

THE ARCHAEOLOGICAL IMPLICATIONS OF GRAVEL EXTRACTION IN NORTH-WEST SURREY

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PREFACE

This report is one of a series of surveys of particular problems facing archaeologists in Surrey. The series is being prepared by the Surrey Archaeological Society which is administering, in conjunction with the Department of the Environment, the funds available for rescue archaeology in Surrey.

The Surrey Archaeology Society was formed in 1854 and has been, since that date, the principal body concerned with archaeology in the historic county, i.e. the county as it was in 1854 including a large part of London. In keeping with this role, the Society has employed, since 1972, field officers to help recover archaeological evidence in advance of development work. This activity has been made possible by grants from the Department of the Environment and, at first, was confined to work on the routes of the M23 and M25 motorways but has now been expanded to cover a wide range of 'rescue archaeology' in Surrey and S.W. London. To-day the Society employs five officers involved full-time in this work plus additional part-time staff and *ad hoc* staff engaged for specific excavations. In this way the Society, which remains a voluntary charity directed by elected honorary officers, is attempting to marry the need for professional involvement to the considerable spare-time interest and voluntary effort that is available to archaeology in the historic county.

Since October 1972, the Society has also employed its own County Archaeologist from funds provided by the County Council. The role of this officer has been to assist and coordinate the Society's relations with local planning authorities in respect of archaeological sites within the administrative county and to advise planning staffs and committees about the archaeological implications of various proposals. The area covered by this work includes the district of Spelthorne where amateur archaeological interests are the concern of the London & Middlesex Archaeological Society and the Spelthorne Archaeological Field Group. Informal and co-operative contact is maintained between all the Societies concerned.

The work of the County Archaeologist has become increasingly integrated with that of the field officers working in the administrative county and to-day they are working together as a coherent team. Their activities range from the preparation of specific reports on broad problems, such as the present document, to the undertaking of rescue excavation.

The term 'rescue archaeology' or 'rescue excavation' may need some explanation. It includes the rapid, often last minute, salvaging of archaeological information in the face of quarrying; road building, and so on. But it means more than this. If archaeologists can indicate where significant archaeological evidence may lie hidden in the soil, many 'salvage' situations can be avoided, either by planning to preserve the archaeological sites intact or by making adequate arrangements to investigate the site in a skilled and methodical way, well in advance of its destruction. It is also vital, however, to encourage in everyone a sense of our heritage and, particularly, to increase the awareness of this heritage among landowners, planners and elected representatives. It is in this context that this series of studies is being undertaken.

It is hoped that this survey is sufficiently accurate and sufficiently academic to enable rescue priori-

ties to be assessed. It is clear that wherever gravel is to be dug in Surrey there is the probability that archaeological evidence will be destroyed. The resources available for archaeological rescue are limited and it is certain that not every threat in this particular area can be met by excavation. It will be essential to choose sites for excavation where the opportunities presented appear to offer the greatest potential for illuminating the long and complex story of man in this area.

R. W. McDowall

ACKNOWLEDGMENTS

I would like to thank those who have made information available to me in the preparation of this paper. In particular the Aerial Photographic Unit of the National Monuments Record, Fortress House, have been most helpful in allowing me to study their extensive collections on which much of this report is based. Alison Laws, Field Officer with the London Museum, and Kevin Crouch, Archaeological Officer for Staines, have also provided me with information and allowed me to consult their aerial photographic record. The Surrey County Council have made available maps and aerial photographs at County Hall, Kingston, and the North-West Divisional Planning Office, Woking, and contributed very useful suggestions with respect to the planning considerations.

In addition, I would like to thank all those who have given me the benefit of their local knowledge and, particularly, David Bird, Dennis Turner, Rosamond Hanworth and Robin McDowall for their helpful comments on the original draft of this paper.

I am most grateful to my wife, Denise, for her help in the preparation of the figures.

KEY TO AREA MAPS



built-up areas



permission for gravel extraction



extracted gravel



known sites and/or find spots



crop mark sites. These sites are identified by number. In the *text* these numbers are preceded by the letter C to distinguish them more clearly from other sites and finds. Note: Letters and numbers associated with a site refer to the gazetteer

* An asterisk denotes a find spot unmapped due to imprecise location.

P	Palaeolithic
M	Mesolithic
N	Neolithic
B	Bronze Age
I	Iron Age
R	Romano-British
EM	Early Medieval
PC	Post-Conquest
X	Uncertain

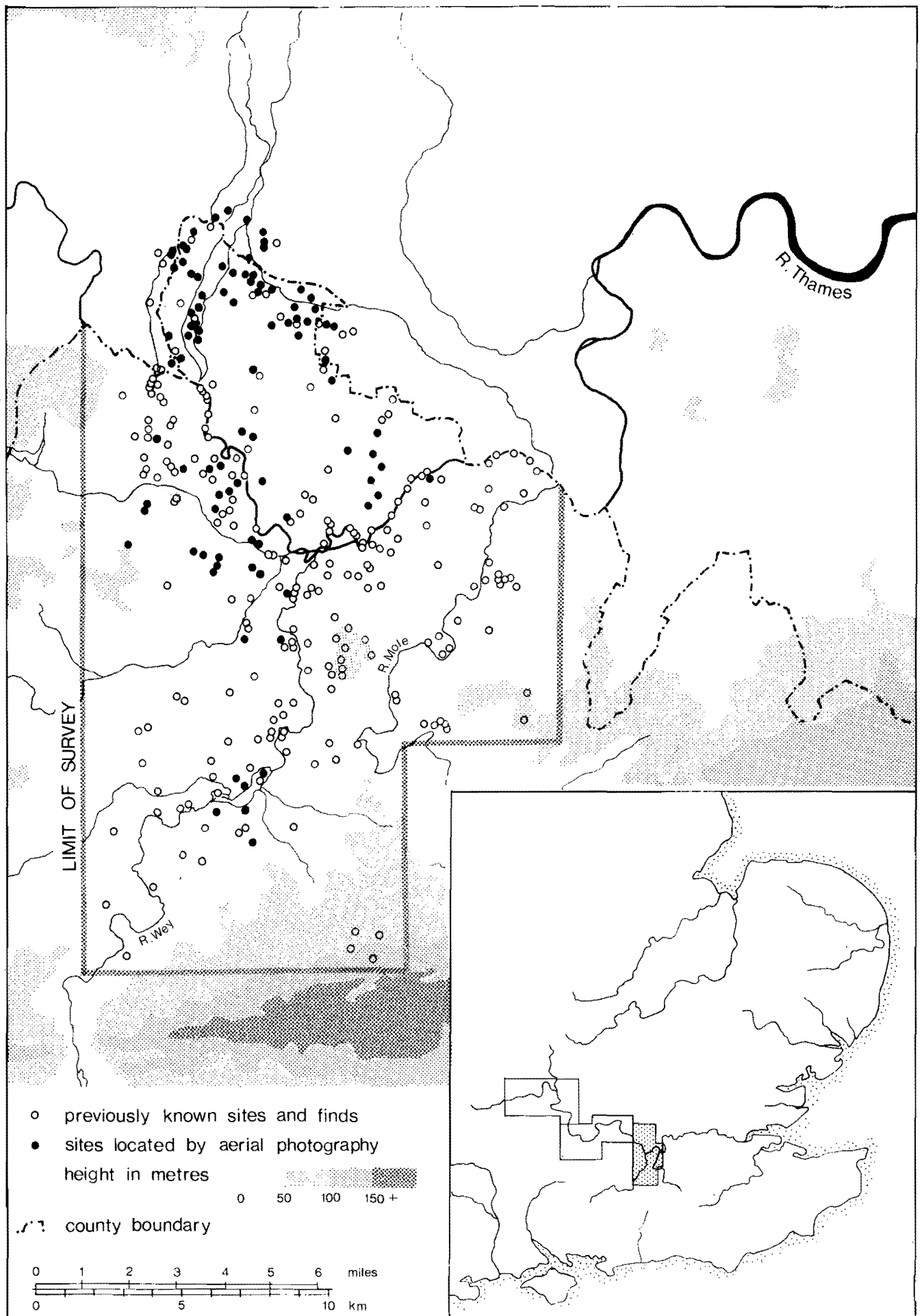


Fig. 1. The extent of the survey and distribution of sites. (Inset: the Upper Thames and Middle Thames surveys and present survey (stippled))

ABBREVIATIONS USED IN THE GAZETTEER*General*

Circ.	Circular
Rect.	Rectangular
Palaeo.	Palaeolithic
Meso.	Mesolithic
Neo.	Neolithic
BA	Bronze Age
IA	Iron Age
RB	Romano-British
AS	Anglo-Saxon

Sites and finds

<i>Antiq.</i>	<i>Antiquity</i>
<i>Antiq. J.</i>	<i>Antiquaries Journal</i>
<i>Arch. J.</i>	<i>Archaeological Journal</i>
<i>Berks. Arch. J.</i>	<i>Berkshire Archaeological Journal</i>
JBAA	<i>Journal of the British Archaeological Association</i>
<i>Lond. Arch.</i>	<i>London Archaeologist</i>
<i>Num. Chron.</i>	<i>Numismatic Chronicle</i>
OS	Refers to Record Card numbers of the Ordnance Survey Archaeological Division
PSA	<i>Proceedings of the Society of Antiquaries</i>
RCHM	Royal Commission on Historical Monuments
SyAC	<i>Surrey Archaeological Collections</i>
SyAS	Surrey Archaeological Society
TLAMAS	<i>Transactions of the London and Middlesex Archaeological Society</i>
VCH	<i>Victoria County Histories</i>
WLAFG	West London Archaeological Field Group

Crop mark sources

FAS	Fairey Surveys Ltd.
HAS	Hunting Air Surveys
HSL	Hunting Surveys Ltd.
Kingston	Gravel Pit Air Cover. Surrey County Council Planning Dept., County Hall, Kingston upon Thames.
TQ. . . .	A Grid Reference which refers to the National Monuments Record index, Fortress House, London.
Woking	Surrey Air cover in NW Divisional Planning Office, Woking.

INTRODUCTION

The steady extraction of gravel from the flood-plains and river terraces of lowland Britain has destroyed archaeological evidence ever since such extraction began. At first, manual methods were used and the extraction itself sometimes resulted in the discovery of artefacts, particularly of flint tools deposited within the gravel bed. Occasionally archaeological sites resting on and above the gravel were also discovered during extraction and, less often, investigated by archaeologists.

The Surrey Archaeological Society's pioneering regional survey of the Farnham district (Lowther, *et al.* 1939) was based partly on evidence recovered during the exploitation of the gravels of the Wey valley.

In recent years with the mechanisation of the extractive industry, the pace of archaeological destruction has quickened but that of chance archaeological recovery has slowed to a near stand-still. In the last decade or so, much attention has been paid in archaeological circles to this problem and reports have been published clearly setting out the extent of the threat to our reserves of archaeological evidence (e.g. on the upper and middle Thames areas, Benson and Miles 1974, Gates 1975). It is now possible to add to these an assessment of the position in north-west Surrey.

This north-western district is now the only important gravel extraction area in the County. Fresh attention has been drawn to the area by the work carried out in advance of the construction of the M25 and M23 motorways by Bernard Johnson for the Society (Johnson 1975). Although excavation on a major scale was not possible during this work, Mr. Johnson was able to show that, while new archaeological sites were not numerous on the clays of SW Surrey, the gravels of NW Surrey were probably as densely occupied in prehistoric and Romano-British times as those of Oxfordshire.

In the light of this, a survey of the overall situation was carried out by David Bird, County Archaeologist. The Department of the Environment were convinced by the results of Mr. Bird's survey (summarised in Johnson 1975, 31-4) that a more detailed examination of the position was called for.

North-west Surrey is an area dominated by a prospect of reservoirs and the products of urbanisation. The elevation is low and the landscape is predominantly flat, rising gently from the basin of the Thames. Open spaces are few in the north, which encompasses the fringe of suburban London, becoming more frequent towards the south and west.

The present survey is an attempt to correlate the archaeological evidence and to set against this backcloth a pattern of new archaeological sites located primarily through the medium of aerial photography (see Fig 1). The majority of sites recognized in this way show on the photographs as crop marks or parch marks. The mechanics of crop mark formation have been discussed many times (conveniently in Coles 1972, 21-9; Aston and Rowley 1974, 75-89) and it will suffice here to mention only that the differential growth and ripening of crops growing over buried features such as pits or walls can produce graphic details of those features when contrasted with the remainder of the crop growing in the same field.

Whereas archaeologists working in the upper and middle Thames have the advantage of a relatively rural environment and a long tradition of aerial photographic cover, with many of the flights planned specifically for archaeological purposes, those working on the gravels of north-west Surrey, have been less fortunate. A number of factors militate against the discovery of new sites by these techniques. The urban sprawl leaves few areas of open land and a large part of this is given over to market gardening, pasturage or recreational use, none of which activities allow distinctive crop marks to show. Nevertheless runs of these aerial photographs have been studied at the National Monuments Record, Fortress House, London; the Surrey County Council, SW Division Planning Office, Woking; County Hall, Kingston and the West London Archaeological Field Group record held at the office of the Museum of London, at present at Kensington Palace.

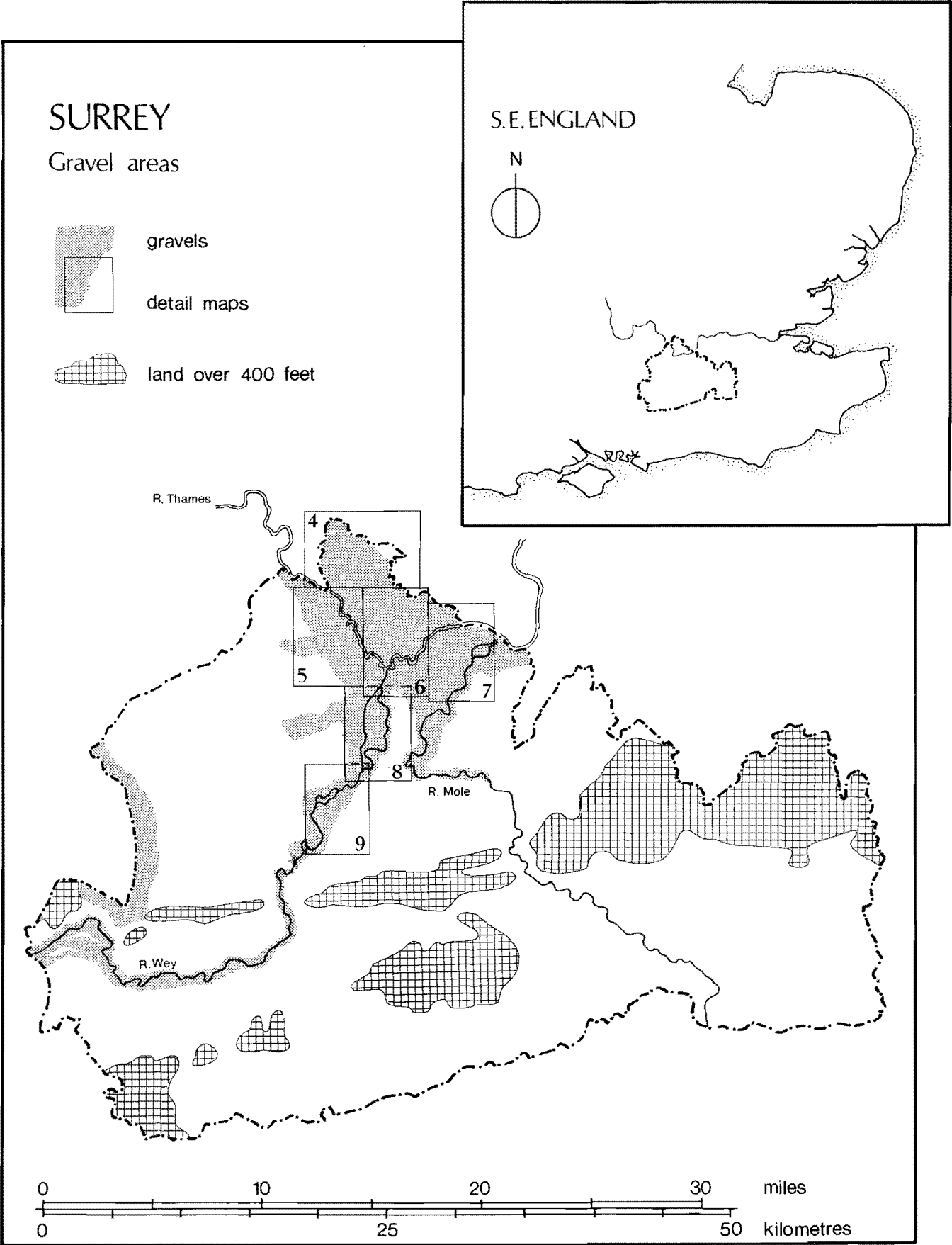


Fig.2. Surrey: gravel areas. The numbers refer to subsequent Figures

The majority of these photographs are high altitude, vertical runs covering a large area at a small scale. Taken primarily for planning purposes, they naturally do not take into account archaeological considerations such as the time of day or year when shadow or crop marks might best be seen and are consequently often devoid of information. Such information as they do contain is often difficult to interpret.

