

# A Prehistoric-Early Roman Site near Lock Crescent, Kidlington

By PAUL BOOTH

with contributions by ALISTAIR BARCLAY, GILL CAMPBELL, THERESA DURDEN and ROB SCAIFE

## SUMMARY

*Excavation in advance of housing development produced a substantial assemblage of late Mesolithic to early Neolithic flint, some perhaps associated with contemporary features. A small penannular ditched enclosure with associated ditches and other features was dated to the late Iron Age to early Roman period. On topographical and morphological grounds this is thought to be associated with animal husbandry. The site marked the western edge of the medieval Statfield, south of the village of Kidlington.*

## INTRODUCTION

In 1994 and 1995 the Oxford Archaeological Unit (OAU) undertook examination of a housing development site in Kidlington on behalf of the Oxford Citizens Housing Association Ltd. The site lay at the south-west corner of the village, on low-lying ground, the archaeological potential of which was uncertain. As a result of this uncertainty a programme of archaeological work was required as a condition of the planning consent.<sup>1</sup> An evaluation, consisting of the excavation of 10 machine-cut trenches, was therefore carried out over the whole site of c. 3.4 ha. in August 1994 (Fig. 2).<sup>2</sup> This identified a low density of largely undated linear features, but at the eastern extremity of the site, in Trench 1, two indeterminate features (perhaps a pit and a gully) were associated with flints of late Mesolithic or Neolithic character. The potential importance of this material prompted further work, and an area of c. 1000 sq. m. lying at the eastern end of the development area to the north of Trench 1, designated Trench 11, was stripped and excavated in February and March 1995 prior to the commencement of building work, revealing the features discussed below. A further single evaluation-type trench (Trench 12) was excavated a little to the west of the main area at the same time. The evaluation results are not, however, described in detail here.

While the site as a whole lay south of Lock Crescent, the 1995 excavation was situated immediately south of houses in South Avenue. To ensure continuity in the project archive, however, the Lock Crescent designation has been retained throughout. The archive will be deposited with the Oxfordshire Museums Service under the accession number 1994.109.

<sup>1</sup> Planning Ref. CHS. 371/93.

<sup>2</sup> 'Land South of Lock Crescent, Kidlington, Oxfordshire, Archaeological Evaluation Report' (OAU, August 1994).

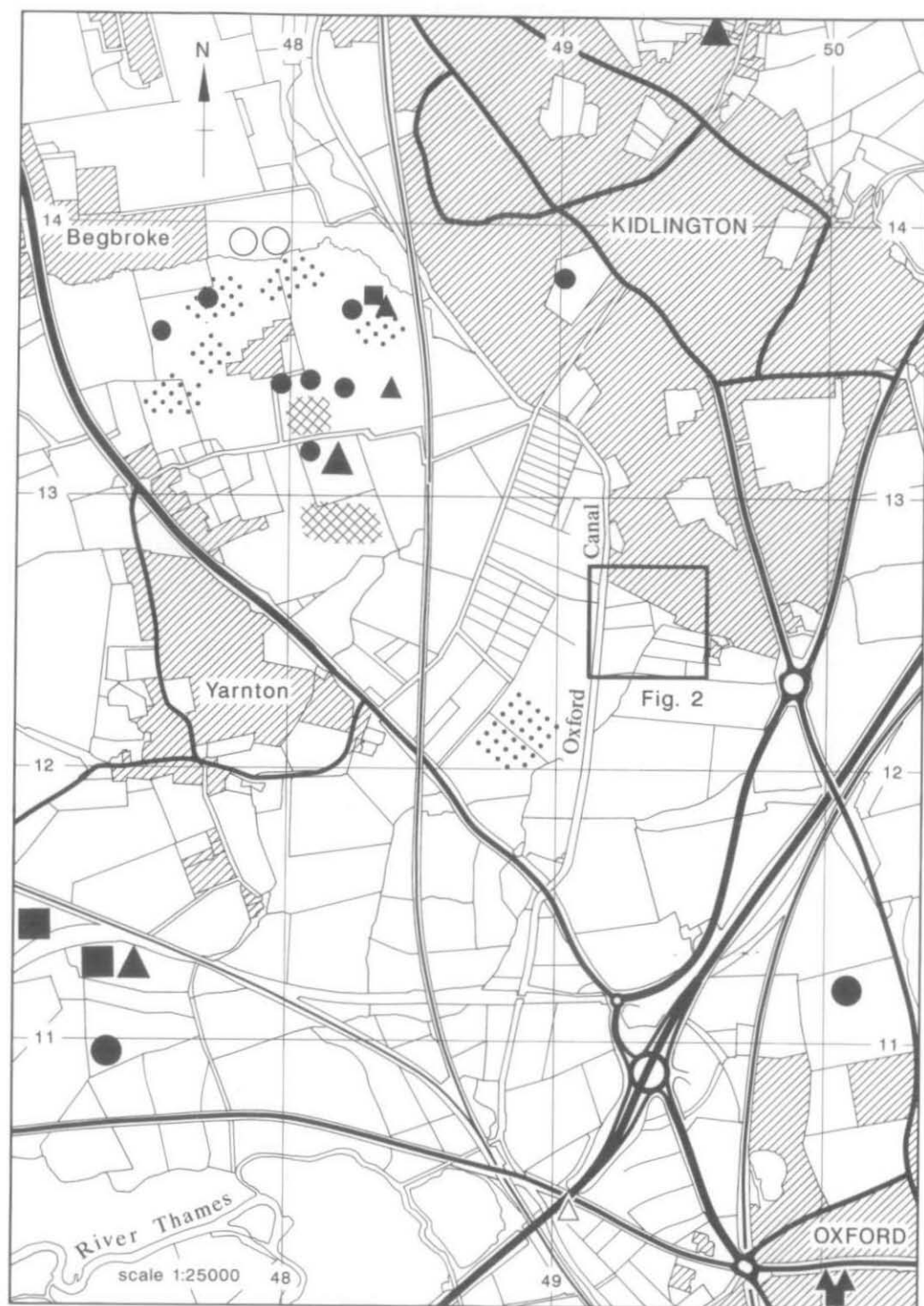


Fig. 1. Location of site in its local setting. Scale 1:25,000.

## Key to Fig. 1

- |                              |   |
|------------------------------|---|
| ● Neolithic/Bronze Age finds | ● Neolithic/Bronze Age site/excavation                |
| ■ Iron Age finds             | ■ Iron Age site/excavation                            |
| ▲ Romano-British finds       | ▲ Romano-British site/excavation                      |
| ○ Ring ditches (?Bronze Age) | ▨ Prehistoric and Romano-British settlement cropmarks |
| ⋯ Undated cropmarks          |   |



Fig. 2. Location of evaluation trenches and excavated area. Scale 1 : 3000.

## LOCATION AND SETTING

The site is centred at *c.* SP 49451255 on the southern outskirts of Kidlington (Garden City Estate) some 6.5 km. north of the centre of Oxford (Fig. 1). The River Cherwell lies *c.* 1.5 km. to the north-east and at its nearest point the Thames is *c.* 2.5 km. distant to the south-west. Just below this point the Thames is joined by the Kingsbridge Brook, into which runs a drain rising immediately south of the site. The Oxford Canal forms the western boundary of the development area, some 280 m. west of the excavation.

The development area lies at the interface of the River Terrace Drift and Drift over Gault clay at an elevation of about 60–61 m. O.D. The excavation revealed a silty clay subsoil at the eastern end of the development area. This was also seen further west in some of the evaluation trenches, but the north-western half of the development area lay on sands and gravels. At the time of the evaluation most of the development area was overgrown with large clumps of dense undergrowth, hawthorn thickets and mature trees, so non-invasive site evaluation techniques were not viable.

No known sites of archaeological interest were located in the immediate vicinity of the development site prior to the commencement of work. Extensive archaeological remains have been found in the area, however, particularly to the west, both north and south of Yarnton village. Cropmark complexes containing probable Bronze Age ring ditches and settlement, trackway and field boundary elements, most probably of later prehistoric and Roman date, occur across a wide area extending northward from a point about 1.2 km. west-north-west of the present site. Considerable quantities of finds, including Neolithic and later flint and Iron Age and Roman pottery, are known from this area around Begbroke Hill, though rarely in direct association with features identified from the air. Some of this material has been recovered in small-scale salvage excavation,<sup>3</sup> but much of the flintwork, in particular, derives from non-systematic surface collection.<sup>4</sup>

Further south, a recently recorded cropmark complex, apparently comprising part of a field system, lies less than 1 km. south-west of the site.<sup>5</sup> This complex is sited on low ground and is undated. About 2.5 km. to the south-west of the present site extensive excavations by the OAU on the similar topography of the floodplain and gravel terraces at Yarnton have demonstrated activity from the Neolithic through to the Saxon period, with major settlements in the Iron Age, Roman and Saxon periods.<sup>6</sup>

South of the site and some 2.5 km. distant further collections of Iron Age and Roman pottery are known from Blandford Avenue in North Oxford<sup>7</sup> and a fragmentary Neolithic flint adze comes from Hayward Road in the same general area.<sup>8</sup> Several ring ditches, identified from the air, are located about 1.5 km. distant to the south and south-east<sup>9</sup> and undated rectilinear enclosures and possible field systems, also known from the air, lie a similar distance due east of the present site.

There is no clear evidence for Anglo-Saxon settlement in the immediate vicinity of the site, except at Yarnton (see above), where a cemetery is also known. The medieval settlement

<sup>3</sup> E.g. J. S. P. Bradford, 'An Early Iron Age Site at Allen's Pit, Dorchester', *Oxoniensia*, vii (1942), 56.

<sup>4</sup> E.g. D. Sturdy and H. Sutermeister, 'Archaeological Notes: 1962–63', *Oxoniensia*, xxix/xxx (1964/5), 190; R. Holgate, *Neolithic Settlement of the Thames Basin* (BAR Brit. Ser. clxxxiv, 1988), 236, 241.

<sup>5</sup> Oxfordshire Sites and Monuments Record P.R.N. 15098.

<sup>6</sup> G. Hey, 'Worton Rectory Farm', *S. Midlands Archaeol.* xxi (1991), 86–92; 'Yarnton Floodplain', *S. Midlands Archaeol.* xxiii (1993), 81–5; 'Yarnton-Cassington Evaluation', *S. Midlands Archaeol.* xxiv (1994), 49–52; 'Yarnton Cresswell Field' and 'Yarnton Floodplain', *S. Midlands Archaeol.* xxvi (1996), 63–7.

<sup>7</sup> D. Sturdy and H. Case, 'Archaeological Notes: 1962–63', *Oxoniensia*, xxviii (1963), 90.

<sup>8</sup> H. Case and D. Sturdy, 'Archaeological Notes', *Oxoniensia*, xxv (1960), 135.

<sup>9</sup> O.G.S. Crawford, in *Antiquity*, ix (1935), 97.

pattern of the area is based principally on the existing village centres of Yarnton and Kidlington, the latter over 2 km. north of the site, though isolated moated sites are also a feature of this landscape. The deserted medieval village of Cuttleslowe lies some 2 km. south of the present site.

#### THE SITE (Figs. 3-7)

The excavated area was stripped by a 360° excavator with a toothless bucket. Subsequent small southerly extensions of the excavated area were also cleared by machine to relocate evaluation Trench 1 (the presence of a track and the site boundary did not permit examination of any part of the site south of Trench 1). There was a steady drop in the level of the subsoil from about 60.90 m. O.D. in the north-east corner of the excavated area to c. 60.10 m. at the western extremity of the excavated features. Beyond this point the site became very wet and after initial cleaning was completely unworkable owing to rising ground water levels. However, very few features were located here.

