



Fig. 1: 'chequerboard' excavation of 1m sample squares through the prehistoric soil horizon in Trench 5

A prehistoric site at 542-46 Purley Way, Croydon

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Introduction

ARCHAEOLOGICAL investigation of a large redevelopment site at 542-46 Purley Way was undertaken by the Museum of London Archaeology Service (MOLAS) in November and December 1993. It revealed substantial evidence of prehistoric activity, principally in the form of flint scatters; there was a potential date range from later Mesolithic to early Iron Age, with particular evidence for the Bronze Age (*c.* 2500 to 700 BC). Occasional Roman and medieval potsherds were found, apparently as the result of localised intrusion within an earlier soil horizon.

The site

The site lies on the lower slopes of the North Downs, the ground gently rising to the south and

overlooking the Wandle Valley to the north. The present town centre is located some 1.5km (1640yds) to the northeast (TQ 3103 6427, Fig. 2). The immediate area is built up but historically was open land, with the site itself only developed in the 1920s.

The natural ground surface of the site is formed by geologically recent colluvium — a fairly light reddish brown clayey or sandy silt to silty sand, reworked at its upper level. This deposit appears to have formed in a periglacial or early post-glacial environment through the fluvial redeposition of loess and river terrace material, although the exact mechanism is uncertain. The colluvium overlay and infilled a series of involution hollows within a periglacial solifluction deposit (Figs. 4 and 5). This latter consisted of fragmentary and wholly de-

cayed chalk with some sand/silt and occasional flints; underlying this – but not exposed in excavation – was the much older Upper Chalk of the North Downs.

The archaeological investigation

The planning application covered a plot of land measuring up to 135m by 150m (440ft by 490ft, Fig. 3). The proposed development centred upon a single large retail unit which occupied some 40% of the site, and it was in this area that the archaeological investigation took place. The initial evaluation consisted of three trenches, each approximately 5m by 20m (16.5ft by 66ft) in size. There were a number of significant finds, principally of prehistoric date, and on this basis it was agreed to undertake further archaeological investigation. The final layout consisted of six trenches, covering a total area of about 750sq.m (8070sq.ft).

The trenches were placed within the central part of the proposed building: areas to the south had evidently been truncated by previous development, whilst to the north deeper levels of burial and the nature of redevelopment would ensure a measure of preservation *in situ*.