The proximity of Heathrow airport has proved a prohibitive factor to private flights over this area in the past, although a recent early morning flight up the Thames Valley by John Hampton of the NMR may provide significant information when the results have been processed.

In spite of these limitations the study of aerial photographs has led to the discovery of a number of new sites. The vast majority are in the form of crop mark ditches and pits which, whenever field visits have made inspection possible, give no surface indication of their presence. A small number of sites were located as shadow and shine marks on the photographs, indicating the survival of earthwork banks and ditches.

Aerial photographs have provided a lot of information in a short time. This study, however, must be considered a preliminary to further work. The next stage must be the systematic field walking of the crop mark sites with, if possible, excavation in threatened areas of importance. In particular it should be remembered that the known sites represent a small fraction of the totality of ancient settlement.

Figs. 10, 11 and 12 show the plan of some of the more significant crop mark sites. It can be seen from the figures that some of these sites have now been destroyed by gravel extraction, reservoir construction or industrial and urban development, while others are threatened. The particular sites and threats are discussed in the relevant section below.

The aerial photographic sites have been marked on the area maps by a black dot and numbered consecutively. Reference to the gazetteer for the area will yield a descriptive comment on each site. The crop marks were originally plotted directly on to the Ordnance Survey maps at a scale of 1:10560 and these maps are held by the Surrey Archaeological Society at Castle Arch, Guildford.

It is important that the sites discovered by aerial photography, most of which are newly recognized and previously unpublished, should be seen against the background of known sites and finds. The gazetteers therefore include the known archaeology derived primarily from the County sites and finds record held by the Surrey Archaeological Society as well as a list of crop mark sites. They are listed numerically under each main period. The principal source of information is acknowledged.

Finally this paper attempts to relate the archaeological pattern to the threat of present and future gravel extraction and assess the implications.

PLANNING CONSIDERATIONS

The gravel deposits of Surrey are located principally in the north-west of the county, along the basin of the Thames with extensions southwards up the

Mole and Wey valleys. Further deposits form the terraces of the Wey at Farnham and those of the Blackwater valley along the Hampshire border (Fig. 2). The Thames Valley deposits are the most wide-spread and those most extensively worked and it is with this area that the present report is concerned although gravel working has been extensive in the Farnham area in the past. Brickearth and alluvium overlie the gravel in places.

This area has been subjected to extensive urban development with the result that open land is at a premium. Agricultural importance and amenity value often take priority over the considerations of gravel extraction. These factors have combined with the large scale of gravel working in the past and the inconvenience imposed thereby on the community to inculcate in the planning authorities a reluctance to grant further permissions for extraction.

In 1973 the Standing Conference on London and South East Regional Planning produced a report on Sand and Gravel Extraction in the Western and Maidenhead Service Areas within which area the gravel deposits of north-west Surrey fall. This report estimated that upwards of 3,200 acres of land would be required to meet demand for sand and gravel in the Western Service Area up to 1980. A large proportion of this total would be expected to come from NW Surrey although to some extent the total could be reduced by imports from other areas. 1973, however, witnessed a peak in the demand for sand and gravel with national consumption reaching its highest-ever level. Demand has since fallen off due, in particular, to the recession in the construction industry, and forecasts for 1975 indicate that this trend will continue. Demand was expected to rise again by 1976, and the extractive industry is anxious to ensure that output keeps pace (Fig. 3). However, the return to a rise in demand may well have been further delayed but revised forecasts are not available at the time of completing this report. It should be remembered that gravel is a high-bulk low-cost product and one for which transport cost is a major factor. In the present economic climate the availability of locally won gravel for the London market in particular is a consideration that may be expected to influence the location of further applications for permissions for extraction.

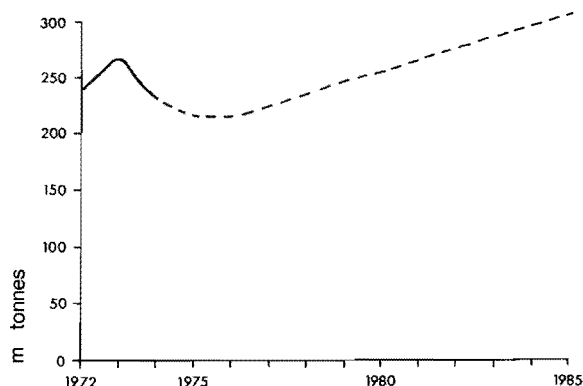


Fig. 3. Aggregates production in U.K. Past output and forecast to 1985. Based on SC 372, Fig. 2

Sieve Analysis

The Sand and Gravel Working Party of the Standing Conference devised a technique of sieve analysis in an attempt to define broad areas which seemed to offer possibilities for further gravel working. The gravel field was subjected to a series of major constraints including areas of agricultural importance, conservation areas and other prohibitive factors. As a result, thirteen 'areas of search' were isolated containing land which both offered scope for extraction and which would be expected to satisfy planning considerations. It is important to note that the Working Party did not define the precise location of sites but rather the broad area of availability. Seven of these areas fall within the County of Surrey involving approximately 600 acres of potential permissions.

In addition it was agreed that land already in the ownership of the gravel industry would be considered as land 'in the pipeline' and that constraints militating against this land should be reviewed in the event of an application to see whether they could be overcome or allowed to stand. In particular it was felt that where agricultural considerations were the only constraint, then applications should be viewed favourably. There are seven 'pipeline' areas in Surrey involving approximately 1000 acres (See Appendix and Fig. 13).

Following the report of the Western & Maidenhead Working Party and six others in the South East, Standing Conference produced further reports in 1974 and 1975. The latter (SC 372) suggested tentative guideline figures for further permissions for gravel working for the period 1975-1977 but decided that it was not possible to look further ahead at the present time.

These guidelines proposed a figure of about 17 million tonnes for the Western & Maidenhead Service Area and this in turn has been split up, giving a figure for north-west Surrey of about 8 million tonnes.

However, the County Council have not accepted these guide figures or the forecasts on which they are based and on 8 January 1976 set up a Working Party with the following terms of reference:

'To examine the resources, the constraints and the environmental considerations obtaining in regard to sand and gravel winning in North-West and South-West Surrey, in order to consider to what extent, if any, the Standing Conference's interim guide figures as to permissions for the years 1975/77, amounting to about 12m tonnes, or about 510 acres, should be met, and to report thereon to the Committee.'

The Working Party will include archaeological aspects in their deliberations. (BGP 10/75: DP/1).

ARCHAEOLOGY

Palaeolithic and Mesolithic finds are scarce and the small number of which we have a record have all been found south of the Thames. The difficulty of discovering artefacts of this period in the course of large-scale mechanical gravel extraction must surely have distorted this picture and the important Palaeolithic assemblages from Yiewsley and West Drayton must be borne in mind.

Evidence of occupation in the Neolithic period is far more widespread and settlement sites are known near Penton Hook at TQ040690 (N1) and in the vicinity of the Staines Causewayed camp (N25) and Runnymede Bridge (N42). Stray finds in the Staines and Thorpe area may possibly be connected with these sites. A proliferation of unassociated finds from, and south of, the Thames between Weybridge and Hampton indicate further activity here with an apparent concentration in the Weybridge-Byfleet area. Further north at Bedfont a Neolithic date has been suggested for the interrupted ditch system (C37, TQ08007370). Polished flint axes found nearby may be suggestive in this respect (N40, N41).

Bronze Age finds are ubiquitous, and this period would seem to have witnessed the most dense spread of occupation in the area before the later Middle Ages. Many stray finds come from the Thames but settlement sites are known north of Egham and around Thorpe, while urnfields are known at Weybridge (B20) and north of Sunbury (B63 and B64). Bronze Age enclosures have been excavated in advance of runway construction at Heathrow (B59, B60). Many of the extensive crop mark enclosures and ditches in the Poyle-Stanwell area may prove to be of Bronze Age date, and it is possible that drier conditions prevailing then may be responsible for the abundance of sites of this period. Certainly flooding in the early Middle Ages may be, in part, responsible for the scarcity of sites dating to the post Roman period.

Settlement in the Iron Age centred on an economy of scattered farms, in all probability practicing mixed farming of Little Woodbury type. There are indications however that at Brooklands (I10) a certain degree of technological specialization was being carried out. Iron was smelted and forged at the site, possibly under the tutelage of the nearby St George's Hill Fort which encompassed within its ramparts the most readily available source of ore.

St George's Hill (I8) is the only certain hill-fort in the immediate vicinity. A possible second exists at St Ann's Hill, Chertsey, and, while it has been argued that much of the terracing of the slopes is due to the old coach road and Victorian landscaping, it is difficult to deny that some at least must be the result of rampart construction.

A third major focus must have existed at Heathrow where settlement appears to have been widespread and where a late Iron Age temple was excavated prior to the construction of the airport in 1944. This however lies just outside the area of the present discussion.

The small farm economy of the Iron Age continued into the Roman period with a concentration of activity in the Staines area. A small town developed here at the point where the Roman road from London to Silchester crossed the Thames. Cremation burials indicate the site of a Roman cemetery outside the eastern boundary of the town along the London Road. Current excavations suggest that by the third century Staines was experiencing difficulties due to flooding in some areas. It appears that the town persisted beyond this date, and it is just possible that settlement in the early medieval period was established on the site of the Roman town without a significant break. A similar sequence of events appears to have taken place at the Romano-British settlement on the west bank of the river (R45).

Crop marks north of Stanwell may indicate a Roman road (C29) heading for a junction with the London-Silchester Road at Ashford. Place names containing the element 'stony' along a particularly straight stretch of road south west of Chertsey may point to a second hitherto unrecognized road. In this respect it is of interest to note that the Chertsey Abbey Charter mentions a 'here straete' (military way) in this vicinity. The word 'straete' in Anglo-Saxon is often reserved for roads of Roman origin. It may well be straining the argument to suggest that the ephemeral crop marks (C91) crossing Laleham Burway represent vestiges of this road and that the earth-work enclosure at TQ04666835 (X1) is the 'burgh' of the charter's 'burgehe'.

Early medieval occupation on the gravel areas would seem to have been limited. This may be due in part to a rise in the water table in the late Roman period. Evidence for early settlement in Staines and Egham has already been noted, however, and there seems also to have been a substantial early settlement in the Shepperton-Walton area. A number of Anglo-Saxon cemeteries are known in the immediate vicinity and the best known, at Shepperton, begins very early indeed. This has now been destroyed in the course of gravel extraction.

In the late 7th century Chertsey Abbey was founded near the Thames between Staines and Shepperton (EM1). Chertsey gives no other indication of early medieval settlement, although the place name occurs in Bede as 'Cerotaesei id est Insula Ceroti' and Cerotus may be a British name. The Abbey was destroyed in Danish raids but was refounded by 964 and rebuilt in 1100. The well known late 13th and early 14th century tile kilns were excavated in 1922 and 1954.

Chertsey was the only proper town in this area in the Middle Ages with its own fair and market although villages had sprung up at various locations. Home-stead moated sites are known throughout this flat low-lying area and flooding seems to have been a continual hazard.

Large houses such as Great Fosters and Oatlands Palace emerge in the Tudor period and much of the stone for Hampton Court and Oatlands came from Chertsey Abbey which was dissolved in 1537.

Better communications in the 17th and 18th centuries opened up the area. The 19th and 20th centuries saw its development into an area of market gardening and light industry serving London, with the extractive industries and residential development playing an increasingly large part in the land use of the area.

GAZETTEER

POYLE-STANWELL (Fig. 4)

Sites and Finds

<i>Index No.</i>	<i>Site/Find</i>	<i>NGR (TQ)</i>	<i>Principal Reference</i>
N25	Causewayed camp	02407260	<i>Archaeological News Letter</i> VII, 131-4
N40	Polished flint axe	083734	WLAFG card index
B36	Beaker occupation	02407260	<i>Archaeological News Letter</i> VII, 131-4
B59	Circ. enclosure with segmented ditch	057764	WLAFG card index
B60	Partial ring ditch and enclosure	057765	WLAFG card index
B61	Palstaves	077725	<i>TLAMAS</i> 1963, 78
B62	Palstaves	07607200	WLAFG Card Index
B65	BA settlement	03207385	Recent excavation by A. E. Brown (unpublished)
I28	Pit and IA pottery	051765	WLAFG Card Index
I29	IA settlement	057765	WLAFG Card Index
R24	Roman pottery & food refuse	016741	OS TQ 07 SW 1
R27	Roman occupation	02407260	<i>Archaeological News Letter</i> VII, 131-4
R41	1st and 4th century refuse pits & ditches	057765	WLAFG Card Index
R43	Roman tile fragment	052744	WLAFG Card Index
PC16	Yeoveney Chapel	02777413	OS TQ 07 SW 3
PC34	Poyle Manor (Homestead Moat)	02957643	<i>RCHM Middlesex</i> (1937), 117
PC35	Moat	01837594	<i>RCHM Bucks</i> 1 (1912), 207
PC36	Moat	01997568	<i>VCH Bucks</i> II (1908), 30
X15	Moated enclosure	05657460	<i>RCHM Middlesex</i> (1937), 117
X16	Enclosure	06007390	<i>RCHM Middlesex</i> (1937), 117

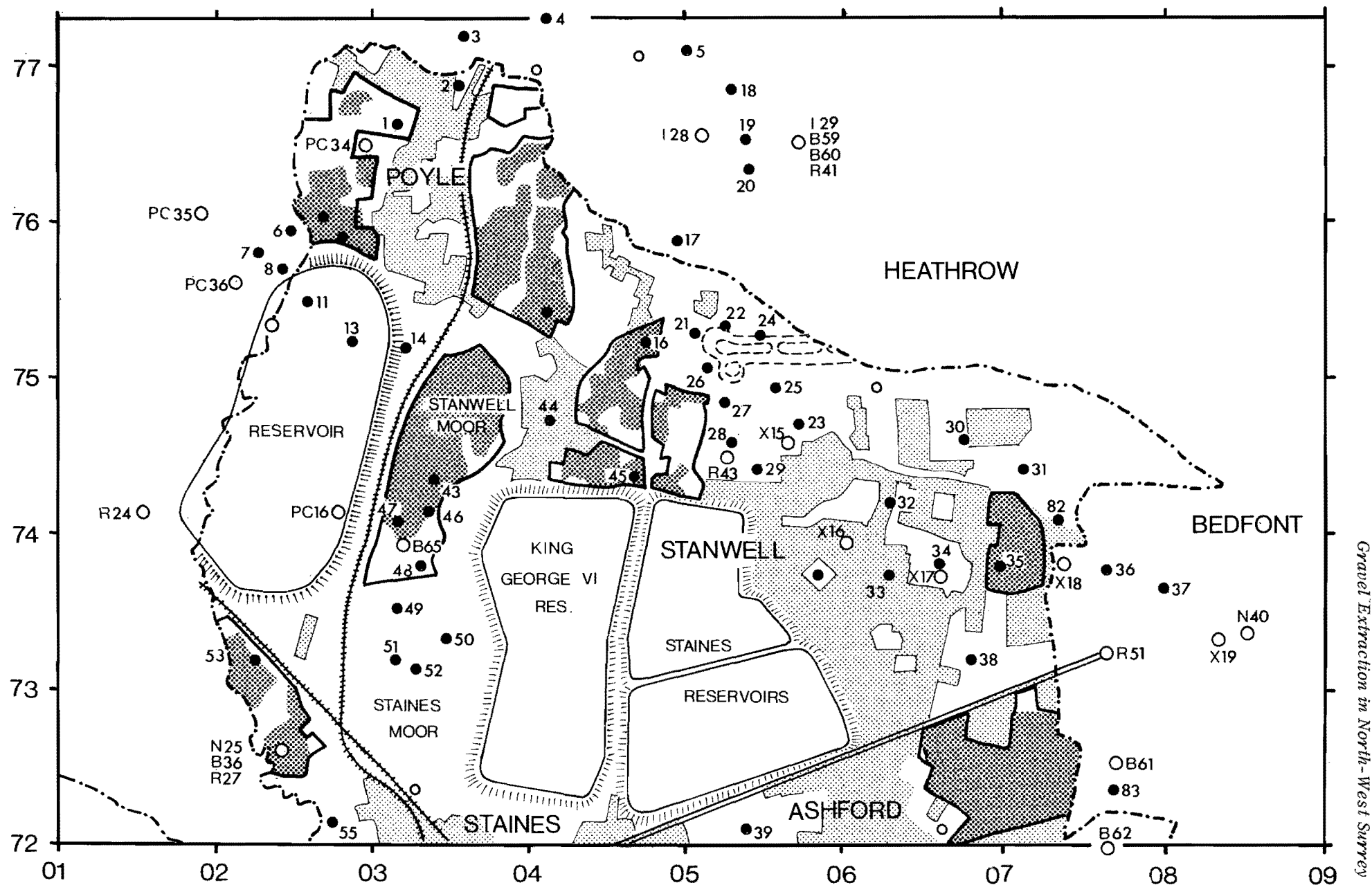


Fig. 4. Poyle-Stanwell area. Grid lines are at kilometre intervals. Based upon the Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office, Crown Copyright reserved

