

# Perry Oaks -- a history of inhabitation, part 2

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## Introduction

OVER A PERIOD of twelve months from November 1998, a team of archaeologists from Framework Archaeology<sup>1</sup> undertook the excavation of a 21 ha site at Perry Oaks Sludge Works in west London (Fig. 1). The work was carried out at the request of Thames Water Utilities Limited, who own the site, and with the support of BAA plc.

The original research design<sup>2</sup>, drawn up by Gill Andrews and John Barrett for BAA plc, proposed that the project should aim to move beyond the recovery and description of archaeological remains and instead should attempt to create an understanding of the history of human inhabitation of

the landscape and to develop this into a site narrative during the course of the excavation programme. The theoretical and practical implications of this approach have been discussed in a recent article published in *Antiquity*<sup>3</sup>.

The building of such a narrative requires the constant feedback of information as excavation progresses in order to allow new interpretations to be formulated and challenged. In order to do this, Framework Archaeology has developed an integrated database and GIS system, which allows site staff access to up to date stratigraphic, artefact and environmental information during the course of excavation.

The first part of the history, the transformation of the hunter-gatherer landscape into a landscape dominated by the monumental architecture of the Neolithic, has already been described<sup>4</sup>. The further history of the development of the landscape, from the Bronze Age through to the Roman period, appears below. It draws on the results of the 1998/1999 excavations at Perry Oaks (site code: WPR98)<sup>5</sup>, two smaller areas of excavation to the north (site code: GAI99)<sup>6</sup> and to the south-east (site code: GAA00)<sup>7</sup>, and an excavation carried out by MoLAS in 1996 (site code: POK96)<sup>8</sup>.

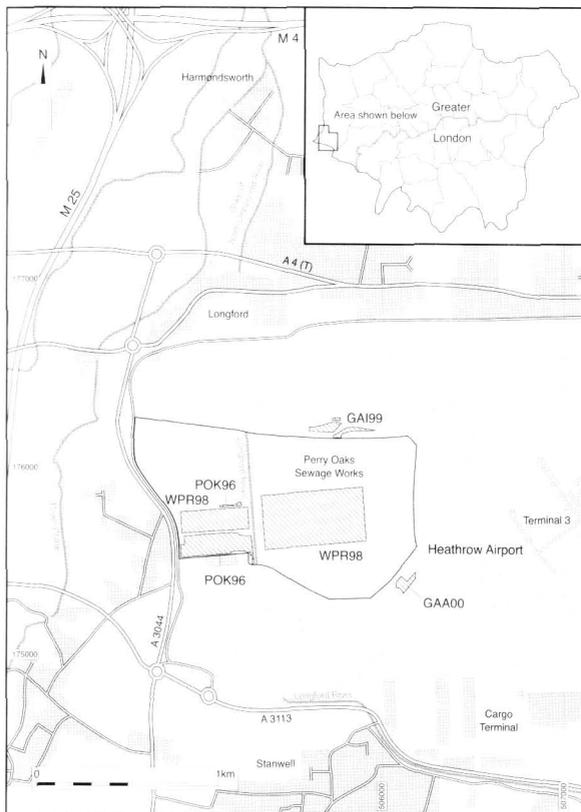


Fig. 1: site location

1. Framework Archaeology is the name of a Joint Venture formed by Wessex Archaeology and the Oxford Archaeological Unit.
2. BAA 1998 Heathrow Terminal 5 Archaeological Strategy: Written Scheme of Investigation.
3. G. Andrews, J. Barrett & J. S. C. Lewis 'Interpretation not record: the practice of archaeology' *Antiquity* 74 (2000) 525-30.
4. J. C. Barrett, J. S. C. Lewis & K. Welsh 'Perry Oaks -- a history of inhabitation' *London Archaeol* 9, no. 7 (1999) 195-9.
5. Framework Archaeology 2000a *Perry Oaks Sludge Works: Project Design Update Note 2*.
6. Framework Archaeology 2000b *Grass Area 6c, Heathrow Airport: Project Design Update Note 1*.
7. Framework Archaeology 2000c *Grass Area 21, Heathrow Airport: Project Design Update Note 1*.
8. G. Andrews, J. Barrett & J. S. C. Lewis 1998 *Perry Oaks Rescue Excavations: Post Excavation Assessment Report* BAA/TWUL/MoLAS 1998.