The principal features identified (Fig. 3) were an irregular penannular ditch with a second ditch running concentrically around the eastern half of its circumference. Further linear features approached these two ditches from the higher ground to the south and east and terminated in their vicinity. While some stratigraphic relationships were observed between these features, and some of them also had relationships with a surviving layer (107) occupying the central part of the site, the relative dearth of well-defined relationships and of stratified dating material makes phasing and interpretation of the site difficult. Ceramic and lithic dating evidence was largely contradictory and very little of the former could be dated while the excavation was in progress. A consequence of this was that several aspects of the site apparent during the excavation suggested that some of the principal features might have been of Neolithic date. That this was not the case was not conclusively demonstrated until some time after the excavation was complete.

In the following description and discussion the difficult excavation and finds recovery conditions have to be borne in mind – for example many of the ditch sections had to be pumped out during excavation. Many of the finds, including the lithics, were recovered in the major cleaning of the site, particularly at the interface of the natural subsoil and overlying deposits. These were therefore effectively unstratified.

Soils were very uniform across the site, adding to problems of feature definition. Most feature fills were of silty clay or sandy clay and were generally red brown to grey brown (almost entirely within the Munsell range 10YR 5/3–5/6 and 10YR 4/3–4/6). Where not specifically mentioned in the following descriptions, feature fills can be assumed to fall within these parameters. A preliminary particle size analysis (by Matt Canti, details in archive) of samples from the subsoil (102), from a feature fill (236) and from layer 107, showed a striking similarity between all three, emphasising the homogeneity of deposits across the site.

For the purposes of description the site is divided into a somewhat arbitrary sequence of 'phases' or feature groupings (Fig. 4). It is recognised that some of these phases, or individual features within separate phases, might have been contemporary. The groupings are as follows:

1. Possible natural features.
2. Features probably predating Phase 3 ditches.
3. The penannular and concentric ditches and possibly related features adjacent to their termini.
4. Linear features south and east of the enclosure and later than features of Phase 3.
5. Miscellaneous 'unphased' features.
6. Layer 107.
7. Probable medieval plough furrows.
8. Recent features.

#### *Phase 1: Possible natural features (not shown on plan)*

The natural subsoil on the site, layer 102, was a red brown silty clay. An overlying layer, 218, ranging from 0.03–0.12 m. in thickness, thought to be a separate deposit which had originally extended across the site, probably

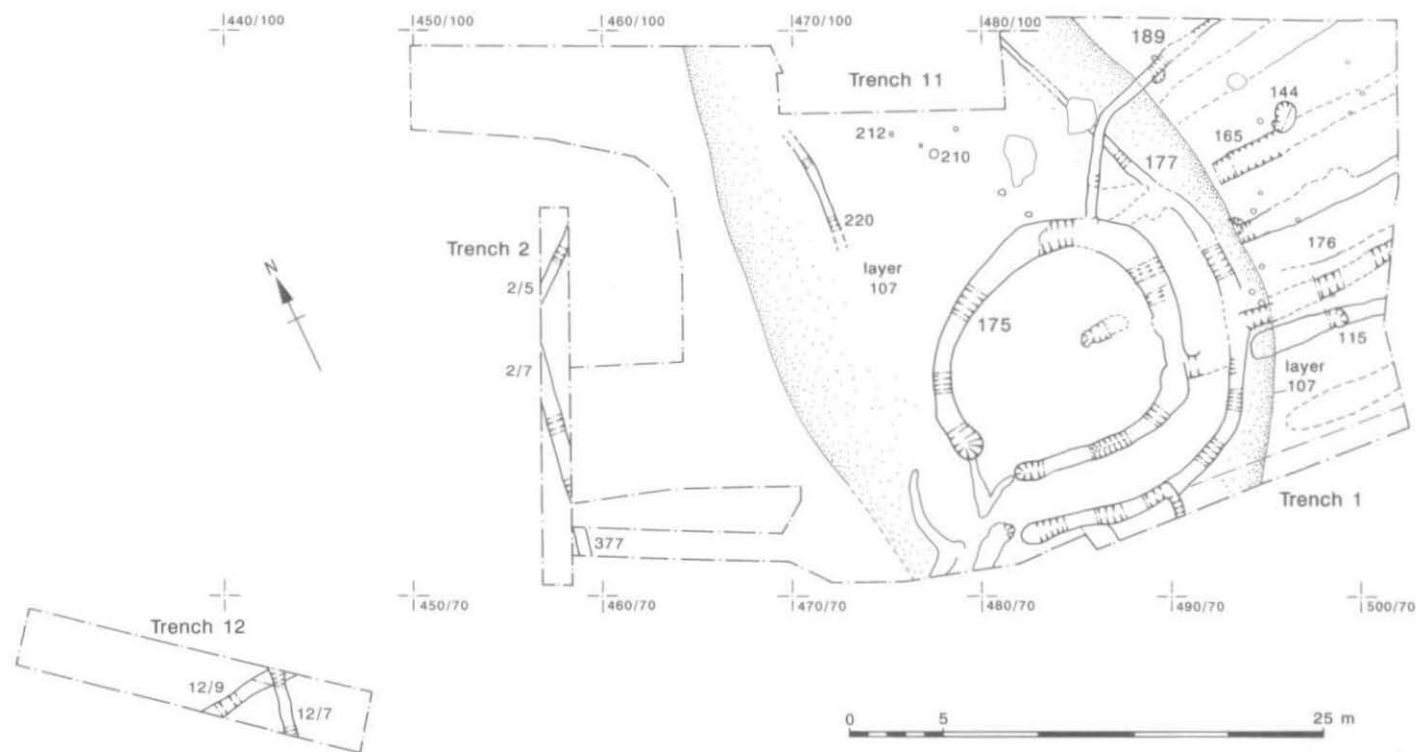


Fig. 3. Overall plan of 1995 excavation and 1994 evaluation Trenches 1 and 2, showing principal features and site grid. Scale 1 : 400.

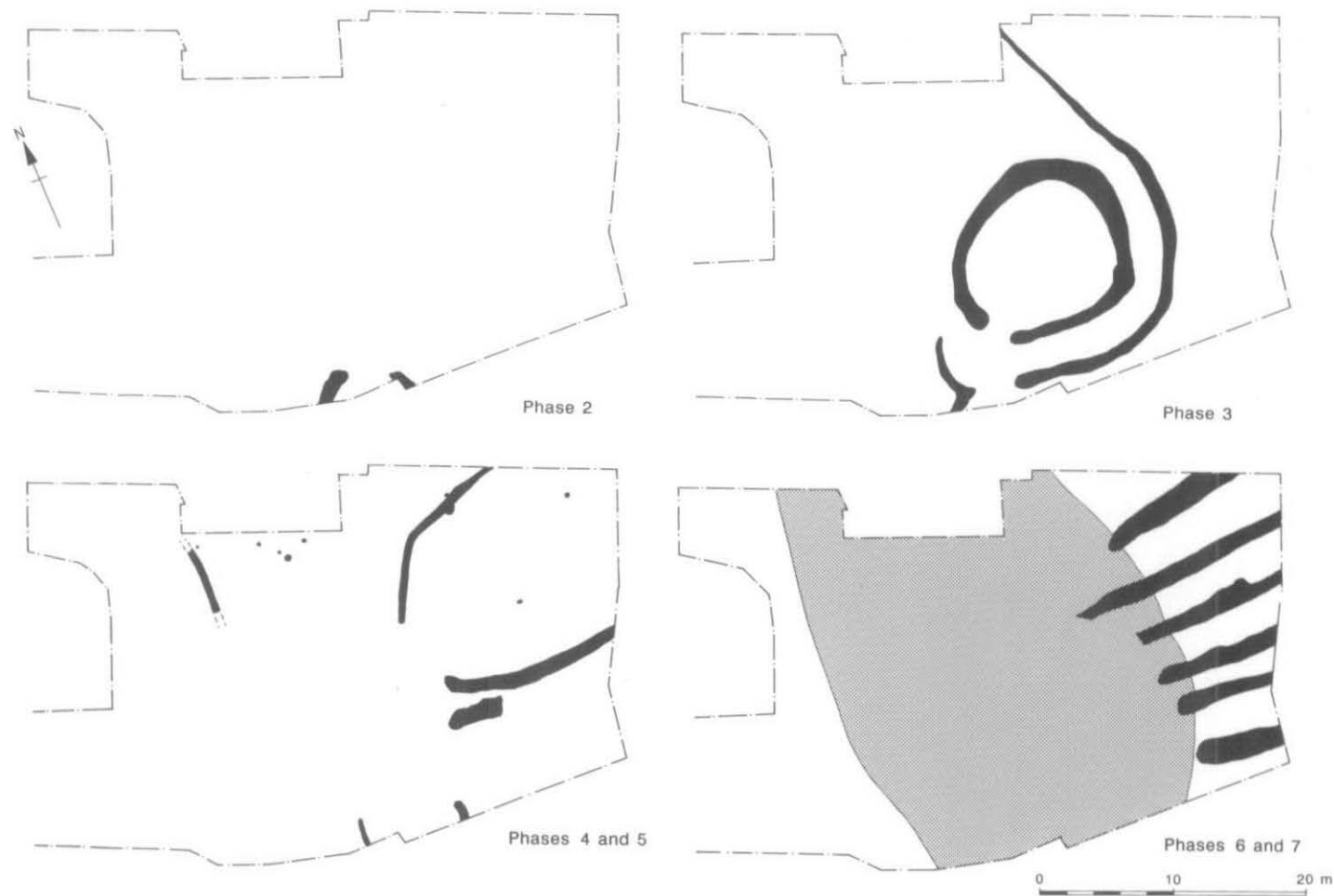


Fig. 4. Simplified Phase plans (Phases 2-7). Scale 1 : 500.





represented the interface between 102 and overlying layers. It is less likely to have been the remnants of a buried prehistoric soil layer. Where noted, 218 was consistently cut by all features.

Eight shallow hollows were partly examined in various locations on the site (features 119, 127, 144, 146, 214, 339, 345 and 347). Most were poorly-defined and irregular in plan and section. They ranged from 0.10–0.44 m. in depth, though all but 214 were from 0.21–0.44 m. deep. The fills were consistently mottled orange and grey or grey-brown clay silts, except in 345 and 347, which were filled with sandy silt. Several of these fills contained worked flint: seven in feature 119, three in 127 and one each in 144 and 214.

Only three of these hollows had relationships with pre-medieval features. Fill 340 of 339 was cut by the terminal (327) of the Phase 3 concentric ditch 177, and fill 120 of 119 was cut by the same ditch further east. The fills of hollow 127 were cut by a Phase 5 posthole (125) which also cut a Phase 4 ditch 123. A further three hollows (144, 146 and 347) were apparently cut by probable medieval plough furrows.

The irregular nature of the hollows suggests an interpretation as natural features, possibly representing tree disturbance. Although grouped together here for convenience, the features were not all necessarily of the same date.

### *Phase 2: Features probably predating Phase 3 ditches (Figs. 4–6)*

Only two such features were identified, one definitely cut by the Phase 3 concentric ditch and an adjacent one containing very large quantities of flintwork.

The latter feature was the northern end of a possible ditch, 235, situated barely 0.5 m. west of the terminal of the Phase 3 concentric ditch 177. A 2.90 m. length of this feature lay within the site, insufficient to determine if it was a straight or a curving feature (the latter seemed more likely). Its general alignment was north-east – south-west, away from the penannular ditch. The feature was up to 1.10 m. wide and 0.45 m. deep, with relatively steep-sloping sides and a flat base. It had a single fill (236), of orange-brown clay silt, which produced a very large collection of flint (some 731 pieces), consisting mainly of knapping debris of later Mesolithic-earlier Neolithic date. The fill also produced a little carbonised material including hazel-nut shells. It is possible that feature 235 represented a southward continuation of the concentric ditch (see below), but its rather different character and distinctive contents suggested that it should be seen separately.

