Surrey Archaeological Collections, **86**, 141–149, 1999

An Iron Age settlement at Alpine Avenue, Tolworth

DUNCAN HAWKINS and SUE LEAVER

In February and March 1996 an archaeological excavation was undertaken at the former Government Buildings, Alpine Avenue, Tolworth, in the Royal Borough of Kingston upon Thames.

An evaluation at the site in 1991 revealed evidence of late Iron Age settlement, including a curvilinear slot, probably the foundation cut for the walls of a roundhouse. The main archaeological excavation recorded further Iron Age features including two additional roundhouses, one of which was stratigraphically earlier than the roundhouse found in 1991, though all are thought to be broadly contemporary. Both investigations revealed a number of pits and postholes, associated with evidence of craft activity.

The pottery recovered from the site was badly degraded and fragmented. However, a late Iron Age date is thought most probable. The settlement can probably be characterized as a 'farmstead', a centre for agricultural and craft production. Possibly the site was a subsidiary or satellite settlement to the substantial contemporary enclosed settlement at Old Malden, just under 1km to the north-east.

Introduction

The following report deals with an archaeological excavation at the former Government Buildings, Alpine Avenue, Tolworth (TQ 2006 6583 centre).

In the summer of 1991 an evaluation was undertaken by the Museum of London Department of Greater London Archaeology (DGLA) at the site (Nielson 1991), which lay within 1km of the known Iron Age enclosed settlement at Old Malden (Hanworth 1987, 142–3). The site lay in a similar topographical position to a small tributary of the river Hogsmill, as the Old Malden settlement lay in relation to the Hogsmill itself (fig 1). It was believed that the Alpine Avenue site could contain evidence of land use and/or settlement contemporary with the Old Malden settlement and this was the principal reason for its investigation.

The Old Malden settlement was partly excavated by Carpenter in the 1940s and 1950s, when he identified two early Iron Age ditches, five huts, a four-post structure and various artefacts, most of which are not now locatable. Further excavation in 1991 by the DGLA at Percy Gardens, Old Malden (Nielson 1993) revealed an enclosure ditch at least 45m long and a butt-ended linear feature which could have formed part of the entrance to the settlement. Both features dated to the late Iron Age which, if Carpenter's dating is correct, would make it a multi-phase site. Truncation made interpretation difficult but storage pits, rubbish pits and possible structures were found. A subsequent programme of excavation was undertaken in other parts of the settlement in 1996 by the Museum of London Archaeology Service (MoLAS 1996) and in 1997 by Wessex Archaeology.

Seven evaluation trenches were examined across the Alpine Avenue site. It soon became apparent that the site had been levelled in the recent past, leading to the severe truncation of all archaeological features. However, evidence of Iron Age settlement was revealed in trenches on the south-west of the site in the form of a possible foundation slot or eaves-drip gully from a roundhouse, and pits and postholes, associated with pottery and a loom weight (Nielson 1991).

The evaluation also demonstrated that all archaeological strata would be highly vulnerable to construction and that preservation *in situ* was not a viable option. An area excavation was subsequently undertaken between 7 February 1996 and 1 March 1996, in advance of the redevelopment of the site.