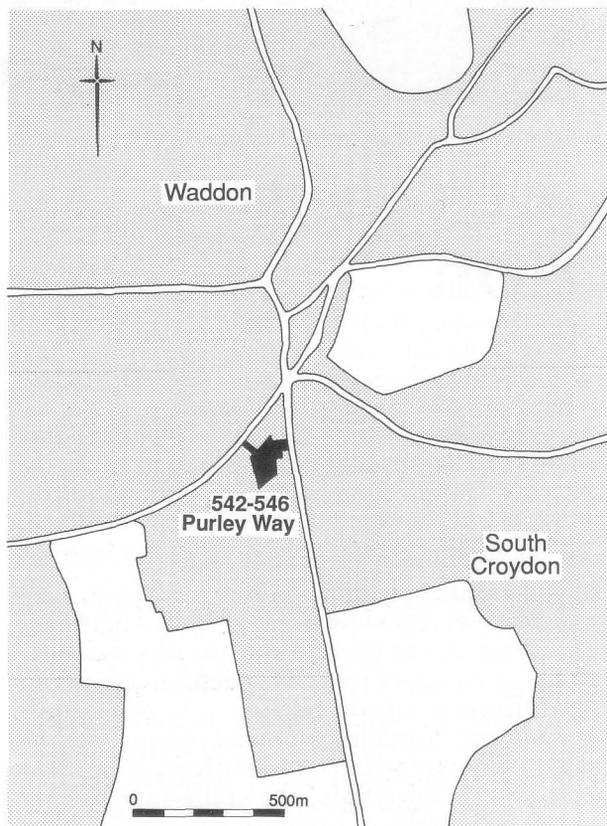


Fig. 2: location of site

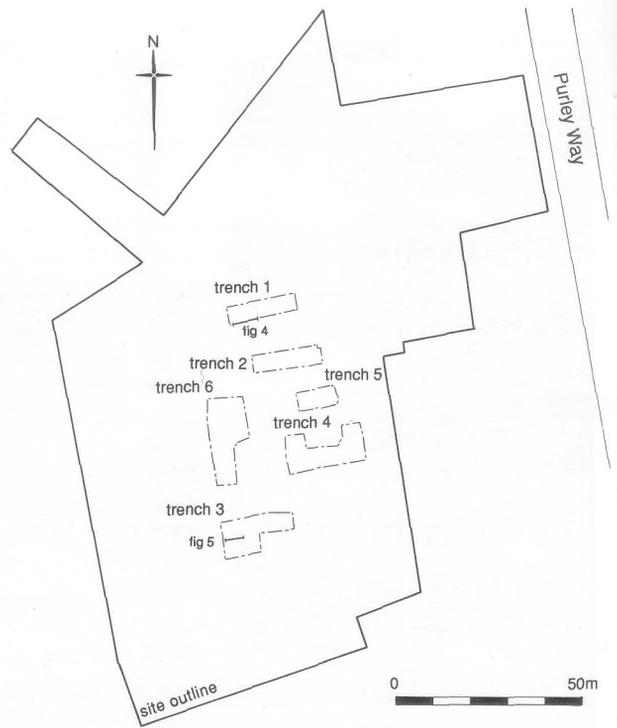


Fig. 3: site outline and location of trenches

The trenches were initially excavated by machine, in so far as possible removing recent deposits and features whilst leaving anything of archaeological value. The trench depths ranged from c 0.30m up to 1.4m (12 to 55in). Exposed surfaces were generally gridded into a series of numbered squares, 2m² (6.5ft²) or slightly larger; a shallow layer, averaging 0.05m (2in) in depth, was then removed by hand. Subsequently a series of alternate 1m (39in) sample squares were excavated in three trenches to the top of undisturbed colluvium, thus forming a 'chequerboard' pattern (Fig. 1).

The findings: prehistoric

Prehistoric activity in the Croydon area is well documented. There have been some Palaeolithic finds, although the first evidence of extensive activity dates to the Mesolithic and Neolithic periods (c 8000 to 2500 BC). Direct settlement evidence relates to the Later Bronze or Iron Age (c 900 BC to AD 43).

In recent years a series of Museum of London archaeological investigations has provided much new information on the developing settlement pattern of the area¹. This was concentrated along the line of the Wandle Valley, in proximity to recent river terrace gravels which gave a light, well-drained soil: thus it is likely that settlement was based on agriculture, both arable and pastoral. Particular mention should be made of work carried

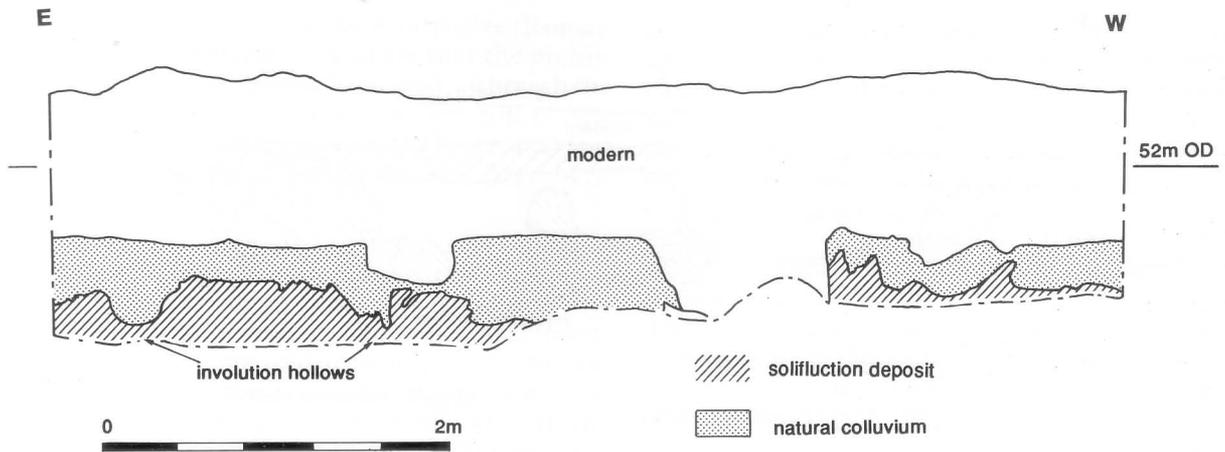


Fig. 4: section in Trench 1 showing the geomorphology of the site and overlying deposits

out at 222 Purley Way, some 1.5kms (1640yds) to the north of the site discussed in this article². Excavation in the latter part of 1993 revealed evidence of Late Neolithic and Late Bronze Age activity, although there was no material dating to the intermediate period.