## Enclosure in the Bronze Age (Fig. 2)

The early Bronze Age saw minimal alteration to the monumental landscape of the preceding millennium. In contrast, the Middle Bronze Age appears to show a very marked change to a landscape principally concerned with agricultural production. It is clear that the landscape was enclosed from the Middle Bronze Age onwards by a field system that extended across the entire Heathrow terrace. In terms of labour alone, the field system is a major monument in its own right. Thus people continued to live within a major monument which served practical and economic purposes, such as guiding animals and protecting crops, as well as providing the setting for ceremonial and ritual activities. The major difference is that the field system for the first time formalises and makes

visible archaeologically the ordering of the landscape. However, it also introduces a new concept, that of land tenure. In contrast to the preceding millennium, where agriculture was largely carried out on a shifting basis, the Middle Bronze age field system clearly defines boundaries and the claim of individual communities and settlements to areas of land.

This dramatic change to the landscape corresponds to a change in the artefact assemblage: from this period on, a greater range of material types is deposited (pottery, worked and burnt flint, fired clay, metalwork, organic material) in a wider range of feature types. While the types of artefact deposited could be interpreted as almost entirely domestic in origin, the contexts in which they occur, and

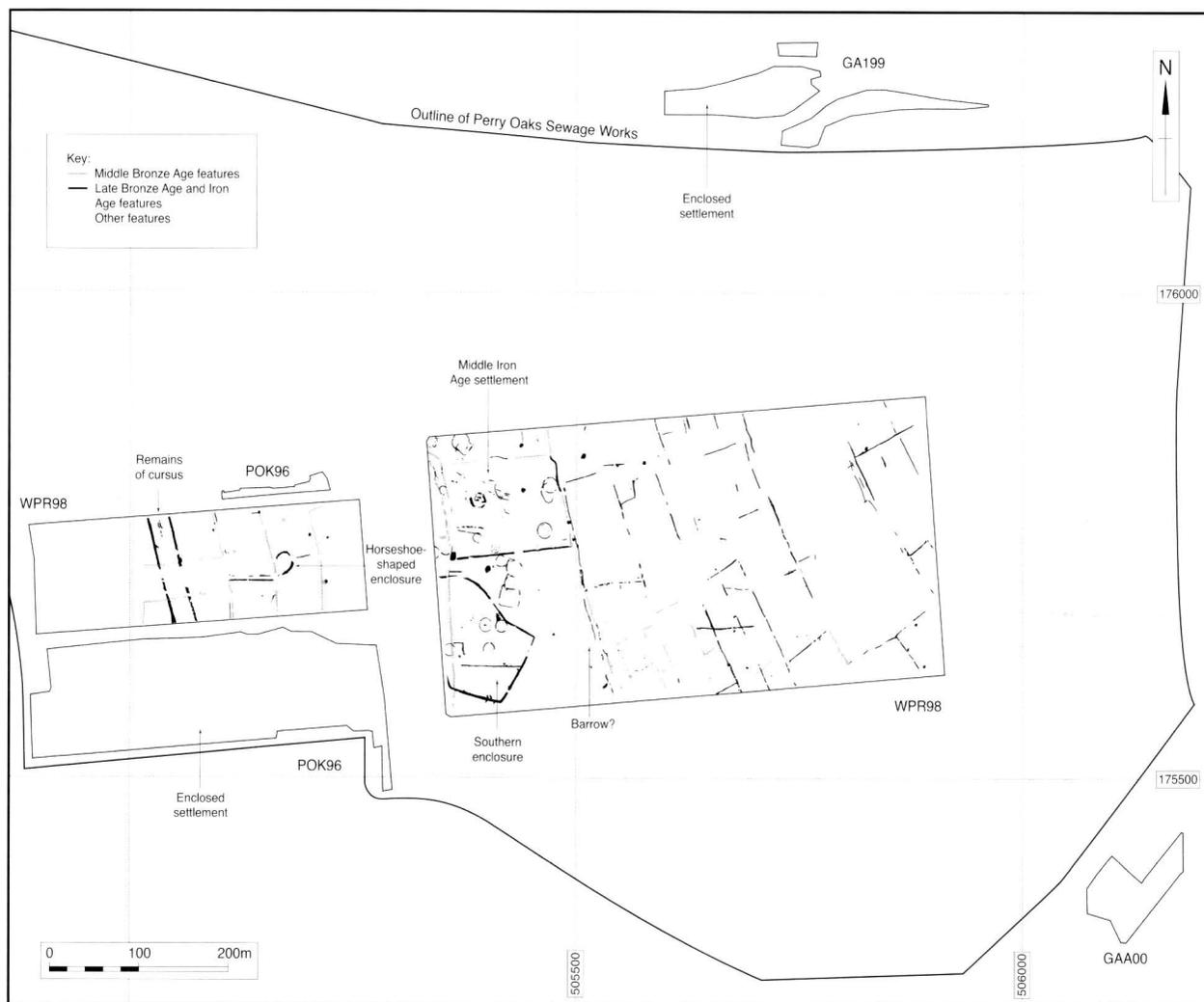


Fig. 2: enclosure in the Bronze Age, and Late Bronze Age and Iron Age settlement dynamics

the associations within those contexts, indicate that everyday and ritual activities were inevitably closely connected, and that traditions influencing artefact deposition maintained links with the monumental landscape of earlier periods.