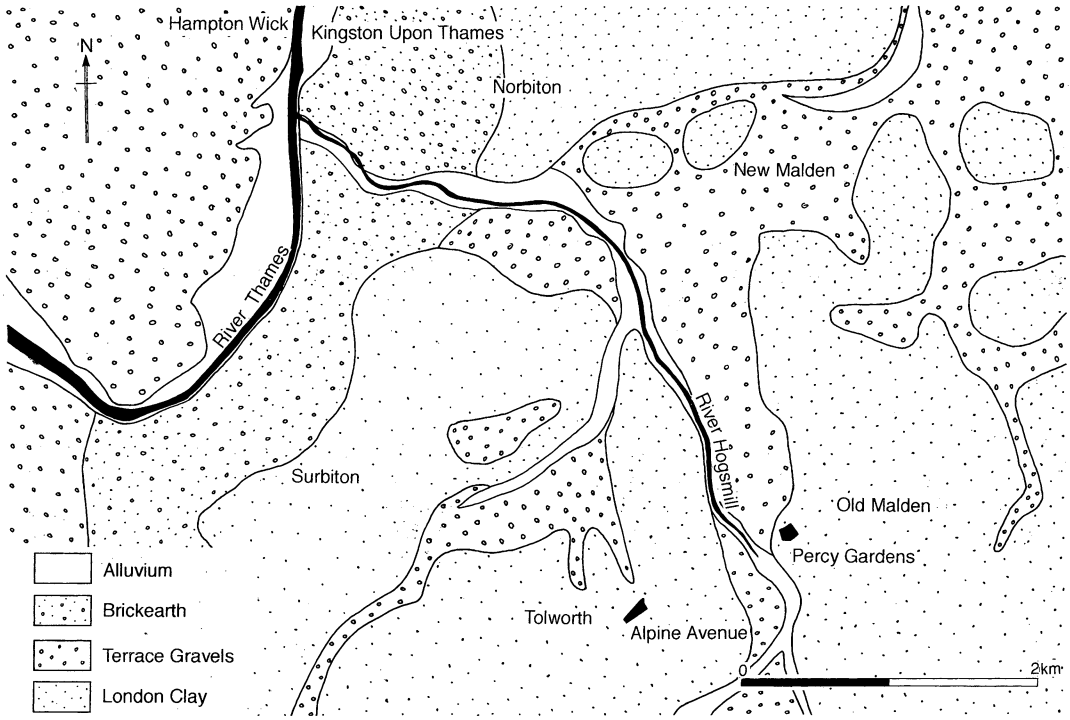

Fig 1 Alpine Avenue, Tolworth: location map showing geology.

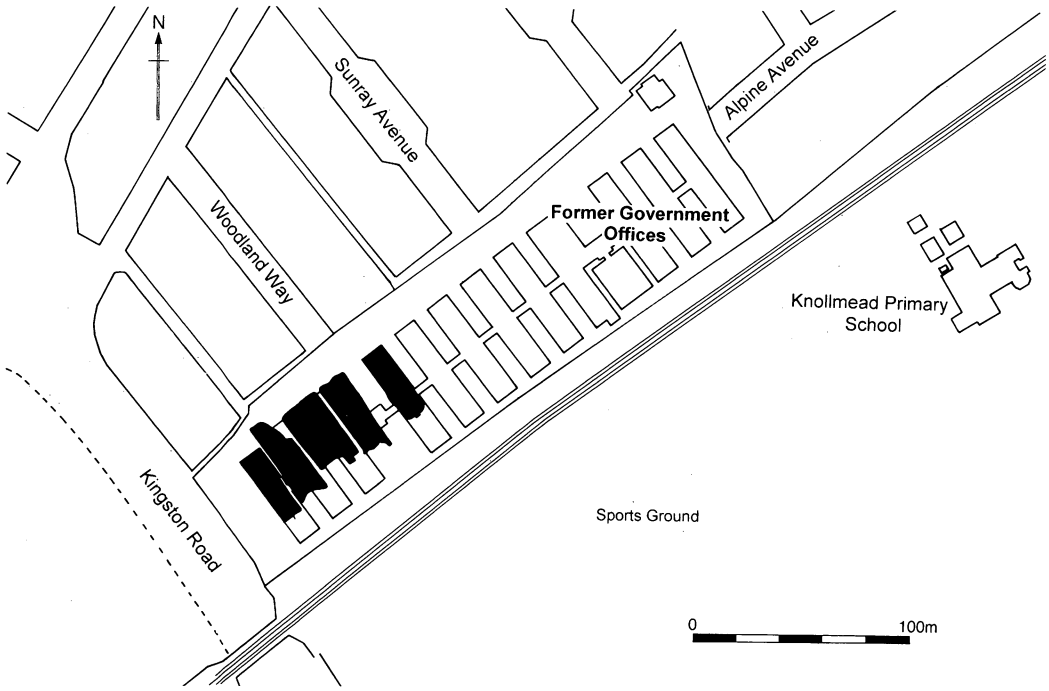

Fig 2 Alpine Avenue, Tolworth: the site showing the area of excavation.