<i>Index No.</i>	<i>Site/Find</i>	<i>NGR (TQ)</i>	<i>Principal Reference</i>
X17	Earthworks and enclosure	06607370	<i>RCHM Middlesex</i> (1937), 117
X18	Small rim sherd (everted, coarse)	073737	WLAFG Card Index
X19	Rectilinear crop marks	08157339	WLAFG Card Index

Crop Mark Sites

<i>Index No.</i>	<i>Description and Comment</i>	<i>NGR (TQ)</i>	<i>Source</i>
1	Large subrect. enclosure appears to be cut by smaller rect. enclosure(s). Site within a permission for gravel extraction but at present under arable crop	03107661	HSL/UK/62/230 HAS/UK/49/219
2	Intersecting linear ditches. (Partly destroyed by housing development.)	03507685	HSL/UK/62/230
3	Linear ditches	03507717	HAS/UK/49/221
4	Complex of intersecting rect. and subrect. enclosures	04057730	HSL/UK/62/230
5	Two small intersecting rect. enclosures	04957710	HAS/UK/49/221
6	Subrect. enclosure, linear ditches, ring ditch. (Destroyed by gravel extraction.)	02507595	HAS/UK/49/219 HSL/UK/62/230
7	Intersecting linear ditches, possible rect. enclosure. (Destroyed by gravel extraction.)	02297580	HSL/UK/62/230
8	Ring ditch? Rect. enclosure? (Destroyed by gravel extraction.)	02457570	HAS/UK/49/219
9	Linear ditches (Destroyed by gravel extraction.)	02687600	HAS/UK/49/219
10	Linear ditches, ring ditch. (Destroyed by gravel extraction.)	02807580	HSL/UK/62/230
11	Rect. enclosure and ditches. (Now under reservoir.)	02627550	HAS/UK/49/219
12	Boundary ditch and bank. (Now under reservoir.)	02367531	HSL/UK/62/230
13	Rect. enclosure with widely spaced double ditch? (Now under reservoir.)	02867520	HAS/UK/49/219
14	Subrect. enclosure, ring ditch. (Now under reservoir.)	03157520	HAS/UK/49/219 HSL/UK/62/230
15	Complex of rect. enclosures, ditches, pits and ring ditches. (Destroyed by gravel extraction.)	04107540	HAS/UK/49/219 HSL/UK/62/230
16	Linear ditches and rect. enclosures. (Destroyed by gravel extraction.)	04707515	HSL/UK/62/230
17	Two ring ditches	04957585	HAS/UK/49/221
18	Two ring ditches	05257680	HAS/UK/49/221
19	Subcirc. enclosure. (Destroyed by north western extension to Heathrow runway.)	05407650	HAS/UK/49/221
20	Complex of intersecting subcirc. and rect. enclosures, ring ditches. (Destroyed by runway extension?)	05307635	HAS/UK/49/221 HAS/UK/49/219
21	Rectilinear ditch system; possible subcircular enclosures	05107529	HAS/UK/49/219
22	Rect. enclosures or continuation of C21	05207530	HAS/UK/49/219
23	Rect. enclosure	05717470	HAS/UK/49/219
24	3(?) intersecting rect. enclosures	05427530	HAS/UK/49/219
25	Rect. enclosure, linear ditches, ring ditches	05597495	HAS/UK/49/219 HAS/UK/49/221
26	Rect. enclosures, ring ditches, linear ditches	05207500	HAS/UK/49/219
27	Double-ditched circ. enclosure	05217481	HAS/UK/49/219
28	Complex of intersecting linear ditch systems, ring ditches	05257455	HSL/UK/62/230
29	Two parallel ditches in straight line (possible Roman road)	from 04407770 to 05467428	HAS/UK/49/221 HAS/UK/49/219
30	Intersecting linear ditches, ring ditch	06777462	HAS/UK/49/219
31	Subrect. enclosure, linear ditches	07117441	HAS/UK/49/219
32	2(?) intersecting rect. enclosures; 3rd rect. enclosure; ring ditches. (Largely destroyed by housing development.)	06307420	HSL/UK/62/230 HAS/UK/49/219

<i>Index No.</i>	<i>Description and Comment</i>	<i>NGR (TQ)</i>	<i>Source</i>
33	6 ring ditches (with central pits?); traces of linear ditches. (Largely destroyed by housing development.)	06287373	HAS/UK/49/219
34	2 ring ditches (with central pits?)	06607380	HAS/UK/49/219
35	Ring ditches. (Destroyed by gravel extraction.)	06937379	HAS/UK/49/219
36	Rectilinear ditch systems; ring ditches. (Partly destroyed by Esso terminal.)	07607379	<i>L. Arch.</i> I, No. 13, 306-7
37	Circ. interrupted double ditch system	08007370	<i>Ibid.</i> , 307
38	Ring ditch	06817320	HAS/UK/49/219
39	Rectilinear ditch system	05397210	HAS/UK/49/219
43	Rectilinear ditch system; ring ditch(es). (Destroyed by gravel extraction.)	03357436	HAS/UK/49/219
44	Rect. enclosure; ring ditch	04127470	HAS/UK/49/219
45	Large ring ditch with central feature. (Destroyed by gravel extraction.)	04677431	Aerial photograph in possession of K. Crouch
46	Crop marks(?) (Within a gravel permission.)	03407410	OS TQ 07 SW 37
47	Linear ditches; ring ditch. (Partly destroyed by gravel extraction.)	03157412	HAS/UK/49/219
48	Ring ditches; subcirc. ditch. (Within a gravel permission but not yet worked.)	03227378	HAS/UK/49/219
49	Ring ditch	03087346	HAS/UK/49/219
50	Ring ditch	03427343	HAS/UK/49/219
51	Ring ditch	03117316	HAS/UK/49/219
52	Ring ditches	03267310	HAS/UK/49/219
53	Ring ditches; parallel linear ditches. (Largely destroyed by gravel extraction.)	02207323	HAS/UK/49/219
55	Rect. ditched enclosure, shallow ditch visible on the ground. Possible moated site or med. stock enclosure.	02747219	HAS/UK/49/219
82	Linear and ring ditches; possible extension of C36. (Partly destroyed by Penguin Books building.)	07357410	HAS/UK/49/219
83	Ring ditch; linear ditches	07707245	HAS/UK/49/217

Implications

Poyle West

A number of crop-mark sites indicating possible enclosures and field boundaries have already been quarried away in this area. A large sub-rectangular enclosure or group of enclosures (Figs. 4 and 10) remain intact at TQ03107661(C1). This site is within the permission and is obviously threatened in the near future.

The Sand and Gravel Working Party's sieve analysis revealed about 95 acres of land in the vicinity of this pit which appeared to be free from constraints against its working for gravel. Most of this land is in Berkshire but a small pocket north west of the present permission, which was previously designated as of agricultural importance, has now been released and must be considered a potential gravel pit. No sites are known in this area at present.

Poyle East

Two areas of permission are involved here. The majority of the first has been worked while the second, to the north, is a relatively recent permission as yet untouched.

A complex of rectangular enclosures, ring ditches and pits has disappeared in the process of gravel

extraction from this area (C15; TQ04107540, Figs. 3 and 8). There are indications however that this complex is more extensive. Approximately 50 acres of land is expected to become available for gravel working in the area to the east of the present pit. Large blocks of this land have recently been divested of their agricultural importance and must be considered in line for future working. It is extremely likely that the crop marks noted at TQ04107540 form part of the same group as those north of Stanwell (Figs. 4 and 11) and that the intermediate sites lie within this potential gravel pit.

Stanwell

Three blocks of permission are mapped north of the King George VI and Staines reservoirs. Crop marks are known at TQ047515 (C16) and TQ04677431 (C45). C45 is a large ring ditch with central feature while C16 involves rectangular enclosures and ditches probably forming a continuation of the C15 and North Stanwell complexes. Both are now destroyed. The two westernmost of this group are largely worked out. The third however has a large area still to be dug. While no sites are at present known from this permission it is probable that the important C28 complex extends into this area. The C28 complex (Fig. 11) involves a tangle of linear and ring ditches cut by a ditched road. The whole area north of

Stanwell contains a profusion of crop mark enclosures and ditch systems. Some of these have already been partly, if not entirely, destroyed by the south-west extensions to Peathrow and the area is further threatened by an extension of gravel working. Although designated as of agricultural importance, the gravel industry has acquired control of the area and while applications for permission to extract gravel here have been refused in the past it is by no means certain that this will continue to be the case.

Bedfont

The gravel from this permission has now been extracted and with it two ring ditches (C35). Thirty acres of land in this area are owned by the industry however and further quarrying may be expected. Previous applications have centred on land immediately east of the county boundary; land which is at present classified as agriculturally important.

Bearing in mind the Sand and Gravel Working Party's policy statement on 'Pipeline' land, this area can by no means be considered 'safe'. Lying outside Surrey, it is strictly outside the terms of reference of this report but does contain an important crop mark complex and the interrupted-ditch system at East Bedfont (C36, C37) (Figs. 4 and 12).

Stanwell Moor

Working in this permission is nearing completion. Linear ditch systems and ring ditches have already been destroyed at TQ03357436 (C43) and TQ03157412

(C47), and a Bronze Age/Iron Age ditched enclosure excavated in the 1960s (unpublished) is now on the edge of the gravel pit (B65; TQ 03207385).

The whole area from Stanwell Moor south to Staines Moor is crossed by a network of drainage ditches from which it is virtually impossible to disentangle ancient sites. However a number of ring ditches can be isolated and it is evident that activity in this area was at one time intense. Staines Moor south of the gravel pit is protected as a site of special scientific interest but sites, as yet intact, remain within the permission to be destroyed in the near future.

About 250 acres of land in this area is considered to be in the pipeline, and it must be asked how long the protection afforded to Staines Moor can be expected to last.

North-West Staines

The Neolithic causewayed camp (N25) with later Beaker and Roman occupation was excavated from 1961-63. The site has now disappeared. Crop marks indicate further occupation within this permission at TQ02207323 (C53) although these too have been largely destroyed. A small area of this rapidly disappearing pit remains to be investigated.

Ashford

This permission has been completely worked out with no finds coming to light, although bronze palstaves are known from the immediate vicinity (B61; B62).

EGHAM—CHERTSEY (Fig. 5)

Sites and Finds

<i>Index No.</i>	<i>Site/Find</i>	<i>NGR (TQ)</i>	<i>Principal Reference</i>
P6	Palaeo. flint implements	01847178	Johnson 1975, 25
M3	Meso. flakes, cores	005709	<i>SyAS Bull.</i> 5 (May 1965)
N1	Neo. occupation site	040690	Grimes, 1960, 181-5
N2	Neo. polished axe	013696	<i>VCH Surrey</i> I, 251
N3*	Neo. polished axe and flints	0366	<i>VCH Surrey</i> I, 251
N4	Petit tranchet derivative arrowhead, core blades and scrapers	035689 038685	OS TQ 06 NW 24
N5	Leaf-shaped arrowhead	02616850	OS TQ 06 NW 27
N24*	(a) Antler implements (b) Polished flint adze (c) Chipped adze (d) Four polished flint axes	Thames at Staines	<i>Arch. J.</i> , XIV (1857), 279, <i>Ibid.</i> LXXXVI (1929), 74-5
N26	Ground flint axe	03557122	<i>Berks. Arch J.</i> , LVI (1958), 54
N39	Neo. sherds	006710	<i>SyAS Bull.</i> 19 (July 1966)
N42	Neo. occupation site	01917193	Johnson 1975, 25
B1	BA axe	025675	<i>Arch XXXVIII</i> (1871), 242
B2	BA pit containing daub pottery and loom weights	02566930	OS TQ 06 NW 6
B3	BA urns containing bronze fragments and dagger	049684	<i>Arch J.</i> , XVIII (1817), 426-7
B4	Flanged axe	025685	<i>SyAC XXII</i> (1909), 198
B5	BA urns	046667	<i>SyAC XXIV</i> (1911), 51

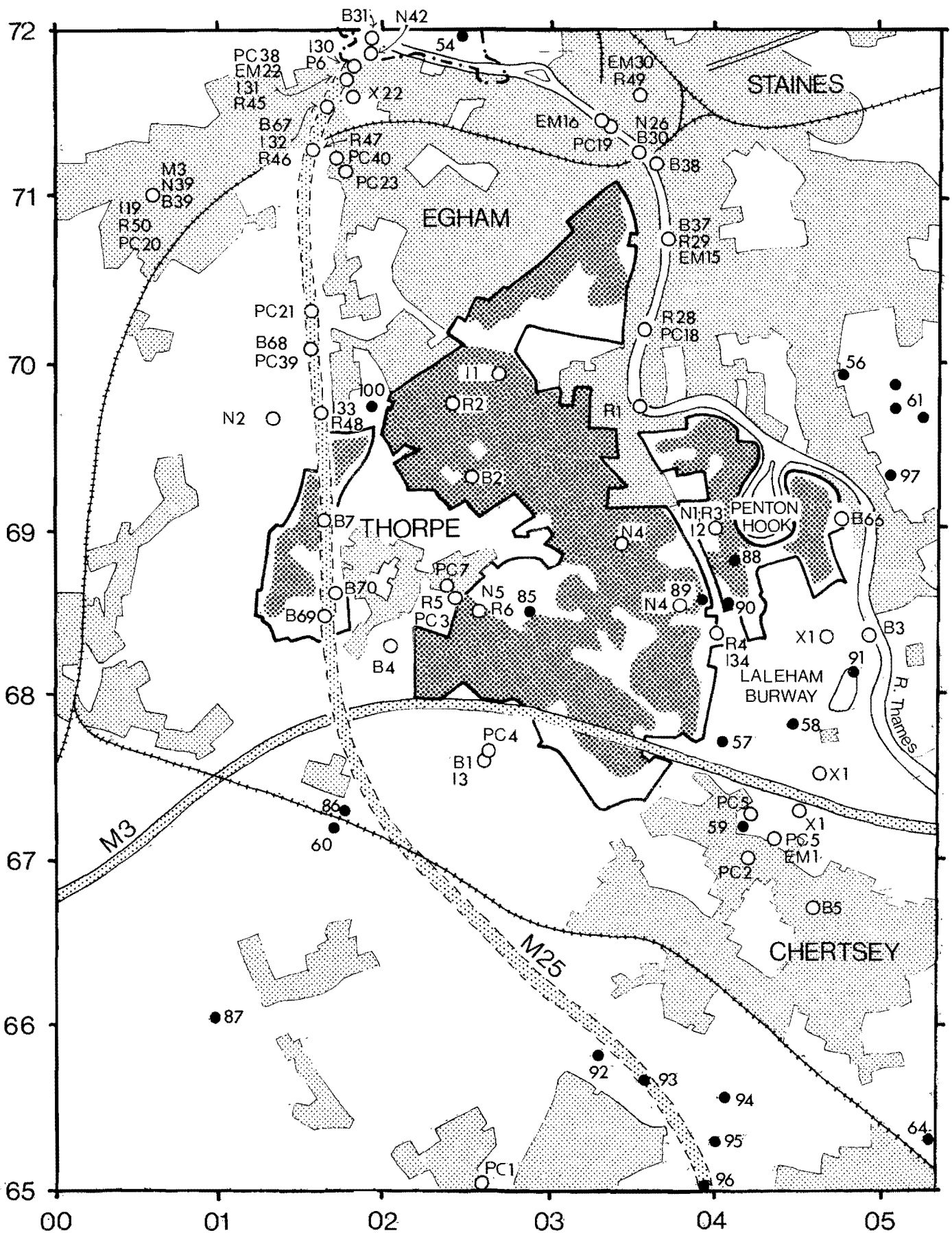


Fig.5. Egham-Chertsey area. Grid lines are at kilometre intervals. Based on the Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office, Crown Copyright reserved