For example, during the Middle Bronze Age, different artefact types were deposited in different places around the field system. This can be seen, for instance, in the distributions across the main excavation area of fineware Globular Urn sherds (largely in ditches, with one example in a cremation burial) and coarseware Bucket and Barrel Urns (found in pits and waterholes). It may be pertinent to note the proximity of the concentration of Globular Urn sherds to the horseshoe-shaped enclosure, which is respected by the ditches of the developing field system. Perhaps Globular Urns were being used during ceremonies involving the enclosure, thus providing a link with the earlier monumental landscape.

The field system seems to have had several points of origin, one around the enclosed settlement in POK96, a second around the small house or barrow in bed A. In both cases, the areas are adjacent to major north-south boundary ditches. These boundaries appear to be the first elements of the system to be constructed, from which the east-west sub-divisions were laid out. The north-south boundaries were also extensively re-cut and maintained, unlike most of the east-west sub-divisions. At the same time as demonstrating their importance as boundaries, this also may suggest that they were silting more rapidly than the east-west ditches, perhaps due to soil degradation and movement as a consequence of ploughing. The major north-south boundaries also tended to acquire a second parallel ditch at a later stage in their development, thus turning the area between them into trackways. The well-preserved settlement to the north of the main site at GAI99 also follows this pattern, being enclosed to the east and west by substantial double ditched trackways.

Adjacent to the field system ditches were the banks, which pollen evidence from the ditch fills suggests supported flourishing and diverse hedgerows. Plant and insect remains from the waterholes at the western end of the site indicate a generally open grassland environment which may have sustained a mixed agricultural regime -- dung beetles indicate the presence of grazing animals, whilst cereal pollen was also present. Trees were present in the local environment and the coppice poles used to make the wattle revetments which lined some of the waterholes, shows that some of these may

have been growing in areas of carefully managed woodland, while others were, perhaps, hedgerow trees.

