

EXCAVATIONS AT CORNEY REACH, CHISWICK W₄, 1989–1995

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SUMMARY

Excavations at three adjacent sites on the left bank of the Thames at Corney Reach, Chiswick, produced scattered but consistent evidence of prehistoric activity in the area, including a small but notable quantity of stratified Neolithic pottery.

A single feature of Roman date indicated the possibility of a Roman farm or settlement nearby. A single inhumation of Saxon date suggested occupation nearby in the post-Roman period. Evidence of later, medieval, activity was limited to scatters of pottery, tile and coins.

More substantial remains of cellars, drains and terracing associated with Corney House illustrated the post-medieval development of Chiswick.

INTRODUCTION

This paper draws together the results of three excavations in Chiswick (London Borough of Hounslow), two undertaken by the Museum of London Archaeology Service and one by its predecessor, the Department of Greater London Archaeology. The two most recently excavated sites are Pumping Station Road, Corney Reach (PSR 94, TQ 2146 7742) and the former Valor Works, Corney Reach (VCR 95, TQ 2150 7725). The earlier excavation was at the former LEP Depot, Corney Reach (LEP 89, TQ 2153 7763).

These sites form a continuous bloc, c.500m long and up to 125m wide, along the left bank of the Thames stretching south from St Nicholas's church and the historic core of Chiswick (see Fig 1). The average modern ground level in this area was c.5.00m OD. This may be compared to

a high tide level in the adjacent stretch of the River Thames of c.7.50m OD (from PLA tables, 1996).

The excavations took place as formerly derelict industrial land was redeveloped for residential use. The location of trenches was largely restricted to areas where the proposed buildings were likely to destroy all archaeological deposits. As a consequence it can be seen from Fig 2 that the proportion of the total area of the three sites examined was quite small (2,200m² from a total of 48,000m² or c.4.5%). The size and location of the excavated areas is potentially of some significance when considering the results of the investigations.

A variation in the degree of truncation by modern features was observed between the three



Fig 1. Site location

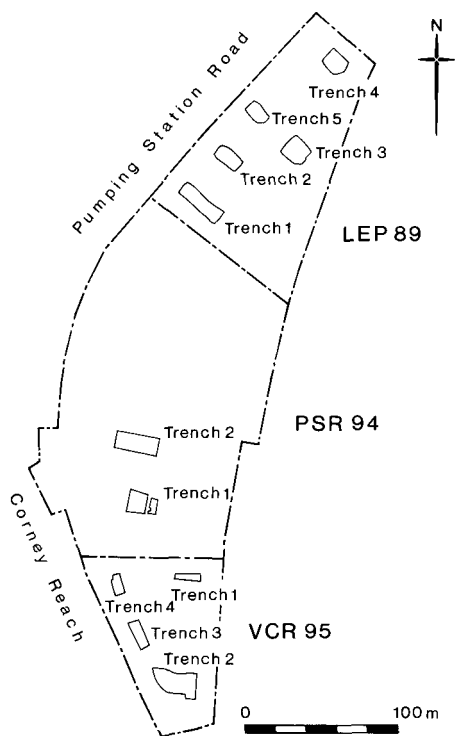


Fig 2. Trench locations

sites. At the LEP Depot (LEP 89) little truncation had taken place and an archaeological sequence of considerable depth survived. On Pumping Station Road (PSR 94) concrete settling tanks associated with a sewage works had destroyed all but the deepest deposits. At the former Valor Works (VCR 95) the use of the site as a rubbish dump in the late 19th century had disturbed some of the latest deposits but, in general, had not been as destructive as the contemporary activity to the north.

It should be noted here that the worked flint, Roman and medieval pottery from the LEP site was not available for study at the time of writing. However a brief report on the struck flint had previously been prepared and that report is used here.

RESULTS (Figs 3–4)

River terrace gravels were observed on two of the three sites. At the former Valor Works the gravels were seen to outcrop at a maximum height of 2.70m OD shelving gently towards the present river at a slope of $\approx 1:25$ m. On the

western part of the site the gravels were overlaid by a brickearth deposit up to 0.75m thick. On Pumping Station Road gravels were noted at a maximum height of 2.83m OD. On this site the brickearth cap had largely been truncated by modern activity and where it existed was no more than ≈ 0.200 m thick. On the former LEP site excavation ceased when sterile sandy deposits were reached at 1.03m to 2.10m OD. Neither gravel nor brickearth was noted on this site.

Prehistoric

The earliest features noted on these sites can be dated to the Neolithic period (notwithstanding a radiocarbon date of 8150 ± 60 BP from one of the pits discovered at the former Valor Works – which may be explained by contamination). A range of features from all three sites yielded datable material of this period. Other features, lacking datable finds, have been interpreted as belonging to this period on the basis of the apparent similarity of their form and function to the dated features.

Seven securely dated features were noted. Two shallow circular pits were recorded in the northern part of the former Valor Works (VCR 95 contexts [022]–[025]). These were cut into the brickearth and contained struck flint and Peterborough Ware. They also contained a considerable quantity of burnt flint nodules and charcoal and were interpreted as possible cooking pits.

Charred grain and hazelnut fragments were also recovered from these pits, for further details of these see the environmental section below; on the former LEP site two features could be securely dated to the Neolithic period (LEP89 contexts [260, 276,]); a pit and a short gully in one trench, and a length of ditch in another. In this case the fill of the gully contained a quantity of charcoal, although the pit did not.

A ditch terminal and two pits on the former Valor Works (VCR 95 [022, 024, 054, 055]) and a gully and further ditch terminal at Pumping Station Road (PSR 94 [017,018]) yielded less specifically datable worked flints and waste flakes attributable to the Neolithic to Bronze Age and no pottery.

A further five pits on the former Valor Works contained large quantities of burnt flint and charcoal and were similar in form to the supposed cooking pits. Four pits/gullies at Pumping Station