<i>Index No.</i>	<i>Site/Find</i>	<i>NGR (TQ)</i>	<i>Principal Reference</i>
B6*	BA looped spearhead	0466	SyAC XLV (1937), 166
B7	BA occupation site	015689	Johnson 1975, 19-23
B30	Bronze spearhead with basal loops	03557122	<i>Berks. Arch J</i> , LVI (1958), 54
B31	BA tanged knife	01917195	OS TQ 07 SW 4
B32*	(a) Bronze founder's hoard (b) Bronze sword (c) Bronze sword blade and scabbard end	Staines	Vulliamy 1930, 111
B35*	(a) BA sword (b) Rapier blade (c) Two spearheads and two ferrules (d) Bronze socketed axe	Thames at Staines	OS TQ 07 SW 12
B37	BA palstave	03707071	<i>Berks Arch J</i> , LVI (1958), 54
B38	Bronze rapier fragment	03617121	<i>Berks. Arch J</i> , LVI (1958), 54
B39	BA sherds	00677100	OS TQ 07 SW 27
B66	Bronze sword	04756911	Chertsey Museum
B67	BA occupation site	016715	Johnson 1975, 12
B68	BA occupation site	016700	Ibid. 16-19
B69	BA finds	016685	Ibid. Map 2
B70	BA pits	017686	Ibid. Map 2
B81*	Socketed axe	Thames at Penton Hook	SyAS Bull. 76 (April 1971)
I1	IA sherds	027699	OS TQ 06 NW 3
I2	IA settlement	040690	Grimes 1960, 181
I3	St Ann's Hill (fort?)	026676	OS TQ 06 NW 14
I19	IA sherds	00677100	OS TQ 07 SW 27
I30	IA pottery, flints and bone	01957188	Johnson 1975, 25
I31	IA occupation site	016715	Ibid. 12
I32	IA occupation site	016715	Ibid. 12
I33	IA occupation site	016698	Ibid. 19
I34	IA pottery	03946835	OS TQ 06 NW 22
R1	Roman coin (Trajan)	034697	<i>Arch J</i> XVI (1859), 179
R2	RB pottery	02436974	OS TQ 06 NW 5
R3	1st and 4th century AD settlement	040690	Grimes 1960, 181
R4	1st and 2nd century AD pottery	03946835	OS TQ 06 NW 22
R5	2nd century AD pottery	02396866	OS TQ 06 NW 26
R6	Roman finger ring, 1st and 2nd century AD sherds	02616850	OS TQ 06 NW 27
R28	2nd and 3rd/4th century AD pottery	03547009	<i>Berks. Arch J</i> , LVI (1958), 54
R29	Roman lance-head	03707071	<i>Berks. Arch J</i> , LVI (1958), 54
R45	RB occupation	016715	Johnson 1975, 12-14
R46	RB occupation	016715	Ibid.
R47	RB farmstead	015712	Ibid. 14-16
R48	RB occupation	016698	Ibid. 19
R49	Roman Staines—1st-4th century settlement	035716	Current excavation by K. Crouch
R50	Roman sherds	00677100	OS TQ 07 SW 27
EM1	Chertsey Abbey founded pre 666	04356712	OS TQ 06 NW 20
EM14*	(a) AS spearhead (b) Viking sword	Thames at Staines	OS TQ 07 SW 12
EM15	Late Saxon or Viking spearhead	03707071	<i>Berks. Arch J</i> , LVI (1958), 54

<i>Index No.</i>	<i>Site/Find</i>	<i>NGR (TQ)</i>	<i>Principal Reference</i>
EM16	Carolingian winged spearhead	03227149	<i>Berks. Arch J</i> , LVI (1958), 56
EM22	Egham. Early med. occupation	016715	Current excavations by D. Barker
EM30	Staines. Early med. occupation	035716	Current excavations by K. Crouch
PC1	Moat	02596500	<i>VCH Surrey IV</i> (1912), 399
PC2	St Peter's Church, 13th-15th century	04196699	OS TQ 06 NW 10
PC3	St Mary's Church-12th century in parts	02386864	OS TQ 06 NW 11
PC4	St Anne's Chapel	02646766	<i>SyAS Bull.</i> 9 (Sept 1965)
PC5	(a) Chertsey Abbey rebuilt 1100	04356712	OS TQ 06 NW 20
	(b) 13th-14th century tile kiln	04416706	<i>JBAA XVII</i> (1954), 24ff
PC7	Moat	02326869	OS TQ 06 NW 25
PC17	Egham Causeway	00557172 to 03157150	OS TQ 07 SW 5
PC18	15th century pottery, human remains	03547009	<i>Berks. Arch J</i> , LVI (1958), 54
PC19	Staines bridge (wood) 13th century	03357142	OS TQ 07 SW 25
PC20	Medieval sherds and possible extension of Egham causeway	00677100	OS TQ 07 SW 27
PC21	Moat	01607027	OS TQ 07 SW 28
PC23	Moat	01767116	<i>SyAS Bull.</i> 59 (Nov. 1969)
PC38	11th/12th century building	016715	Johnson (1975), 14
PC39	Med. ditch and pottery	016700	<i>Ibid.</i> 16-19
PC40	Med. pits	017720	Johnson (1975) map 2
X1	Earthwork enclosures	04666835	OS TQ 06 NW 13
		05406756	
		04706756	
X22	Prehistoric ditches	018717	Johnson (1975), 14

Crop Mark Sites

<i>Index No.</i>	<i>Description and Comment</i>	<i>NGR (TQ)</i>	<i>Source</i>
54	Large rect. enclosure (double ditched), ring ditches. (Now destroyed by gravel extraction.)	02527200	Aerial photograph in the possession of K. Crouch.
56	Ring ditch	04796990	Kingston (1971), 637
57	Rect. enclosure. (Possible med. stock enclosure.) Shadow mark	04026770	HAS/UK/49/217
58	Right angled ditch. (A further stock enclosure.) Shadow mark	04506781	HAS/UK/49/217
59	Rect. enclosure	04196719	HAS/UK/49/215
60	Ring ditches, linear ditches	01706719	HAS/UK/49/217, 215
61	Ring ditches	05206980	Kingston (1971), 637
64	Ring ditches	05286530	HAS/UK/49/215
84	Linear and ring ditches	01956975	TQ0796/1/0112
85	Ring ditch. (Threatened by imminent gravel extraction.)	02906850	TQ0268/2/4227
86	Ring ditches	01756733	TQ0066/1/1007
87	Parallel linear ditches	00986609	HAS/UK/49/215
88	Ring ditch. (Destroyed by gravel extraction.)	04126884	TQ0268/2/4225
89	Linear and ring ditches. (Partly destroyed by gravel extraction.)	03956852	TQ0268/2/4225
90	Linear and ring ditches	04056852	TQ0268/2/4225
91	Two parallel ditches	04886815	TQ0463/2/0089

<i>Index No.</i>	<i>Description and Comment</i>	<i>NGR (TQ)</i>	<i>Source</i>
92	Ring ditch; trackway	03306585	TQ0066/1/1009
93	Rect. enclosure	03586567	TQ0066/1/1009
94	Sub-circ. enclosure; ring ditches	04106559	TQ0464/1/0068
95	Linear ditches and pits	04016530	HAS/UK/49/215
96	Linear ditches, ring ditches	03916501	TQ/0463/2/0085
97	Ring ditches	05056935	TQ0268/2/4225
100	Ring ditches, linear ditch and rect. enclosure	01906980	TQ0769/1/0112

Implications

West of Thorpe

This relatively recent permission is being rapidly worked out in providing material for the M25. The route of the M25 (now under construction), which traverses this permission, has been surveyed from an archaeological viewpoint by Bernard Johnson. A Bronze Age settlement site is known at TQ015688 (B7) and there are further indications of Bronze Age occupation in the immediate area (B69, B70).

100 acres of land are considered to have passed through the sieve analysis in the area north west of Thorpe although applications for extraction over parts of this area have met with refusal in the past. There are uncertainties about the extent of the gravel from this potential area at present although Bernard Johnson's work has shown that archaeological sites may be expected in the density of one every four acres. The existence of further Bronze Age material within an area of the present permission is almost a certainty.

Egham—Thorpe

This area is largely worked out. Roman, Iron Age and Bronze Age pottery (I1; R2; B2) is known from the pits and further indications of settlement in these periods may be expected in the area still to be worked south of Egham.

Thorpe—Chertsey

This large permission has produced stray finds of the Neolithic period while a Neolithic occupation site is known nearby at TQ040690 (N1).

First and second century AD pottery is known from TQ0396835 (R4; I34) while second century AD pottery is known from Thorpe Church nearby (R5). It is rumoured that a tessellated pavement has already disappeared into the gravel pit in this immediate area and crop marks of as yet unconfirmed nature have been observed at TQ02856877. This potential site is within the gravel permission and is threatened within the near future. A ring ditch at TQ02796849

is in more immediate danger (C85). There are considered to be 75 acres of additional land in the Thorpe area free of restraints from gravel working. Applications have already been submitted for permission to work much of this land.

Penton Hook

The potential of this permission is almost exhausted. A Neolithic, Iron Age and Roman site was excavated at TQ040690 (N1; I2; R3) in 1944-5 while a bronze sword was recovered during the process of extraction at TQ04796911 (B66). Crop marks have been observed at TQ04126884 (C88) and TQ04056853 (C90).

About 190 acres of land between Penton Hook and Chertsey are owned by the gravel industry. The amenity value of the land has precluded its exploitation in the past but it should be remembered that as reserves diminish the industry's case becomes stronger. The M3 motorway now shields part of this area from Chertsey and its residents. Three earthwork enclosures, possibly associated with Chertsey Abbey, are known on Laleham Burway (X1) while air photographs indicate the existence of one and perhaps two more (C57, C58). Two parallel ditches cross the Burway at TQ04856815 (C91).

Bronze Age settlement may possibly be expected in the region of TQ049684 (B3).

About 75 acres of land north east of Penton Hook seem to offer scope for working and have now been relieved of their agriculturally important status. A previous application to extract gravel from this area met with refusal. Ring ditches are known at TQ04796990, TQ05206980 and TQ05076935.

South West of Chertsey

A large amount of land along the route of the M25 passed through the sieve analysis. At present only about 50 acres are thought to be economically workable but no doubt the remainder will become so as the scarcity value of gravel increases. Air photography has revealed a variety of crop mark enclosures, ditches and pits in this area (C92, C93, C94, C95, C96) and a trackway of uncertain date crosses from TQ02096560 to TQ03806588.

SHEPPERTON—SUNBURY (Fig. 6)

<i>Index No.</i>	<i>Site/Find</i>	<i>NGR (TQ)</i>	<i>Principal Reference</i>
P1	Palaeo. hand-axe	061657	OS TQ 06 NE 4
M1	Thames pick	092665	SyAC XXV (1912), 130-1
M2	Antler pick holder	09046543	OS TQ 06 NE 9
M5	Maglemosian antler adze	Thames at Sunbury	OS TQ 16 NW 19

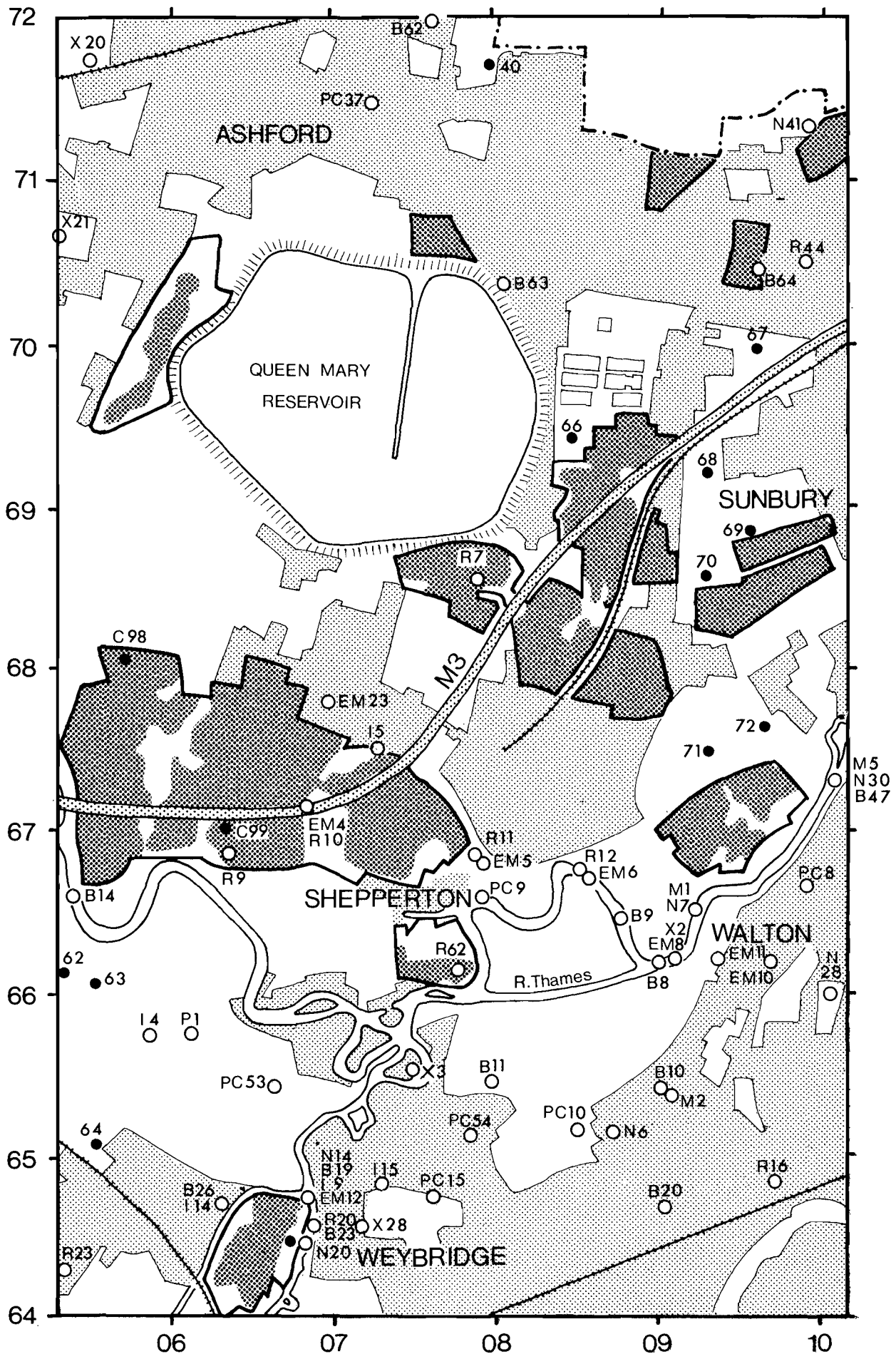


Fig. 6. Shepperton-Sunbury area. Grid lines are at kilometre intervals. Based on the Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office, Crown Copyright reserved