The gradual development of the field system can be traced through the distribution of pottery and other artefacts within the primary, secondary and tertiary fills of the field system ditches in the main excavation area. Middle Bronze Age pottery entered the primary fills during the original construction of the field system to the west and around the possible barrow further east, where a bronze spearhead, of Taunton phase (c.1500 BC), was also recovered from the secondary fill of one recut ditch. As the field system developed during the Later Bronze Age, pottery of this date was also incorporated in primary fills. There is virtually no Iron Age pottery from primary fills, since apparently little or no extension or modification of the field system took place at this period. As the ditches silted up, Middle Bronze Age and Late Bronze Age pottery continued to be incorporated in secondary and tertiary fills.

While the transformation of the landscape was dramatic, the enclosures and trackways do appear to have been laid out with respect to the earlier landscape. For example, the trackway in the central area may have been aligned on the small barrow where the alignment then changes course; the settlement enclosure in POK96 at first respects the cursum bank and then incorporates the earlier monument; the alignment of the major north-south boundaries to the west, changes on line with the horseshoe-shaped enclosure and the trackway is modified to lead up to the remodelled entrance of the enclosure. There is strong evidence that this monument was remodelled and reused in the middle to late Bronze Age. The activities associated with this re-use produced charcoal, burnt flint, struck flint and pottery. The entrance was restricted by the construction of one of the north-south enclosure ditches and an almost complete bucket urn was placed in the upper fill of this ditch where it blocks the entrance.

The field system also contains a number of waterholes. It is unclear whether the earliest waterholes predate the initial construction of the fields or vice versa, although they do seem to be placed at the edges of fields suggesting that they are later. Most of the waterholes lie to the west where they are steep sided and timber or wattle-revetted, indicating that water had to be drawn from them. To the east, the few waterholes which were dug tend to be teardrop-shaped, suggesting ramped access for people and animals.

It is quite clear that the waterholes served functions other than simply providing water. They were revetted, some had ladders for access, and some contained extraordinary finds assemblages. Most of the Middle Bronze Age waterholes were re-cut or added to, suggesting a long-lasting importance. The deposition of a curated Neolithic polished axe accompanied by a Middle Bronze Age socketted axe haft and beater in one water hole clearly shows a concern with remembering and venerating the past. The presence only 20m away of another waterhole, dating to the Late Bronze Age, with the same pairing of axe haft and beater shows that this tradition continued over several generations.

During the later history of the Bronze Age, people seem to have met out in the fields and to have taken part in activities which resulted in the formation of burnt mounds and cooking pits. A large teardrop well was infilled with vast amounts of burnt flint, and several burnt flint filled pits were dug nearby. Similar pits occur in POK96. The lack of burnt or charred animal or human bone from these features would seem to preclude a feasting or funerary use. It is possible that the pits were associated with some form of crop processing; however, given the isolated nature of these features, it is more likely that they served as meeting places and perhaps as sweat lodges or saunas. The importance of water was thus maintained.

By the Early Iron Age, the landscape consisted of a mature field-system of hedges and trackways the earthworks of which underwent little maintenance or modification. The main features seem to have been the digging of a number of large pits which contained either complete vessels or very large fragments of vessels. Once again this suggests a link with the traditions of the past, rather than any new changes at the end of the Bronze Age.

### **Late Bronze Age and Iron Age settlement dynamics (Fig. 2)**

In the Middle Bronze Age, settlements had been small and scattered throughout the landscape. They were located close to the main north-south ditches and were occupied by extended families. Each family farmed the land around their settlement, and the field system evolved and spread from these foci. Sedimentological studies suggest that, by the Late Bronze Age, agriculture of this nature had resulted in soil erosion leading to the possible abandonment of some fields, which may have reverted to scrubland, or at least have been used much less intensively, perhaps left fallow for ex-

tended periods. This posed problems for the community. They could move elsewhere and farm new land, but that land would already have been enclosed by others, and may also have been suffering from soil degradation and erosion. The other option would have been for a reorganisation of settlement and land holdings. Perhaps this provided the impetus to expand the field system onto new land, as described above, and fields were further sub-divided, reflecting individual landholdings. The pollen record from Perry Oaks suggests that there was a reduction in the number of trees at this time, perhaps a reflection of an increasingly cleared and enclosed landscape. The people of the Late Bronze Age were therefore coming to terms with the landscape created in the Middle Bronze Age, and the consequences of the way that landscape was exploited. Thus the Late Bronze Age agricultural and settlement dynamics set up the social and economic conditions which were carried on into the 1st millennium BC, and so acted as a springboard for the Iron Age.