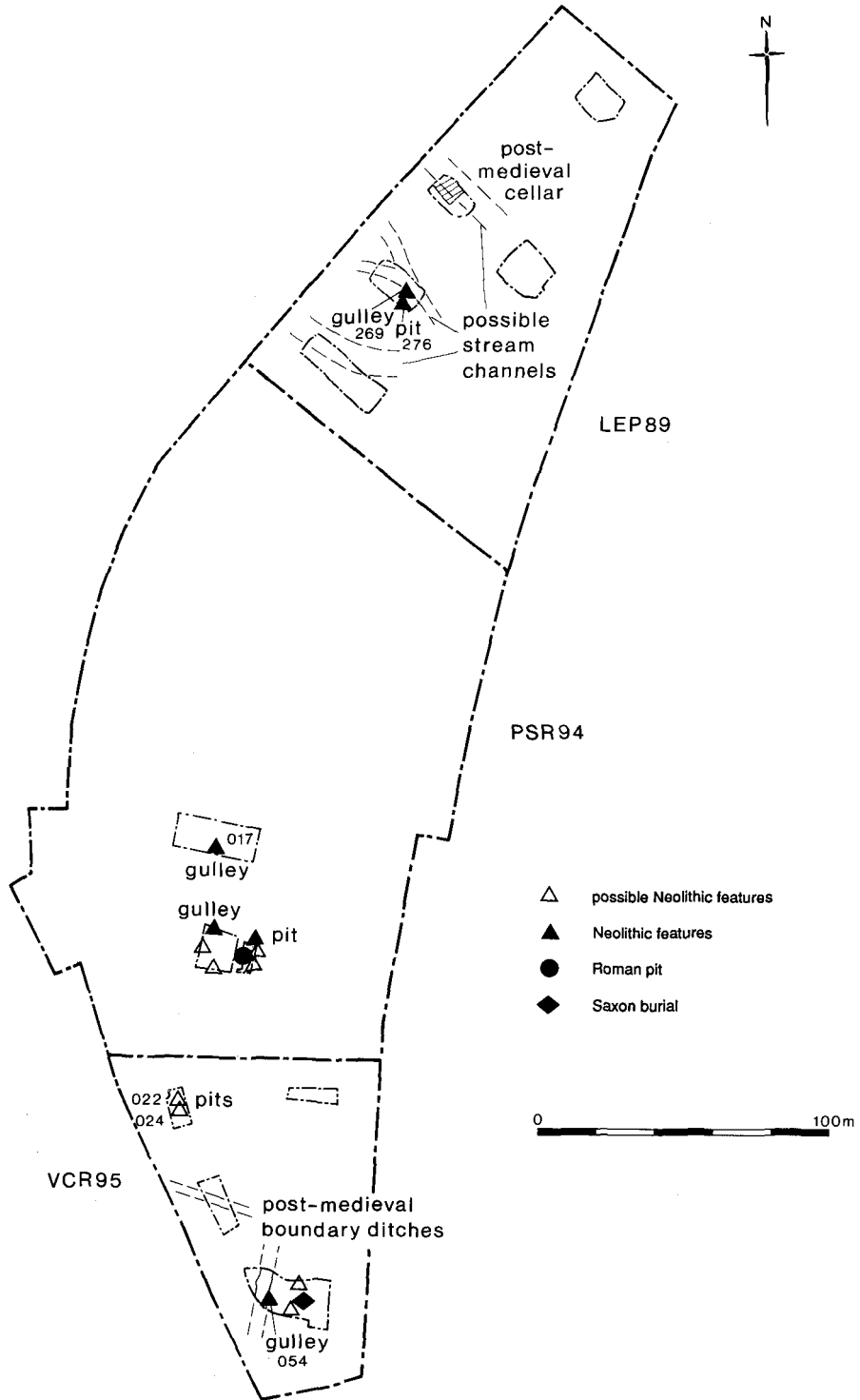


Fig 3. Distribution of archaeological features

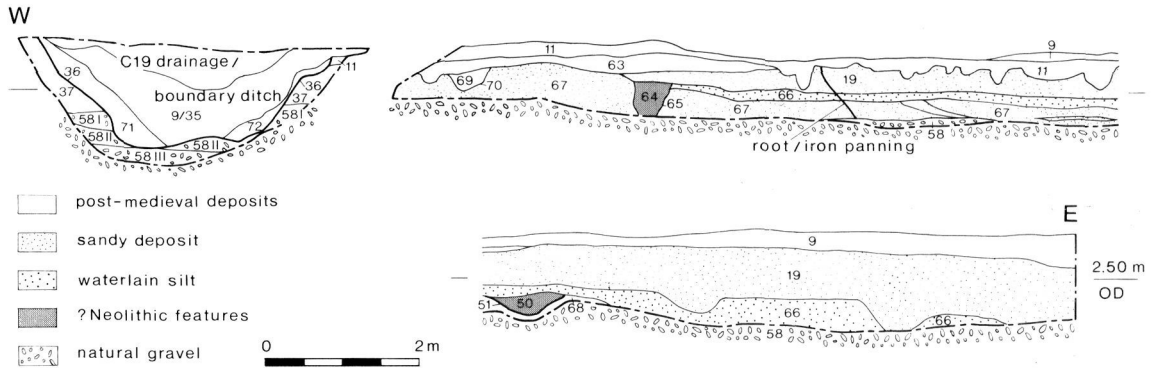


Fig 4. South facing section of Trench 2 (VCR95)

Road likewise lacked datable finds but were similar, at least in form, to the nearby dated features. On the former LEP site worked flints were also found redeposited in later soil horizons and features.

While the features noted above were generally attributable to the same period it should not be assumed that all were contemporary. In the southern part of the former Valor Works a layer of firm waterlaid silt clay up to 180mm thick extended over much of the area of excavation. This deposit seems to have followed a scouring or erosional event in the river regime and seals one of the cooking pits while in turn being cut by at least two of the other cooking pits. Clearly in this case morphologically similar features were not contemporary and there is no reason to suppose that any of the other 'Neolithic' features need be contemporary either.

No further prehistoric activity was indicated on any of the sites and the Neolithic features noted on the LEP site were sealed by silty deposits within stream channels running south-eastwards towards the Thames.

Roman

The next period of activity is indicated by a pit of Roman date discovered at Pumping Station Road. The pit contained a quantity of roof tile, a scrap of lead waste and animal bone. The tile fragments were large and unabraded, suggesting that they had come from a structure located only a short distance away. The tile fragments were tentatively dated to the 1st or early 2nd century AD.

No further features of Roman date were noted on any of the sites although a residual scatter of

Roman ceramic building material and pottery was recovered from later deposits on both the Valor Works and LEP Depot sites.

Saxon

At the extreme southern end of the former Valor Works an isolated inhumation burial was encountered. The body lay in a shallow grave cut into a yellow sandy deposit which sealed the prehistoric features noted above. The grave was aligned east/west and the body lay with its head to the west. No traces of a coffin were found and no diagnostic finds were recovered, although a corroded iron object was found between the legs. An accelerated mass spectrometry (ams) date of AD450–820 was obtained from skeletal material from the burial (the uncalibrated date obtained from the sample was 1380 +/- 80 BP which gives dates of AD560–720 or 740–760 at 68.2% confidence or AD450–820 at 95.4%).

Medieval and post-medieval

Truncation at the Pumping Station Road site had been so extensive that no remains later than Roman date survived. However at the former Valor Works site an extensive deposit of apparently riverworked sand and silt was noted which contained finds, both ceramic and non-ceramic, of medieval date and may have sealed the burial noted above. At the LEP site silting of the stream channels continued during the medieval period and was complete by the 17th century.