Some 4 m. east of 235 was a possible gully 358. This was located at the extreme southern margin of the site and was not sufficiently well-defined to permit excavation. In plan, however, it appeared as a linear feature up to at least 0.75 m. wide. This must have been the same as feature 1/9, located at the extreme western end of evaluation Trench 1, where it was thought possibly to be a shallow pit, at most c. 0.14 m. deep and rather wider (up to at least c. 1.5 m.) than was recorded in the later excavation, in which some of the shallow feature may have been removed by cleaning at the edge of the site. Its single fill, 1/10, of mid brown clay silt with charcoal flecks, produced 13 flints. In the evaluation 1/10 was recorded as cut by an adjacent feature (1/8) which must have been the south edge of concentric ditch 177. The same relationship was evident in plan in the excavation.

### *Phase 3: Curvilinear ditches and associated features (Figs. 4–6)*

*The Penannular Ditch.* The focal element of the site was an irregular oval penannular enclosure with no significant internal features, defined by a ditch with an entrance on its south-western side. The ditch was given the overall number 175, which subsumed (in topographical sequence clockwise from the northern terminal) cuts 292, 335, 202, 207, 230, 139, 310, 133, 148, 296 and 233 and their various fills. The enclosure was c. 10 m. × 12 m. internally and the entrance was c. 2 m. across. The ditch ranged from c. 0.80–1.80 m. in width, though it did not generally exceed 1.50 m., being broadest in its northern sector and narrowest in the south. It was at most 1 m. deep, and was roughly V-shaped, generally with steeply sloping sides. In the southern part, where the ditch was generally slighter than elsewhere, it had a very steep sided, narrow slot towards its base. In plan the ditch expanded slightly at the terminals, but these were not correspondingly deeper.

The number of fills identified in section in the separate cuts through the penannular ditch varied considerably; from two (in cuts 207, 230 and 133), three (in 292, 335, 202 and 139), four (in 310), five (in 296) and six (in 233) to seven in cut 148. The significance of this, if any, is uncertain, but it is noticeable that the three sections with the greatest number of fills were all in the southern sector of the ditch. There were variations in the ditch profile around its length, with slightly different angles of slope of opposing sides in several sections, but these did not follow a consistent pattern (i.e. the more steeply-sloping side could be on the inner or the outer side in adjacent sections), so neither this nor the greater number of fills in the southern sector appears to have a bearing on activity within the penannular ditch. There was no clear evidence for recuts in any of the ditch sections.

The fills were almost invariably greyish brown or red-brown clayey silts or silty clays, the lowest usually incorporating a little sand. Charcoal flecking was noted only occasionally. Finds were scarce, consisting of 13 very small pottery sherds, a few fragments of fired clay and 23 flints. The most important find for dating was a small sherd in a

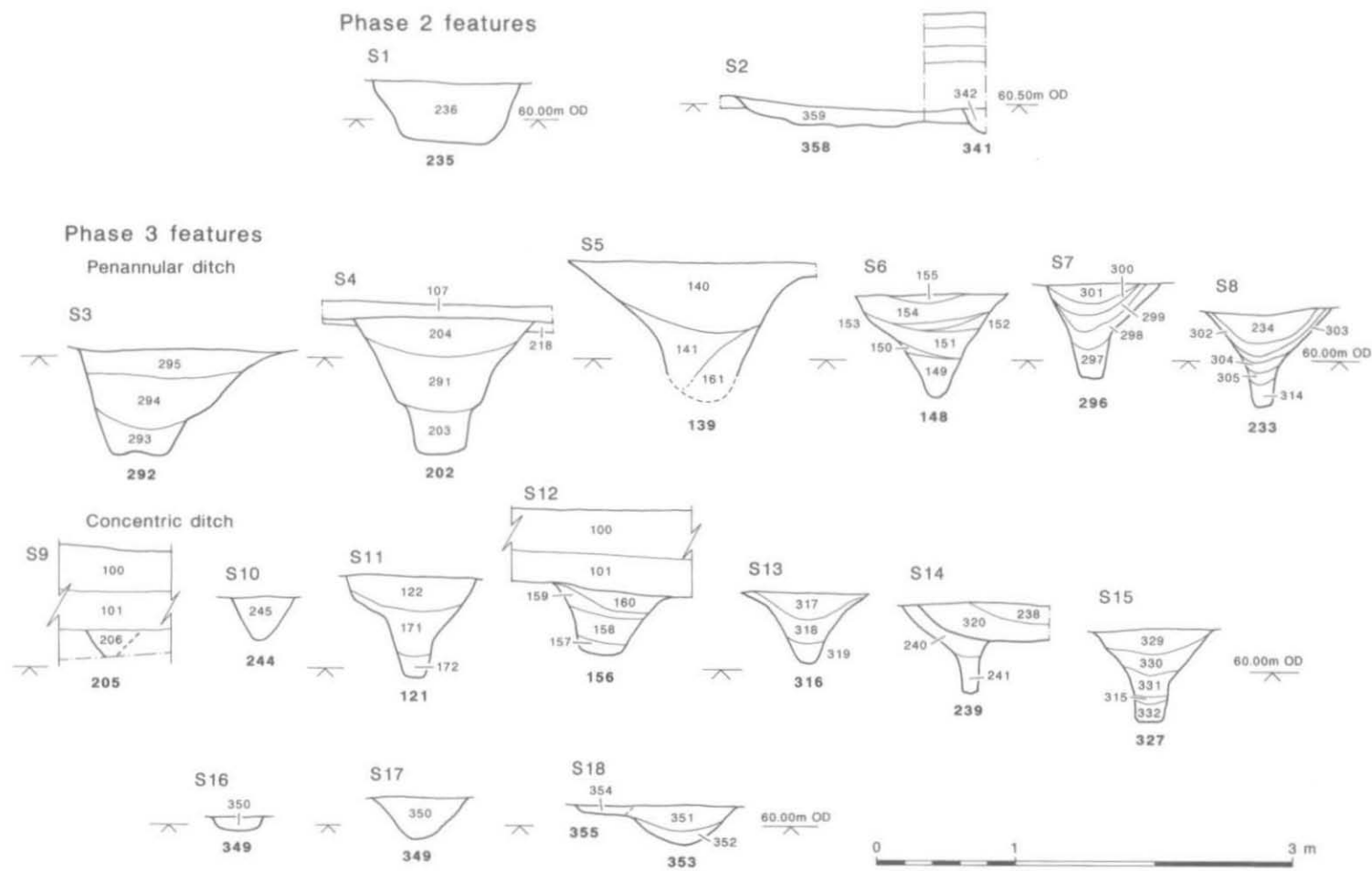


Fig. 6. Feature sections, Phases 2 and 3. Scale 1 : 50.

grog-tempered late Iron Age fabric from 338, the basal fill of cut 335. Another tiny sherd also assigned to this period came from 203, the basal fill of the adjacent cut 202. The remaining pottery from the ditch, all but one piece from the top fills, comprised a further seven sherds of late Iron Age date, one perhaps of middle Iron Age date and three fragments probably assignable to the Neolithic. As with the pottery, the majority of the flint (17 out of 23 pieces) was from the top fill of the ditch. Neither of the two pieces from primary contexts (in 209 and 293) was particularly diagnostic of date.

*The 'Concentric' Ditch.* An outer ditch with its west end terminating in line with the south-west terminal of the penannular ditch 175, ran concentrically round the east side of the latter before diverging to the north. This feature was assigned the general number 177 and like 175 consisted of several differently numbered cuts. In sequence from the north these were 205, 289, 244, 190, 181, 121, 136, 168, 156, 316, 239, 341 and the terminus 327. The spacing between the two ditches was very consistent, between c. 2.10 and 2.70 m. In the northern part of the site the ditch was relatively insubstantial, consisting of a U-shaped gully 0.30–0.40 m. wide and only 0.20 m. deep, aligned almost exactly north-south. This gradually broadened and deepened to the south, and the profile and fills of the concentric part of 177 were very similar to those of the penannular ditch 175, particularly as the ditch curved to the west, where it assumed the relatively narrow and deep profile of the adjacent cuts (148, 296 and 233) of 175. The terminus of 327 was slightly expanded. The maximum depth of 177 was c. 0.72 m. Again finds were scarce, but the secondary terminal fill (315), of dark brownish grey clay silt, 0.04 m. thick, was remarkable in producing a Mesolithic flint *tranchet* axe (Sf 382, Fig. 8 No. 10) and three other stone fragments, one of coarse sandstone and two (one rounded) of quartzite,<sup>10</sup> apparently carefully deposited. Immediately above these was a fragment of ?Bronze Age pottery. In addition to this a further five sherds, all of late Iron Age date, were recovered from middle and upper fills of the ditch. Fired clay fragments were also found. Most of these (e.g. from basal fills 332 and 319) were small and indeterminate in character, but two larger fragments from a middle fill 158 were probably from a triangular loomweight and suggest a middle (or late) Iron Age *terminus post quem* for this fill. A total of 28 pieces of flint came from fills of the concentric ditch. This figure included 14 pieces from sieved samples (taken for carbonised plant remains), 12 of which came from the basal fill 183 close to the point at which the penannular and concentric ditch alignments diverged.

*Related Features to South.* A feature immediately adjacent to the terminal of the concentric ditch was thought to be earlier in date (235, see Phase 2 above). Just west of 235 was a shallow V-profiled feature (356), 0.95 m. across and up to 0.32 m. deep, which extended c. 2 m. from the south-west baulk of the site approximately parallel to the alignment of 235 and about 1 m. from it. The feature then curved sharply away to the north-east for a distance of c. 4.5 m. before terminating or fading to nothing some 2.20 m. west of the north terminal of penannular ditch 175. It is not certain if this curving feature (349) represented a change of alignment of 356 or was separate from it. No meaningful distinction was observed between their respective fills (350 and 357, both mottled brown-grey silty clays), however. Fill 350 contained a small rim sherd of grog-tempered late Iron Age pottery.

Between these features and the gap in the penannular ditch the terminals of the latter were joined by two small gullies which ran together to form a V shape in plan. These gullies (323/353 running from the north terminal of the penannular ditch and 355/231 from the south) were again quite shallow, though 353, up to 0.28 m. deep, was much the more substantial. It had two fills, both clay silts, the lower (352) a light grey and the upper (351) a mid greyish-brown. The latter may possibly have been cut by gully 355, but as the fill of this feature (354) was almost identical to 351 the relationship was uncertain. The relationship of 323/353 to the northern terminal of the penannular ditch was equally unclear.

#### *Phase 4: Linear features south and east of 'enclosure' (Figs. 4, 5 and 7)*

Two groups of features were assigned to this phase: gullies at the southern end of the site and ditches to the east. All had relationships with the principal Phase 3 ditches.

*Gullies to the south.* Two gullies or small ditches ran from beneath the south baulk of the excavated area and terminated against the outer, concentric ditch. The more westerly of these, 325, was c. 0.25 m. wide and 0.15 m. deep with a rounded profile. It cut right across the upper fill of ditch terminal 327 and projected c. 0.15 m. to the north of it. Its fill (326) contained a piece of fired clay and two flints. Seven metres east of 325 was a further ditch/gully (237), a shallow feature up to c. 0.80 m. wide but only 0.27 m. deep. This too extended from the south baulk of the site

<sup>10</sup> Identifications by Fiona Roe.

