# PART 3: PROPOSALS FOR SITE MANAGEMENT & PRESENTATION

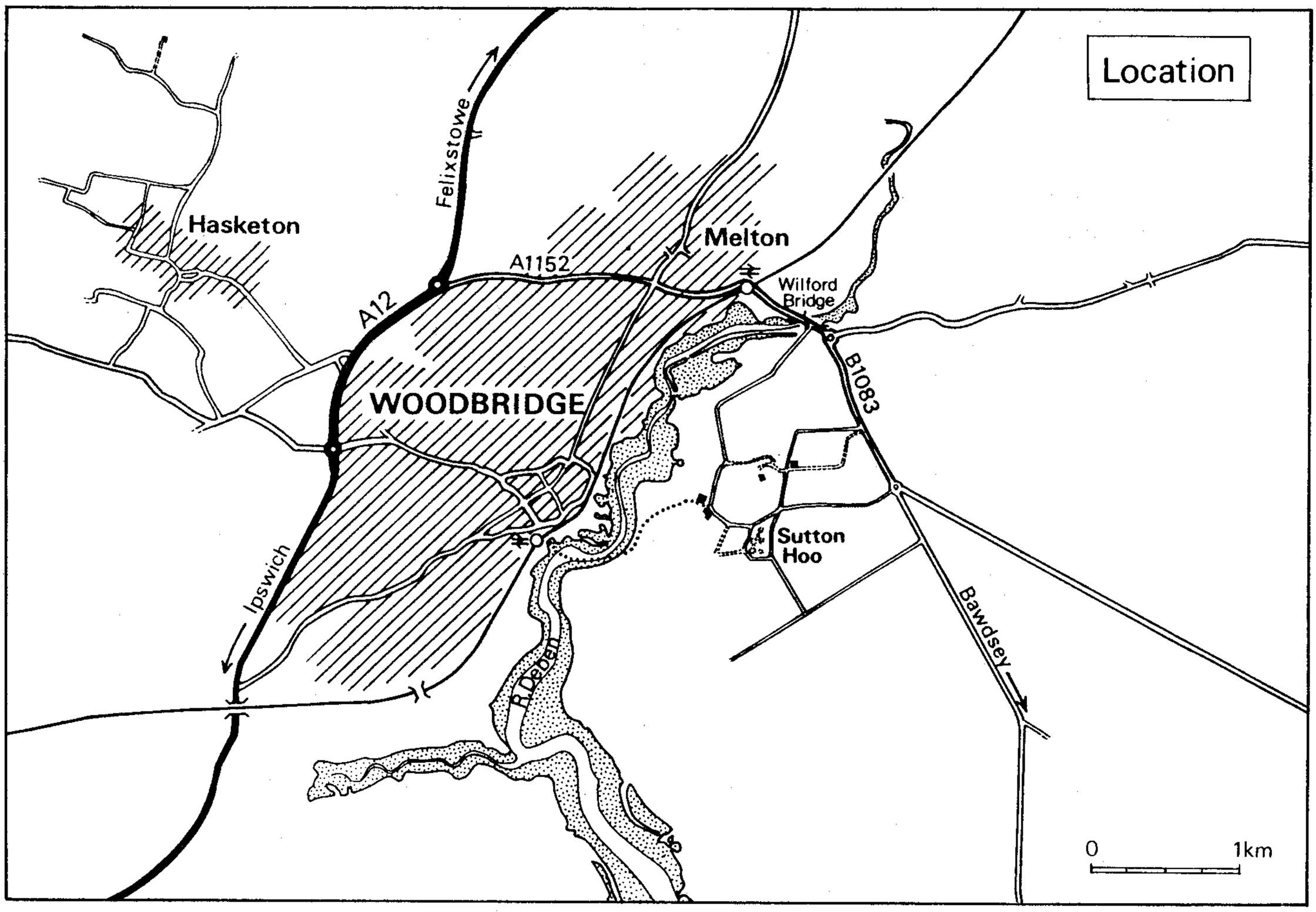
## 1. THE PRESENT CONDITION OF THE SITE AND ITS ADMINISTRATIVE STATUS

The area of archaeological concern at Sutton Hoo is currently partitioned between two landowners, and exploited in a number of different ways (Figs. 5 and 6). A central area was scheduled in 1949 and the boundary revised and extended in 1975 (Fig. 8). However it would be fair to say that this scheduling of the site has provided insufficient protection. About 200 holes have been dug into the scheduled area in recent times both by the army and (presumably) by metal-detector users, and the bracken and rabbits have destroyed much of the shallower stratigraphy. Owing to the fact that it was unmarked, the scheduled area has also been invaded by planted or self-propagated trees to the N and W and by cultivation to the S and E. Although ploughing has not been so destructive as was feared, there is some anxiety about the accelerating decay of finds and features below ground due to chemical farming. There are no management agreements or restrictions of any kind in force outside the scheduled area. There are no management agreements operating inside the scheduled area either, the upkeep and protection of which has fallen to the Sutton Hoo Research Trust. The Ancient Monuments Board in 1983 did agree the provision of a fence, so that the inner scheduled area could be clearly bounded. The fence was designed and put out to tender, but has not been erected while site operations are in progress. Scheduled Monument Consent was obtained by the Trust in September 1983 for all activities listed in Phase 1 of the Research Design (Carver 1983; 3).