The silted channels were sealed by substantial

dumps of soil, including clay and organic material, perhaps suggesting an attempt to landscape the area. At the northern end of the LEP site a brick cellar with a wooden floor was cut through the landscaping dumps (Fig 5). A vaulted tunnel or conduit, 1.50m high, ran south-westwards from the cellar for a couple of metres, at which point it had been truncated by later activity. The function of the tunnel is unclear but in the absence of any other means of access to the cellar it may have served as an entrance. The cellar was backfilled in the late 18th or early 19th century.

On the site of the former Valor Works the riverworked sand and silt deposits of medieval date were cut by a series of shallow trenches running north to south parallel to the line of the modern river. These were sealed by a deposit of brick rubble which may have served as an area of hardstanding at the margin of the river. On the western part of the site drainage ditches were laid out, apparently defining areas of cultivation. These activities seem to have been contemporary with the landscaping and subsequent construction

on the LEP site. The drainage ditches seem to have been infilled after 1900.

PREHISTORIC FINDS

J. Cotton

Introduction

This section considers the struck flint, burnt flint and pottery from the three adjacent sites, LEP89, PSR94 and VCR95.

Although each site produced small groups of prehistoric material (see Table 1), neither the struck nor burnt flint from LEP89 has been located, and is not therefore considered here. However, references to the struck flint, contained in the developer report (Lewis 1989), have been incorporated below.

The material from the three sites derives from three main context groupings: a) alluvial sands and silts; b) small pits and gullies cutting the sands and silts, and c) demonstrably post-prehistoric and unstratified contexts.



Fig 5. Cellar of Corney House in the course of excavation

Table 1. Summary of prehistoric finds from LEP89, PSR94 and VCR95

Context	Struck flint	Burnt flint	Pottery	Charcoal	Context type
LEP89					
103	?	?	Y	?	?
260	Y	?	Y	?	Pit
?276	Y	?	—	?	Gully
504	?	?	Y	?	?
508	?	?	Y	?	?
PSR94					
001	Y	Y	Y	—	Pit
010	Y	—	—	—	Gully
017	Y	Y	Y	—	Gully
999	Y	—	—	—	Unstratified
VCR95					
	Y	—	—	—	Unstratified
001	Y	Y	—	—	Inhumation
009	—	Y	—	—	Silt layer
011	—	Y	—	—	Rubble layer
019	Y	Y	—	—	Sandy layer
022	Y	Y	Y	Y	Pit
024	Y	Y	Y	Y	Pit
031	—	Y	—	—	?
037	Y	Y	—	—	Sandy layer
052	—	Y	—	Y	Pit
054	Y	Y	—	Y	Gully
059	—	Y	—	—	Sandy layer
060	Y	Y	—	—	Silt layer
064	—	Y	—	—	Pit

Struck flint

Small amounts of struck flint were recovered from a range of contexts on all three sites, although, as noted above, not all was available for inspection.

With one or two possible exceptions, all of the struck flint examined from PSR94 and VCR95 was knapped from local river gravel cobbles of variable size and quality. Several pieces are lightly patinated and four have been burnt.

LEP89

No flintwork was available for examination from this site, although the developer report prepared shortly after completion of the fieldwork (Lewis 1989) records that struck flint was recovered from Trench 2. This included 'flakes, blades and cores displaying Mesolithic characteristics' from the fine grained alluvial sediments overlying river terrace gravels; 'flint tools' associated with a few sherds of Peterborough Neolithic pottery from a small pit (=context [260]); and 'flint artefacts including a small serrated ... saw' from a shallow

gully adjacent (=?context [276]), both features cutting into the alluvial sediments.

PSR94 and VCR95

Ten struck flints were recovered from PSR94 and a further 39 from VCR95, the majority comprising small secondary and tertiary flakes/spalls (see Table 2). Most interesting are the few pieces recovered from a series of pits and gullies cutting into the 'natural' alluvial silts, although with the exception of one small convex scraper worked on the distal end of a cortical flake from VCR95 [054], and one broken edge-damaged blade from PSR94 [017], there were no distinctive or particularly diagnostic artefacts. However, the recovery of Peterborough pottery from one small pit (VCR95 [022]), and references to 'flint tools' associated with further sherds from LEP89 [260], suggests that some of the material is likely to date to the Neolithic. The now missing material from the alluvial silts at LEP89 may have been somewhat earlier in date judging from the comments contained in Lewis 1989.

Table 2. *Struck flint from PSR94 and VCR95*

Context	Flakes/frags	Blades/frags	Core frag	Misc waste	Scraper	Total
PSR94						
001	1	1	—	—	—	2
010	1	1	—	—	—	2
017	3	1	—	—	—	4
999	2	—	—	—	—	2
VCR95						
	1	—	—	—	—	1
001	9	3	2	3	—	17
019	3	—	—	2	—	5
022	2	—	—	—	—	2
024	7	—	—	—	—	7
037	2	—	—	—	—	2
054	—	1	—	—	1	2
060	3	—	—	—	—	3

Table 3. *Burnt flint from PSR94 and VCR95*

Context	Nos	Weight (gm)
PSR94		
001	2	12.30
017	4	44.10
VCR95		
001	14	86.58
009	4	22.81
011	4	56.12
019	2	64.42
022	56	755.53
024	11	70.19
031	2	22.03
037	17	249.04
052	122	1690.39
054	15	236.75
059	1	19.02
060	5	35.51
064	41	499.30

Catalogue of illustrated flintwork (Fig 6)

1. Blade section of good quality, dark grey-brown flint, with both proximal and distal ends missing. Microscopic examination revealed use damage along both lateral edges, which may have caused the distal end to snap off. PSR94 [017] (gully).
2. Small convex scraper worked on the distal end of a squat cortical flake of smoky, grey-brown flint. The worn and abraded nature of the cortex suggests that the raw material was a rolled river cobble. VCR95 [054] (gully).

Burnt flint

Most contexts produced a few fragments of burnt flint. However, in terms of quantity, VCR95 [022] and [052] are exceptional. Context [022] produced a few sherds of diagnostic Neolithic

Table 4. *Hand-made pottery from LEP89, PSR94, VCR95*

Context	Sherds	Weight	Date/affinities
LEP89			
103	1	5.50	Prehistoric
260	3	15.07	Peterborough Neolithic (Mortlake Ware)
504	1	2.84	?Saxon
508	1	11.48	Prehistoric
PSR94			
001	6	25.86	Prehistoric
017	2	2.80	?Saxon
VCR95			
022	9	62.84	Peterborough Neolithic (Fengate Ware)
024	4	8.72	Prehistoric