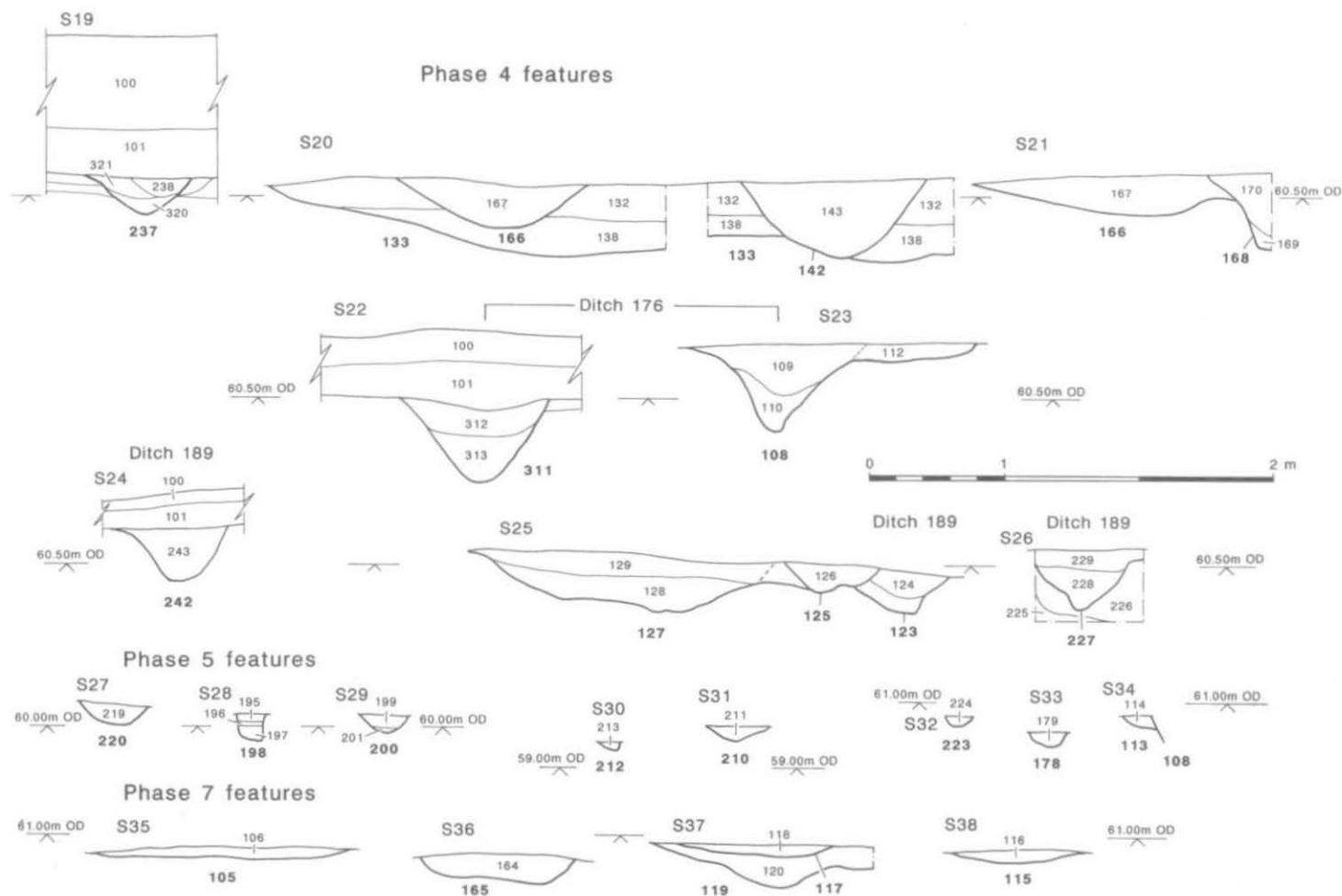


Fig. 7. Feature sections, Phases 4-7. Scale 1 : 50.

up to the edge of ditch 177, the fill of which it cut. Ditch 237 had three fills, the uppermost of which (238) contained two sherds of late Iron Age pottery and a flint.

*Ditches to the east.* A short length of ditch (166), c. 4 m. long and 1.20 m. wide, was recorded as cutting the penannular ditch 175 and being in turn cut by the concentric ditch 177, but there is some uncertainty about these relationships (see discussion below). The feature had a rounded profile up to 0.40 m. deep and a single fill (167), of grey brown clay silt with occasional charcoal and stone fragments.

Immediately to the north of 166 was ditch 176 (comprising east to west cuts 311, 108, 134 and 142) which cut both penannular and concentric ditches. Ditch 176 was also recorded as cutting a shallow linear feature on its north side (111), but this is thought more likely to have been a later plough furrow (see Phase 7 below). Ditch 176 was c. 1.0–1.15 m. wide and up to 0.82 m. deep, with a slightly rounded V-shaped profile. Its fills (two for most of its length except at the terminal, where only one was identified) produced three sherds of late Iron Age pottery, a sherd of Peterborough Ware and a single flint.

A smaller ditch or gully (189, with component cuts 186, 242, 123, 193 and 227) ran into the site from the north-east baulk and like 176 cut the fills of both penannular and concentric ditches. It had a noticeable change of alignment at the point where it crossed the concentric ditch, but this may have been fortuitous. Ditch 189 was c. 0.50–0.80 m. across (although 0.50 m. was more typical) and up to 0.40 m. deep. The fills were typical of other features of this phase and contained only a single flint.

### *Phase 5: Miscellaneous features (Figs. 4, 5 and 7)*

These fell into three groups, west, north and east of the Phase 3 curvilinear ditches.

*West of the penannular ditch.* It was intended that the main excavated area (Trench 11) should extend as far as the position of evaluation Trench 2 in order to resolve the relationship between two differently aligned linear features located in that trench and to determine, if possible, their date and relationship to features further east. In the event the very wet conditions meant that this was not achieved. A narrow extension along the south-western margin of the site did locate a linear feature c. 0.65–0.70 m. wide (377), clearly the same as the north-south ditch 2/7 in Trench 2, but the northerly continuation of the contrastingly-aligned feature 2/5 into the northern end of the main excavated area could not be identified, despite careful cleaning. This area was particularly badly disturbed by roots. Further discussion of these features can be found below.

*North of the penannular ditch.* The most westerly feature in this part of the site was a c. 6.5 m. length of north-south aligned gully (220/234), neither end of which was located with certainty. This feature was on average c. 0.45 m. wide and up to 0.20 m. deep. Its fills produced a single flint flake. Immediately east of its observed northern end was a small posthole (221). Four more postholes (198, 200, 210 and 212) lay further east. These varied from 0.18–0.47 m. in diameter and from 0.07–0.20 m. in depth. They might have formed part of a structure, but the lack of consistency in dimensions makes the nature of any such structure uncertain.

*East of the concentric ditch.* A number of scattered possible or probable postholes occurred in this area. Two (125 and 130) cut a fill (124) of the Phase 4 ditch 189 towards the north-eastern baulk of the site. 125 was c. 0.68 m. across and up to 0.20 m. deep, but poorly defined, while 130 was 0.31 m. across and 0.15 m. deep. Further south, isolated postholes 223, 178 and 103 had no significant relationships, while 113 appeared to have been cut by the Phase 4 ditch 176. All were from 0.22–0.36 m. across and from 0.06–0.13 m. deep.

### *Phase 6: Layer 107 (Fig. 3)*

The whole of the central area of the site, i.e. that occupied by the penannular enclosure and the concentric ditch, was sealed beneath a layer of brown silty clay (107) up to c. 0.25 m. thick. This deposit was clearly localised; its approximate extent is shown on Fig. 3. The existence of 107 as a distinct layer was not recognised immediately, but it soon became clear that it masked linear features and the deposit was therefore largely removed, partly by hand and partly in secondary machining of the western part of the site. As a result of this the relationship of feature fills to layer 107 was not always completely clear, but in the great majority of cases it was evident that fills of features of Phases 1–4 were overlain by layer 107. This was demonstrable for both the principal Phase 3 ditches, and for fill 236 of feature 235. It was also clear for some fills of Phase 4 ditches 176 and 189. One of the component cuts of the latter feature (186) was recorded as cutting 107, but this must be an error. Less certain is the case of the Phase

4 gully 237 at the southern end of the site, which was also thought to have been cut through layer 107. In view of the accumulated evidence to the contrary it seems unlikely that this was the case, but it could indicate that 237 was significantly later in date than other Phase 4 features. Fills of the Phase 5 features located north of the penannular ditch were all clearly sealed by 107.

With the possible exception of feature 237, therefore, the available evidence indicates a relatively late place in the sequence for layer 107. At one time it was thought possible that the layer represented the ploughed-out remains of an earth mound situated within the penannular ditch. It is much more likely, however, that the exact correspondence between the material of 107 and the fills of the probable medieval plough furrows just to the east indicates that layer 107 was a direct artefact of ploughing, in effect a headland defining the western limit of such activity.

#### *Phase 7: Probable medieval plough furrows (Figs. 3-4)*

Six linear features (from north to south 105, 165, 117, 111, 115 and 361) extended into the site from its eastern side. Most terminated at about the line of the concentric ditch, but 165 seems to have extended as far west as the penannular ditch. All the features were essentially broad and shallow, ranging in width from 0.87-1.90 m. (though generally at least 1.20 m. across) and in depth from 0.08-0.22 m. All were clearly later than other features (except modern postholes, see below), with the possible exception of 111, which was originally thought to have been cut by the adjacent Phase 4 ditch 176 (and was recorded as such in one section, but not in another drawn later on in the excavation). In view of the similarity of character of 111 and the other probable related features, and in particular the similarity of their fills, however, it is most likely that the initial observation was incorrect. The fills of these features were consistently mid brown or mid orange brown clay silt.

The interpretation of the features as plough furrows is based on their general character and stratigraphic position. If accepted, however, it is clear that their spacings suggest more than one distinct episode of ploughing. The features can be resolved into two groups, with tolerably consistent spacings between the furrows: firstly 105, 117 and 115, spaced c. 8 m. and 6.5 m. centre to centre, and secondly 165, 111 and 361, with centre to centre spacings of c. 7.5 m. and 7 m. There is no evidence to indicate the relative sequence of these putative groupings.

#### *Phase 8: Recent features (Fig. 5)*

All the feature fills and deposits described above were overlain by layer 101, a mid olive brown clay silt with an average depth of 0.20 m. which extended across the whole site. In turn this was sealed by dark grey brown clay silt topsoil (100) up to 0.25 m. thick. This layer showed extensive root disturbance and contained occasional modern brick, tile, coke and coal fragments which were not retained.

The distinctly dark coloration of 100 was reflected in a number of features which penetrated the level of layers 102 and 107. These, clearly of recent origin, fell into two main groups (shown hatched on Fig. 5); two irregular pits and some probable root disturbances (362-363 and 364-366) north of the penannular ditch, and further east a group of postholes (367-376) including a row of post settings for a fence line (370-374). A number of these postholes cut the fills of the Phase 7 plough furrows (above). All these features related to recent informal extensions of the gardens of houses on South Avenue, and were not excavated.

An irregular gully (216) lying mainly within the area enclosed by the penannular ditch was almost certainly an animal burrow, perhaps of relatively recent origin.