The site and excavations

The site lies on an exposure of London Clay (fig 1) laid down in the Eocene. The London Clay on site was observed to have two layers, the upper one being more subjected to oxidization and bioturbation. The site is flanked to the north-east and south-east by the river Hogsmill and to the north-west by a tributary of the Hogsmill. The area of excavation was broadly level at between 25m and 26m OD.

The area of excavation was opened, using a mechanical excavator employing a 1.8m toothless bucket. The excavation area contained numerous modern drain and wall runs associated with former government office buildings. Earlier field drains and large sterile blocks of clay caused by the complete truncation of archaeological deposits were also present (fig 2).

The nature of the soil determined the sampling policy on site. High acidity meant poor survival of organic ecofacts. However, some features had deposits with a relatively high charcoal content so samples for flotation and sieving were taken. Another characteristic for the soils was a high clay content giving a tenacious consistency. This factor, combined with the poor quality and survival of artefacts (most of the pottery being in fragments less than $10mm^2$ in size), meant that bulk samples were taken primarily for the retrieval of finds.

Contexts were numbered sequentially and those from the DGLA evaluation have a prefix M.

NATURALLY FORMED FEATURES

Across the excavation area a series of 49 irregular shaped hollows were encountered. They are considered collectively as their fills were all of the same sandy clay composition. Most had an irregular shape in plan, with shallow irregular sides and undulating bases. Their irregularity suggests naturally formed features, possibly tree boles. None of these features cut a feature containing distinct cultural residues. Small quantities of burnt flint recorded in these features probably originated from overlying archaeological contexts.

THE STRUCTURES

Three semi-circular structures were recorded during the course of the evaluations and excavations; Structure 1 was represented by a curvilinear slot; Structure 2 was represented by a series of postholes and Structure 3 was represented by a group of postholes or small pits. A further rectangular structure (4) was represented by four cut features (fig 3).

Structure 1

The curvilinear slot was first partly recorded in the 1991 evaluation (contexts M11, M22, M33). Modern intrusions divided the feature vertically into three segments, while horizontal truncation through levelling was severe.

Although somewhat irregular in plan, the general form was of a curvilinear slot with moderately sloping sides, a rounded, uneven base, and a butt end in the east. It had a maximum depth of 0.33m and the width varied between 0.22m and 1.22m; the diameter was approximately 9m. The fill contained charcoal, a small amount of burnt clay, burnt flint, bone, pottery and a loom weight fragment. In the base of the north-westernmost segment, some small hollows were observed, possibly signifying the remnants of stakeholes. Lining the base of these features was an irregular shaped area of pebbles. These were not very densely packed.

Within the area enclosed by the slot was a 'surface' of relatively densely packed pebbles (129).

Structure 2

Structure 2 comprised a group of postholes stratigraphically earlier and offset from Structure 1 (M27, 113, 119, 131, 233, and 235–237). The postholes were arranged in an