This history of events might explain why the settlement foci of the Middle Bronze appear to have been abandoned. It is possible that a new settlement focus developed in the central area. Evidence is scarce, with no definite structures, but the area does consist of two large fields which, unlike the other fields, were not sub-divided during the Late Bronze Age.

While relatively little Middle Bronze Age pottery was found in ditches (pottery of this date more frequently occurring in pits and postholes), Late Bronze Age pottery was more common in this context, and the distribution of pottery of this date is wider than that of the Middle Bronze Age assemblage, extending further to the east. Other artefact types such as clay loom-weights, indicative of domestic settlement, appear in the ditches in the central area at this stage (although the complete absence of the perforated clay tablets commonly found on sites of this date in the lower Thames valley is interesting).

In the Middle Bronze Age, social stratification seems not to have been expressed architecturally, but in dress ornaments and weaponry (such as the spearhead and finger ring). As the Late Bronze Age progresses, this display function of dress and weapons continued, but social stratification began to be expressed architecturally. This trend increased during the Iron Age, with rectangular buildings at the centre of settlements, enclosures with complex buildings (such as Caesar's Camp), and hill-forts.

The Late Bronze Age settlement was followed by a number of buildings erected in the Middle Iron Age. The general character of these structures is unusual. A circular enclosure ditch with a north-west facing entrance was re-cut around its entire length. A group of tree-holes within and around this monument are dated as Iron Age by the presence of pottery. One explanation could be that these trees represent a living link with the earlier use of the landscape, perhaps surviving as a 'sacred grove'. The trees were then felled when the ring ditch was re-cut, and the monument was re-used for the location for a single cremation burial, cut into one of the tree-holes.

The distinctive ring gullies are very clear, without which the evidence for the buildings would be slight. With only one or two exceptions, the ring gullies served to act as drainage features around timber and wattle round buildings. There are few pits or 4-post structures, which suggests that grain storage was not a main feature of this area. Charcoal was exceptionally rare from the ring gullies, again unlike most domestic sites. The finds assemblage is dominated by pottery, in addition to burnt clay which is unlikely to have been structural. There is an absence of other artefact types associated with settlement activity -- textile production equipment (loom-weights, spindle-whorls) and

grain processing equipment (quernstones) -- which cannot be entirely explained by truncation of the Iron Age deposits.

Following the evidence for deliberate deposition in Bronze Age waterholes, further waterholes, dated to the Early Iron Age, produced similar evidence, in the form of partial or complete pots carefully placed at the base. These include a single large, shouldered coarseware jar from one such feature and a group of three fineware vessels, one bowl and two waisted drinking vessels, from a second. The latter are of unusual form and both have been partially burnt (Fig. 3).

The architectural expression of social differences perhaps accompanies differences in levels of productivity, consumption (particularly of agricultural products), and display within the context of larger political units. In other words a social geography began to be mapped onto the landscape in terms of the distribution, role and function of a range of structures. It is for this reason that our understanding of Iron Age settlement in southern Britain in general has been increasingly dependent upon our ability to place individual settlements within the larger system. Those systems are usually discussed in terms of economic organisation but such systems were also political in terms of control



Fig. 3: Early Iron Age drinking vessels

of resources, social in terms of the creation of human identities, and religious in terms of the distribution of cult activities and the foci of religious veneration. The Perry Oaks Iron Age settlement presumably played various roles in regional systems such as these.