<i>Index No.</i>	<i>Site/Find</i>	<i>NGR (TQ)</i>	<i>Principal Reference</i>
N6	Neo. pick and scraper	08746514	OS TQ 06 NE 3
N7	Stone axe	092665	SyAC XXV (1912), 130-1
N8*	(a) Peterborough ware (b) Neo. sherd	Thames at Weybridge	<i>Ant J</i> , 1925, 431-2
N10*	Neo. axe	Thames at Battlebridge, Shepperton	OS TQ 06 NE 39
N14	(a) 2 greenstone axes (b) Polished flint axe (c) Chipped flint adze	06906475 (Wey ford)	OS TQ 06 SE 9
N19*	Antler hammerhead	Weybridge	OS TQ 06 SE 41
N20	Leaf-shaped arrowhead	06866453	OS TQ 06 SE 46
N27*	Flint dagger	Walton	<i>PSA</i> VI (1873-6), 73
N28	Leaf-shaped arrowhead	100660	OS TQ 16 NW 13
N30	(a) Polished flint axe (b) Chipped flint axe (c) Chipped flint axe/pick (d) Chipped flint adze (e) Flint flake (f) Stone flake	Thames at Sunbury	OS TQ 16 NW 19
N41	Polished flint axe	099714	WLAFG card index
B8	Bronze sword	090661	<i>Arch. J</i> VI (1849), 198
B9	Palstave	088664	SyAC XXIV (1911), 48
B10	BA burial group	09026545	<i>Antiq. J</i> V (1925), 74
B11	BA dagger fragment and stone hammer	07956546	SyAC XLIX (1946), 100-2
B12*	Flint knife	Sunbury	Vulliamy 1930, 112
B13*	BA spearhead & javelin head	Thames at Sunbury	<i>Arch J</i> , LXXXVI (1929), 75
B14	BA sword	05396664	SyAC LXIV (1967), 16
B19	(a) Flanged axe (b) 4 socketed axes (c) Socketed knife (d) Palstave (e) 2 rapiers (f) Bronze spear (g) Looped and socketed spearhead (h) 3 bronze leaf-shaped swords	06906475 (Wey ford)	OS TQ 06 SE 9
B20	Large BA cemetery	091647	SyAC XXXV (1924), 14 & 23-6
B22*	Palstave	R. Wey	SyAC XXV (1912), 130
B23	Leaf-shaped flint dagger	06906472	OS TQ 06 SE 25
B26	Perforated hammer stone	063647	OS TQ 06 SE 38
B47	(a) Bronze rapier (b) Spearhead with basal loops (c) Spearhead (d) Bronze dagger	Thames at Sunbury	OS TQ 16 NW 19 <i>PSA</i> XVIII (1899-1901)
B62	Palstave	07607200	WLAFG Card Index
B63	Cremation urns with fingertip ornament	08037040	<i>TLAMAS</i> X (1951), 307
B64	Urnfield	09707045	<i>TLAMAS</i> X (1951), 307
I4	IA sherd	05866574	OS TQ 06 NE 5
I5	Tin coin hoard and pot	07286757	<i>Num. Chron.</i> 1950, 148-9
I6*	Gold stater	Sunbury	OS TQ 06 NE 30
I9	(a) Gold stater (b) IA urns	06906475 (Wey ford)	OS TQ 06 SE 9
I14	IA pottery	063647	OS TQ 06 SE 38
I15	IA sherds and animal bones	07266480	OS TQ 06 SE 39

<i>Index No.</i>	<i>Site/Find</i>	<i>NGR (TQ)</i>	<i>Principal Reference</i>
I23*	Remic gold stater	Thames at Walton	<i>Inst. Arch. Occ. paper</i> No. 11, 1958, 201
R7	1st century AD quern and animal bones	07976863	<i>Inst. Arch, 2nd Annual Report</i>
R8*	Remains of tessellated pavement	0767	Sharpe 1919, 173
R9	2nd century AD settlement	06406690	<i>TLAMAS IX</i> (1945), 203-4
R10	Roman pottery	06756711	<i>Arch. J.</i> , XXV (1868), 171-2
R11	Roman coins	North of 07976677	OS TQ 06 NE 15
R12	Samian dish	086669	Whimster 1931, 160, 238
R13*	Bronze patera	Thames between Chertsey and Walton	<i>PSA XXII</i> (1907-9), 414-5
R16	Roman pottery, bronzes and possible building	096648	<i>Ibid.</i> 147, 238
R20	Roman pot	06906472	OS TQ 06 SE 25
R22	1st century Roman pottery	River Wey between 069647 & 063639	OS TQ 06 SE 49
R23	Unidentifiable Roman coin	0534364330	OS TQ 06 SE 49
R44	2nd-4th century AD pottery	099705	WLAFG Card Index
R62	RB pottery	077662	<i>SyAS Bulletin</i> Sept. 1973
EM2*	Pagan Saxon pots	0768	Watercolour drawings in Guildford Museum
EM3*	Spearhead	0766	<i>PSA III</i> (1865), 80
EM4	AS cemetery	06756711	<i>Arch. J.</i> , XXV (1868), 171-2
EM5	AS cemetery	07976677	Meaney 1964, 168
EM6	AS scramasax	086669	<i>SyAC XXV</i> (1912), 134
EM7*	Pots, brooches, rings and wristlet	Walton Bridge Green	<i>SyAC XXV</i> (1912), 134
EM8	AS sword, scramasax	09026618	<i>Arch. J.</i> , LXXXVI (1930), 75
EM9*	Possible AS cremation cemetery	Walton Bridge Green	<i>PSA IV</i> (1868), 119
EM10	Possible AS barrow cemetery	09776615	<i>SyAC LVI</i> (1959), 145
EM11	6th/7th century Saxon bowl	094662	<i>SyAC LVI</i> (1959), 145
EM12	(a) Danish battle axe (b) 2 spearheads	06906475	OS TQ 06 SE 9
EM23	AS burials?	070680	Unpublished excavation
PC8	15th century manor house	09886668	<i>VCH Surrey III</i> (1911), 470
PC9	Site of Shepperton Church?	07906658	OS TQ 06 NE 16
PC10	Site of pre 1500 mansion	08506515	<i>JBAA IX</i> (1903), 182-90
PC15	15th century cottage	07586475	<i>SAS Bull.</i> Nos. 12 (Dec. 1965) and 48 (Dec. 1968)
PC37	Site of 12th century chapel	07267148	Robbins 1953, 222
PC53	(a) Moat, Tudor footings	06736544	<i>VCH Surrey IV</i> (1912), 399
PC54	Site of Oatlands palace (16th century) (15th century core)	078651	<i>JBAA IX</i> (1903), 182-90 <i>SyAS. Bull.</i> No. 47 Nov. 1968
X3*	Dug-out canoe and coarse pottery	075656	<i>SyAC XXV</i> (1912), 132
X6*	Neo. arrowhead, flints, med. or later coins (possible collector's items)	06906472	OS TQ 06 SE 26
X20	Low broad bank	05497173-05607185	WLAFG Card Index
X21	Caesars Camp (Double ditched rect. enclosure)	05327065	<i>Antiq. J.</i> , VII (1933), 290

<i>Index No.</i>	<i>Site/Find</i>	<i>NGR (TQ)</i>	<i>Source</i>
X23*	Dug-out canoe (post 1st century AD)	099671	SyAS Bull. 1966-7, Nos. 24 & 26
X28	Flint blade	07176463	OS TQ 06 SE 40

Crop Mark Sites

<i>Index No.</i>	<i>Description and Comment</i>	<i>NGR (TQ)</i>	<i>Source</i>
40	Rectilinear ditches and ring ditch	08007170	HAS/UK/49/217
62	Subrect. enclosure or drainage ditches?	05406615	HAS/UK/49/215
63	Subcirc. enclosure and ring ditches	05556606	HAS/UK/49/215
64	Ring ditches	05296530	HAS/UK/49/215
65	2 small connected rect. features	05516511	HAS/UK/49/215
66	Ring ditches	08496950	HAS/UK/49/217
67	Rectilinear and ring ditches	09607000	HAS/UK/49/217
68	Linear and ring ditches	09336922	FAS, WLAFG aerial photographic index 58
69	Linear and ring ditches	09686890	FAS, WLAFG aerial photographic index 58
70	Ring ditches	09306855	FAS, WLAFG aerial photographic index 58
71	Ring ditches	09256747	Woking, 1971, 0609
72	Ring ditches	09626766	Woking, 1971, 0609
98	Linear and ring ditches	05806808	TQ0463/2/0089
99	Rectilinear and ring ditches	06356710	Kingston, 1951
101	Rect. ditched enclosure (shadow mark)	06756455	HAS/UK/49/215

Implications**North of Shepperton**

A large area of permission here is almost entirely worked out. A Roman occupation site is known from this pit (R9) while an Iron Age coin hoard was found very close by (I5). The site of the important Anglo-Saxon cemetery (EM4) has now been destroyed, inadequately recorded, while other Anglo-Saxon cemeteries are known nearby to the north (EM23, EM2). Rectilinear and ring ditches have been observed on aerial photographs at TQ06326710 and TQ05806808 (C98). 250 acres, most of which are at present agriculturally important, are thought to be owned by the industry in the Laleham area, north of this permission. No sites are known here and permission for gravel extraction has recently been refused over part of this land.

South of Shepperton

A small permission here has had the gravel extracted over half its area. No sites are known in the immediate vicinity although Roman pottery and possibly contemporary wooden stakes are known from the pit itself, uncovered in the course of gravel extraction.

NW of Queen Mary Reservoir

Gravel is at present being dredged from the floor of

Queen Mary Reservoir. In addition a permission to the NW is being worked and may be expected to be extended into the area NE of Penton Hook, discussed above, where ring ditches have been observed on aerial photographs.

SW of Queen Mary Reservoir

These permissions have been largely worked out although some potential may remain in small pockets.

Sunbury

Two permissions are now completely worked out with the loss of two possible crop mark sites. Approximately 50 acres of land passed through the Working Party's sieve analysis in this area while a further 60 acres is in the industry's ownership but is at present subject to agricultural objection. Some of the sieved land has now been relieved of its agricultural importance and new permissions must be expected in this area in the future. A complex of linear ditches and ring ditches may prove to be continuous between C68 and C69 at Sunbury while further ring ditches have been observed at C70. Aerial photographs have also revealed ring ditches further south at C71 and C72. All these crop mark sites are

within areas which the gravel industry might reasonably expect to acquire for extraction.

Walton

The majority of this permission has been worked and no sites are known although there is a strong possibility that this pit will be extended into the area to the north described above.

North of Sunbury

A number of small pits have now been exhausted in this area. An urnfield is known at B64 and a polished flint axe was found at N41.

Weybridge (See also Fig. 8)

For a discussion of this area see p. 26

KEMPTON PARK-ESHER (Fig. 7)

<i>Index No.</i>	<i>Site/Find</i>	<i>NGR (TQ)</i>	<i>Principal Reference</i>
M4	Meso. working site	13946503	<i>Antiq. J.</i> XXVII (1947), 24-46
M6	Meso. axe	Sunbury lock	OS TQ 16 NW 19
N29	Polished stone axe	140693	OS TQ 16 NW 14
N31	Neo. chipped flint axe	Sunbury lock	OS TQ 16 NW 19
N32	Polished flint axe	Thames Platt's Ait	OS TQ 16 NW 19
N33	(a) Neo. chipped curved stone pick (b) Neo. chipped flint axe (c) 2 Neo. polished flint axes (d) Lower half of stone axe	Thames at Hampton	OS TQ 16 NW 19
N34	Stone axe	Thames, East Molesey	<i>PSA</i> 2nd Ser. XIX (1902-3), 213
B42	Possible Late Neo./Early BA human and animal remains	10976855	<i>JBAA</i> XXXII (1926)
B43	Bronze palstave	137676	<i>SyAC</i> XXV (1912), 130
B44	Barbed and tanged arrowhead	115657	OS TQ 16 NW 11
B45	Imitation bronze flat axe (stone)	140693	OS TQ 16 NW 14
B46	Tanged bronze dagger	147690	<i>Arch. J.</i> LXXXVI (1929), 75
B48	Rapier	Thames, Wheatley's Ait	OS TQ 16 NW 19
B49	Bronze dagger	Thames, Sunbury Lock Island	OS TQ 16 NW 19
B50	(a) Point of bronze sword (b) Bronze spearhead	Thames, Platt's Ait	OS TQ 16 NW 19
B51	(a) BA antler hammer (b) Socketed axe (c) Socketed looped spearhead	Thames at Hampton	OS TQ 16 NW 19
B54*	Bronze shield	Between Hampton and Walton	Vulliamy 1930, 108
B52	Bronze spearhead, basal loops	Thames, East Molesey	<i>Ibid.</i>
I20	Late BA/EIA lugged pot	147690	<i>Arch. J.</i> LXXXVI (1929), 75
I21	IA occupation	13946503 and 13816498	<i>Antiq. J.</i> XXVII (1947), 24-46
I22	IA pottery	12806755	OS TQ 16 NW 17
I24	Spearhead and blade	Thames, Hampton	OS TQ 16 NW 19
I27	IA pot	13556494	OS TQ 15 SW 14
R30	1st and 2nd century Roman coins	11046684	OS TQ 16 NW 7
R31	1st and 2nd century AD pottery	112676	<i>VCH Surrey</i> III (1911)
R33	'Early Roman' pottery	12856754	OS TQ 16 NW 17
R34	Roman spearhead	Thames, Sunbury Weir	OS TQ 16 NW 19
R35	Roman coins, pottery	13436333	Daily Telegraph 25/7/30
R42	3rd/4th century AD cremation burial	13576506	WLAFG Card Index
EM17	9th century axe	Thames, Wheatley's Ait	OS TQ 16 NW 19

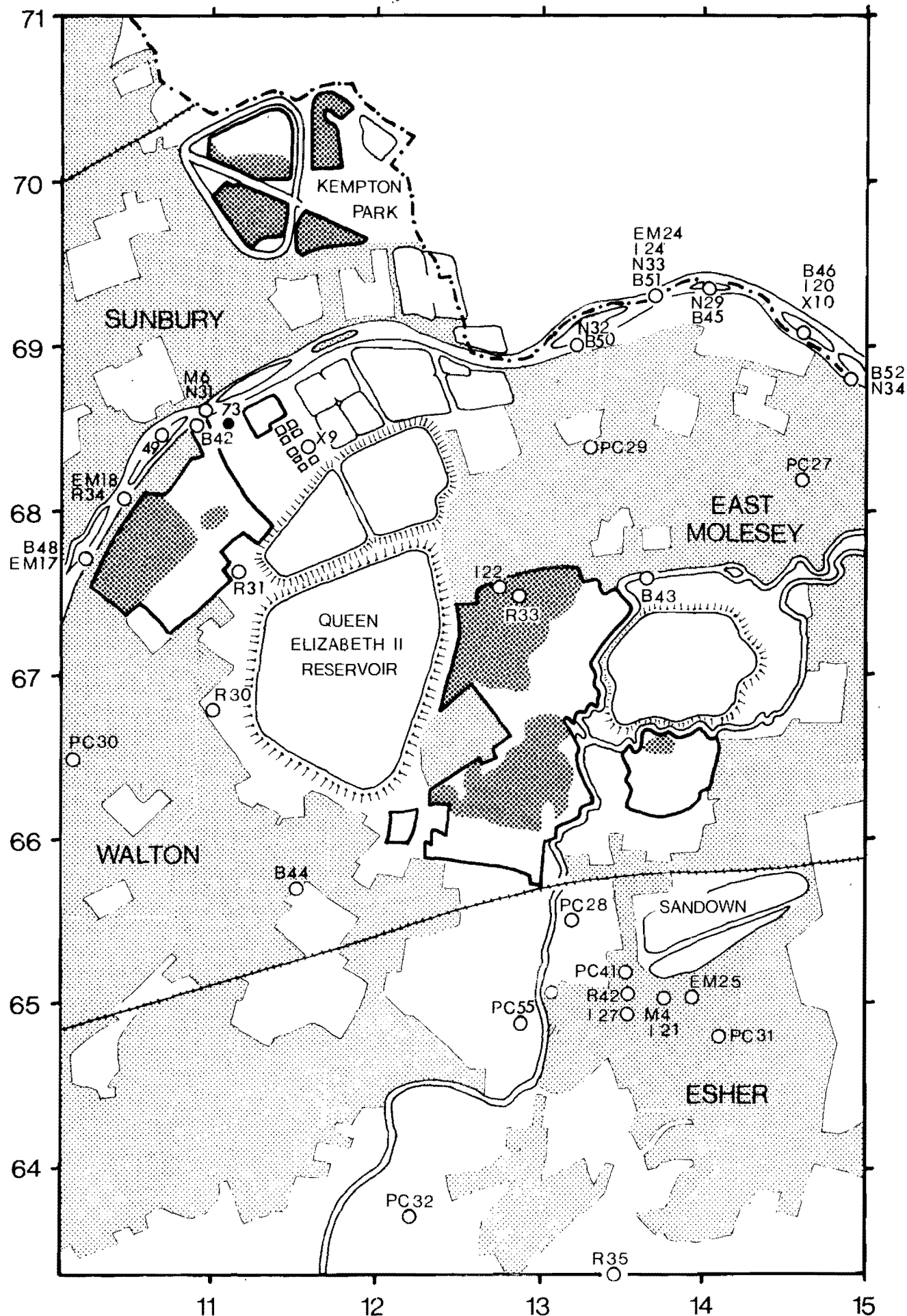


Fig. 7. Kempton Park-Esher area. Grid lines are at kilometre intervals. Based on the Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office, Crown Copyright reserved

<i>Index No.</i>	<i>Site/Find</i>	<i>NGR (TQ)</i>	<i>Principal Reference</i>
EM18	Viking spearhead	Thames, Sunbury Weir	OS TQ 16 NW 19
EM24	Blade of scramasax 9th century axe	Thames, Hampton	OS TQ 16 NW 19
EM25	AS graves	13946503	<i>Antiq. J.</i> XXVII (1947), 24-26
PC27	St Mary's Church (Some surviving fragments of 14th century carvings)	14656790	OS TQ 16 NW 2
PC28	(a) Waynefleete's Tower (15th century)	13086510	<i>PSA</i> 2nd Ser. XXXII (1919), 69-79
	(b) Fish pond	13136541	
	(c) Bridge	13026500	
PC29	West Molesey Church (15th century west tower)	13376838	OS TQ 16 NW 6
PC30	St Mary's Church (Late Norman)	10206652	OS TQ 16 NW 8
PC31	Site of 12th century Sandon Hospital	14096480	Knowles & Hadcock 1953, 303
PC32	Moat	12206370	<i>SyAS Bull.</i> No. 46, Oct 1968
PC41	Med. pottery in grounds of Waynefleete School	135652	<i>SyAS Bull.</i> No. 60, Dec 1969
PC55	Moat and 17th century farmhouse	12856493	OS TQ 16 SW 4
X9	Embattled tower (demolished)	11646843	OS TQ 16 NW 5
X10*	Dug-out canoe	Thames near Molesey	OS TQ 16 NW 20
X11	Barrow-like mound: probably modern	10036912	OS TQ 16 NW 21

Crop Mark Sites

<i>Index No.</i>	<i>Description and Comment</i>	<i>NGR (TQ)</i>	<i>Source</i>
C73	Barrow?	11226855	Kingston 1969, 003

Implications

Kempton Park

A large proportion of the permitted area has been worked out. No sites are known in the vicinity although there is evidence of medieval occupation from within the area of the Park itself.