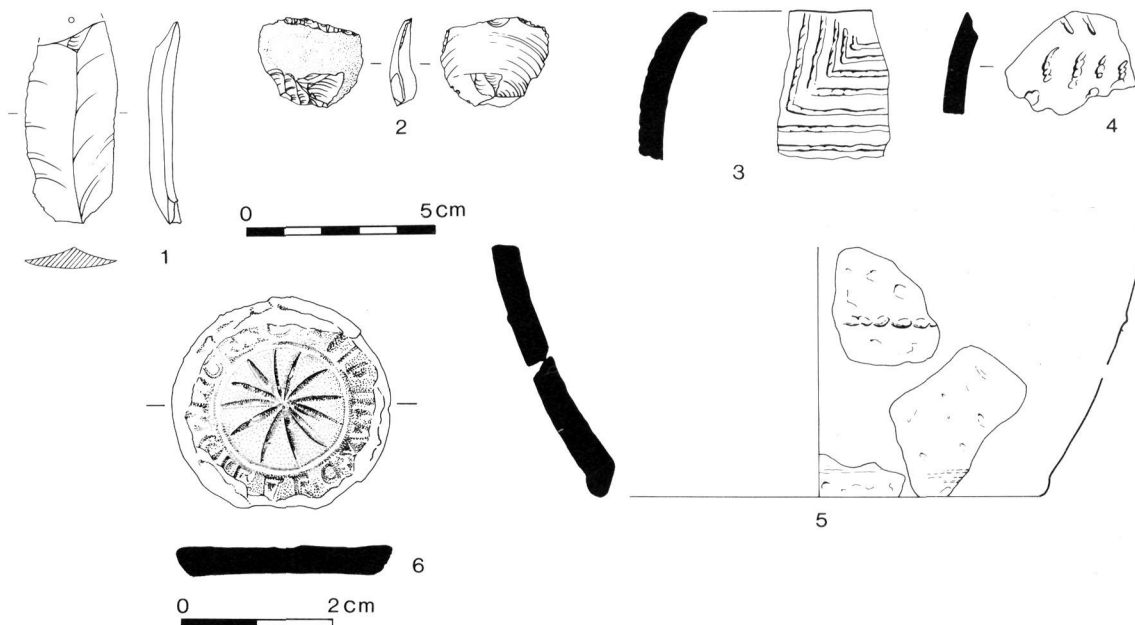


Fig 6. 1) Flint blade section (PSR94 [017]; 2) Flint scraper (VCR95 [054]; 3) Fengate ware bowl (VCR95 [022]; 4) Fengate ware bowl (VCR95 [022]; 5) Mortlake ware bowl (LEP89 [260]; 6) Lead seal matrix (VCR95 <16>)

pottery and [052] has a single, possibly aberrant, radiocarbon determination of $8150 \pm 60\text{bp}$.

Pottery

A combined total of 27 sherds of hand-made pottery weighing 135.11g were recovered from the three sites, mainly from a small series of shallow features cutting into alluvial silts. On the basis of fabric and decoration, the majority can be considered prehistoric. (Two vegetable tempered sherds from LEP89 [504] and PSR94 [017] could be Saxon.) None of the sherds were of any size, and all had suffered varying degrees of surface abrasion.

With the exception of the two vegetable tempered sherds, the material falls into two broad fabric groups: flint tempered and grog tempered.

Flint tempered

The flint tempered material includes a group of three sherds from LEP89 [260], at least one of which bears traces of impressed herringbone decoration of Peterborough Neolithic type (probably Mortlake Ware). A handful of other

undecorated body sherds from LEP89 [103] and [508] and PSR94 [001] are not as diagnostic, although certainly prehistoric in date.

Grog tempered

The grog tempered material all comes from VCR95, of which that from context [022], a small pit, is of most interest. This includes sherds from at least two small Peterborough Neolithic bowls (Fengate Ware). The first has twisted cord decoration on, and possibly on top of, the inturned, collared rim (a second, undecorated sherd may belong to the lower wall of the same vessel), and the second, comprising three non-joining sherds, has possible worn traces of finger-pinched rusticated decoration. A few scraps of undecorated grog tempered pottery from context [024] close by are not otherwise diagnostic.

Catalogue of illustrated sherds (Fig 6)

3. Group of three small sherds (combined weight 22.37g) comprising part of the lower wall and flat base of a Peterborough Neolithic (Fengate Ware) bowl with random ?finger-pinched/rusticated decoration carried down to the base. Brittle sandy matrix (?brickearth) tempered with grog

pellets; core and interior fired yellow-brown, the exterior a patchy red-brown. VCR95 [022] (small pit).

4. Sherd of small, thin-walled Peterborough Neolithic (Fengate Ware) bowl with inturned, collared rim (weight 11.21g), with vertical and horizontal rows of twisted cord decoration arranged in opposed, probably triangular zones. There is a suggestion of a single strand of twisted cord decoration encircling the top of the rim. Brittle sandy matrix (?brickearth) tempered with grog pellets; core and interior surface fired grey-black, the exterior a patchy grey-brown. VCR95 [022] (small pit). A second thicker, undecorated body sherd from [022] may belong to the same vessel.

5. Small body sherd of thin-walled Peterborough Neolithic (Mortlake Ware) bowl (weight 6.54g), with two horizontal rows of impressed decoration arranged in characteristic herringbone formation. It is possible that one row of impressions makes use of twisted cord; the other does not. Laminated sandy matrix irregularly tempered with crushed burnt flint; the core and internal surface are fired grey-black, the exterior buff-brown. LEP89 [260] (small pit). A second smaller sherd with abraded exterior surface from [260] may form part of the same vessel.

OTHER FINDS

Roman pottery

Roman pottery was recovered in small quantities from the former Valor Works and was entirely residual within later contexts and so will not be considered here. No Roman pottery was recovered from Pumping Station Road.

Roman ceramic building material

Nine fragments of building material were recovered from PSR94 [003] (three brick, one *imbrex* and five *tegulae*). All of the tiles were very similar in fabric (group 2815; type 2452; some near 3006 or 2459a) suggesting a common origin. Tiles in this fabric were made at a number of tile kilns to the north and south-east of London so a precise origin cannot be determined. None of the tiles can be closely dated although the fabric type would suggest a date in either the 1st century or the first half of the 2nd century AD. The fragments are fairly large with only moderate degrees of abrasion, suggesting that they derive from a structure situated close by.

Two fragments of *tegula* were recovered from the former Valor works but were residual within later deposits.

Medieval pottery

Two groups of medieval pottery dating to 1150–1300 and 1270–1500 were recovered from the former Valor Works. These groups were small and consisted of abraded fragments; it is therefore not proposed to discuss them further here.

Medieval ceramic building material

Peg tiles

Pre-15th-century tiles (fabric 2271) characterised by a thin cross-section and evidence of splash glaze were recovered from the upper sandy deposit sealing the Saxon burial at the former Valor Works. These tiles were probably made at tile kilns close to London (tile-making is recorded at Stepney from 1366 and at Woolwich from the late 14th century).

Curved ridge tile

A curved ridge tile fragment (fabric 2586) with splash glaze decoration was recovered from the same deposit as the peg tiles.

Floor tile

A Penn floor tile (fabric 1810) dating to c.1350–1390 was recovered from the former Valor Works. This example was decorated with Eames design E2230/Hohler design P52. Unstratified.