The buildings which were constructed during the Iron Age maintained an overriding south-west to north-east axis of orientation with their entrances facing south-east. The dominant route of approach was therefore from the gravel terrace and not the valley, and the buildings also opened onto a relatively clear area demarcated to the east by the earlier north-south trackway. There is little indication that the community who used them replaced buildings on the same or overlapping plots (a

relatively common feature on settlement sites along the Thames valley) although the structures do seem to have had a lengthy history of use. Some buildings may have been replaced and an increasing emphasis upon the internal differentiation of activities, function, or statuses is implied by the construction of the southern enclosure. Throughout these developments the orientation of the main groups of buildings and enclosures was maintained. Few pits were dug in the area and there does not appear to have been a substantial accumulation of debris around the buildings. Recent truncation of this area does raise problems for its interpretation but it is worth noting that the Roman period occupation of the same area is finds rich. The contrast might support the idea that the function

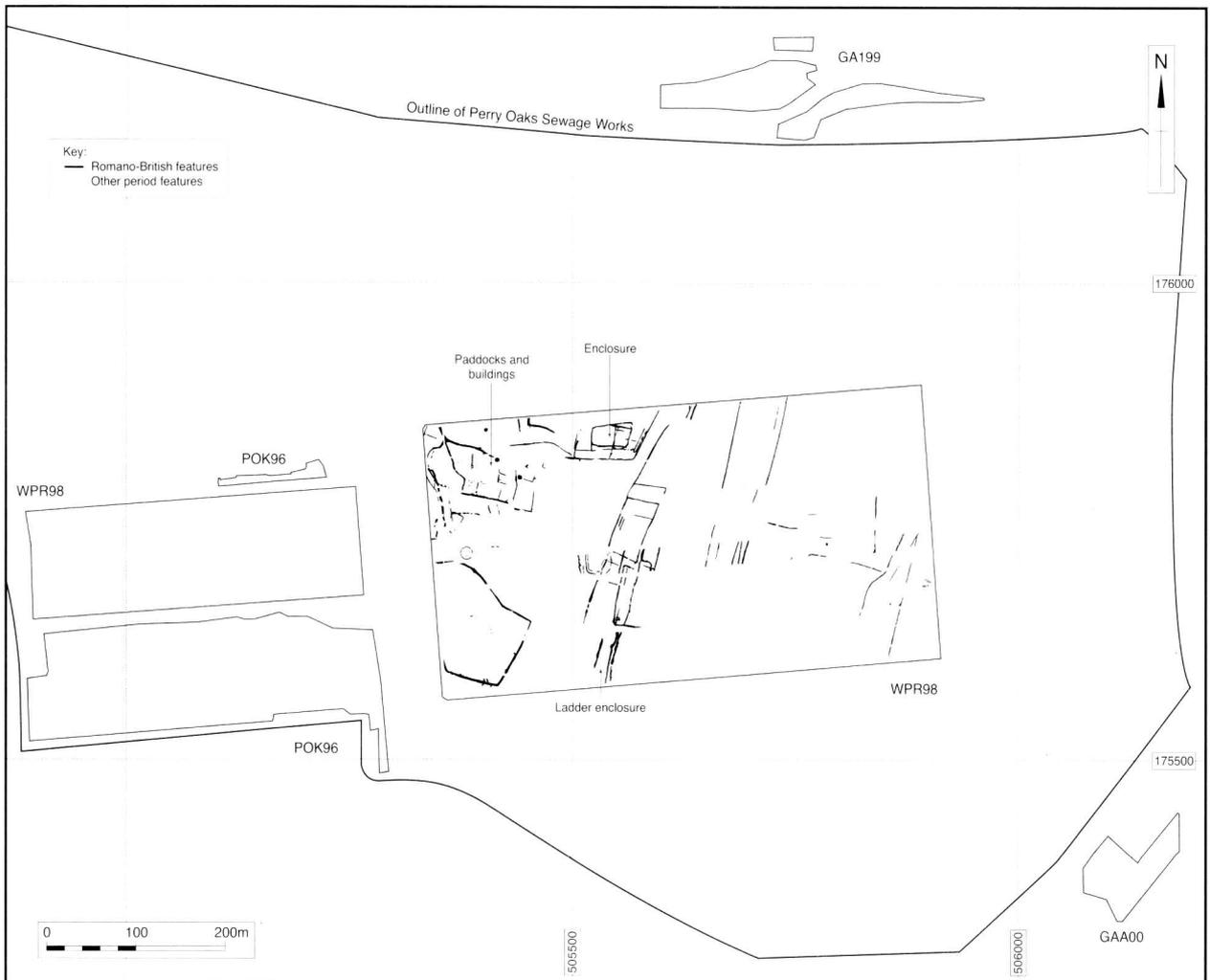


Fig. 4: Roman period re-orientation

of the Iron Age buildings was not primarily for settlement.

The history of the Iron Age buildings does raise issues fundamental to the definition of the Iron Age of the middle Thames. The Thames continued to be the site of votive deposition of quite spectacular material. There are a few poorly understood hill-forts in the region and no evidence of burials. It is possible that the structure of the political and economic system was regionally quite specific with major political centres perhaps located near to the river. Certain forms of political authority may therefore have been displaced to geographically distant locations whilst other value systems expressed in various forms of exchange operated in more widespread and diffuse practices.

### **Roman period re-orientation (Fig. 4)**

The interplay between the varying levels of control operating from distant political centres and the more diffuse practices which occurred across the Perry Oaks landscape, helped to maintain different kinds of human identity and different levels of political hierarchy throughout the period. If our characterisation of the Iron Age on-site is partly in terms of what is absent (the complete system of social reproduction, of centres of political authority, of the full range of votive sites, of settlement itself), then the theme continues into the Roman period. The political centres were now relocated at the urban centres, indeed ultimately to Rome herself, and their reach into the rural hinterlands spread along networks of roads and found expression in the relations