The investigation at 54.2-46 Purley Way produced a total of 1,321 pieces of struck flint, plus considerable quantities of burnt flint which may relate to prehistoric domestic activity (cooking and/or heating of water). There were also a small number of potsherds, of Late Bronze to early Iron Age date.

The vast majority of these finds came from the reworked colluvium or subsoil horizon which was found throughout the area of investigation. This was composed of a firm, predominantly light brown slightly clayey sand/silt, and it is reasonable to regard the various areas as parts of a single, broadly contemporary deposit. Some parts were truncated by modern construction, but generally the matrix merged into natural colluvium some 0.10m to 0.18m (4in to 7in) below the extant surface.

The investigation revealed two cut features which were — or appeared to be — of prehistoric date. One of them, a small truncated pit in Trench 2, was dated only by the inclusion of seventeen pieces of struck and burnt flint. The other feature, a larger cut near the western end of Trench 3, was of particular interest. It formed a roughly circular bowl-shaped pit, approximately 1.40m (55in) in diameter and nearly 0.50m (19in) deep (Fig. 5). The pit was truncated, perhaps by cultivation: the overlying depos-

its appeared to form part of the general subsoil horizon, and the cut was only visible at the level of natural colluvium. The pit fill — a dark greyish brown sand/silt with flints — produced forty-five pieces of struck and eighteen pieces of burnt flint. There were also a number of charcoal fragments, a sample of which was submitted for radiocarbon analysis. The results were given as follows:-

Beta-70894 CH 14 PUW 2 3250 ± 90 BP (conventional radiocarbon age). The calibrated result (95% probability) is 1730 to 1360 BC; that is to say, the early to middle Bronze Age.

The struck flint assemblage was very largely made up of debitage (1277 pieces), with over 85% consisting of miscellaneous flakes: three further groups included partially worked flint nodules, blades (both c 6%), and cores or core fragments. Much of the struck flint appears to have been derived from locally occurring (and relatively poor quality) pebbles, typically found within the Wandle Gravel terraces. Better quality material was represented by 'Bullhead Bed' pebbles from the nearby Thanet Sand and Reigate Bed deposits. The flint assemblage as a whole showed frequent evidence of post-depositional damage and abrasion.

Forty-one pieces of struck flint were identified as tools: 22 retouched flakes and blades, 17 scrapers, one microlith and one possible arrowhead roughout (Fig. 6); there were also 3 hammerstones. There were few items within the assemblage which could be accurately dated. It is suggested that the bulk of the material falls between the Late Neolithic and

1. L & R Adkins 'Excavations at Beddington (1982)' *London Archaeol* 4, no. 12 (1983) 326-9; R Bazely *The Valley Park Development Site, Purley Way, Croydon: Preliminary Report of Archaeological Investigation* Museum of London DGLA; S Tucker *The Philips Factory Site, Beddington Farm Road, Croydon. Preliminary Report of the 1990-91 Archaeological Investiga-*

tion Museum of London DGLA (1991); S Mason *Preliminary Report of Archaeological Investigation: Beddington Infants School, Croydon Road* Museum of London DGLA (1990).

2. S Tucker 'Further Evidence for Prehistoric Occupation found on the Purley Way, Croydon' *London Archaeol* forthcoming.