Metal finds

Iron

VCR 95 <21> Horseshoe, corroded, 4 nail holes per side, 14th–18th century from upper sandy deposit

Lead

PSR 94 <?> Folded fragment of lead sheet, 80gm, evidence of cut marks from Roman pit
VCR 95 <12> Plug (ceramic vessel repair) fragments of reddish shelly fabric adhere, from upper sandy deposit

- <13> Cloth Seal, two-disc type:XXX/III. // incomplete privy mark; weavers /clothiers seal?C16th century, from upper sandy deposit
- <16> Seal (matrix for stamping wax etc) corroded, tab broken off, (S RICHARDI [??IOSEPH] (lombardic letters), around 12 pointed star)?14th century, surname possibly Jewish, from upper sandy deposit (Fig 6, no. 6)

Silver

- VCR 95 <15> Coin, long-cross halfpenny of Henry III (1247–72), mint- moneyer uncertain- ... (I) RIO..., from upper sandy deposit

Other finds

- VCR 95 <23> Hone (?) amorphous broken fragment of schist – probably not Eidsborg – from upper sandy deposit

THE ENVIRONMENTAL EVIDENCE

Introduction

Biological samples were collected from all three sites, with the aims of characterising the local environment and commenting upon any human activities. However, biological material was only present in small quantities. This is likely to be a result of poor preservational conditions (*ie* the acidity of the soil/sediments) and the low level of human activity on the sites.

Material was recovered from all the major phases of the site, though different categories tended to be recovered from individual phases. Optimum conditions for environmental analyses occur when different categories of material (*eg* plant remains, animal bones, mollusc shells *etc*) are recovered together and can be interpreted as a whole. The assemblages from Corney Reach are unusual in that different categories of biological material were preserved in different phases.

The environmental remains from LEP8g were all recovered from very poorly dated contexts and are not included in the following description of material from the site.

The sedimentary sequence (VCR95)

J. Sidell

A detailed field description was made of the sedimentary sequence revealed on this site (Sidell 1995), in order to establish whether the site had been prone to flooding from the Thames. Sand and gravel units (presumed to be Pleistocene) were found at the base of the section, overlaid by pockets of waterlaid clay-silts present in undulations in the surface of the sands and gravels. However, the greater part of the sequence appeared to demonstrate stable conditions, indicating that although the site is located close to the present foreshore, it has been dry and habitable for the majority of its history. One waterlaid unit was observed in the top of the section and is thought to be datable to the post-medieval period. It may result from a substantial flood.

The prehistoric plant remains (VCR95)

J. A. Giorgi

Seven samples were collected from the prehistoric features at VCR95. Five of the samples produced small quantities of charred plant remains. Possible cereal grain fragments were found in four samples from fills [024], [052] and [054]. However, only one grain fragment in fill [024] could be tentatively identified as barley (*cf* *Hordeum* sp.). Small quantities of hazelnut (*Corylus avellana*) shell fragments were found in sample residues from pitfills [022] and [024]. Wood charcoal was noted in variable quantities in all samples but with particularly large amounts in fills [022], [024] and [050]. Several uncharred seeds, *eg* goosefoot (*Chenopodium* spp.) and elder (*Sambucus* spp.), were found in fills [024] and [050] together with wood, root and stem fragments in all samples, although this material is probably intrusive given the nature of the soils at the site. Intrusive activity is also indicated by the presence of the terrestrial burrowing mollusc, *Cecilioides acicula*, in fill [052]. Additionally, this activity must have taken place quite recently as *Cecilioides* is thought to be an historic introduction to England (Evans 1972).

The sample residues contained mainly large quantities of flint gravels, including burnt flint clasts, especially in fills [022] and [050]. Fills [022], [024] and [054] also contained occasional

small fragments of brick/tile, coal/slag, pot and glass fragments, probably representing residues from recent intrusive activities.

The paucity of botanical remains from the site allows few comments to be made, and corresponds with the general limited plant data for the prehistoric period from this part of west London. The few charred remains suggest the consumption of cereals and hazelnuts. Similar remains have been found on several prehistoric sites on the west London gravels, with particularly large amounts of hazelnut fragments in Neolithic deposits, for instance at Holloway Lane and Wall Garden Farm, Sipson (Giorgi 1994).

The Roman animal bones (PSR94)

A. Pipe

A small assemblage (26 fragments/0.30kg) of hand-collected bones was recovered from the fill of the Roman pit [3] (Pipe 1994). The general condition of the bones was only moderately good with considerable fragmentation and surface erosion. As a result, identification to species and skeletal element was not always possible. The material was mainly identified to cattle (*Bos taurus*) (8 fragments/0.26kg) and the remaining eroded fragments were allocated to the approximate categories 'cattle-sized', 'sheep-sized' and unidentified mammal.

The cattle were represented by areas of good (*eg* upper limb), moderate (*eg* lower limb) and poor (*eg* head and foot) meat-bearing value. Although no tool marks suggestive of butchery or boneworking were recorded, this may be a result of the degree of surface erosion present. All epiphyses were fully fused and the only mandibular tooth recovered, a third molar, was fully erupted and in wear: all are indications that the remains were derived from adult animals. No measurements of greatest length were possible and therefore no stature estimates were calculated.

The observed characteristics of the bones appear to support an interpretation of the pit as a disposal point for domestic refuse with possibly some primary butchery waste resulting from initial carcass preparation. The small size of the sample does not justify comparison with other Roman sites either, or with the medieval and post-medieval material from Corney Reach.

The Saxon human bone (VCR95) (Fig 7)

J. Conheaney

The human bones (VCR95 [2]) recovered were those of a single articulated adult, lying supine and extended in a grave cut which could only be defined once the level of the bone itself had been reached. Other than the location (it was an isolated, shorefront burial), there was nothing unusual about the burial itself and the excavator was unable to form any impression from the archaeology to explain why the burial had been