#### *Relationship of the excavated area to features in evaluation trenches*

Two principal alignments of linear features were identified in the evaluation trenches west of the main excavated area, though the contemporaneity of features of comparable alignment cannot necessarily be assumed. A very approximately north-east - south-west alignment was followed by gullies in Trenches 2, 3 and 12. A second alignment consisted of roughly north-south gullies/ditches, found in Trenches 9, 4, 12 and 2 (from west to east). A further shallow ditch in Trench 6 was on a similar but not exactly parallel alignment. The features of the second group all had the same light grey silty fill and may have belonged to a contemporary, but undated, phase of field division/enclosures. There was no really significant difference between the fills of the two groups of features, however, so it is uncertain whether this indicates that most of the linear features were broadly contemporary despite their contrasting alignments, or were of widely differing date (for two of these features in Trench 2 see Phase 5 above).

In Trench 12 a gully in the first group of linear features (12/9) was cut by one of the north-south gullies (12/7). The former feature produced nine flints and the latter a single flint. These and the north-south gully in Trench 2 (with one fragment) were the only evaluation trench features (except in Trench 1) to produce any lithic material.

The character of the flint from 12/8 (the fill of 12/9) was identical to that of the rest of the material from the site to the east, and it may be that this feature was of prehistoric date. A small, abraded, glazed medieval sherd came from the fill (12/6) of the later north-south gully. If reliably stratified this sherd indicates a relatively late date for this feature although, as mentioned above, such a date cannot necessarily be extrapolated to other features of comparable alignment.

The fills of all the linear features identified in the evaluation trenching were overlain by a mid brown silty clay layer on average  $\pm$  0.20 m. thick, comparable to layer 101 in the main excavation. This was interpreted as a possible ploughsoil beneath the topsoil.

## THE FINDS

### POTTERY by ALISTAIR BARCLAY and PAUL BOOTH

Some 44 pottery sherds weighing 181 g. were recovered from the excavation (including a single sherd from the evaluation context 12/6). The material was in poor condition and generally consisted of very small fragments; if the two Roman sherds are excluded the average sherd weight was almost exactly 3 g. The sherds represented a wide range of periods, but the majority were of late Iron Age to early Roman date. The size and condition of the sherds meant that some identifications were inevitably tentative. None of the material merited illustration. The breakdown of the pottery by period is summarised in Table 1.

TABLE 1. SUMMARY OF POTTERY RECOVERED

Pottery	Number of sherds (weight)
Middle Neolithic (Peterborough Ware)	3 (6 g.)
Late Neolithic (Grooved Ware)	1 (5 g.)
Late Neolithic/early Bronze Age	4 (9 g.)
?Bronze Age	1 (3 g.)
?Later Bronze Age	1 (4 g.)
?Iron Age	4 (15 g.)
Late Iron Age/early Roman	26 (87 g.)
Roman	2 (47 g.)
Medieval	1 (3 g.)
?Post-medieval	1 (2 g.)

### EARLY PREHISTORIC POTTERY by ALISTAIR BARCLAY

Three plain sherds, either with flint, quartzite or stone and grog temper, from contexts 132 and 204, are of Neolithic date. The flint-tempered sherd could be earlier or later Neolithic in date, while the other two fabrics are more likely to belong to the Peterborough Ware tradition of the mid-late Neolithic. A single grog-tempered sherd (Sf 243), decorated with up to four parallel grooves, is identified as late Neolithic Grooved Ware. Four grog-tempered sherds (Sf 246) could either be of a similar date or early Bronze Age. Several sherds (Sf 361) in a leached shell-tempered fabric from context 107 could be of middle Bronze Age date and a sherd in a fine grog and sand fabric is of indeterminate possible Bronze Age date.

The rather mixed character of the material reflects the findings from elsewhere within the Upper Thames Valley, notably Drayton and Yarnton, where surface scatters containing accumulations of both Neolithic and Bronze Age pottery had been preserved by later deposits of ploughsoil and/or alluvium.

### IRON AGE AND LATER POTTERY by PAUL BOOTH

Four sherds were tentatively assigned to the Iron Age. All were in basically sand-tempered fabrics, with a variety of lesser inclusions, including flint (in one case), organic material and grog. While a middle Iron Age date is considered

most likely for all of these sherds, none is attributable to this period with complete confidence. One sherd came from a secondary fill (298) of the penannular ditch 175 and one from fill 143 of Phase 3 ditch 176. The other two fragments were both from layer 107.

The late Iron Age/early Roman sherds were mostly in grog-tempered fabrics. All were assigned to a general E (late Iron Age/early Roman 'Belgic type' fabrics) ware category in the OAU Iron Age and Roman pottery recording system.<sup>11</sup> Subgroups of the E ware class which were present were E10 (organic tempered fabrics - 1 sherd), E30 (coarse sand-tempered fabrics - 4 sherds) and E80 (grog-tempered fabrics - 21 sherds). Three small rim sherds were present, two in E30 and one in E80 fabrics. All were probably from jars or necked bowls characteristic of these fabrics, but none was sufficiently large for this to be certain. These fabrics are widely distributed in the region and are broadly datable to the 1st century A.D. In most cases they are likely to have been out of use before the end of the century, but their date of introduction is less certain. Sherds in these fabrics provide the principal dating evidence for the site sequence, being found in fills of most of the major Phase 3 and 4 features.

The two Roman sherds (one a base) were both in OAU fabric R38, a sand and grog-tempered reduced coarse ware from an unknown source within the region. Present evidence suggests a later 1st-2nd century date range for this fabric. A small, fine oxidised fragment might also have been of Roman date but was thought more likely to be post-medieval. None of these pieces were well-stratified.

#### FLINT by THERESA DURDEN (Fig. 8)

A total of 1052 pieces of flint were recovered from the excavation, including 30 pieces from the evaluation. Flint was recovered from the cleaned surface of the site, and also from features and layers. Only three pieces of burnt unworked flint were collected. A total of 731 pieces of worked flint came from a single context, 236, a possible ditch terminal located to the south of the penannular ditch. The vast majority of flints from this context were small chips and microdebitage (amounting to 559 pieces).

##### *Raw material*

The flint is of reasonably good quality for flaking, ranging from pale beige to dark brown in colour, and of varying translucency. Cortication was not present on the majority of pieces, although some were lightly speckled. Cortex was generally thin and brown, or creamy/beige in colour. All flint was in a fresh condition. It is possible that flint with the light coloured cortex may be chalk flint. It is uncertain whether the flint was locally obtained from gravel deposits, or whether it was brought to the site from further afield, as appeared to be the case with flint found during the Yarnton-Cassington evaluations some 3 km. away.<sup>12</sup> A likely source would be the flint deposits from the Chilterns to the south-west as local flint is of poor quality.

##### *The flintwork*

The basic composition of the assemblage is summarised in Table 2.

TABLE 2. SUMMARY OF FLINT RECOVERED

Flakes	Narrow flakes	Blades	Chips	Cores	Retouched	Other	Total
283	51	66	566	23	34	29	1052

*Debitage.* Some 42% of all flake material was broken, and metrical analysis was not attempted. Flakes clearly dominate the unmodified struck material, although narrow flakes and blades form a significant proportion (29.3%) of all flake material (flakes, narrow flakes and blades). Such a percentage would be representative of a largely earlier Neolithic assemblage.<sup>13</sup> Of the 283 flakes, 15.3% bore dorsal blade scars, further supporting an early date. The majority of

<sup>11</sup> For further details see P.M. Booth, A. Boyle and G.D. Keavill, 'A Romano-British Kiln Site at Lower Farm, Nuneham Courtenay, and other Sites on the Didcot to Oxford and Wootton to Abingdon Water Mains, Oxfordshire', *Oxoniensia*, lviii (1993), 135-6.

<sup>12</sup> P. Bradley, 'The Flint', in G. Hey, 'Yarnton-Cassington evaluation, 1993' (unpublished OAU and English Heritage document, February 1994), 67.

<sup>13</sup> S. Ford, 'Chronological and Functional Aspects of Flint Assemblages', in A.G. Brown and M.R. Edmonds (eds.), *Lithic Analysis and Later British Prehistory* (BAR Brit. Ser. clxii, 1987), 73, 79.



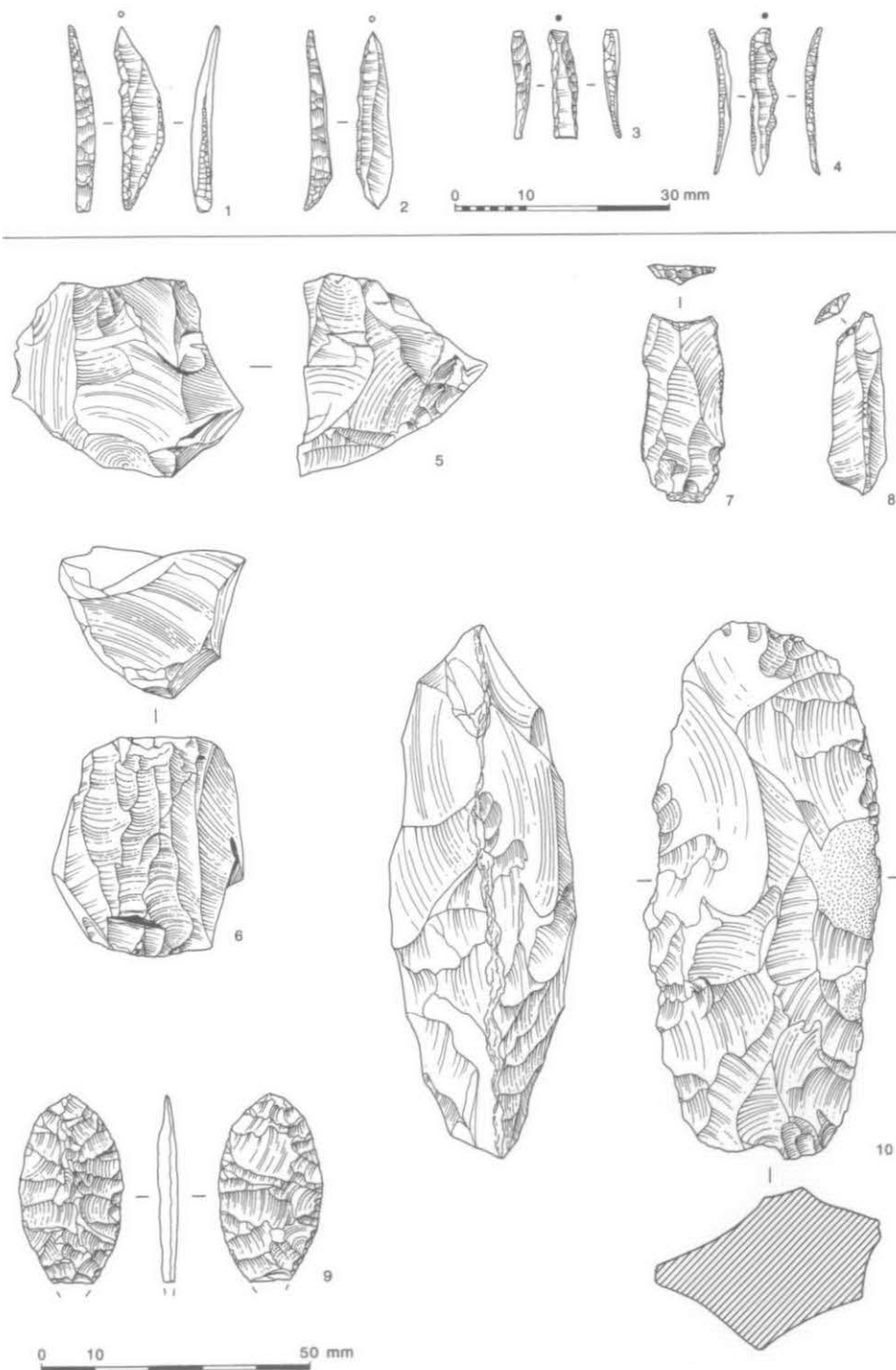


Fig. 8. Flint objects. Scale 1 : 2.

flake material consists of various inner flakes (64.6%, excluding chips), with side and distal trimmings accounting for 22.4% and completely cortical flakes forming 13% of the total. The relatively high proportions of flakes bearing cortex suggests that the primary stages of flint knapping took place on site.