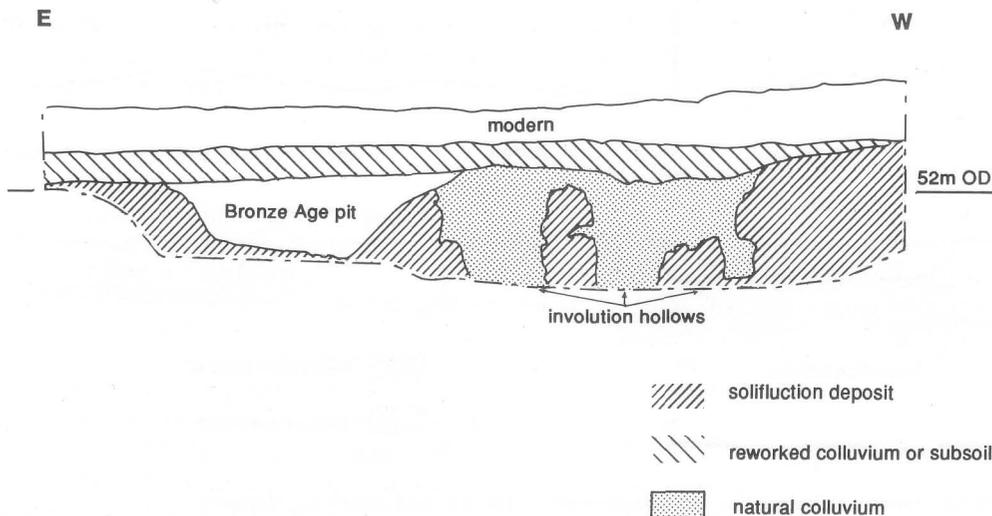


Fig. 5: section in Trench 3 through the Bronze Age pit and overlying deposits

Late Bronze Age; there is also a Later Mesolithic to Neolithic element, which includes the microlith and possibly some scrapers and cores.

It is suggested that the main activity on site took the form of opportunist knapping of readily available gravel pebbles. This is indicated by several factors, including the overall preponderance and generally crude character of the debitage, the high proportion of flakes to blades, and the frequency of partially worked nodules. Such a process would have formed the first stage in production, with the bulk of further work on selected material taking place at a separate location.

An overall picture of flint distribution may be obtained by looking at those areas where the reworked colluvium or subsoil (the principal archaeological horizon) formed a more or less undisturbed deposit. Trench 3 proved the most productive area, with 17.5% of the extant subsoil accounting for about 25% of the burnt and struck flint; conversely in Trench 1 10% of the horizon produced only just over 3% of the finds, suggesting that this lay outside the main area of activity.

It should be noted the above figures are based on finds from the whole upper level of the subsoil (0.05m or 2in), and do not include the limited number of deeper 1m sample squares. The latter (in Trenches 2, 3 and 5) broadly bore out the previous findings, although the number of finds was fairly low, at just over 20% of the total figure.

Distribution can also be expressed as a relative figure, assuming a comparable productive area within each trench and adjusting the numbers of finds accordingly. On this basis quantities of burnt flint were fairly constant in Trenches 2 to 6, with

a slight increase to the south. In the case of struck flint Trenches 2 and 3 were most productive areas, followed by Trench 4 and then (fairly close behind) Trenches 5 and 6, with Trench 1 once again falling well to the rear.

Analysis of the struck flint also shows that Trenches 2 and 3 produced the lowest proportion of tools to debitage, with the highest occurring in Trenches 5 and 6. In all areas debitage formed the vast majority of finds, and it is clear — as already noted — that the primary selection and knapping of raw material formed the principal activity on the site. Nevertheless, the concentration of debitage — absolute and relative — within Trenches 2 and 3 suggests that these areas formed the focus of such activity. Within the central part of the site (Trenches 4, 5, and 6) primary selection was less intensive, and to some degree replaced by the production and/or use of retouched tools.

Within Trenches 2 to 6 further analysis of the upper level of the subsoil horizon revealed particular areas in which finds — both struck and burnt flint — were concentrated. Overall it was found that 20% of the horizon produced nearly 45% of the struck flint and 65% of the burnt flint. In Trench 6 a single area comprising less than 15% of the exposed surface produced between 40% and 50% of the finds — 132 items from 16sq.m (172sq.ft), with over half of the finds concentrated in one quarter of the area.

The comments made above regarding the concentrations and spatial distribution of flintwork lead to two general conclusions. It is reasonable to regard the finds as more or less *in situ*, although having undergone some vertical displacement as a result of natural soil processes: evidence of this was

provided by occasional finds of intrusive (Roman and medieval) material. It is likely that the prehistoric land surface has been truncated, although the concentration of flintwork near the top of the extant horizon indicates that both this process and that of displacement within the soil have been relatively limited.