Zones A, B, C and E are in the ownership of Mrs Tranmer, whose trustees are willing to give at least part of this area to the nation in exchange for relief from estate duty, due on the death of Mr Leslie Tranmer. Under the precedent set by the 1939 inquest, all finds from barrows are likely to be held to be the property of the landowner, not Treasure Trove, and it is likely that this ruling will extend to all finds from all periods and contexts from the site, except in the case of a proven hoard. However, within the area shown on Fig. 39, the ownership of the 'finds', and the right to excavate them, was retained by the Trustees of the Pretty family when they sold Sutton Hoo House, and delegated to the British Museum. Subsequent landowners, including Mrs. Tranmer, have accepted this covenant. The rights to excavate include a right of vehicular access which runs between the points marked C and D on Fig. 39. In practice, it is at present difficult to turn a vehicle off the road at the point C, the present official access to the site.

The owner of Zones D and F is the Sun Alliance Assurance Company, whose daughter-company, Property Growth Assurance, holds the land as part of its agricultural portfolio. The tenant is Colin Walker of Blomvyle Hall who farms the fields in question in partnership with Peter Waring of Fir Tree farm, Bloxhall. The scheduled area extends into this land. The present owners have agreed additional access through their land, for public and excavators alike, along a route which is presently renegotiated each year.

Since 1983, the protection and upkeep of the site as a monument and arrangements for visitors at all periods of the year have been managed by the staff of the Sutton Hoo Research Trust, and subsequently by the voluntary Sutton Hoo Society, now presided over by the Duke of Edinburgh. They have conducted running negotiations with both landowners and residents to attempt to reconcile the different demands of the project and its public with amenity of the area. These negotiations have depended entirely on persuasion, assurance and goodwill.



