, with Hampshire County Museum Services, Accession Number A 1996.39. The site code was KFA 96.

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