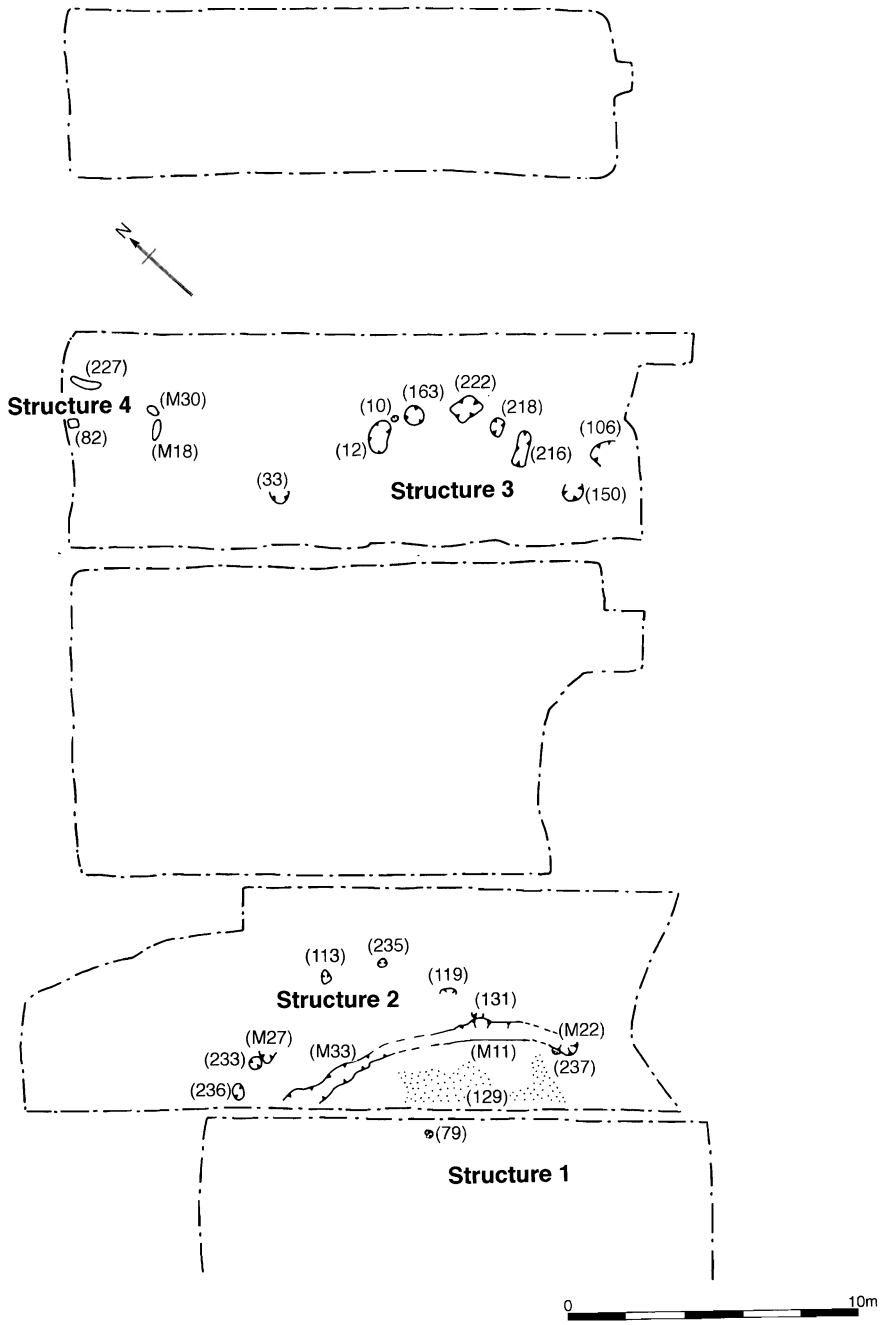

Fig 3 Alpine Avenue, Tolworth: the structures.

irregular arc — probably the surviving part of a circle with a diameter of 12.5m. Most of the postholes had been severely truncated, some surviving only to a depth of 0.02m, and were round or oval in plan, varying from 0.3m to 0.6m in diameter. Finds from these included bone, burnt flint, a hammerstone, a flint flake and pottery. Posthole 79 may have been associated with this structure.