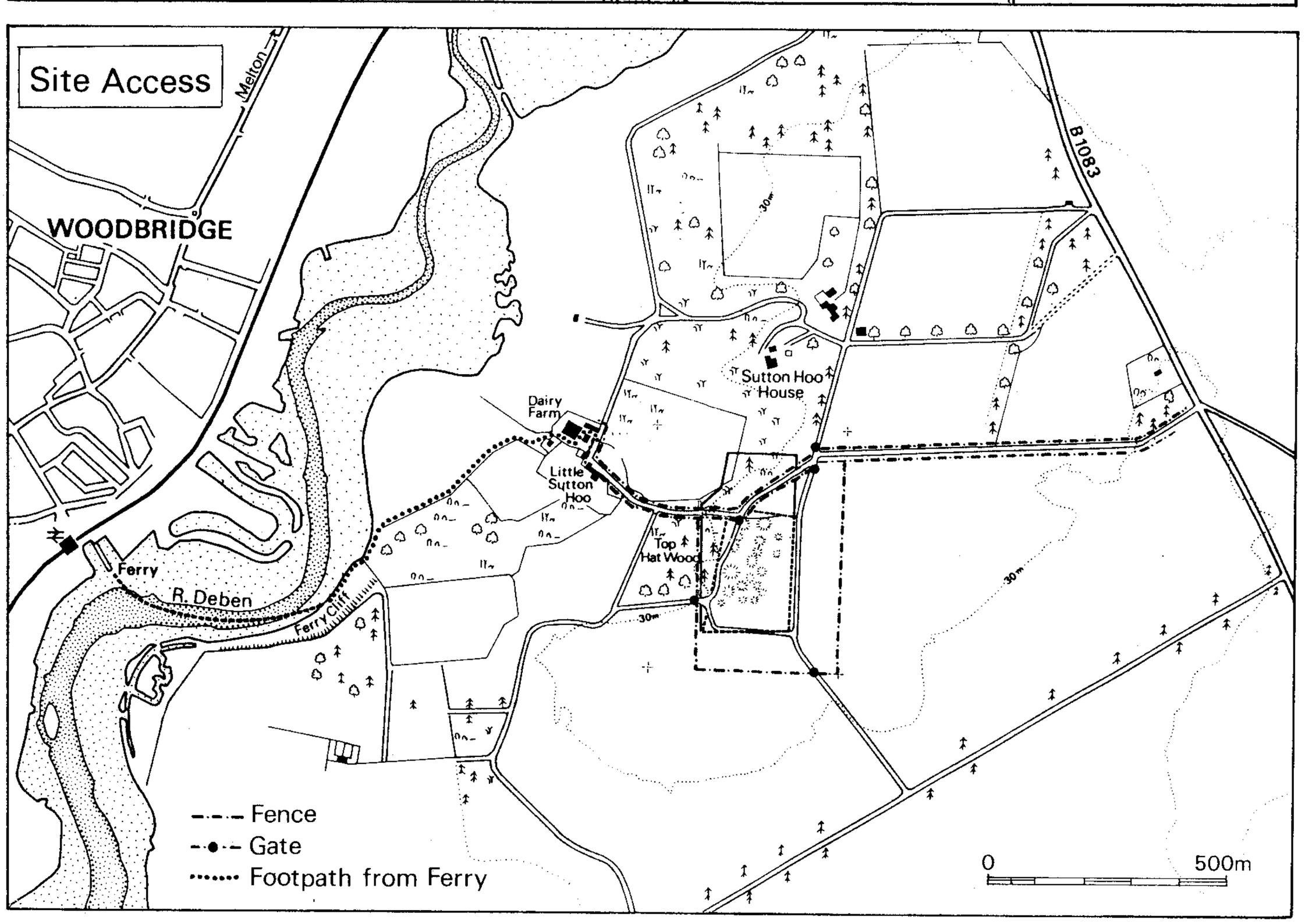




Fig. 40: Proposed public access to the Sutton Hoo site (Carver/Hooper)

## 2. PROPOSALS FOR THE MANAGEMENT OF SUTTON HOO. (Figs. 39, 40; Table 13)

It will be clear from the account given below that Sutton Hoo urgently requires a management plan, which should be put into operation whether subsequent excavation takes place of not. The framework of such a management plan might be as follows:

### A. *PROTECTION FROM FURTHER DAMAGE*

An area 300m by 300m, consisting of Zone A and 100m wide perimeter strip around it, should be defined as the *monument*. This includes the nucleus of the prehistoric site and the predicted extent of the early medieval cemetery (Fig. 22). The trees and bushes should be removed from this area (Zones B and C) and all zones returned to grassland. The green site should then be carefully looked after, particularly to ensure that bracken and rabbits do not return. The extent of the protected area should be marked with a wooden rail and reinforced plastic netting fence equipped with a lockable farm gate and wicket gates (Fig. 40).