North West of Queen Elizabeth II Reservoir

A large area remains untouched within this permission. Late Neolithic/Early Bronze Age human and animal remains are known at B42 while Roman pottery has been found on the Apps Court Estate at R31. Mesolithic, Neolithic, Bronze Age, Roman and Early Medieval finds are known from the Thames close by. A crop mark site (C73) indicates a possible barrow at TQ11226855.

East of Queen Elizabeth II Reservoir and South of Island Barn

Much extraction has taken place in this area with a large amount still to be dug. Roman and Iron Age pottery is known at R33 and I22.

Esher

A number of sites of varying periods are known in the Esher area including Anglo-Saxon graves at TQ13946503 (EM25), Iron Age occupation at I21 and a 3rd/4th century AD cremation burial at R42.

Esher Place is located in this area. The open ground west of the river Mole and south of the railway line was formerly subject to agricultural objection but this has now been removed. Planning applications for gravel extraction have been submitted in the past over part of this area but permission has been refused. As with many areas in a similar situation, however, demand for gravel and the decreasing availability of land is constantly redefining priorities.

WEYBRIDGE (Fig. 8)

<i>Index No.</i>	<i>Site/Find</i>	<i>NGR (TQ)</i>	<i>Principal Reference</i>
P3	Five Acheulian hand-axes	085622	Whimster 1931, 246
P4	Palaeolith	08346177	<i>Proc. Geol. Ass.</i> XXVI (1915), 12

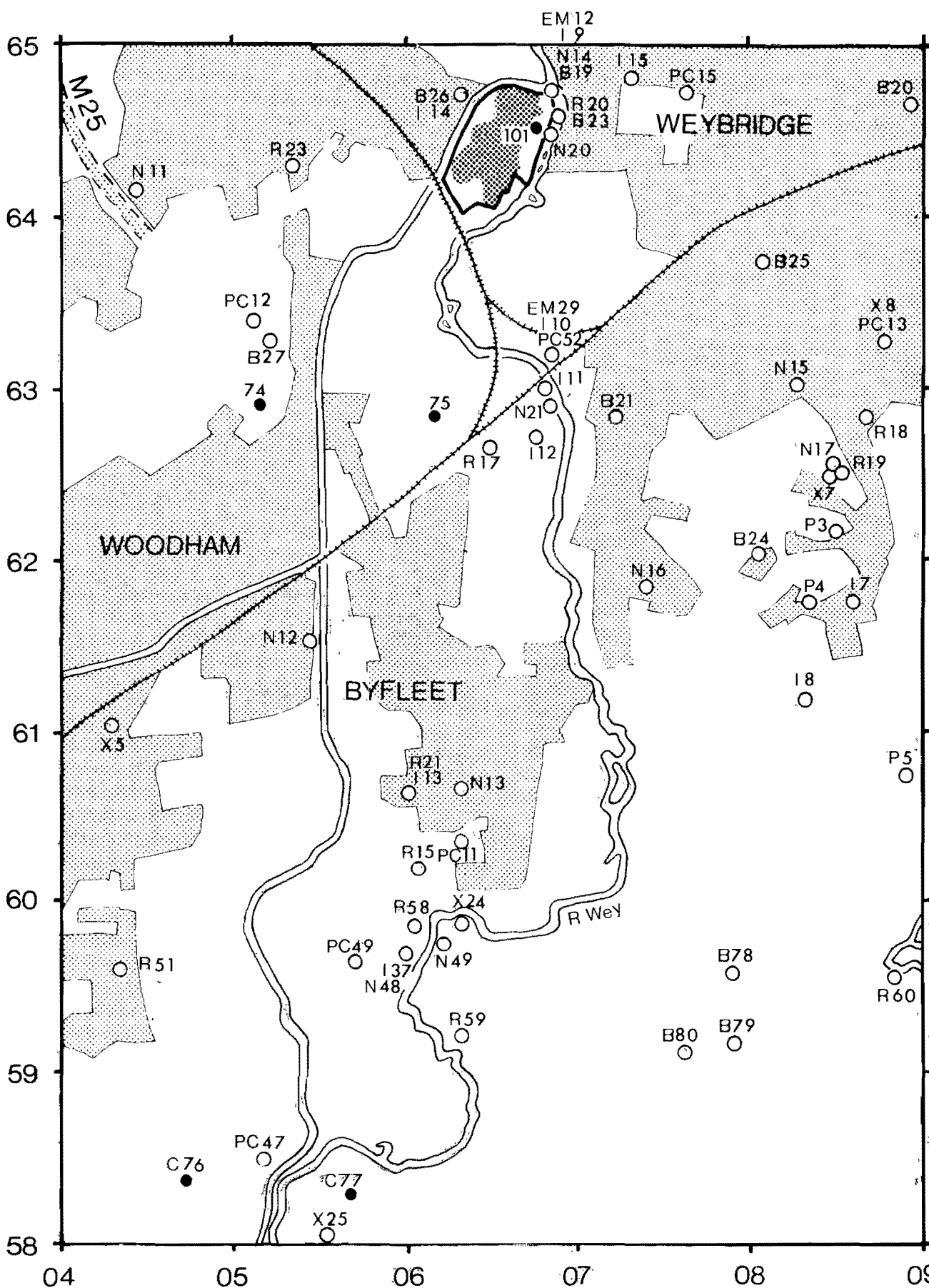


Fig. 8. Weybridge area. Grid lines are at kilometre intervals. Based upon the Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office, Crown Copyright reserved

<i>Index No.</i>	<i>Site/Find</i>	<i>NGR (TQ)</i>	<i>Principal Reference</i>
P5	Two palaeo. hand-axes	089607	OS TQ 06 SE 37
P7*	Paleo. flints	Pyrford	<i>VCH Surrey</i> III (1911), 431
N11	Partly polished flint axe fragment	0442464165	OS TQ 06 SW 4
N12	Polished flint axe	05416158	Johnston 1913, 12
N13	Neo. flint scraper	06256070	OS TQ 06 SE 4
N14	(a) Two greenstone axes (b) Polished flint axe (c) Chipped flint adze	06906475 (Wey ford)	OS TQ 06 SE 9
N15	Neo. flints and scrapers	083630	OS TQ 06 SE 16
N16	Neo. flints	074618	<i>VCH Surrey</i> III (1911), 400
N17	Partly polished flint axe	085626	Whimster 1931, 239
N19*	Antler hammer head	Weybridge	OS TQ 06 SE 41
N20	Leaf-shaped arrowhead	06866453	OS TQ 06 SE 46
N21	Polished flint axe	06886299	OS TQ 06 SE 47
N46*	Neo. flints	Pyrford	<i>VCH Surrey</i> III (1911), 431
N48	Neo. sherds	05975967	<i>Antiq. J.</i> IV (1924), 40-5
N49	Flint and sandstone implements	06195977	<i>SyAC</i> XXIV (1911), 53
N51*	Two neo. axes	0659	<i>SyAC</i> XI (1893), 247
B19	(a) Flanged axe (b) Four socketed axes (c) Socketed knife (d) Palstave (e) Two rapiers (f) Bronze spear (g) Looped and socketed spearhead (h) Three bronze leaf-shaped swords	06906475 (Wey ford)	OS TQ 06 SE 9
B20	Large bronze age cemetery	091647	<i>SyAC</i> XXXV (1924), 14 & 23-6
B21	Bronze axe	072629	<i>SyAC</i> XXIV (1911), 50
B22*	Bronze palstave	0664	<i>SyAC</i> XXV (1912), 130
B23	Leaf-shaped flint dagger	06906472	OS TQ 06 SE 25
B24	Looped palstave	080622	<i>SyAC</i> LV (1958), 121
B25	Barbed and tanged arrowhead	0805963760	OS TQ 06 SE 30
B26	Perforated hammer stone	063647	OS TQ 06 SE 38
B27	Flanged axe	0519663328	OS TQ 06 SE 48
B77*	BA mace	Wisley Common	<i>SyAC</i> L (1949), 138
B78	Possible bowl barrow	07885958	<i>SyAC</i> XLII (1934), 41
B79	Bell barrow	07905915	<i>SyAC</i> XL (1932), 59 & 61
B80	Possible round barrow	07635910	<i>SyAC</i> XLII (1934), 42
I7	Hill fort (St. George's Hill)	085617	<i>SyAC</i> XXIV (1911), 40-48, 51-55
I8	IA knife	084613	<i>SyAC</i> XXVIII (1915), 183-4
I9	(a) Gold stater (b) IA urns	06906475 (Wey ford)	OS TQ 06 SE 9
I10	IA metalworking site	06856319	Hanworth and Tomalin forthcoming
I11	Cordoned bronze bucket (6th century B.C.)	06846305	<i>PSA</i> XXI (1906-6), 464
I12	Site of IA settlement	06746278	OS TQ 06 SE 32
I13	1st century B.C. bronze	0599960657	OS TQ 06 SE 33
I14	IA pottery	063647	OS TQ 06 SE 38
I15	IA pottery and animal bones	07266480	OS TQ 06 SE 39
I37	IA settlement	05975967	<i>Antiq. J.</i> IV (1924), 40-5

<i>Index No.</i>	<i>Site/Find</i>	<i>NGR (TQ)</i>	<i>Principal Reference</i>
R14*	Roman coin	West Byfleet	OS TQ 06 SW 6
R15	Occupation site (50-160 A.D.)	06036016	<i>SyAC</i> XLVI (1938), 131-6
R17	Coin hoard (297-305 A.D.)	06486268	<i>SyAC</i> XXII (1909), 184
R18	RB pottery (c.200 A.D.)	08756280	<i>SyAC</i> LI (1950), 144
R19	35 Roman coins (138-178)	08566254	OS TQ 06 SE 20
R20	Roman pottery	06906472	OS TQ 06 SE 25
R21	Roman coins (238-378) and fragments of pottery lamp	0599960657	OS TQ 06 SE 33
R22*	1st century Roman pottery	River Wey between 069647 and 063639	OS TQ 06 SE 45
R23	Unidentifiable Roman coin	0534364330	OS TQ 06 SE 49
R51	Roman coin hoard (range: 69-161 A.D.)	04305958	<i>JRS</i> XLVIII, 148
R55*	RB pottery	0458	Copley 1958
R58	RB pottery kiln (1st century A.D.)	06055983	<i>SyAC</i> XXV (1912), 131-2
R59	RB cremation in mound; cremation pits	06325922	<i>SyAC</i> XXIV (1911), 53
R60	Bath house (4th century A.D.)	08835955	<i>SyAC</i> L (1949), 73-98
EM12	(a) Danish battle axe (b) Two spearheads	06906475 (Wey ford)	OS TQ 06 SE 9
EM29	8th century occupation	068632	Hanworth and Tomalin forthcoming
PC11	St Mary's Church (14th century)	06296040	Johnston 1913, 12
PC12	Moat	05076344	<i>VCH Surrey</i> IV (1912), 399
PC13	Saxo - Norman pottery	087633	OS TQ 06 SE 44
PC15	15th century cottage	07586475	<i>SyAS Bull.</i> No. 12 (Dec. 1965) and No. 48 (Dec. 1968)
PC47	Moat	05205845	OS TQ 05 NE 9
PC49	Norman church	05695961	OS TQ 05 NE 17
PC52	12th-14th century occupation	068632	Hanworth and Tomalin forthcoming
X5	Early Med. IA, RB pottery. (Probable collector's items)	04276105	OS TQ 06 SE 5
X6*	Neo. arrowhead, flints, med. or later coins (Probable collector's items)	07126489	OS TQ 06 SE 26
X7	Unfinished flint axe	085625	OS TQ 06 SE 43
X8	IA or RB grey ware	087633	OS TQ 06 SE 44
X24	Dug-out canoe	06325988	<i>SyAC</i> XXIV (1911), 53
X25	Possible moat or fishpond	05475801	OS TQ 05 NE 10
X28	Flint blade	07176463	OS TQ 06 SE 40

Crop Mark Sites

<i>Index No.</i>	<i>Description and Comment</i>	<i>NGR (TQ)</i>	<i>Source</i>
74	Enclosures and ditches	052629	TQ0562/8/19
75	Rectilinear ditches	06176287	HAS/UK/49/215
76	Ring ditches	04715835	FSL/UK70/7057
77	Linear ditch and rect. enclosures	057583	TQ/0558/1/371
101	Rect. ditched enclosure (shadow mark)	06756455	HAS/UK/49/215

Implications**Weybridge**

The extraction of gravel from this medium-sized permission is now nearing completion. The ford over

the River Wey at TQ06906475 was obviously on an important routeway in prehistoric times with a large number of Neolithic and Bronze Age finds coming from the river. Iron Age, Roman and early medieval finds are also known from the ford and the immedi-

ate vicinity although nothing has yet been recovered from within the permission.

A number of dispersed areas involving a large amount of land seem to be available on both sides of the Thames between Shepperton and Chertsey (see Fig. 6) and some of this may be absorbed into the existing pattern of permissions as the present pits become worked out. Ring ditches and enclosures are suspected at C62 and C63, and a homestead moat is known at PC53. The discovery of more sites in the area is anticipated. 190 acres of land south of the Weybridge permission are owned by the gravel industry. Much of this is considered to be valuable agriculturally, a fact which has no doubt precluded

the extraction of gravel here. The M25 is expected to pass through this area, however, and the arguments in favour of the short-term extraction of locally won gravel for use in the construction of the motorway may well override agricultural objections.

This stretch of the Wey Valley is very important archaeologically. Settlement in the Iron Age has been demonstrated at I10 and I12, while the well known imported bronze bucket of 6th century BC date was found at TQ06846305 (I11). Neolithic, Bronze Age and Roman finds are all known nearby. Crop marks indicate a complex of linear-ditched features at New Haw (C74), while a rectangular-ditched enclosure is suspected at TQ06156285 (C75).