Core rejuvenation and core preparation was carried out on site. Seven core tablets were recovered as surface finds and from the fills of the enclosure ditches. Two crested blades were also recovered as surface finds. The practices of cresting, and rejuvenation using core tablets, are typical of Mesolithic and to a lesser extent earlier Neolithic industries.

The assemblage consisted almost exclusively of soft-hammer struck flakes (93.8% of all unmodified flakes). Hammer mode was discernible on 76% of all flakes. Narrow-butted flakes were most common, representing 80% of all recorded butts. Most narrow butts were of the linear type, 30% were punctiform, with a few winged butts.<sup>14</sup> Such narrow butts often accompany soft hammer flaking, and this combination is again typical of earlier industries.

A total of 23 cores were collected from the site (Table 3). Cores were fairly small and worked-down, weights ranged from 14–64 g., with an even spread of values in between. Blade cores dominated the collection (e.g. Fig. 8 No. 6), and the six flake cores (e.g. Fig. 8 No. 5) also bore narrow flake removals. Cores were discarded when no further flakes could be detached, and in some cases because knapping accidents caused faces to be unworkable. Platform abrasion, which strengthens the core edge and removes projections,<sup>15</sup> thus facilitating further blade removal, was recorded on many of the blade cores.

TABLE 3. CORE TYPOLOGY

Single platform blade	Bipolar blade	Other blade	Tested nodule	Multi-platform flake	Fragment	Total
9	1	1	1	6	5	23

The small size of cores may be related to a certain extent to the size of nodules available, but if workable flint was brought to the site from any distance, it is likely that the material was worked down as much as possible.

*Retouched material.* A total of 34 retouched pieces were collected and are summarised in Table 4. A range of implements was recovered; if all finds from contexts 236 are excluded in order to negate the biasing effect of the large number of chips collected from this context, the retouched component amounts to 9.3% of the assemblage (3.3% with context 236 included). A number of pieces can be assigned a Mesolithic date. All four microliths (Fig. 8 Nos. 1–4) are small, rod-like backed bladelets, of Jacobi's class 5.<sup>16</sup> These are likely to date to the later Mesolithic from c. 8500 BP. Three of the microliths came from context 236. A possible burin also came from this context and could be broadly dated to the Mesolithic. A Mesolithic *tranchet* axe (Fig. 8 No. 10) was found in the southern terminal of the partly concentric ditch 177, and would seem to be a deliberate deposit. Of the retouched flakes, two truncated blades (Fig. 8 Nos. 7 and 8) can be dated to the Mesolithic. Serrated flakes are found in assemblages from the Mesolithic through to the early Bronze Age, as are fabricators. The leaf arrowhead (Fig. 8 No. 9) is more closely datable to the earlier Neolithic.

TABLE 4. RETOUCHE FORMS

Retouched flake	Microlith	Scraper (various)	Awl/piercer	Arrowhead	Serrated flake	Fabricator	Burin	Axe	Total
16	4	6	2	2	1	1	1	1	34

<sup>14</sup> Typology after J. Tixier, M. L. Inizan and H. Roche, *Préhistoire de la Pierre taillée: Terminologie et Technologie* (C.R.E.P., Antibes, 1980).

<sup>15</sup> R.N.E. Barton, *Hengistbury Head, Dorset, Vol. 2: Late Upper Palaeolithic and Early Mesolithic Sites* (1992), 270.

<sup>16</sup> R. Jacobi, 'The Mesolithic of Sussex', in P.L. Drewett (ed.), *Archaeology in Sussex to AD 1500* (CBA Res. Rep. xxix, 1978), 15–22.

The second arrowhead is only a possible example as it is fragmentary and could not be classified further; both were surface finds.

The most common retouched implements, simple retouched flakes and scrapers, are less diagnostic. The scrapers were all end scrapers apart from one side scraper. Almost all were surface finds. Most examples were made on hard-hammer struck flakes and some were steeply or crudely retouched. One example, however, was made on a large flake which showed signs of platform abrasion and also bore dorsal blade scars. This scraper may possibly be of earlier Neolithic date but it is likely that the others are of a later date.

The retouched flakes are also probably of a variety of dates, and again most of these were surface finds. Examples with thick butts, struck with hard hammers were present but soft-hammer struck pieces including one with dorsal blade scars (from context 132) were also recovered. The latter may be of earlier Neolithic date.

#### Context 236

This context, the single fill of a possible ditch terminal, was also examined separately in order to characterise the deposit more fully. The assemblage is summarised in Table 5. The proportions of flakes, narrow flakes and blades are similar to those from the site as a whole. The technology is also comparable, with soft hammer flaking and narrow butts clearly dominating. The most obvious difference is the large quantity of chips and microdebitage present, recovered through sieving the single fill of this feature. This would suggest the deposit was an *in situ* knapping dump, possibly the result of several contemporary episodes of knapping. It is unlikely that flint was knapped directly into the feature as flakes were distributed evenly throughout the fill. It may have been knapped on the edge or nearby and subsequently swept in. It appears that the primary stages of knapping are less well-represented in this context than they are on the site as a whole. Percentages of cortical and trimming flakes were lower than for the rest of the site at 4.6% and 13.6% respectively. The cores are blade cores or blade core fragments, and the only flake core has narrow flake removals. Two core tablets were also recovered from the deposit.

TABLE 5. SUMMARY OF ASSEMBLAGE FROM CONTEXT 236

Flakes	Narrow flakes	Blades	Chips	Cores	Retouched forms	Other	Total
115	23	16	559	5	4	9	731

Refitting was attempted; although no obvious refits were found many of the larger pieces still bearing cortex were apparently from the same nodules, and it is very possible that had time allowed further work, refits of some of the smaller flakes could have been identified. The presence of three microliths in the fill (two pristine and one snapped with a slight calcium carbonate encrustation) may indicate a deliberate deposit; three chance losses in a pit or ditch would seem unlikely.

#### Discussion and dating

The bulk of lithic material from the site can be broadly dated to the later Mesolithic/earlier Neolithic on the basis of the technology employed. As diagnostic indicators for both periods are present (microliths: later Mesolithic, leaf arrowhead: earlier Neolithic) it is difficult to be more specific regarding the date of the debitage; in all likelihood there is a mix of the two periods. Much of the less diagnostic retouched material (scrapers and retouched flakes) would appear to be later than the later Mesolithic/earlier Neolithic date proposed for the bulk of the assemblage. However, a few of these pieces would appear to be contemporary with the earlier material. Although the material from context 236 would appear to be Mesolithic in date, it would be unwise to rule out an earlier Neolithic date completely as the microliths may represent a deposit of residual material.

The range of retouched implements on the site might suggest activity of a domestic nature. The retouched component of the assemblage is quite high at 9.3% if compared to Wainwright's suggested proportion of 4-5% for a domestic assemblage.<sup>17</sup> This might indicate the site had a ritual function,

<sup>17</sup> G.J. Wainwright, 'The Flint', in 'The Excavation of a Neolithic Settlement at Broome Heath, Ditchingham, Norfolk', *Proc. Prehist. Soc.* xxxviii (1972), 46-68.

although more specialised retouched items such as axes and arrowheads might be expected in this case. Ritual activity may, however, be observed in the deposition of the *tranchet* axe in a ditch terminal, and possibly also the three microliths in context 236. Evidence for similar acts of deliberate deposition is well documented for the whole country.<sup>18</sup>

There is, however, uncertainty as to the date of the penannular enclosure and its partly concentric ditch. It is almost certain, however, that the lithic material predates it and that flint found in ditch fills is redeposited, with the deliberate deposition of the (residual) Mesolithic *tranchet* axe.

There is little evidence for later Mesolithic and earlier Neolithic activity in this area of the Thames basin<sup>19</sup> though ongoing excavations at Yarnton<sup>20</sup> have revealed finds and features ranging from the later Mesolithic through to the Bronze Age. This suggests that relatively blank areas in this part of the Thames Valley may in fact have much to reveal; many sites may remain deeply buried due to their floodplain location.

#### OTHER STONE OBJECTS by PAUL BOOTH (based on identifications by FIONA ROE)

Large rounded quartzite pebbles were recovered from a number of contexts and also unstratified in general cleaning. These would have occurred readily in the area. One, of quartzitic sandstone, had damaged ends which might indicate use as a hammerstone, but this was not certain. None of the other examples, including one found in the terminal of the concentric ditch associated with a Mesolithic axe, showed any traces of use. Three fragmentary pieces of such stones showed slight traces of burning, which may have caused their fracture. Only one of these was stratified, in the fill of a Phase 3 gully 349.

#### ENVIRONMENTAL EVIDENCE

The site was extensively sampled for various kinds of environmental remains, samples being taken mainly from ditch fills, but preservation of such remains was for the most part poor. The soil conditions were quite acidic and animal bone and snails did not survive. Other types of material were present in small quantities.

A number of the samples taken for carbonised plant remains produced no significant material. Flots from nine samples were examined briefly, as follows, but no further analysis was recommended.

#### CHARRED PLANT REMAINS by GILL CAMPBELL

Nine flots were scanned as to their content. Much of the charred material was heavily mineralised. Charred hazel-nut fragments were recovered from ditch fill 236 and a large quantity of oak charcoal was present in sample 113 (fill 183 of concentric ditch cut 181). Sample (of 2 litres from occupation dump 315) contained rhizomes and stalk fragments from grasses as well as a *Vicia/Lathyrus* sp. seed, *Montia fontana* (blinks) seeds and a hulled wheat grain. Sample 183 from context 158 (another fill of the concentric ditch) produced a fair amount of uncharred material. It is possible that this deposit was waterlogged in antiquity or close to the water table.

#### POLLEN ANALYSIS OF THE DITCH FILLS by ROB SCAIFE

##### *Introduction*

Pollen analysis was carried out on the sediment fills of the possible Neolithic (late Iron Age) double-ditched enclosure. The inner ditch cut 148 (Section 6, samples 142–148) was sampled in detail by Gregory Campbell of OAU. Two

<sup>18</sup> J. Thomas, *Rethinking the Neolithic* (1991), 60–2.

<sup>19</sup> H. Case, 'The Mesolithic and Neolithic in the Oxford Region', in G. Briggs, J. Cook and T. Rowley (eds.), *The Archaeology of the Oxford Region* (1986), 18–37.

<sup>20</sup> Hey, op. cit. note 6; G. Hey, 'Yarnton Cassington Project: Yarnton Floodplain B, 1995, post-excavation assessment' (OAU and English Heritage report, February 1996); A. Barclay, R. Bradley, G. Hey and G. Lambrick, 'The Earlier Prehistory of the Oxford Region in the Light of Recent Research', *Oxoniensia*, lxi (1996), 8–10.

spot samples from the outer ditch, cut 327 (Section 15, samples 126 and 128) have also been analysed for comparison with cut 148. Pollen analysis of these ditch contexts was undertaken essentially to provide data on the environment in which the enclosure was constructed and to ascertain if there were any temporal differences evident between the construction of the inner and outer ditch.