### B. *ACCESS*

The public will wish to visit Sutton Hoo whether or not it is promoted. It is already too famous to leave its welfare to a supposed band of infrequent and respectable pilgrims. It is better to provide access than allow the public to make their own, and risk annoyance to adjacent residents and farmers. The components of such access must be a safe turning off the road (B1083), a car park and a footpath. The latter exists, a public footpath following the official access route, passing by the site and connecting the main road with the River Deben, at which point the Sutton Hoo Society has already established a ferry. An essential additional component is a viable track along the official right of access, connecting the car park with the site, for the transport of elderly or infirm visitors, as well as for plant required for the site's upkeep.

### C. *ADMINISTRATIVE STRUCTURE*

It is doubtful whether these provisions could be achieved in any other way but by state ownership. The complexity of the present ownership, the vulnerability of the site and its importance for the heritage of Europe, can only be resolved by taking into care the area of archaeological concern and the access to it. The needs of presentation (see below) suggest that additional property and the western access should be acquired at the same time (see Fig. 39).

At this point there is inevitable apprehension that the site might become a burden to the state or its agency. This can be answered simply. The Sutton Hoo Society, a voluntary organisation and a registered charity, already cares for the greater part of the site free of charge. It has already acquired sufficient resources to do this from its membership, from sponsorhsip, and from visitors to the site, without, be it said, promotion of any kind. Any future owner can therefore be assured that his investment will be protected without undue or unexpected expenditure on upkeep, by reaching accommodation with the Sutton Hoo Society.

## 3. PROPOSALS FOR THE PRESENTATION OF SUTTON HOO. (Figs. 40–42; Tables 13, 14)

### A. *POTENTIAL FOR PRESENTATION*

The framework sketched in the section above for the management of the site does not assume that there will be any presentation or further research at Sutton Hoo. The potential for properly designed presentation and research work at Sutton Hoo is, however, quite exceptional, and will bring enduring and widely distributed benefits. Public interest in Sutton Hoo is already high. The finds from the 1939 excavation form one of the principal attractions of the British Museum. Before