SEND (Fig. 9)

<i>Index No.</i>	<i>Site/Find</i>	<i>NGR (TQ)</i>	<i>Principal Reference</i>
P7*	Palaeo. flints	Pyrford	<i>VCH Surrey</i> III (1911), 431
N43*	Flint axe	0158	OS TQ 05 NW 4
N45*	Neo. flints	0255	<i>VCH Surrey</i> III (1911), 365
N46*	Neo. flints	Pyrford	<i>VCH Surrey</i> III (1911), 431
B72*	BA flint axe	0158	OS TQ 05 NW 4
B76	BA axe-hammer	03705641	<i>SyAC LII</i> (1952), 80-2
I36	IA occupation site	03705641	<i>SyAC LII</i> (1952), 80-2
R52	RB urn (1st century A.D.)	01555845	<i>SyAC XXV</i> (1912), 133
R54	RB occupation site	02185775	<i>SyAC LIX</i> (1962), 15-8
R56	Roman coin (Diocletian)	03015536	OS TQ 05 NW 27
R61	RB burials and pottery	01075219	<i>VCH Surrey</i> III (1911), 39
EM26	AS spearhead	03705641	<i>SyAC LII</i> (1952), 80-2
EM27	AS spearhead	029571	<i>SyAC XXV</i> (1912), 140
PC42	St Peter's Church (11th century nave)	02085684	OS TQ 05 NW 1
PC43	Newark Priory (12th/13th century)	04175770	Knowles and Hadcock 1953, 146
PC44	Moated royal residence (13th/16th century)	029570	<i>VCH Surrey</i> III (1911), 382-3
PC45	Moated site	03455521	<i>VCH Surrey</i> IV (1912), 400
PC46	St Nicholas' Church (Norman)	03995823	Nairn & Pevsner 1971, 353, 354
PC47	Moated site	05205845	OS TQ 05 NE 9
PC48	St Mary's Church, Ripley (12th century chancel)	05125663	OS TQ 05 NE 15
PC51	St Mary's Church, Send (13th/15th century)	08175434	OS TQ 05 SW 2
X23	Pyrford stone	03835878	<i>VCH Surrey</i> III (1911), 431
X25	Possible moat or fishpond	05475801	OS TQ 05 NE 10
X27	Flint implements	05075656	OS TQ 05 NE 19

Crop Mark Sites

<i>Index No.</i>	<i>Description and Comment</i>	<i>NGR (TQ)</i>	<i>Source</i>
76	Ring ditches	04715835	HSL/UK/70/7057
77	Linear ditch and rect. enclosures	057583	TQ0558/1/371
78	Ring and linear ditches	051579	TQ0558/1/0060
79	Linear ditches; rect. enclosure(s)	041571	TQ0457/364

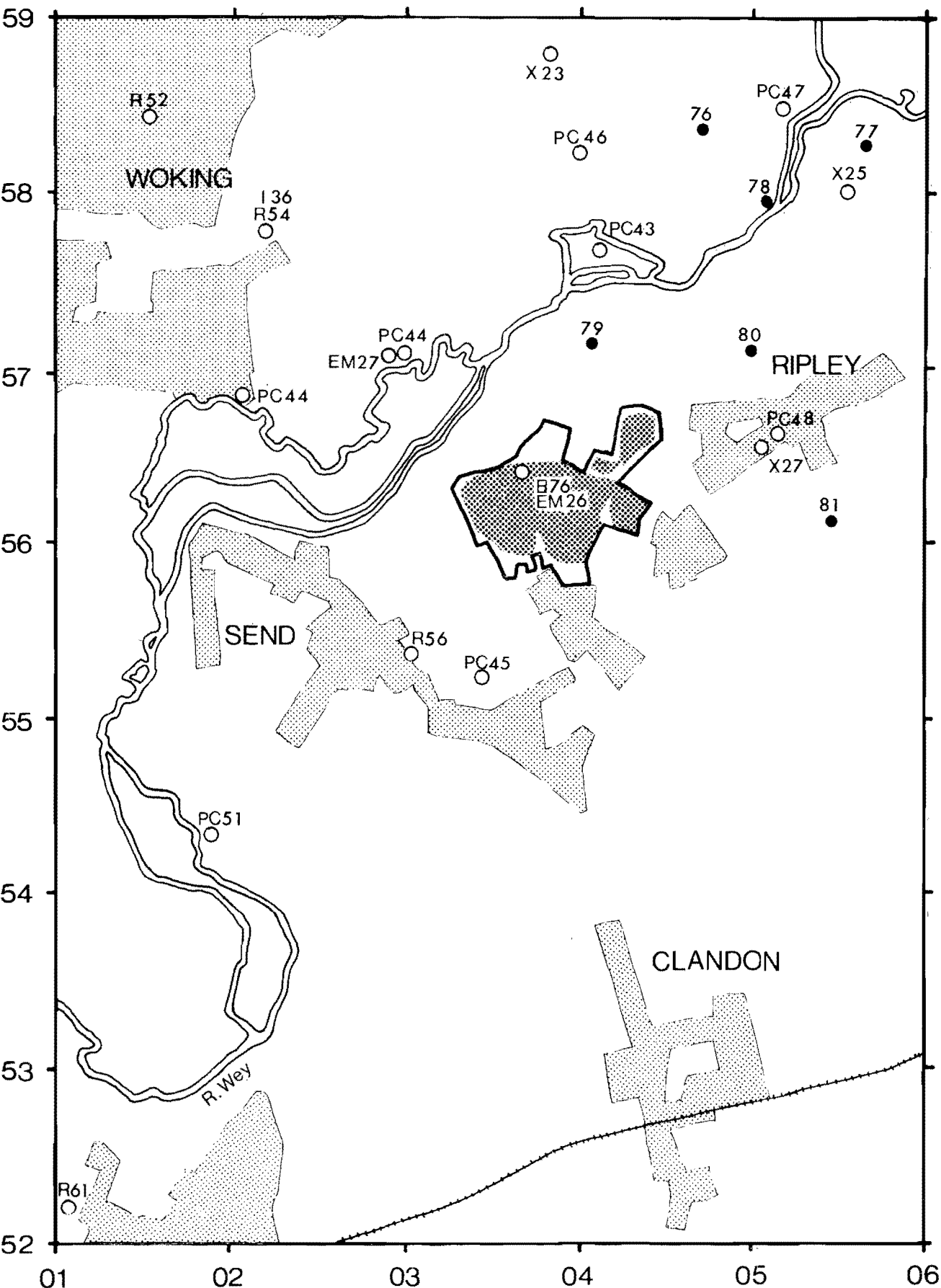


Fig. 9. Send area. Grid lines are at kilometre intervals. Based upon the Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office, Crown Copyright reserved

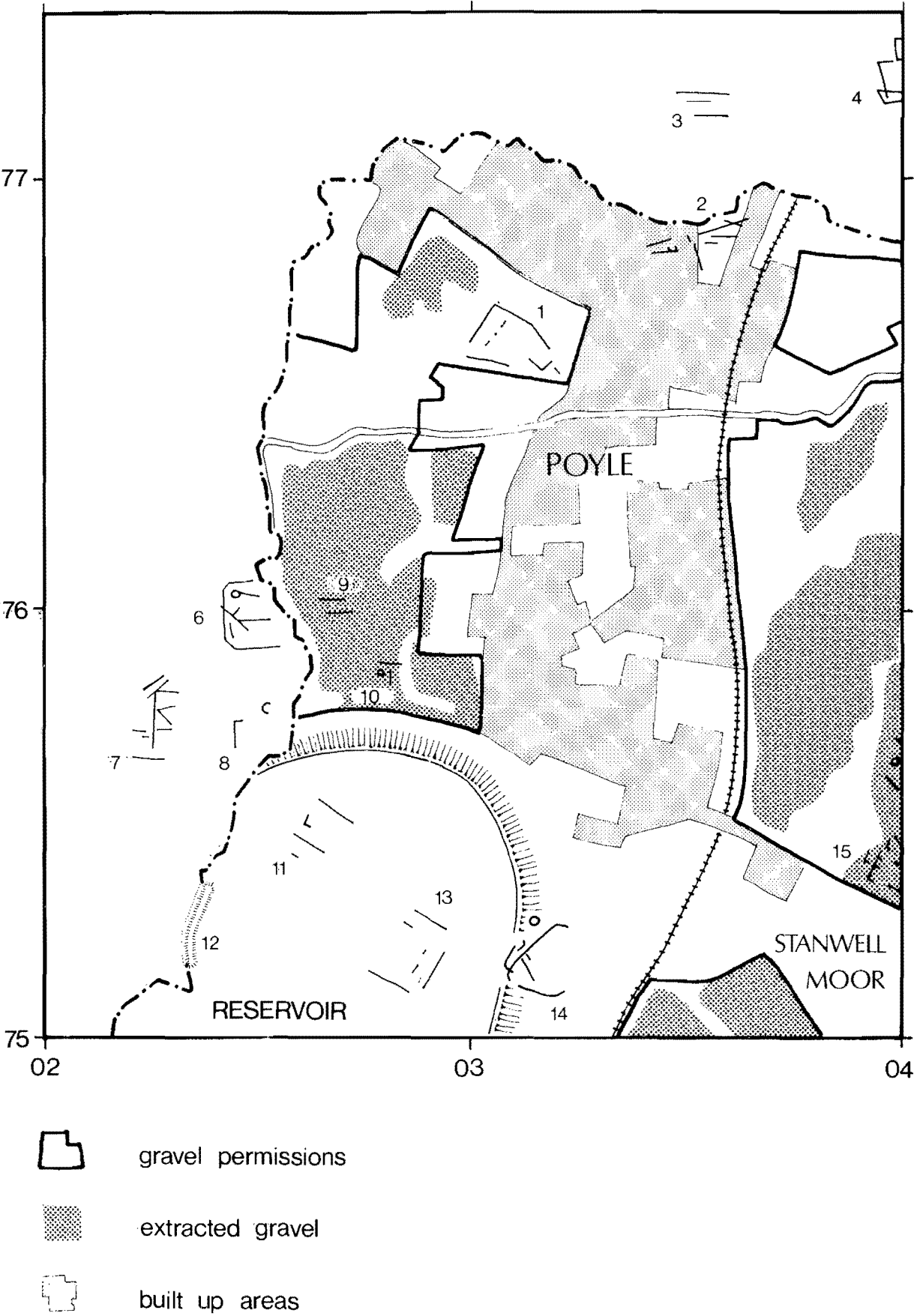


Fig. 10. Crop marks in the Poyle area. Grid lines are at kilometre intervals. Based upon the Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office, Crown Copyright reserved

<i>Index No.</i>	<i>Description and Comment</i>	<i>NGR (TQ)</i>	<i>Source</i>
80	Ring ditch	05005710	TQ0463/2/0074
81	Ring ditches	05455612	TQ0557/6/0058

Implications

Send

Much of the gravel has been extracted from the existing permission in the Send area. Applications for an extension to the present working have, up until now, been refused although ninety acres of land in the immediate vicinity are considered to be 'in the pipeline'.

A Bronze Age axe hammer and Anglo-Saxon spear-head are known from the area of the permission itself (B76, EM26) while crop marks indicate the existence of settlement along the banks of the River Wey. It is possible that indefinite crop marks on aerial photographs point to the location of an archaeological site within the gravel pit which has already disappeared.

CONCLUSIONS

The gravel field of north-west Surrey is obviously and not surprisingly, an important archaeological area. It is evident that settlement took place during all phases of human activity and was at times particularly intense. It is equally evident that destruction of the evidence of this settlement is proceeding apace.

Intensive urban and industrial development and large-scale gravel extraction have removed the archaeological layers over much of the area leaving a scatter of unassociated findspots as the only indication of former settlement. Gravel extraction is continuing and promises to be the largest single destructive factor threatening the remaining archaeology of north-west Surrey.

It is imperative that the maximum information be recovered before the evidence is irretrievably lost. Ideally the aim should have been a complete picture of the evolving pattern of settlement over the gravel area. Past development would seem to have made this unfeasible. Certain goals and priorities may be suggested, however.

(1) There are a number of potential archaeological sites which occur in current gravel permissions. These must be considered as 'rescue' sites. In addition sites are known in areas which may reasonably be expected to be granted permission for extraction in the future. A constant vigilance must be exercised on these areas and in some instances it might be thought desirable to plan excavations well in advance on the more important sites.

(2) There are certain reasonably large areas where there would seem to be scope for the investigation of the area as a whole.

(3) Selective excavation of individual and not necessarily rescue sites would, it is hoped, provide answers to specific questions. A series of planned excavations on this basis might enable the scatter of unassociated findspots to be tied in to a pattern of properly recorded sites which would add an enormous

amount to our, at present, scanty knowledge of the area.

Priorities

Little systematic work has been carried out in the past and in a few years time it will be too late to recover anything but chance finds occurring in the course of further development. A programme of constant fieldwork is essential if meaningful results are to be obtained. This paper has concerned itself with the major threat of gravel extraction. Urban and industrial developments are further contributory factors in the erosion of the archaeological landscape and should not be neglected. A priority is the establishment of a full-time professional team to cover this area even though the present economic climate may dictate that this team should be a small one. A small team could produce significant results while, if the present situation is allowed to continue, an irretrievable loss of information is inevitable. A minimum establishment might be a team of field archaeologists having the capacity to initiate and sustain a programme of planned excavation over the gravel field while at the same time monitoring developments and threats as they arise and acting on them accordingly. Air photographic cover of the area is not good and the location of sites difficult (see above p. 4). Continual supervision of the gravel pits themselves, as they are being worked, is, therefore, essential while fieldwork in areas susceptible to residential or commercial interests will fill in our knowledge of the area and be invaluable in the formulation of an excavations policy in advance of these and similar threats.

(1) 'Rescue' Sites

(a) Subrectangular enclosure(s) in the Poyle area (C1, TQ03107661, see Fig. 10). This site is within a permission for gravel extraction but is, as yet, unworked. Crop mark enclosures and ditches occur less than 1 km to the south-west and approximately 500 metres to the north-east.

(b) Linear ditches and ring ditches within a gravel permission (C47, 03157412; C48, 03227378). Staines Moor is intersected by linear ditches, many of which are likely to be modern drainage ditches. Ancient occupation has been demonstrated at TQ03207385, however, and a number of ring ditches indicate the extent of settlement. The working face is rapidly encompassing these features and C47 has already been partly destroyed.

(c) Ring ditches and parallel linear ditches within a gravel permission (C53, 02207323). This permission is being rapidly worked and the site may already have disappeared.

(d) Ring ditch at Thorpe (C85, TQ02906850). This site is within a gravel permission in an area scheduled for working in the near future.

(2) Potential 'Rescue' Sites

The reasons for considering that certain areas may sooner or later be utilised for the extraction of

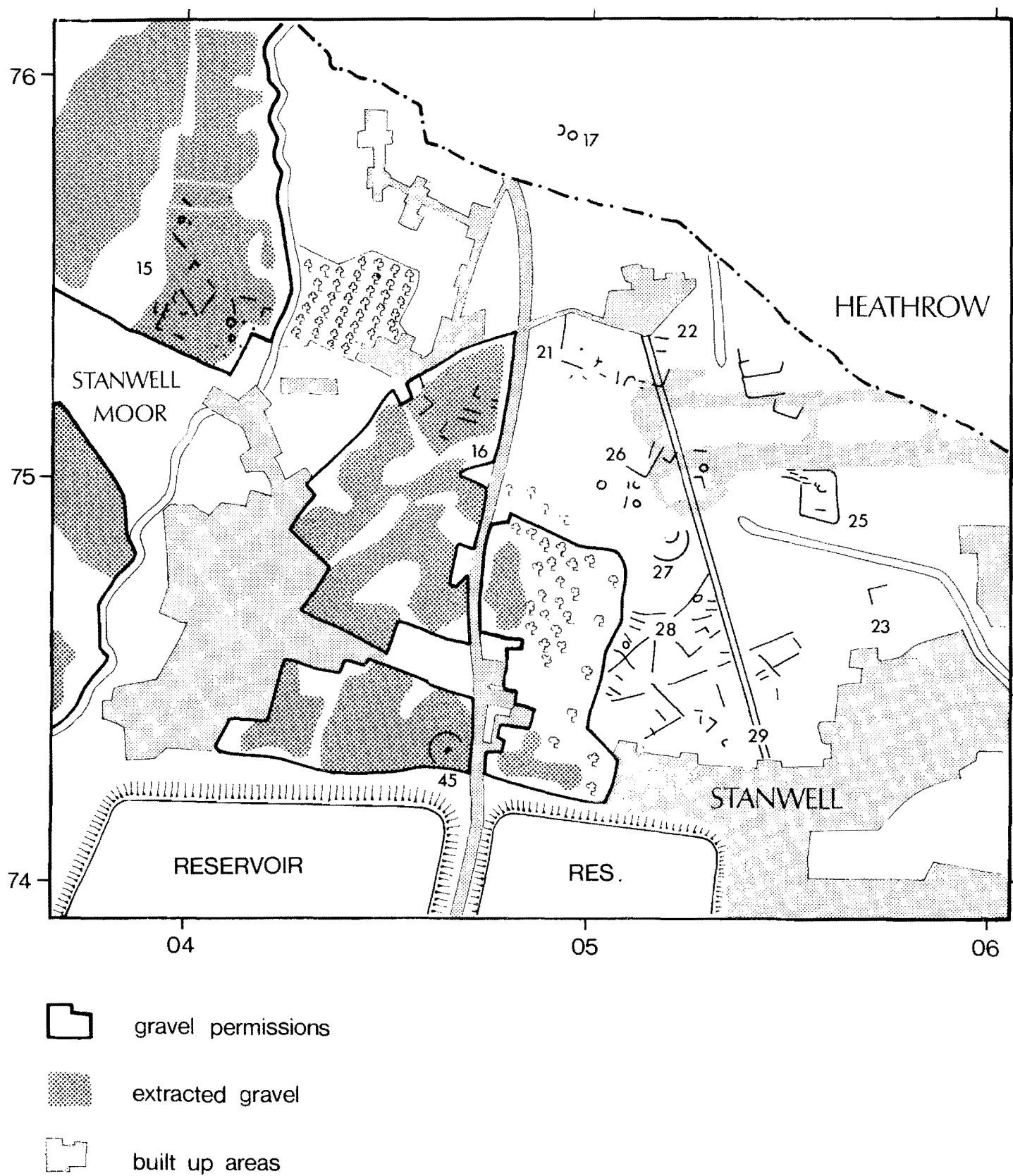


Fig. 11. Crop marks in the Stanwell area. Grid lines are at kilometre intervals. Based upon the Ordnance Survey Map, with the sanction of the Controller of H.M. Stationery Office, Crown Copyright reserved

their gravel have been considered above. Known sites in these areas must be considered potential 'rescue' sites. They are as follows:

- (a) South-west of Heathrow: a complex of ring ditches, linear ditches and enclosures, some of which seem to be cut by and some to overlie a ditched road (see Fig. 11). This area is threatened not only by the possible extension of gravel working into this area but also by developments associated with Heathrow Airport.
- (b) North-east of Penton Hook: ring ditches occur over this area (C56; C61 see Fig. 5).
- (c) Laleham Burway: earthwork enclosures may be stock enclosures on the meadowland of Chertsey Abbey (X1; C57; C58). (But see p. 8).
- (d) Sunbury: linear ditches and ring ditches possibly forming a continuous complex (C68, TQ09336922; C69, 09686890), ring ditches (C70, 09306855; C71, 09256747; C72, 09626766).
- (e) East of Chertsey: subrectangular enclosure? (C62, 05406615). Subcircular enclosure and ring ditches (C63, TQ05556606).
- (f) South-west of Chertsey: a number of crop mark enclosures and ditches lie on the proposed line of the M25 motorway in an area which has passed through the Working Party on Sand and Gravel Extraction's sieve analysis (see Fig. 5). Extraction of gravel to serve the extension of the motorway may be expected here.
- (g) North of Byfleet: land owned by the gravel industry is at present subject to agricultural restriction in this area. Crop mark enclosures here (C74, C75) may be threatened if extraction is allowed during the construction of the projected M25 motorway.

It must be emphasised that the above sites can only represent a proportion of the actual, but as yet undiscovered, total. A great deal more fieldwork and a constant vigilance is needed if valid results are to be obtained.

(3) There are certain areas which fall within gravel permissions or are likely to become gravel permissions in the near future but which have at present no record of any site or find. The areas involved have been indicated above and must be watched if only for the record of negative evidence. In certain of these areas, however, the absence of any evidence would seem to be due more to chance than anything else, especially when the area involved is surrounded by crop marks or find spots. For example, the absence of crop marks at TQ044753 (see Fig. 11) is probably due to market gardening in this area. Fieldwork here and at TQ039755, possibly involving limited trial excavation, might indicate scope for larger-scale excavation into the nature of the now destroyed crop marks at C15 and C16. Similar opportunities seem to present themselves at TQ050745. The partial tree cover of this area (within a permission) probably masks the continuation of the C28 ditch complex (see Fig. 11).

East of Thorpe, crop marks of an indeterminate nature have been reported by observers on the ground at TQ028688. There are also reports of a tessellated pavement nearby in an area which has now been quarried away. Roman pottery from Thorpe Church and a finger ring and 1st and 2nd century pottery from TQ02616850 (R6) indicate that this area is worthy of further study.

A small area of, as yet, unquarried land adjacent to

the Anglo-Saxon burial ground at Shepperton (EM4, TQ06756711) may offer scope for investigation into the nature of this important, though inadequately recorded, cemetery.

(4) Research

Selective excavation and fieldwork on a planned basis may provide answers to specific problems providing clues to the nature of threatened and known, but destroyed, sites. Individual stray finds may also be fitted into a more meaningful pattern of settlement. To take a case in point: do the ring ditches to the south of Heathrow Airport (see Fig. 12) represent wartime searchlight emplacements or Bronze Age barrows? Many have now been destroyed by housing developments but some remain and excavation of a limited number might be expected to shed light on the whole group.

While accepting that 'rescue' sites must often take priority, there is a danger in the 'rescue' approach of viewing each site in isolation. Sites should not be dug because they are there but for the information they might reveal about the development of the area in which they are found. It is essential, therefore, that archaeologists working in this area are aware of the information that is needed to extend their knowledge of the area and of the questions that need to be asked to obtain it. Research excavation and fieldwork to a planned programme can provide answers and fill in gaps so that rescue work, always necessary, may be approached with a certain amount of foreknowledge and produce more meaningful results.

Questions and Answers

While this survey has concerned itself principally with specific sites, the aim of archaeology should be the elucidation of the evolving pattern of settlement over the whole gravel area and the recognition of its importance within its geographical context.

Many questions remain unanswered, e.g.

Palaeolithic finds are scarce and additions to our knowledge of this period must wait on future chance discoveries made, one hopes, in the course of regular site watching. Equally little is known about mesolithic settlement in the area and although such sites may lie under several metres of gravel deposits the archaeological and environmental evidence to be recovered from such conditions would be invaluable.

Intensive Neolithic occupation is recorded near Staines and less than six kilometres separate the Staines causewayed camp from a possible second one at Bedfont: what is their relationship to each other and to the wider settlement pattern?

Bronze Age finds are ubiquitous yet very few occupation sites are recorded.

Only one certain hill fort is known from the area and even this has been largely destroyed in the course of residential development. Much work is necessary in establishing the relationship of St George's Hill fort to the surrounding settlement pattern.

Excavations at Staines are demonstrating the importance of this Roman town yet its impact on the surrounding Iron Age economy of dispersed farmsteads has yet to be revealed.

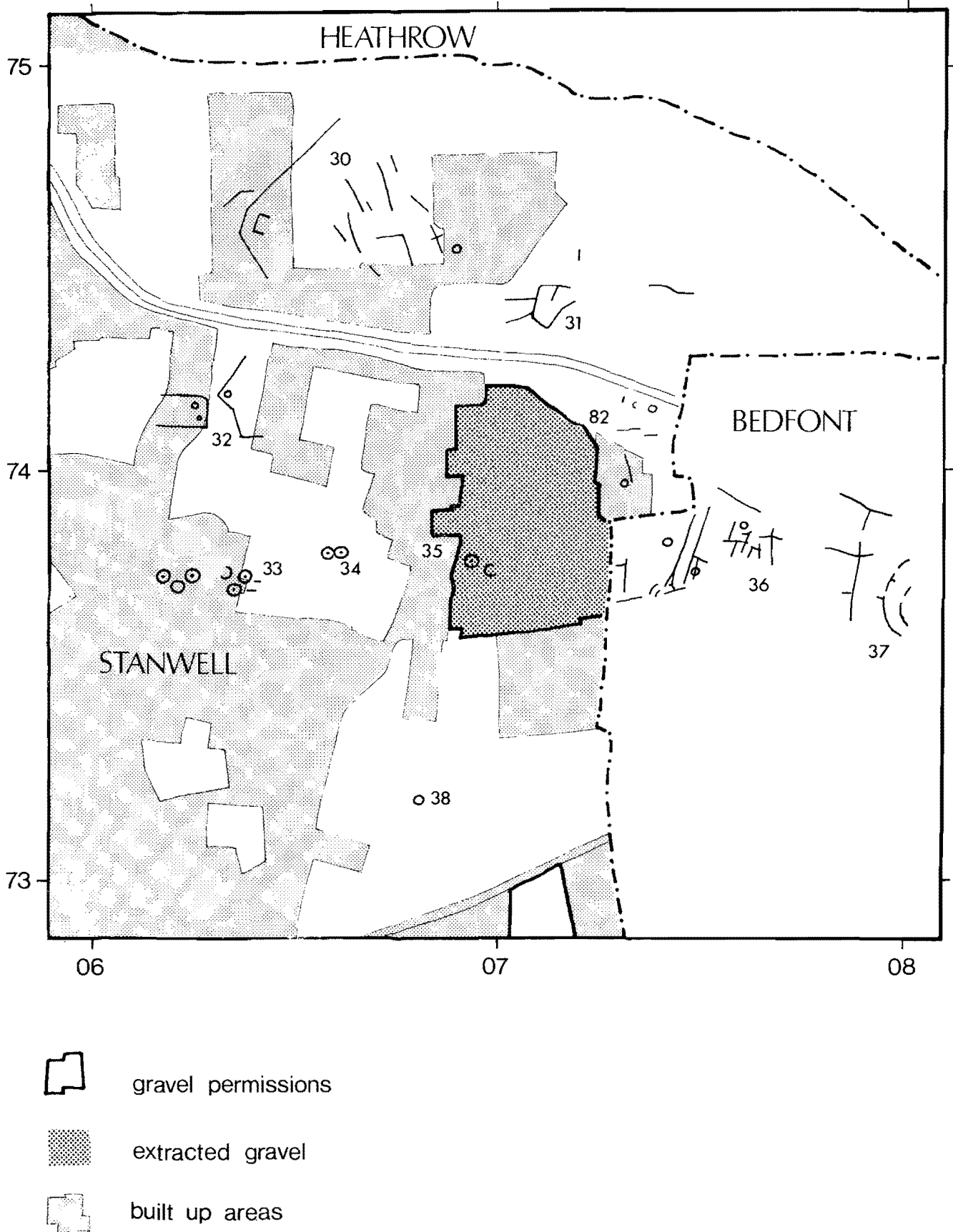


Fig. 12. Crop marks in the Heathrow-Bedfont area. Grid lines are at kilometre intervals. Based upon the Ordnance Survey Map, with the sanction of the Controller of H.M. Stationery Office, Crown Copyright reserved

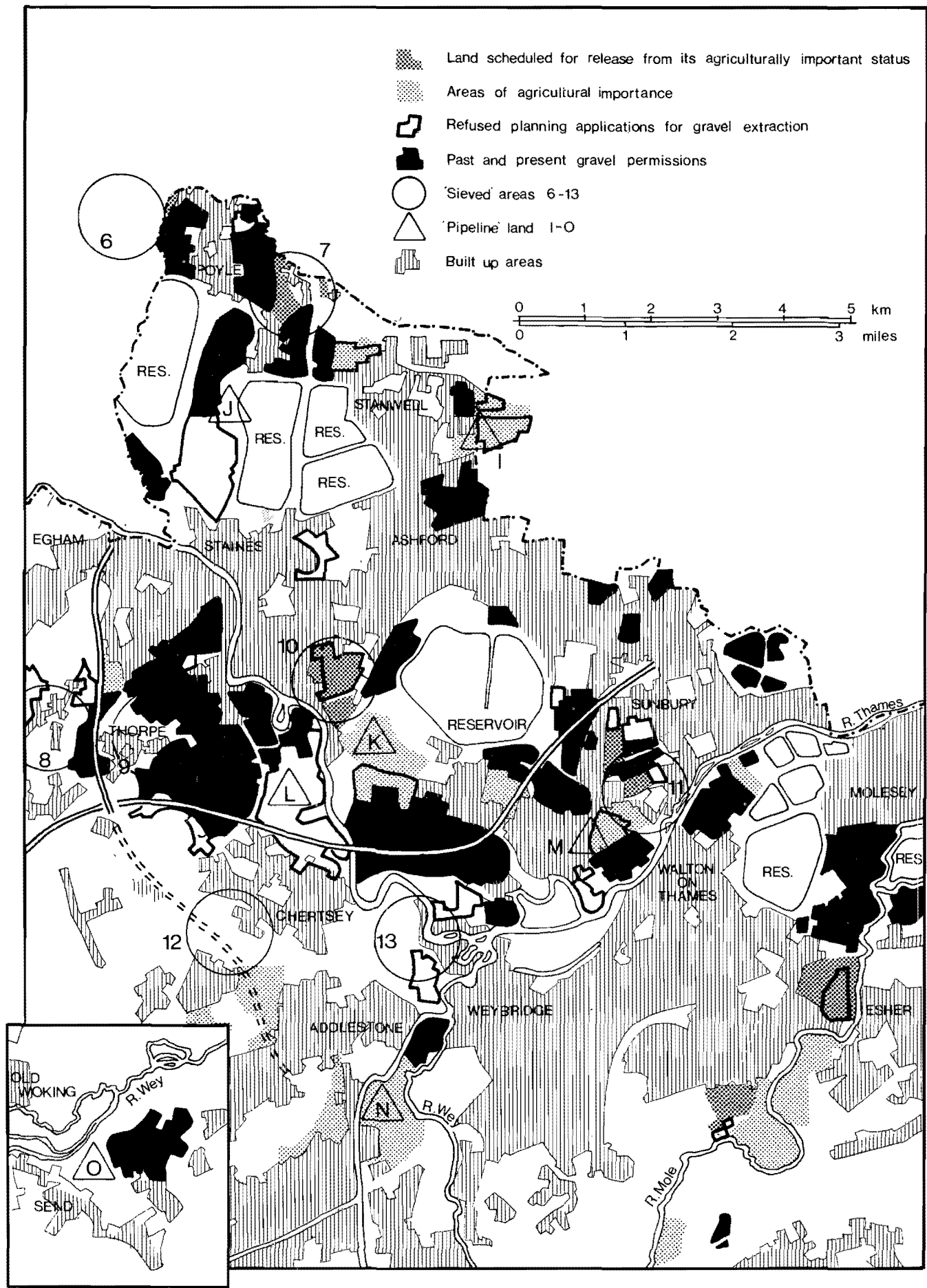


Fig. 13. Map showing the planning situation with regard to gravel extraction in north-west Surrey.
Source: LRP 2075, SCC Planning Department

There are still important questions to be answered about the Roman road system.

It would seem feasible that the earliest Anglo-Saxon settlements in Surrey were military dispositions south of London. Early material is known from the Shepperton-Walton area although recovered out of context in the course of past gravel extraction and urban development. Excavations at Egham across the river from the Roman town of Staines are demonstrating the possibility of early Saxon settlement on the site of late Roman farmsteads. Much more information is needed about the Anglo-Saxon origins of Surrey and detailed work in the Shepperton-Walton and Staines-Egham areas might be expected to provide some of the answers. For example, do the place names Walton and Chertsey indicate the existence of sub-Romano-British settlements in the early Saxon period?

It is to be hoped that it is not yet too late to plan a programme of work around these and other related questions. In a situation such as this, where so much has been lost and so much is threatened, the dividing line between research and rescue is so thin as to be almost meaningless.

APPENDIX—EXTRACTION IN THE FUTURE

Fig. 13 shows the 'sieve' and 'pipeline' areas discussed above. The sieve areas indicate very broadly areas which seemed in 1973 to offer scope for future extraction. They do not pinpoint locations. The pipeline areas involve land which was in the control of the gravel industry in January 1973 but which had failed to pass through the sieve analysis. As this pipeline land might be considered the most readily available source of future supply, it was suggested that individual applications be subjected to detailed investigation. In particular it was felt that applications should be viewed favourably if:

- (1) The land would be worked using existing plant in an adjoining pit nearing exhaustion and
- (2) The only objection was an agricultural one.

In the case of an agricultural objection, the degree of restoration and the future land use would be an important factor.

Areas of agricultural importance and land scheduled for release from its agriculturally important status are also shown on the map as are the areas which have been refused permission for gravel extraction in the past. Previous applications indicate areas where the industry has at least shown an interest and may point to land actually in its ownership. Often the objection can be seen to be agricultural. Bearing in mind 'pipeline' policy and in view of the diminish-

ing supply of workable gravel deposits, these previous agricultural objections may well be overruled in the future. Land from which the agriculturally important classification has already been removed are in a similar situation, particularly where they fall within a 'sieve' area.

In this way future permissions for gravel extraction may, to some extent, be predicted.

In addition, and sometimes in contradiction, to the criteria discussed above amenity considerations and local pressure groups are factors which affect decisions at a local level in spite of county policy.

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