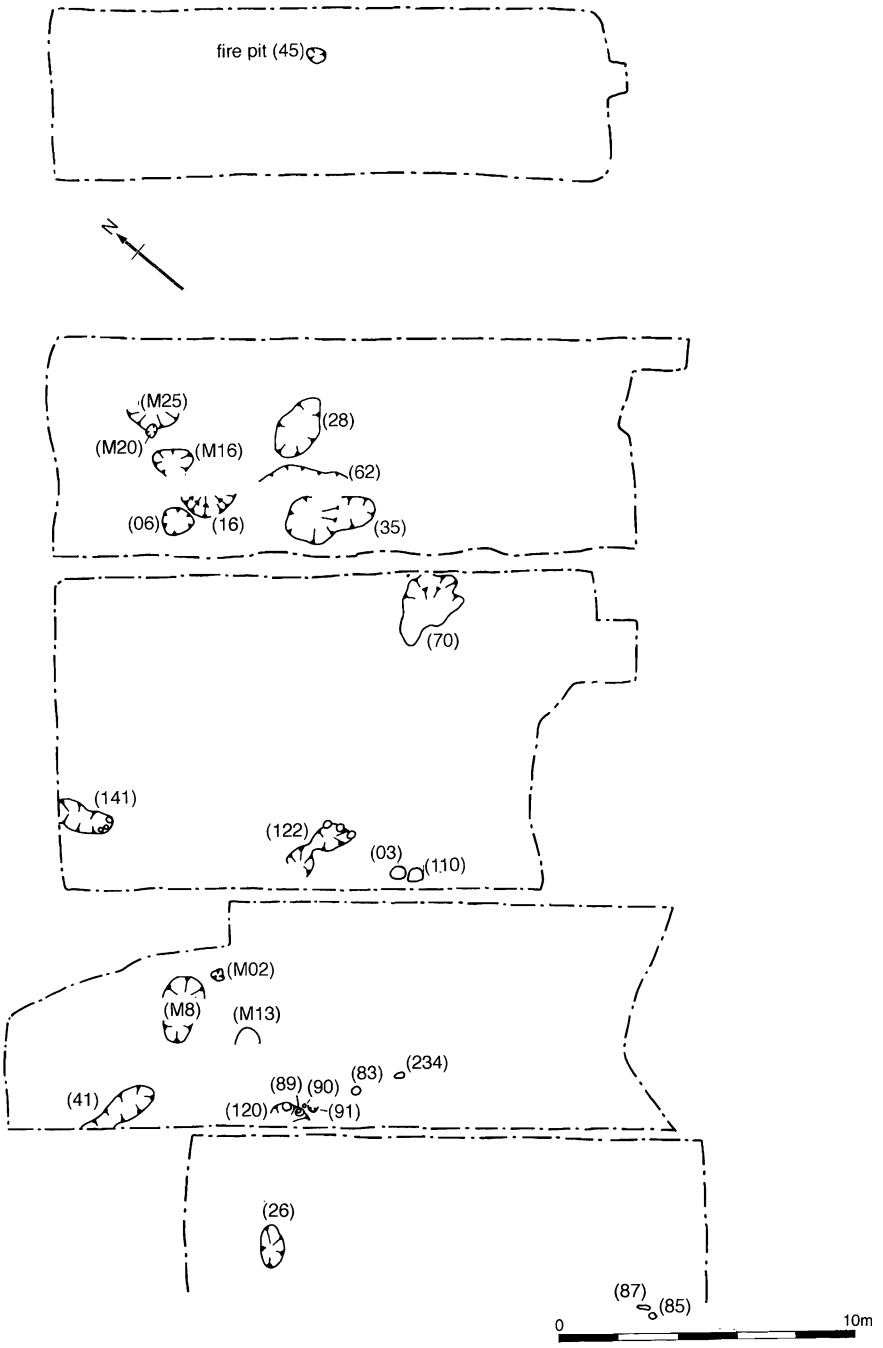

Fig 4 Alpine Avenue, Tolworth: the pits and posthole lines.

Structure 3

Structure 3 was located in the north-east of the site. It consisted of eight postholes or small pits and one stakehole (10, 12, 33, 106, 150, 163, 216, 218, and 222), which, taken together, formed a rough semi-circle. The postholes/pits were round or oval in plan and measured between 0.57m

to 1.2m deep. One of the postholes contained flint flakes, two flint spalls (one of which was retouched), one piece of slag and a small amount of burnt clay.