Secondly, it is suggested (some earlier material notwithstanding) that the bulk of the flint finds derive from one main phase of activity in the middle to late Bronze Age. The principal archaeological horizon appeared to seal an early to mid Bronze Age pit, whilst the flintwork itself has been given a date no later than the end of the Bronze Age. These findings may therefore complement the evidence for Late Bronze Age activity noted at 222 Purley Way³.

Roman and medieval

Croydon lies on the line of a Roman Road, sometimes referred to as the London-Portslade Way. This probably passed to the east of the present site, either in the valley now followed by the Brighton Road or on the intervening higher ground⁴. Past finds have also indicated that Croydon was the site of a small settlement, although the extent of this is unknown⁵.

There have been a number of Saxon finds in the Croydon area. Of particular note was the discovery of parts of a pagan Saxon (5th to 6th-century AD) cemetery just to the south of the present town centre⁶. There are references to Croydon itself from the 9th century, although even in the later medieval period the settlement remained small, centred on the Old Town and Archbishop's Palace and perhaps overshadowed by London⁷.

The investigation produced a small number of Roman and medieval finds, in almost all cases

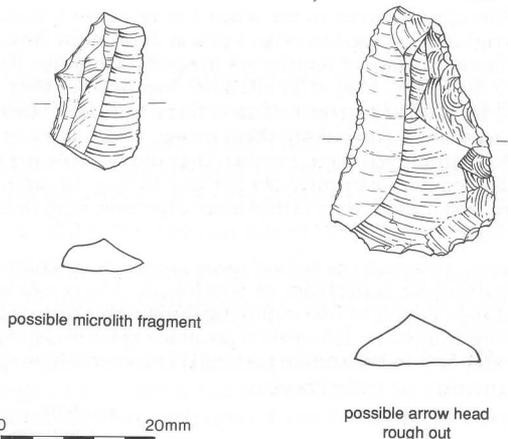


Fig. 6: struck flint artefacts:
i) broken microlith ii) possible arrowhead roughout

pottery sherds. They were generally found in the uppermost level of the reworked colluvium, within 0.06m (2.5in) of the exposed surface. The sherds were generally small, abraded and lacking in diagnostic features: most of the Roman material was only identifiable within broad categories (eg sand or grog-tempered wares) which span the whole period of the occupation. The quantity of medieval pottery was somewhat greater (c 45 sherds) and included examples from the 10th to 15th centuries. There was quite a large group of early medieval fabrics, plus a number of sherds dating to the middle part of the period (e.g. Earlswood, Kingston and London-type wares).

The conclusions for the Roman and medieval finds are broadly similar: both appear to be the product of localised intrusion within an essentially prehistoric soil horizon, and both suggest some – presumably agricultural – activity, but no very close settlement.

Post medieval

The subsoil was overlain – mainly in the lower northern part of the site and where not otherwise truncated – by a well graded soil horizon, typically a mid grey-brown silty sand with pebbles. This deposit was up to 0.30m (12") thick and contained occasional finds of 19th century or later date. It is presumably the product of cultivation, and in fact probable plough marks were identified in several areas on the surface of the underlying subsoil. These findings confirm the cartographic record, of an area which remained in agricultural use until the 1920s.

Conclusion

The most significant results of the archaeological investigation at 542-46 Purley Way relate to the prehistoric period, with large quantities of struck and burnt flint and occasional pottery. There were also occasional sherds of Roman and medieval pot, but these appear to be intrusive and suggest no more than sporadic agricultural activity.

Collectively the prehistoric finds indicate activity from the Late Mesolithic to early Iron Age, although the vast majority came from an archaeo-

3. *Op cit* fn. 2.
4. I D Margary The London-Croydon-Portslade Roman Road Surrey Archaeol Collect 45 (1937), 128-34.
5. eg M Shaw (i) Roman Amphorae from Croydon & (ii) Croydon Carausian Coin Hoard Croydon Nat Hist Scient Soc Newsl 70 (1988) 2-6.
6. R L Nielsen Report on Archaeological Evaluation at 82-86 Park Lane, Croydon MoLAS (1992).
7. D J Turner The Archaeology of Surrey, 1066-1540 in Bird J & Bird D G (eds) The Archaeology of Surrey to 1540 (1987) 248-50.

logical horizon which overlay and truncated a pit dated to the early or middle Bronze Age. At the same time both struck and burnt flint exhibited a spatial distribution pattern which would appear to relate to one principal phase of activity. It is therefore argued that the bulk of the assemblage dates to the later prehistoric period, and that it was more or less *in situ* within a contemporary landscape.