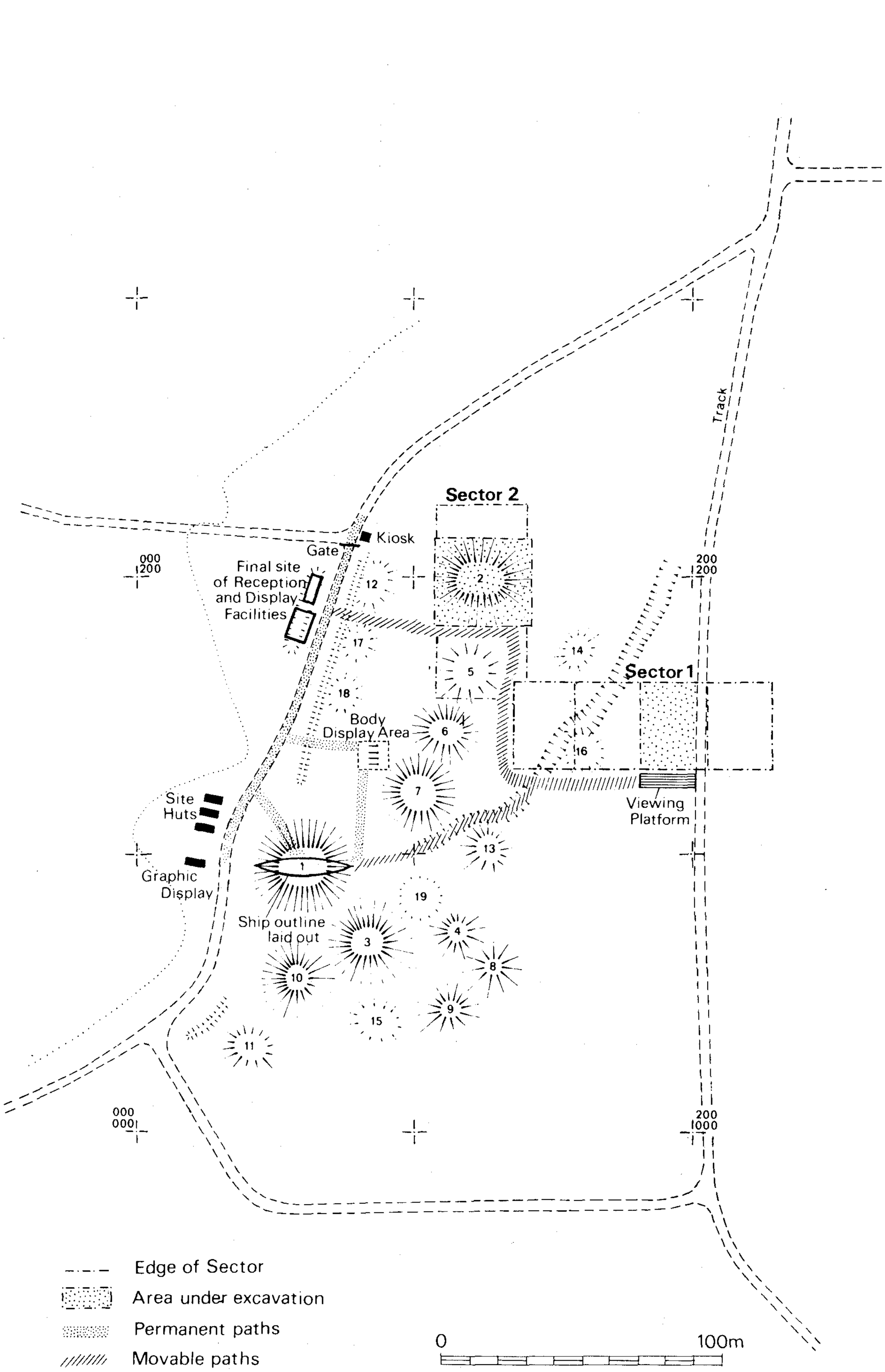



Fig. 41: Proposed presentation at the Sutton Hoo site during excavation (Carver/Hooper)

1983, a continual stream of the more intrepid visitors, armed with maps and knocking at the doors of the local inhabitants, endeavoured to make their pilgrimage to the site, which was at that time almost invisible under a thicket of bracken and bushes. Since 1983, the public footpaths have been signed, the ferry reopened, a temporary car park provided (by the farmers) and provision made for the visits of schools and societies by coach. The site has been declared officially open from May to September, at which times guided tours are provided twice a day at weekends by the Sutton Hoo Society. The number of paying visitors in the 1985 season before the television broadcasts was 3,600 or an average of 100 a day, each of whom also paid an average of one pound for publications. Advertising of opening hours was limited to the East Anglian Daily Times. An illustrated site guide was published, and the Sutton Hoo Society's kiosk also sold academic publications, postcards, replicas and a teaching pack for schools. The strongest indication of potential public interest was given by the BBC's viewing analysis of the programmes they made about Sutton Hoo. Two 50 minute programmes were shown in 1985, the first dealing with the pre-1983 excavations, a remake of 'The Million Pound Grave' originally shown in 1965; and the second dealing with the new campaign, presented by its Research Director. The second programme put the accent on explanation and was designed by its producer, Ray Sutcliffe, to emphasise the real ethical and technical problems, to show modern archaeology as it really is. Before the viewing figures were published there was some anxiety about this policy, which was such a radical departure from the leitmotiv of 'treasure hunting' and 'discovery' of many archaeological presentations. In the event, 2.7 million people watched the first programme and 3.1 million the second, putting the latter among BBC 2's top ten programmes for the week. After the first broadcast, 81% of the viewing panel said they would watch another programme on Sutton Hoo; after the second, the figure had risen to 85%. Perhaps most interesting of all, only 4% of those who watched the second programme, said they had done so out of archaeological interest. The majority were watching out of 'general interest', and presumably represent, as nearly as possible the members of the general public.