Structure 4

In the north-west a group of two sub-round postholes (82 and M30) and two cigar-shaped features (227 and M18) were found. They formed a rough rectangle with the two postholes being diametrically opposite to each other and the cigar-shaped features aligned along the sides of the rectangle. The largest of the cigar-shaped features was 227, which had dimensions of 1m x 0.3m x 0.24m deep, and the largest of the postholes (M30) was 0.5m x 0.4m x 0.12m deep. All contained charcoal and the upper fill of M30 was a black organic clay with burnt flint, probably representing burning after disuse. The pottery came from M30 and M18.

THE PITS AND POSTHOLE LINES

A number of pits and postholes were concentrated in the west and north of the site. They were of varied appearance and presumably function, so are discussed according to shape (fig 4).

The double scooped pits

A group of four pits shared a set of characteristics (41, 120, 122, and 141). Each of the pits consisted of two linked oval pits, three of which had three stakeholes at one end. The pits had two fills, containing charcoal, pottery fragments and burnt flint. The least truncated pit (122) was 0.92m wide by 2.3m long and had a maximum depth of 0.34m. The stakeholes had diameters of between 0.24m and 0.28m and the deepest was 0.19m deep. There was no indication of function.

The pits with postholes

Two pits in the north (M16 and M25) were of a similar appearance in that they were both associated with postholes. Pit M25 was truncated but appeared to be oval in plan with a posthole on the southern pit edge. This pit measured 1.8m x 1.2m, was 0.18m deep and contained two fills, the upper one being redeposited natural clay. The lower fill was a dark brown silty clay with some organic content and charcoal fragments. Finds were mainly from the lower fill and included pottery, burnt flint and burnt clay. Pit M16 was oval with two postholes, one on its northern and one on its southern side. The pit was 1.65m long (although truncated), 1.2m wide, with a depth of 0.3m. It had almost identical fills to M25 but also contained a fragment of burnt clay loom weight and some animal bone.

The fire pit

This feature (45) was located in the extreme north of the site, measuring 0.6m x 0.5m x 0.15m deep. It seems to have been external and the fill consisted entirely of burnt flints, some of which were large pebbles (8 x 4cm). It is probable that this feature represented the base of an external hearth.

Other pits

In the west was a group of four pits; three (M8, M2, and M13) were recorded in the evaluation and only one (26) in the excavation. Feature M2 has been included in this group although it was very small, only 0.44m x 0.28m x 0.18m deep and may have been a posthole. Pit M8 measured 2.3m x 1.3m, pit M13 0.84m x 0.42m x 0.18m deep and pit 26 1.4m x 0.9m x 0.34m deep.

All contained charcoal and pits M13, M8 and 26 contained burnt flint, burnt clay and pottery. A piece of sandstone, possibly the fragment of a quernstone, and bone were found in M8, although in a very decayed state. Pit 26 contained pottery and bone, identified as that of cow and pig.

In the north was a second group of pits, all located during the excavation: 01, 06, 16, 28, 35 and 62. The smallest (06) was 1.03m x 0.86m x 0.28m deep and the largest (35) measured 3m x 1.7m x 0.42m deep. They were all sub-round or sub-oval in plan with the exception of pit 01, which was very irregular in plan and profile. It contained much burnt flint and nothing else in the way of artefacts and may have been a naturally formed feature. The remaining features from this group, with the exception of 62, all contained burnt flint apparently deposited during the backfilling process. Pits 06, 16, 62, 28 and 35 contained pottery fragments and pits 28 and 35 contained flint waste flakes. From pit 06 an almost perfect barbed and tanged arrowhead was recovered.

It is likely that these pits had a number of functions. The lack of stratigraphy and adequate dating evidence means that they could also be from a very wide date range.

The postholes

Other features on the site consisted of two pairs of postholes and a line of three postholes with two stakeholes.

Postholes 85 and 87 were encountered in the south. They were both 0.1m deep and the first measured 0.28m in diameter and the second, 0.6m x 0.2m. The fills contained charcoal and 87 also contained one piece of pottery.