of land ownership, rental and taxation. The Perry Oaks landscape was now caught in a much larger and more complex network although the threads of continuity with earlier periods are also clear. The orientation of the Iron Age buildings and enclosures was maintained in the construction of further enclosures, paddocks, and buildings during the Roman period. These cut across the line of the Bronze Age field system and represented the first recognisable reorientation of access routes and enclosures for some one-and-a-half millennia. We must assume that the earlier boundary banks and hedges were either gone or removed. One round building may be post-conquest in date but other enclosures probably contained rectangular timber structures. Beam slots for such buildings are recognisable and timbers from such buildings ultimately found their way into the water holes of the period. The re-orientation of the landscape, which begins in the late Iron Age, seems to conform to the wider orientation of roads, track-ways and land en-

losures in the west London area. The Perry Oaks buildings and enclosures are of the form of an eastern range of a ladder enclosure which is relatively clean, and a northern cluster of enclosures, buildings, and paddocks with water holes. The artefact debris seems to have accumulated in the area of the paddocks and the environmental evidence confirms the presence of animals and buildings in an area of grassland and weedy waste ground. One of the buildings seems to have been used for crop processing with quantities of charred grain recovered from post-holes and gullies, and the range of crops present in the vicinity includes emmer wheat, spelt wheat, barley, oats, rye as well as legumes. The occurrence of charcoal and concentrations of ceramic debris is in contrast with the much cleaner area of the preceding Iron Age buildings. The range and quantity of other finds (animal bone, metalwork, ceramic building material, stone) is not great however, and this must be at least partly due to the location of the site at the margins of settlement nucleation.

There are still echoes in this period of the practices of deliberate artefact deposition seen in earlier periods. One complete pot (a coarse-ware jar from the Alice Holt production centre) was found at the base of a waterhole together with re-used structural timbers, and a large part of a lead tank or coffin was inserted into the top of a silted up Bronze Age waterhole.

The erection of rectangular single or multi-roomed buildings must have marked a fundamental shift in both building crafts and in the organisation of domestic practices. The period presumably witnessed the construction of new social identities, representative of new political realities, but these changes were clearly still situated in landscapes which carried the weight of tradition within them.

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