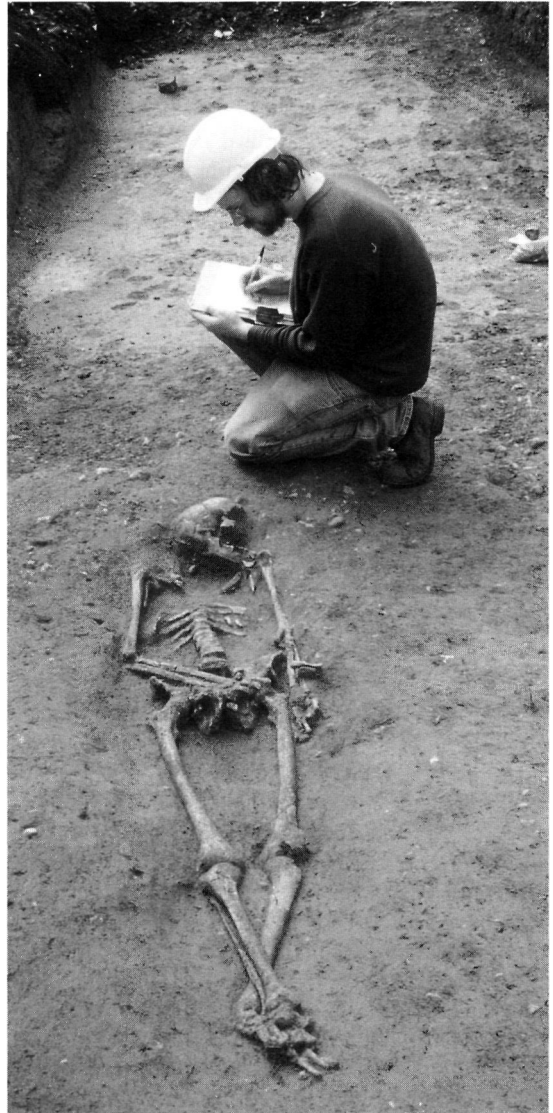


Fig 7. Saxon inhumation in course of excavation

placed here. One supposition is that the remains could have been buried where they were discovered after being washed up on the bank. It is impossible to support or disprove this suggestion by examination of the bone alone. The anatomical correctness (articulated state) of the skeleton, and the lack of any erosional damage to the bones suggests that it represents, at the least, the possibly rapid burial of a whole corpse. The only associated find was an iron object, resembling a square-section peg, recovered from between the legs of the individual. It has not been possible to date the burial from analysis of the stratigraphic sequence, so, following detailed recording of the skeleton, samples from the right femur were sent to Beta Analytic Inc, Miami for dating by radiocarbon assay. The date obtained was AD 450–820 (calibrated using OXCAL v2.15 and quoted with two standard deviations).

Recovery of a single individual precludes any attempt at interpretation of human activity on the site, such as can be undertaken for a larger sample, following analysis of the remains. The aim of the analysis therefore was restricted to identification of the remains and commenting on any observations of interest. The remains were picked clean, being too fragile and friable to allow washing, and were recorded using standard osteological techniques (Conheaney forthcoming).

The bone was very poorly preserved with much of the surface cortex missing. The skull was particularly badly affected. Approximately 75% of the skeleton was present with all body parts represented to some degree (for a complete skeletal and dental catalogue see Conheaney 1995). All of the osteological traits used to estimate sex were very eroded, fragmented or damaged, if present at all. The individual was probably male, judging by the subpubic angle and subpubic concavity of the pelvis and the size of the femur head. Cranial traits were inconclusive with surviving scraps of the supraorbital ridges and the upper orbit margin resembling those of a probable female, while the shape of the mental eminence (chin) was quite masculine. As the pelvis is a more reliable indicator of sex than the skull, more weight was given to the pelvic traits and the overall sex assigned was probable male, although ideally it is desirable to have more traits than were available here to assign sex with accuracy.

Very little evidence survived by which to age the individual. All long bone ends present were

fully fused, indicating that the individual was fully mature. Tooth wear (following Brothwell 1972) placed the individual between 33–45 years of age, although with only one individual to assess it was not possible to say whether tooth wear would be more rapid or slower for this sample than that on which Brothwell based his tooth wear rates. It is therefore more accurate to say that the individual was a fully mature adult neither young or elderly, somewhere around middle age, rather than attempting to give a definite age range in years. The long bones were too fragmented to measure for an objective assessment of physique, but the individual appeared to have been tall and robust (Conheaney 1995 for the measurements which were possible). The only non-metric traits present were third trochanters and Poirier's facets on each femur. These traits are non-pathological variations between individuals in the morphology of specific bones, genetically and/or culturally determined and of no impact on the living person. In a larger sample they could be used to establish cultural or genetic relationships between burials, but clearly with only one individual here that it not possible.

Most pathology present was of a degenerative nature. This is a common finding in the majority of archaeological material. The tenth thoracic vertebrae to the fourth lumbar had slight to moderate development of osteophytes around the margins of the vertebral bodies. These bony outcrops are very common today in anybody of middle age onwards and are due to the effects of everyday wear and tear accumulating with age. The individual may have been unaware of their presence. Similarly, there was moderate development of osteophytes on the posterior margins of the articular surface on both femoral heads, and corresponding disruption of the bone surface on the rims of both acetabuli. The femurs were otherwise healthy. Again this is probably simple degeneration due to age. It is impossible to predict whether or not bony changes to this degree would have caused the individual discomfort in life as in modern clinical practice, some individuals with gross changes to the hip may feel no pain, whereas others with slight remodelling report severe pain.

The eleventh thoracic vertebrae through to the second lumbar had slight Schmorl's nodes and the third and fourth lumbar vertebrae had moderately developed nodes. Schmorl's nodes

are lesions in the surface of the vertebral body caused by degeneration of the intervertebral disc, resulting in herniation of the disc and pressure erosion on one or more locations on the vertebral body (Ortner & Putschar 1985, 430). A popular explanation of the onset of Schmorl's nodes is over-lifting in immature individuals.

The only relatively unusual pathology present was the gross remodelling and fusion of the left distal fibula and tibia, the calcaneus, talus and probably first and second cuneiforms. The navicular and cuboid had craggy deposits of new bone and the third cuneiform and metatarsals were unaffected. The right ankle was not affected. The most likely explanation is therefore some sort of trauma to the left ankle followed by arthritic changes and fusion on healing. However, the bone is very eroded and damaged so it is impossible to be more specific about what may have happened to the ankle. A radiograph may help to further characterise this condition.

There were moderately severe interproximal caries on both mandibular first molars. This tooth is one of the most commonly affected by caries. The location of the caries may suggest that oral hygiene was not very rigorous, as this type of carie is likely to result when food becomes lodged in gaps between adjacent teeth and is left to rot and initiate decay of the enamel. It was possible to observe the alveolar bone around the mandibular molars only; the remainder was missing or eroded. There was moderate to severe alveolar recession and slight periodontal disease around all of the molars. Both of these conditions are to some extent age related and agree with the middle-aged estimate assigned to this individual. Poor oral hygiene can often be a contributory factor to the onset of periodontal disease through the build up of calculus deposits around the teeth. The total absence of calculus in this individual is most likely due to poor preservation rather than a true representation of the state of the individual's dentition in life as most older individuals, particularly those with periodontal disease, would have deposits present to some degree.

The poorly preserved remains were those of a middle aged adult, probably male. The poor preservation severely limited the amount of information recoverable from the skeleton, and apart from a remodelled and ankylosed left ankle there was little of note. Unfortunately, there was no evidence of any kind which would allow comment on the circumstances of the burial.