### Results

Standard procedures were used for the extraction of the pollen and spores.<sup>21</sup> Pollen was successfully extracted from the minerogenic fills of the enclosure ditches. Pollen counts of 300 grains plus spores were made where possible and for ditch cut 148 a diagram (Fig. 9) has been constructed. Data are presented in Tables 6 and 7 with pollen calculated as a percentage of total dry land pollen (t.d.l.p.) and spores as a percentage of this sum plus spores. The characteristics of the two profiles are summarised as follows:

*Inner ditch cut 148:* Pollen was absent in the lowest sample (142) in the bottom of fill 149. In the samples above this, herbs are dominant (60–80% t.d.l.p.) with trees and shrubs to maxima of 28% and 10% respectively. Since there are few variations in the pollen spectra through this profile, pollen zonation has not been carried out. There is, however, a little evidence of higher numbers of trees and shrubs in the lower contexts and expansion of some herb types in the upper contexts. Thus, *Betula* (birch), and *Corylus avellana* type (hazel) along with *Quercus* (oak) are relatively more important in the upper part of context 149. Sporadic occurrences of *Pinus* (pine), *Fraxinus* (ash), *Fagus* (beech) and *Juniperus* type (juniper) are also noted. *Quercus* remains the most important tree taxon throughout the profile. *Ericaceae* are also present. In contexts 149 (upper), 151, 154 and 155 herbs are dominated by *Poaceae* (grasses), *Lactucaceae* (including dandelion, sow thistles, hawksbits), *Ranunculus* type (buttercups) and *Plantago lanceolata* (ribwort plantain). In addition there are sporadic occurrences of other herbs which include cereal type pollen.

*'Concentric' ditch cut 327:* Two 'spot' samples from contexts 332 and 331 produced substantially higher quantities/percentages of tree and shrub pollen. This was especially in the lower context 332 (Table 7) with *Quercus* (36%), *Betula* (27%) and *Corylus avellana* type (8%). *Fraxinus* (3%) and *Juniperus* are of note. These tree/shrub pollen percentages are reduced in context 331 where *Betula* attains 12% and *Quercus*, 23%. Values of herbs are correspondingly higher in the upper sample with *Poaceae* (31%) and *Lactucaceae* (11%) dominant. Spores of ferns include *Polypodium vulgare* (common polypody), *Pteridium aquilinum* (bracken) and *Dryopteris* type (monolete fern spores).

### Discussion

Such ditch environments may pose problems of taphonomy with the possibility of reworked (allochthonous) pollen incorporated into the fills. Because of the discrete character of the individual contexts and the apparent variations in the pollen spectra noted, this is not considered a problem here. Furthermore, the pollen was largely well preserved, although some possibly differential preservation in favour of *Lactucaceae* may have occurred.

Although material artefacts (pottery) were few, the inner penannular ditch and outer concentric ditch have been dated to the late Iron Age (see above) and are likely to be broadly contemporaneous. However, the pollen data do display some variation which might be construed as showing some temporal difference between the two profiles. Archaeologically this poses a problem in that the two enclosure ditches have been thought to be broadly contemporary in age/construction with the outer-most probably being of slightly later date. Since pollen is not a dating technique and because only two samples have been examined from this profile, only limited conclusions can be drawn. The environment represented by the pollen in ditch cut 327 is one of *Quercus* (oak) and *Fraxinus* (ash) with *Corylus* (hazel) and *Betula* (birch) scrub woodland. Small values of *Fraxinus* and *Fagus* (beech) may imply local growth as these taxa are typically under-represented in pollen spectra. This is due to small numbers of grains produced by the former (relative to oak and elm) and heavy pollen grains in the latter. The presence of *Juniperus* (juniper) is unusual in this region and similarly implies an open scrub woodland habitat. However, the dominance of *Poaceae* (grasses) with a range of other herbs including *Plantago lanceolata* may imply grassland. This appears to become more important in the higher level of sample 128 (context 331 in cut 327). No

<sup>21</sup> P.D. Moore, J.A. Webb and M.E. Collinson, *Pollen Analysis* (2nd edn. 1991).

TABLE 6. RAW POLLEN DATA, FEATURE 148 (SECTION 6), LOWEST SAMPLE TO RIGHT

Sample	148	147	145	144	143
Context	155	154	151	149	149
BETULA	7	11	4	4	35
PINUS	1	1	1	2	3
ULMUS			1		
QUERCUS	10	32	46	25	40
TILIA			1		
FRAXINUS	1		1		1
FAGUS				1	
JUNIPERUS					2
CORYLUS AVELLANA TYPE	18	14	3	6	25
CALLUNA	1			1	2
ERICA					1
RANUNCULUS TYPE	22	19	9	7	9
URTICA TYPE				1	
CHENOPODIUM TYPE	1	1		1	
DIANTHUS TYPE		2			1
POLYGONUM AVICULARE TYPE	2			4	
RUMEX SP.			2		1
HORNUNGIA TYPE					
SINAPIS TYPE	1		5	3	
TRIFOLIUM TYPE		1	1	1	
APIACEAE			1		
LAMIACEAE					1
PLANTAGO MEDIA/MAJOR			2		
PLANTAGO LANCEOLATA	21	25	17	14	8
CAMPANULA TYPE	1			1	
CIRSIIUM TYPE					1
CENTAUREA SCABIOSA TYPE	1	1	1	1	
LACTUCAE	87	24	63	103	70
ANTHEMIS TYPE	1		1		1
BIDENS TYPE	1	2	5	7	1
POACEAE	116	67	131	112	85
CEREAL TYPE	7		3	8	2
UNIDENTIFIED (DEGRADED)	4		5	1	4
ALNUS		1	1	1	
SALIX					
CYPERACEAE	1			1	1
POLYPODIUM VULGARE	2	12	11	4	9
PTERIDIUM AQUILINUM	7	5	3	2	6
DRYOPTERIS TYPE	2	13	19	1	1
SPHAGNUM					1
LIVERWORT	1	1	1		
PRE-QUATERNARY					2

evidence of cereal cultivation was found in this profile, but there is some evidence of open herbaceous plant communities.

The above contrasts with the inner ditch section which has a higher dominance of herbs including evidence of pastoral and arable (cereal) environments. It is noted that the basal sample from context 149 has higher *Betula* percentages than overlying levels. It can thus be tentatively suggested that this, plus *Juniperus* and *Quercus* is comparable with data from cut 327 discussed above. Clearly, above this, there is an expansion of herbs with grassland (pasture?) taxa including Poaceae (grasses), *Plantago lanceolata* (ribwort plantain) and Asteraceae types (especially Lactucaceae). Sporadic presence of cereal pollen throughout the

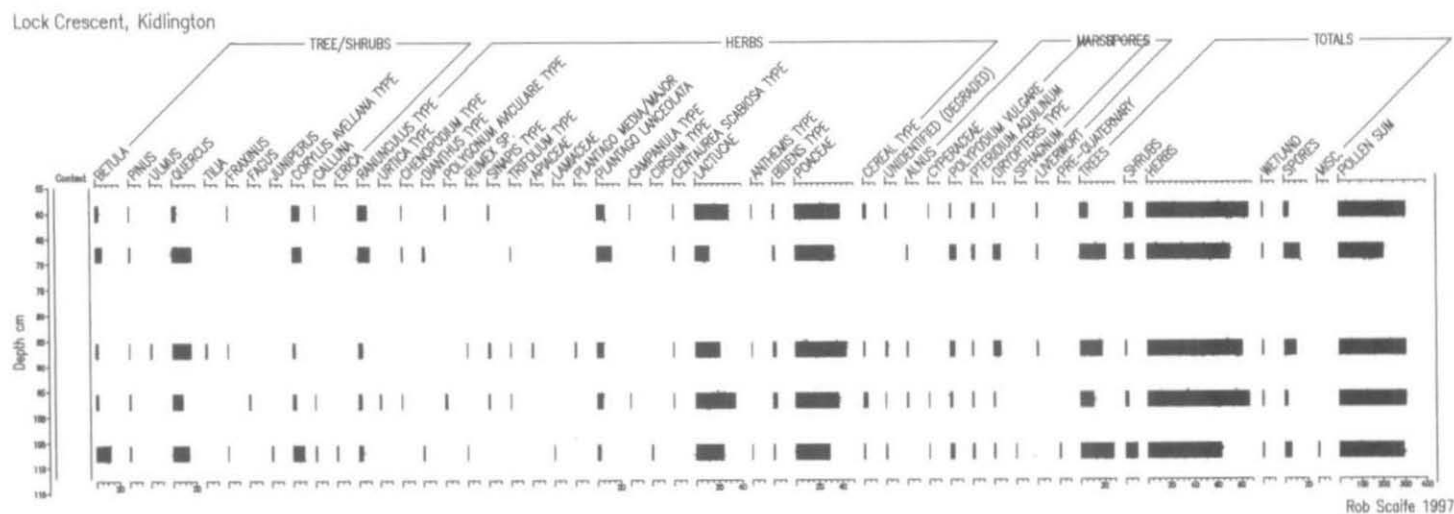


TABLE 7. RAW POLLEN DATA, FEATURE 327 (SECTION 15), LOWEST SAMPLE TO RIGHT

Sample	128	126
Context	331	332
BETULA	35	53
PINUS		1
QUERCUS	70	70
TILIA		1
FRAXINUS		5
FAGUS	1	
JUNIPERUS	1	2
CORYLUS AVELLANA TYPE	21	16
CALLUNA	3	1
ERICA	1	
RANUNCULUS TYPE	15	
CHENOPODIUM TYPE	1	1
DIANTHUS TYPE	1	
HORNUNGIA TYPE	1	
SINAPIS TYPE	1	
TRIFOLIUM TYPE	1	
PLANTAGO LANCEOLATA	9	3
LACTUCAE	34	1
ANTHEMIS TYPE	3	
BIDENS TYPE	3	
POACEAE	96	42
UNIDENTIFIED (DEGRADED)	3	1
ALNUS	1	
CYPERACEAE	1	
POLYPODIUM VULGARE	31	19
PTERIDIUM AQUILINUM	13	5
DRYOPTERIS TYPE	37	8
SPHAGNUM		1

profile implies local cereal cropping or crop processing activities. Remaining *Quercus*, *Corylus* and *Fraxinus* indicates sporadic trees or woodland growth but this may be sporadic local growth or from regional sources due to long distance pollen transport. The expansion of herbs in the upper sections of the profile(s) might thus be expected to be of later date, although the time span for removal of the open woodland evidenced in cut 327 and a more open environment may have been of short duration. This does, however, imply that the outer ditch is of earlier age than the inner which conflicts with the archaeological view. Alternatively, it is plausible that purely pollen taphonomic processes have acted, and as noted above, the presence of pollen in ditch and pit fills can always be subject to pollen incorporated from earlier soils and sediments.

#### GENERAL DISCUSSION

The site is situated exactly at the 200 foot (61 m.) contour, which is notable as defining the lower limit of readily visible archaeological sites on the sands and gravels in the area west of Kidlington, with the one exception of the undated field system PRN 15098 (see above). The importance of this level is indicated in the present site by the location of the later prehistoric features, sited at the slight break of slope from east to west, and by the fact that this same point marked the western limit of medieval ploughing. Very few features were located further



west in the evaluation trenches. Of these, one in Trench 12 was arguably of earlier prehistoric date and the remainder were essentially undated, though it is possible that some were of relatively recent origin.

Feature 12/9 and the likely Phase 2 features further east in the main excavated area are all potentially of earlier prehistoric date on the basis of their fills and contents. This applies particularly to the steep-sided cut 235, full of flint knapping debris which must have derived from the immediate vicinity but was probably nevertheless redeposited. The profile and fill of this feature were sufficiently different from those of Phase 3 and 4 features to suggest that 235 may have been significantly earlier in date.