The next pair of postholes (03 and 110) was located in the centre of the site. They were sub-round with dimensions of 0.5 diameter x 0.2m deep and 0.6m x 0.5m x 0.12m deep respectively. Neither contained any artefacts.

The line of postholes 234, 83 and 91 were located close to Structure 1. They were oriented east–west with the two stakeholes 89 and 90 at the western edge of posthole 91. The postholes varied in diameter from 0.26m to 0.52m and in depth from 0.02m to 0.19m, the largest being 91. This feature and the two stakeholes cut the fill of the gully. The only feature of this group to have any dating evidence was 91 which held a large very fragmented portion of a ceramic vessel.

Discussion

The large numbers of possible tree boles identified in the investigation may indicate that prior to settlement, the site lay within an area of woodland. If so, extensive tree clearance may have taken place prior to its occupation.

It is thought that Structures 1, 2 and 3 represent three roundhouse-type buildings. In the case of Structure 1, the evidence (albeit scant) of stakeholes in the base of the gully feature suggests this was a slot in which the stakes or posts for wattle hurdles were placed, rather than an eaves-drip gully. No direct evidence of function was identified in any of these buildings; they might have served as dwellings, animal shelters or had a craft use. Possibly a multiplicity of functions was carried out within each (Cunliffe 1991, 242–6; Bewley 1994, 107–9; Hanworth 1987, 146).

Structure 4 can be seen as a variation on the classic four-post structure often interpreted as granaries but which could have a variety of functions (Hanworth 1987, 144–5).

The double scooped pits with associated stakeholes form an enigmatic group. Probably the stakeholes represent the base of a wooden frame or superstructure. The pits with postholes suggest a craft function with the postholes holding upright posts, possibly a frame. The inclusion within one of them of a loom weight suggests that they may have been weaving pits for an upright loom. If so, it would appear that they were set in an external location, as they were not contained in any recognizable structure. The distribution of these pit types may suggest the zoning of different activities across the site.

The pairs of postholes and line of postholes and stakeholes might represent 'racks' or frames.

There were no typical Iron Age storage pits found, presumably because of the nature of the subsoil, though the recovery of a piece of non-local stone, which is potentially a quern fragment, suggests the processing of grain on site.

The isolated hearth feature and the presence of two pieces of slag may indicate that metalworking may have occurred on or close to the site, through the artefactual evidence is admittedly minimal.

The finds

The following mainly concerns the artefacts from the excavation but includes less detailed information about the material from the evaluation. The evaluation archive, including finds, is held by the Museum of London.

THE POTTERY

The pottery from the evaluation found in the pits with postholes, Structure 4, Structure 1 and pits M8, M13 and M30 were thought to date to the middle Iron Age, though evidence from the excavation suggests they may be late Iron Age in date. The excavation produced approximately 240 sherds of ceramic material, weighing 0.572kg, which was all very fragmented and heavily abraded. Few pieces were large enough to allow confident attribution but collectively two main chronological phases of activity were ascertained.

Later prehistoric to broadly 1000–100/50 BC

This consisted of flint-tempered sherds from posthole 87 and double scooped pit 116.

Late Iron Age to broadly 150/50 BC–AD 50

Base and body sherds from posthole 119 (Structure 2), and double scooped pit 141 were in a coarse sandy fabric with profuse voids and leached out calcareous inclusions. Jar sherds in a sandy fabric were found in pit 26. Double scooped pit 41 produced fragments from the same vessel, almost certainly Belgic (*c* 25 BC–AD 50).

All the above could represent a single broad phase dating to the late Iron Age.

THE BONE

In total 120 fragments of bone were recovered weighing 0.204kg. The acid nature of the soil ensured that bone survival was rare; the pieces recovered were in very small fragments and most were unrecognizable. Identifiable bone was recovered from two pits. Pit 141 contained the first molar of a cow. Pit 26 contained cow bones consisting of a first phalange, the proximal end of a scapula, the lower first molar and the distal end of a metapodial; it also contained the second phalange of a pig.