The medieval and post-medieval animal bones (VCR95)

K. Rielly

A small assemblage (110 fragments/1.17kg) was recovered from possibly waterlaid contexts dated to the medieval, early and late post medieval periods. Most of the bones are from the earliest period (63 fragments/0.7 kg), the later two periods providing 37 fragments/0.26kg and 9 fragments/0.21 kg respectively. The species represented in each period include cattle and pig. In addition, sheep/goat was found in the earlier two periods, and horse in the medieval period. Each of these species, excluding horse, was represented by a mix of skeletal parts and by a few bones with cut marks. While the butchery marks clearly show that these animals were used for their meat, the skeletal distributions show that these dumps contain both processing waste, *ie* heads and feet, and domestic waste *ie* the meat-rich bones. Hence it can be suggested that this area was used as a general dumping ground, possibly from a variety of sources.

The relatively poor ageing evidence will not allow for more than a cursory analysis of any ante-mortem use for these animals. In addition, the sample sizes are too small to warrant a detailed size analysis. However, no obviously large animals were noticed amongst the post medieval assemblage. This period saw an increase in size of the major domesticates due to better husbandry techniques and to the importation of new breeds (see Davis 1987, 178).

DISCUSSION

The topography of the Corney Reach sites has clearly had a considerable influence on their archaeological development. Until relatively recent times the area has been subject to periodic inundation. The earliest Neolithic features on the former Valor Works site were sealed by a flood horizon and the bulk of the deposits were composed of riverworked sands and silts (see Fig 4).

The absence of terrace gravels in the excavated areas of the LEP site suggests that it may have been located within an early branch or side channel of the river (J. S. C. Lewis, pers comm – nearby borehole data supports this contention which is to be the subject of a forthcoming article).

The small stream channels noted during the excavation of the LEP site (see Fig 3) seem to be a characteristic feature of the undeveloped Thames riverbank in west London. Similar features can still be seen on the left bank of the river at Syon Reach, upstream of Brentford (Canham 1978). The examples at the LEP site post-date the Neolithic period and had been filled in by the late 17th century.

The evidence for prehistoric activity at Corney Reach is limited to seven features containing datable prehistoric material (in fact all material dated to the Neolithic period) and a handful of other features which have been assigned a similar date by reason of their form. In total the prehistoric finds amount to 49 struck flints and 25 pottery sherds. Although there is clearly not enough evidence to support detailed discussion of prehistoric activity it should be noted that the density of features of prehistoric date is at least equal to that seen on recently excavated sites at Cranford Lane; Imperial College Sports Ground, Sipson Lane, Harlington and other sites on the west London gravels. When comparing the density of Neolithic features it is clear that the density of features at Corney Reach is much greater. The difficulty found in interpreting the nature and significance of the Corney Reach features is a consequence of the small area under examination. It is also worth emphasising here that the features were originally terrestrial, although subsequently affected by tidal activity.

What does the evidence from the Corney Reach sites suggest about the nature of activity in the area in the prehistoric period? The Neolithic pottery from the sites was exclusively Peterborough Ware, and the biological remains from the prehistoric features are indicative of food preparation. There is a possibility that such assemblages of pottery, flints and food remains are indicative of feasting – which could be considered a ritual activity.

How then does this compare with other sites? Earlier excavations on riverside sites at Twickenham, Putney and Brentford (Sanford 1970, Warren 1971, and Canham 1978) recovered significant assemblages of struck flint and pottery of Neolithic date. Only on the latter site were any prehistoric features noted. Peats of prehistoric date and scatters of flint and undiagnostic prehistoric pottery have been noted from Southwark and Lambeth (Hinton 1988. *NB*: huts, ard-marks and other substantial remains were encountered on sites which have yet to be fully

published, but see Bowsher, 1991 and Drummond-Murray, 1994). Extensive trackways of Bronze Age date have been found in peat deposits further downstream at Rainham. Evidence of domestic activity of Neolithic date is clearly therefore at a premium on riverside sites.

The best comparison with the Corney Reach sites can perhaps be made with inland sites, in particular with those sites excavated on the west London gravel terrace (MoLAS 1996). These inland sites have produced a greater range of features and have been much more comprehensively excavated, allowing a fuller study to be made of settlement and landscape development. Further study may allow comparison and contrast to be made between the ritual elements noted in west London and the findings from Corney Reach.

When considering the prehistoric finds from the sites it has to be said that the lithic material was too restricted for comment beyond that given above, except to note that most of it comprises small flakes struck from local river gravel cobbles.

As far as the pottery is concerned, Peterborough Neolithic material is well known if not well dated locally. The Mortlake Ware sherds from LEP89 [260] can be compared with others from both river and land findspots throughout the lower Thames valley (*eg* Grimes 1961; Smith 1974, 111–3 & Fig 15; Holgate 1988, 272–6, 280–4). The local paucity of diagnostic sherds of Fengate Ware renders the few scraps from VCR95 [022] somewhat more noteworthy. A few pieces have been recovered from the river hitherto (*eg* Wandsworth (Macdonald 1976, 25)) while at least two assemblages have been excavated on dry land sites at Baston Manor, Bromley (Smith 1973) and Stockley Park, Dawley (although the bulk of the material from these sites was in coarse flint-tempered, rather than grog-tempered fabrics). A further complete bowl of 'hybrid Mortlake/Fengate type' was recovered from the ditch of a small 'mortuary enclosure' at Lower Horton, Berkshire (Digby *nd*, 3–4; Ian Kinnes *pers comm*).

As an assemblage the finds from Corney Reach might bear comparison with an unpublished collection of prehistoric material, recovered from Chiswick Eyot. This material is currently held at the Gunnersbury Park Museum and comprises c.300 struck flints as well as sherds of Middle Neolithic Open Bowls, Fengate Ware and Beaker pottery.

Evidence for activity at Corney Reach in the Roman period is limited to one rubbish pit, and its contents and a scatter of pottery and building material residual within later deposits. However the presence of large unabraded sherds of tile in the fill of the pit does strongly suggest the presence of a building nearby. Activity in the area in the Roman period should not be unexpected given the proximity of the London-Staines-Silchester road (see Canham 1978 and Margary 1955). The road which passes closest to the site is Margary's road 40 (Akeman Street) which joins the principal Silchester route, road 4, in the western part of Chiswick. Nonetheless, the only additional evidence of Roman activity in the area comes from a thin scatter of pottery recovered from Chiswick Eyot, the nearest attested settlement being found at Brentford to the west.

The discovery of an isolated inhumation burial on the foreshore of the Thames is of some interest. The burial (Fig 7) has been assigned to the Saxon period on the basis of one accelerated mass spectrometry date from the skeletal material, and in the absence of corroborative finds the possibility of an anomalous date should be considered (the possible early to mid Saxon date of sherds found at two of the sites might add circumstantial weight, albeit that they were not found associated with the burial). However, if the dating is correct then the burial may form

part of a recently noted group of similar burials. Generally speaking inhumations have rarely been recovered from foreshore deposits in London: two late Saxon skeletons from Bull Wharf (BUF 90), Upper Thames Street, are an obvious comparison. These were present in alluvial units, were much better preserved and appear to have been deliberately placed. The derivation of the Corney Reach burial is not clear and the possibility, outlined above, that the body could have spent some time in the river before being interred should be considered. In this case the isolated nature of the interment might be explained by the need to dispose of a malodorous corpse close to the spot where it was found.