While all the potentially early features were located at the southern extremity of the site, the distribution of flint was much more general, this material occurring mainly in a broad north-east – south-west aligned band through the central part of the site (Fig. 10 – note that this does not take account of the late extensions on the south-west side of the excavated area). This distribution corresponds broadly with the western limit of probable medieval ploughing and the location of layer 107, arguably a product of that ploughing. The general flint distribution may therefore have little to do with the distribution of contemporary features and deposits, and it may be that the principal focus of early prehistoric activity in the area was, as indicated by the few features, largely to the south of the present site. The function and interpretation of these features is not very clear, but seems to indicate domestic rather than ceremonial activity, though the presence of a possible deliberate deposit in feature 235 was noted.<sup>22</sup>

Significant excavated evidence for Neolithic and Bronze Age activity in the near vicinity comes from Yarnton, principally from current excavations on the floodplain of the Thames.<sup>23</sup> The siting of that settlement and other activity indicates that this low lying location was not subject to significant disruption at this time, with episodes of regular flooding (indicated by deposits of alluvium and by other environmental evidence) not occurring until the late Iron Age at the earliest.<sup>24</sup> In this case there is no *a priori* environmental reason why apparently contemporary activity at Kidlington should have been confined to the higher ground at the eastern extremity of the site. Feature 12/9 may indeed indicate that this was not the case, and if the principal focus of activity of this period lay further south it could have extended more widely across the lower ground south-west of the site.

The only identified feature fills likely to have been of alluvial origin were possible tree-throw holes located in evaluation Trench 3, which were filled with grey clay of alluvial character, and similar features observed in Trenches 5–10, i.e. across the western two-thirds of the development area. The origin of the alluvial material is uncertain, but alluvial deposits, which might have been expected widely across the lower-lying western part of the site, were generally absent and did not occur in fills of features other than the tree holes. The most likely explanation may be that any alluvial deposits which did occur accumulated after the identified features were filled and then were incorporated within a later (but undated) phase of ploughing which seems to have extended across the site and overlaid or truncated the identified feature fills.

Generalised models of alluviation in the Upper Thames Valley would indicate that such deposits could have been accumulating from the late Iron Age onwards, though the exact

<sup>22</sup> See flint report above; the clearly deliberate deposition of the Mesolithic *tranchet* axe presumably took place in the later Iron Age.

<sup>23</sup> Hey, *op. cit.* note 20.

<sup>24</sup> Cf. M. Robinson, 'Environment, Archaeology and Alluvium on the River Gravels of the South Midlands', in S. Needham and M.G. Macklin (eds.), *Alluvial Archaeology in Britain* (Oxbow Monograph xxvii, 1992), 200.



Fig. 10. Distribution of finds from cleaning and general layers. Scale 1 : 250.

chronology will vary from site to site.<sup>25</sup> The absence of alluvium predating the linear features identified in the evaluation trenches could in fact be consistent with their being of Neolithic or Bronze Age date, although a later date is also possible. The trees identified in Trench 3 were presumably felled, whether accidentally or deliberately, at a date approximately contemporary with a phase of alluviation but before the suggested ploughing episode.

The absence of waterlogged ditch fills, characteristic of a number of Iron Age sites in the Upper Thames,<sup>26</sup> does suggest that the low lying part of the development area was not occupied in this period, however. This is supported by the almost total absence of any material of Iron Age date.

The great majority of cut features, of Phases 3, 4 and probably also of Phase 5, appear on the basis of limited pottery evidence to have been of later Iron Age date. The quantity and condition of finds associated with these features is such, however, that they are most unlikely to have belonged to immediately adjacent domestic settlement, though such settlement was presumably located not far away.

No evidence survives to indicate if the Kidlington ditches were associated with well-defined banks. The possibility that they contained palisade features was considered, particularly in respect of the steep-sided segments of the ditches, but there were no traces of uprights in the ditches, and the 'special deposit' in the terminal of the concentric ditch might suggest that this was always an open feature.

The form of the penannular enclosure can be paralleled at other late Iron Age sites in the region with varying degrees of exactitude. The rather irregular series of late Iron Age to early Roman enclosures at Yarnton includes at least two sub-oval enclosures up to 10–12 m. across and further up the Thames Valley, at Thornhill Farm, Fairford, a large number of irregular late Iron Age enclosures are juxtaposed. These varied considerably in size and plan and in the dimensions of entrances (in some cases no entrances were apparent, though this may have been a consequence of frequent recutting).<sup>27</sup> Further parallels can be found in aspects of the late Iron Age site excavated by Grimes at Linch Hill Corner, Stanton Harcourt. The smaller Period II and III enclosure at the north-east corner of this complex was irregular in plan, with a maximum internal dimension of c. 10 m and a narrow entrance barely more than 1 m. wide.<sup>28</sup> These characteristics are reminiscent of the Kidlington enclosure. The principal (larger) Period I enclosure had a steep-sided ditch profile very similar to that of the southern part of both penannular and concentric ditches at Kidlington.<sup>29</sup> It is uncertain if another shared characteristic of both sites, an absence of internal features, is significant. The Stanton Harcourt ditches contained much more pottery than the Kidlington ones, however, suggesting that that enclosure might have had a domestic function.

The logic of the site plan strongly supports the view that the 'concentric' ditch was dug later than the penannular one, being laid out with respect to it, and this is also backed by the evidence of the relationships of these ditches to the Phase 4 feature 166, which apparently cut the penannular ditch and was in turn cut by the concentric one. The finds suggest that the principal features were broadly contemporary. The palynological evidence is not entirely

<sup>25</sup> Ibid.

<sup>26</sup> Cf. T.G. Allen and M.A. Robinson, *The Prehistoric Landscape and Iron Age Enclosed Settlement at Mingies Ditch, Hardwick-with-Yelford, Oxon.* (Thames Valley Landscapes: the Windrush Valley ii, 1993), 135.

<sup>27</sup> G. Lambrick, 'The Development of Prehistoric and Roman Farming on the Thames Gravels', in M. Fulford and E. Nichols (eds.), *Developing Landscapes of Lowland Britain. The Archaeology of the British Gravels: A Review* (Soc. Antiq. London Occas. Pap. xiv, 1992), 100.

<sup>28</sup> W.F. Grimes, 'Excavations at Stanton Harcourt, Oxon., 1940', *Oxoniensia*, viii–ix (1943), 49–53.

<sup>29</sup> Ibid. 50.

consistent with this view, however, since it appears to show differences in the character of the pollen from the two ditches, suggesting that the outer, concentric ditch, with a higher representation of tree species, was the earlier of the two. While the dichotomy might simply result from problems of residuality or contamination of the pollen record (which might be indicated by the presence of species such as Juniper), this is not thought particularly likely to be a factor, and an 'archaeological' solution to the problem should be sought. One possibility is that the concentric ditch may have been rather later in date than has been supposed, the chronological difference between the two ditches thus accounting for the contrasting pollen sequences of the two ditch fills, but this would imply some local woodland regeneration within the Roman period, for which there are no parallels in the region. Another possibility is that while the two ditches were dug at more or less the same time, the inner one was subsequently completely recut and consequently filled at a different date, acquiring a different range of pollen. This is unlikely to have been the case because the observed relationship with feature 166 would thus have been obliterated. Alternatively, however, one of the recorded relationships of feature 166 may have been incorrect, which would then allow for the idea that the penannular ditch was completely recut. This would fit best with the pollen evidence, in which the pollen spectrum from the bottom of the penannular ditch is seen as broadly similar to that from the concentric ditch, implying (but not proving) a chronological overlap between the lowest fill of the inner ditch and the upper fills of the outer one. Such an interpretation might be supported by the fact that two primary fills of the inner, penannular ditch produced small late Iron Age sherds, whereas such material only came from middle fills of the concentric ditch. Whether the consequent chronological difference between the ditch fills would have been sufficient to account for differences in their pollen records is hard to judge – perhaps very localised factors were at work. None of these explanations is completely satisfactory, however, and further work would be required to resolve the issue completely.

The location of the Kidlington enclosure appears to be significant in topographical terms. The orientation of the entrance and the fact that the enclosure seems to be separated from the higher ground to the east by further ditches, even if these were not all contemporary with the penannular enclosure (which is taken to be the primary late Iron Age feature here), suggests that the enclosure was intended to be accessible from the lower ground. This in turn perhaps suggests an association with animal husbandry on the pasture of the floodplain. This was already a common practise in the region in the middle Iron Age, and the size and form of the penannular enclosure are not too far removed from those of the so-called rectangular enclosure in enclosure group 3 of that date at Farmoor.<sup>30</sup> Some evidence of a pastoral environment is present in the pollen data, particularly from the penannular ditch. Pollen also indicates, however, that some cereal production and/or processing was carried out in the vicinity of the site and a hulled wheat grain came from a middle fill of the concentric ditch. The site may have been deliberately located at the interface between primarily pastoral and primarily arable zones, respectively west and east of it.

The limited dating evidence suggests that this stage of the use of the site, consisting probably of Phase 3, 4 and 5 features, was relatively short-lived, since the only two Roman sherds were in superficial contexts and need not have related to the features at all closely. The precise dating of the 'Belgic type' pottery of the region is still uncertain, but it is almost certainly confined to the 1st century AD. A significant number of sites within the region seem to be established in the late Iron Age and extend into the early years of the 2nd century before

<sup>30</sup> G. Lambrick and M. Robinson, *Iron Age and Roman Riverside Settlements at Farmoor, Oxfordshire* (CBA Res. Rep. xxxii, 1979), 25–6.

going out of use;<sup>31</sup> it may be that the present site is another example of this phenomenon, although the existence of an associated domestic settlement is not absolutely certain here.

Later Roman and Anglo-Saxon use of the area is unknown. In the medieval period the site lay within one of the open fields of Kidlington, Statfield (later Stratfield), which had been brought into cultivation by the later 13th century. The medieval form of the name suggests that it may have been pasture before this time.<sup>32</sup> The Phase 7 archaeological evidence indicates that there may have been two distinct phases of arable agriculture, both presumably, but not certainly, in the medieval period. It also suggests that the westerly limit of the ground considered suitable for arable was exactly the same in the medieval period as in the late Iron Age and early Roman.

Further west on the lower ground there is equivocal evidence for ploughing. Direct evidence for land drainage was confined to Trench 3 and to a pipe in Trench 10 roughly at right angles to the drainage alignments in Trench 3. The relationship of the Trench 3 drains to an apparently overlying possible ploughsoil is questionable. Taken at face value this would suggest that the ploughsoil postdated the insertion of drains, making the ploughing episode of relatively recent date. This is possible, but evidence from elsewhere in the region indicates that narrow cuts for the insertion of drains soon become invisible in section, so it is possible that the drains were cut through the ploughing horizon, the date of which then remains uncertain.

#### ACKNOWLEDGEMENTS

The work was carried out under the overall direction of the writer. Site supervision was by Mick Parsons who, together with his staff, coped admirably with generally very poor conditions. The excavation and post-excavation were funded by Oxford Citizens Housing Association Ltd. to whom thanks are owed for their help during the course of the project. The County Archaeologist, Paul Smith, both initiated the project and provided significant support during the fieldwork stages. Thanks are also owed to the specialist contributors and other colleagues for helpful discussion of aspects of the site. The Oxfordshire Sites and Monuments Record Officer, Susan Lisk, provided information on the archaeological background.

<sup>31</sup> E.g. G. Lambrick, *op. cit.* note 27, 82. Other examples include sites just north of Alchester, Site D of the 1991 OAU excavations on the A421 (P. Booth, in preparation) and a site at Oxford Road, Bicester: C. Mould, 'An Archaeological Excavation at Oxford Road, Bicester, Oxfordshire', *Oxonienia*, lxi (1996), 65-108.

<sup>32</sup> *V.C.H. Oxon.* xii, 195.