Acknowledgements

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by the client's architects, David Futter Associates Ltd.

A further note should record the contribution of numerous individuals to the successful conclusion of this project. I would particularly like to thank John Lewis (MOLAS) for his invaluable analysis of the flintwork. Work on site was undertaken by Richard Hewett and Gillian King, and Jo Groves, Richenda Goffin and Jacqueline Pearce were responsible for the pottery dating.

Palaeoenvironmental analysis was carried out by Keith Wilkinson (Cotswold Archaeological Trust) and radiocarbon dating by Beta Analytic Inc. The illustrations in this report were produced by the MoLAS drawing office and photographic section (Sue Hurman and Maggie Cox).

Letters

Medieval Building Stone in London

I WAS SAD to read such a poor article about the "six specimens of apparently identical building stone, all from the St Mary Spital site in London" (*LA* 7, no. 9, autumn 1994). It was a classic example of not seeing the wood for the trees. Digging archaeologists in London ought to be able to identify the principal types of building stone, just as they are expected to know the different types of Roman and medieval coarse and fine pottery, and to recognise floor and roofing tiles and the main classes of small finds.

Reigate stone was one of the commonest varieties of free stone to be used in London between the mid-11th and 16th centuries, and readers of the *London Archaeologist* who wish to know more about it should look at Paul Sowan's useful article on 'Firestone and hearthstone mines in the Upper Greensand of East Surrey' in the *Proceedings of the Geologists' Association* 86 (1975) 571-91, not quoted by Christina de Domingo. Paul Sowan and his colleagues in *Subterranea Britannica* have done much useful work in the last two decades, mapping the post-medieval underground quarries in the Upper Greensand between Juniper Hill (near Buckland) and just to the north of Godstone. The most important medieval quarries must have been in the parishes of Reigate, Gatton, Merstham, Bletchingley and Godstone (west of Brockham and east of Godstone, the building stone dies out), but we have yet to learn when the quarries first went underground. The building stone itself occurs only in beds no more than five feet (c 1.5m) thick, and it was back-breaking work to extract it and haul it on sledges up the steep slopes to bell-pits, where it was craned out. The stone itself was then carted over the top of the Downs and down the other side to a wharf at Battersea, where it was stock-piled. Afterwards it was taken to many places up and down the river Thames. It cannot have been transported down the river Mole, which is small and shallow, and follows a meandering course, frequently interrupted by water-mills.

It should also be noted that the quarries near Limpsfield, mentioned in Domesday Book, were not in Reigate stone (i.e.

Upper Greensand) but in the Hythe Beds sandstone (Lower Greensand). That stone was certainly used for Anglo-Saxon gravestones (as Bernard Worssam has found), for example at Oxted.

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Boats and waterfronts

ONE OF THE features of recent work on the waterfronts in London has been the recovery of sections of what have been interpreted as reused boats. There is, however, another possible explanation for the occurrence of boat-like sections in the waterfront, namely the use of shipwrights to build the waterfront using the techniques that they use in building boats.

This thought occurred to me when I came across a record of shipwrights being used to make a prison door in the Bishop of Winchester's manor of Southwark in 1415/6 (Hampshire Record Office B1/162 f13). It is, after all, quite logical since they were skilled in making waterproof structures and they obviously had a reputation for making them strong, which must be why they were employed there. Further, they did not cost any more than an ordinary carpenter (8d per day in 1415) though their materials, shipnails, were rather more expensive than ordinary nails.

However, although the bishop spent money quite commonly on repairing his waterfront at Southwark, I have not so far found any example of his employing shipwrights to do that for him. But it must surely remain a possible explanation, though there may be good reasons in particular cases for believing that the structures are reused boats.

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