Evidence for medieval activity in the area comes from a widespread scatter of pottery, ceramic building material and other finds of 12th to 16th-century date from both the LEP Depot and the former Valor Works sites (it will be remembered that the Pumping Station Road site was too truncated for such material to survive). It is likely that this material was the result of manuring or casual loss since the absence of features of this date from any of the sites indicates that they lay outside the nucleus of the village, which was probably in the vicinity of St Nicholas's church.

The low-lying, periodically inundated, land criss-crossed with stream channels which characterised the Corney Reach sites until the end of



Fig 8. *Corney House* c.1675 by J Kniff

the medieval period was subject by the late 17th century to some 'improvement'. The stream channels noted on the LEP Depot were artificially levelled, probably to form part of the gardens of Corney House (see Knyff's painting of c.1675, Fig 8). The organic dumps on this site were probably the result of the continued terracing undertaken by the Duchess of Norfolk in the mid 18th century. The brick cellar with wooden floor (Fig 5) probably formed part of the late 18th-century house demolished by the Duke of Devonshire in 1832.

To the south of Corney House it appears that with the exception of the establishment of an area of hard-standing on the river's edge no attempt was made to landscape the area. By the early 19th century some drainage or boundary ditches had been laid out but this indicates no more than the fact that the area continued in semi-agricultural use.

CONCLUSION

The range of archaeological remains discovered on the Corney Reach sites was quite wide, a fact of some importance in an area where hitherto little fieldwork has been undertaken. Of particular note are the remains of Neolithic date. Although relatively few in number and difficult to interpret, they do nonetheless represent good evidence for Neolithic riverside activity. As discussed above, the density of prehistoric features at Corney Reach is notable and strongly indicates the high potential for further work in the area. The discoveries made here also point to the value of studying older river finds for the information they might provide for pinpointing other riverside settlements which have been the subject of erosion.

The remains from other periods, while in themselves insubstantial, do indicate subjects for further study as the archaeological development of the area becomes better known.

Finally, it is worth noting that the moderately high degree of disturbance likely from the recent industrial use of the sites was not as destructive of deposits as might initially have been predicted. Even on the most severely truncated site, at Pumping Station Road, it was possible to recover comprehensible features and datable material. The archaeological potential of similar sites which become available for redevelopment should perhaps be viewed very carefully.

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BIBLIOGRAPHY

- BOWSHER (1991), J Bowsher 'A Burnt Mound at Phoenix Wharf in SE London' in M Hodder & I. Barfield *Burnt Mounds and Hot Stone Technology*
- BROTHWELL (1972), D R Brothwell *Digging Up Bones* (2nd ed)
- CANHAM (1978), R Canham *2000 Years of Brentford*
- CONHEENEY (1995), J Conheeney *The Human Bone from Corney Reach (VCR95 context [2])* unpublished MoLAS archive report
- CONHEENEY (forthcoming), J Conheeney MoLAS 'Procedures for human bone analysis' in MoLAS *Environmental Archaeology Procedures Manual*
- COTTON *et al* (1986), J Cotton, J Mills & G Clegg *Archaeology in West Middlesex: the London Borough of Hillingdon from the earliest hunters to the late Medieval period*
- DAVIS (1987), S Davis *Animal Bones in Archaeology*
- DIGBY (nd), H S N Digby *Interim report on the excavation of a Neolithic ring ditch and Romano-British features at Manor Farm, Lower Horton, Berkshire* (Thames Valley Archaeological Services)
- DRUMMOND-MURRAY & WATSON (1994), J Drummond-Murray & B Watson 'Recent Archaeological Work in Bermondsey District of Southwark' *London Archaeol* vol. 7, no. 10
- EVANS (1972), J Evans *Land Snails in Archaeology*
- GIBBARD (1985), P L Gibbard *Pleistocene History of the Middle Thames Valley*
- GIORGI (1994), J A Giorgi *The West London Gravels Assessment Report: The Environmental Samples* Unpublished MoLAS Archive Report
- GRIMES (1961), W F Grimes, 'Neolithic pits at Heathrow, Harmondsworth, Middlesex' in *Excavations on Defence Sites 1939-1945. 1: mainly Neolithic - Bronze Age*
- HINTON (1988), P Hinton (ed) *Excavations in Southwark 1973-76 Lambeth 1973-79*, London & Middlesex Archaeol Soc and Surrey Archaeol Soc Joint Publication No. 3
- HOLGATE (1988), R Holgate *Neolithic Settlement of the Thames Basin* BAR 194

- LEWIS (1989), J S C Lewis *Report of the Archaeological Evaluation of the LEP Depot Site, Corney Reach Chiswick* Museum of London Dept of Greater London Archaeology interim report
- MACDONALD (1976), J Macdonald 'Neolithic' in *The Archaeology of the London Area: Current Knowledge and Problems* London Middlesex Archaeol Soc Special Paper 1, 19-32
- MARGARY (1955), I D Margary *Roman Roads in Britain*
- MERRIMAN (1987), N Merriman 'A Prehistory for Central London?' *London Archaeol* vol 5 no.12
- MoLAS (1996), Museum of London Archaeology Service, *The West London Gravels - The study of a developing landscape* (post excavation assessment report)
- ORTNER & PUTSCHAR (1985), D G Ortner and W G J Putschar *Identification of Pathological Conditions in Human Skeletal Remains* Smithsonian Contributions to Anthropology Number 28
- PIPE (1994), A R Pipe *The Animal Bone from Pumping Station Road, Corney Reach (PSR94)* Unpublished MoLAS archive report
- RIELLY (1995), K Rielly *Assessment of the Animal Bones from the Valor Works, Corney Reach (VCR95)* Unpublished MoLAS archive report
- RIELLY (1996), K Rielly *Assessment of the Animal Bones from the LEP Depot Site, Corney Reach, Chiswick (LEP89)* Unpublished MoLAS archive report
- SANFORD (1970), R Sanford 'Neolithic Twickenham' *London Archaeol* vol. 1 no. 9
- SIDELL (1995), E J Sidell *The Stratigraphic Sequence from Corney Reach (VCR95)* Unpublished MoLAS archive report
- SMITH (1973), I F Smith 'The prehistoric pottery' in B Philp *Excavations in West Kent 1960-1970*
- SMITH (1974), I F Smith 'The Neolithic' in C Renfrew *British Prehistory: A New Outline*
- WARREN (1971), S Warren 'Neolithic Occupation at Putney' *London Archaeol* vol. 1 no. 12