THE BURNT CLAY

In total 70 fragments were retrieved, weighing 0.630kg. Most of the burnt clay was found in the pits. A few pieces have been identified as daub and contain twig impressions.

THE LITHICS

A small group of struck flints was recovered. The flint used is from a gravel source. A single blade segment was probably of Mesolithic date. Three retouched flints were present: a barbed and tanged arrowhead, a hammerstone and an awl made from a large chunky flake. In addition, there were fifteen flakes, three of which were cortical and eight spalls.

The barbed and tanged arrowhead could date from the late Neolithic to the early Bronze Age. The pit in which it was found (06) also contained Iron Age pottery. Possibly the arrowhead was a casual loss, accidentally redeposited into a later context, or perhaps it was found and deliberately buried in the Iron Age. The MoLAS investigations at Malden Manor Farm (MoLAS 1996) discovered two Mesolithic adze blades on the base of a pit containing a

small assemblage of late Bronze Age or early Iron Age sherds. Perhaps we see here evidence for ritual behaviour, or beliefs, common to the populations of both the Old Malden and Alpine Avenue settlements.

With the exception of the blade and arrowhead, there were no chronologically distinctive items in the collection. However, the rather rough nature of the flakes and the exclusive use of a hard hammer suggest that these flints would not be out of place in a middle Bronze Age–early Iron Age context.

The excavation produced 354 pieces of burnt flint weighing 12.705kg, presumably debris from fires such as that of 45. Because of the nature of the subsoil it is thought that all this material was introduced on to the site.

OTHER FINDS

Two pieces of iron slag were found in the excavation and two Iron Age loom weights and a piece of non-local stone, possibly a quernstone fragment, were found in the evaluation.

Conclusions

It is clear that there was human activity at and around the site from perhaps the Mesolithic until the Iron Age. The late Iron Age is the most active period for the site with semi-permanent or permanent structures and craft activities represented. Possibly this settlement followed a period of woodland clearance.

The existence of the enclosed settlement of Old Malden is significant and it is likely that there would have been much interaction between the two sites, which are less than lkm apart. In this context, the Old Malden site might be seen as serving the function of a central place, with the Alpine Avenue site as one of a number of subsidiary or satellite settlements within a developed agricultural landscape. If the site was not producing food then the manufacture of other products for the community may have taken place here, for example, cloth making or hide processing.

The location of both the Alpine Avenue and the Old Malden settlements on London Clay is noteworthy. There has in the past been a tendency to assume that the heavy soils of the London Clay were avoided by later prehistoric communities. Clearly this was not the case. Although such soils would have been unsuitable for arable farming in these periods they would have been (and remain) well suited to the raising of livestock herds. It would be surprising if specialist livestock-farming communities had not arisen to meet the challenge of exploiting the vast tracts of London Clay. The location of both the Alpine Avenue and Old Malden settlements at the edge of the London Clay, close to watercourses and outcrops of lighter soils gives a good indication of where evidence for such communities will be found in the future.

ACKNOWLEDGEMENTS

The excavation was entirely funded by Fairview New Homes plc to whom grateful thanks are given. The pottery report was prepared by Nigel Macpherson Grant and the other finds analysed by G Kenlon. Thanks are also due to Ken Whittaker of English Heritage for his help and encouragement during the project.

BIBLIOGRAPHY

Bewley, R, 1994 *Prehistoric settlements*

Cunliffe, B, 1991 *Iron Age communities in Britain*

Hanworth, R, 1987 The Iron Age in Surrey, in *The archaeology of Surrey to 1540* (eds J Bird & D G Bird), 139–64

MoLAS, 1996 *Manor Farm Buildings (Old Malden), Church Road, Worcester Park: an archaeological post-excavation assessment*

Nielson, R, 1991 *Report on archaeological evaluations at government buildings, Alpine Avenue, Tolworth, Surrey* (MoL unpublished report)

——, 1993 *Malden Homes, Percy Gardens, Worcester Park. Report on archaeological excavations* (MoL unpublished report)