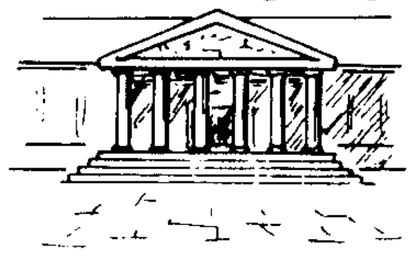
B. *METHOD OF PRESENTATION*

The presentable assets of Sutton Hoo can be defined as the site itself, the finds from it, its historical significance and the way archaeologists work. Whereas this is true of all sites at which an excavation campaign is in progress, each type of presentation demands a different emphasis and style at different places.

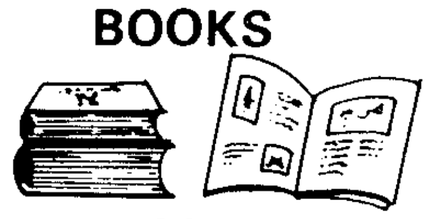
At Sutton Hoo, *the site* itself is enjoyed more for its remoteness, status and innate mystery than for its spectacular or architectural impact. Development should therefore aim at preserving its inscrutability as an earthwork while providing modern explanation. Barrows, if excavated, should be reconstructed exactly as they were before excavation, and the site should be kept smooth and green. The removal of Top Hat Wood, so that the site is visible from Woodbridge and from the river, would restore something of its monumental status. Explanation can be provided, as now, by discreet outlining, for example of ships, and by having a 'show cemetery' of moulds taken from the excavated burials. Etched aluminium alloy maps showing the layout of the cemetery and the prehistoric settlement can be sited (for example) on Mound 1. During the time that excavations are in progress, an itinerary for visitors, with protected walkways will be established (Fig. 41).

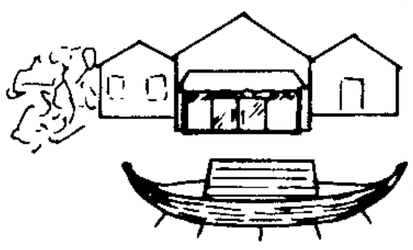
None of these arrangements, however, is likely to act as an adequate substitute for trained guides. Sutton Hoo is a site, therefore, which for the forseeable future, is likely to be open to the public at specific times. The most difficult sector to serve consists of those people who do not like being given guided tours. It is probable that special arrangements will here be necessary perhaps in collaboration with tour operators and the Sutton Hoo Society. The problem of numbers remains. There is no doubt that, for some, monuments such as Sutton Hoo lose their magic in the presence of large numbers of people; large numbers also cause attrition to the earthworks. This problem is confronted below.

# Model for Presentation of Sutton Hoo

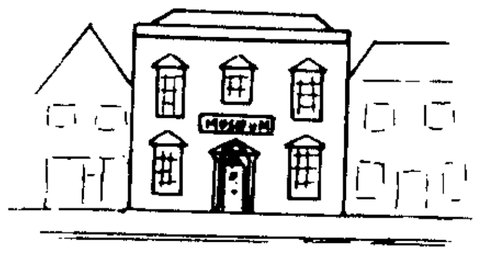


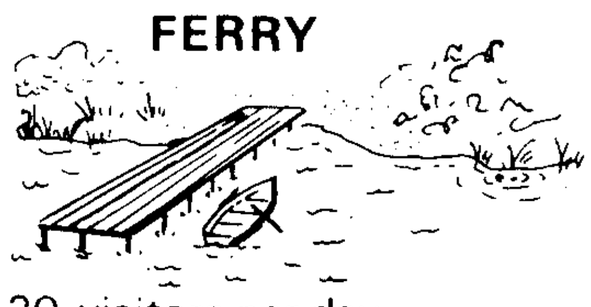


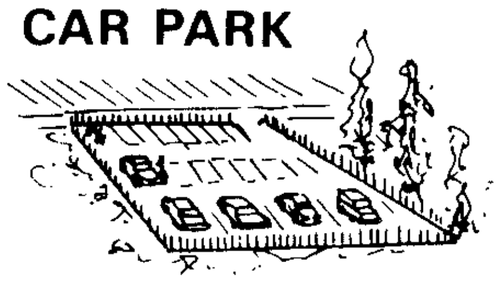






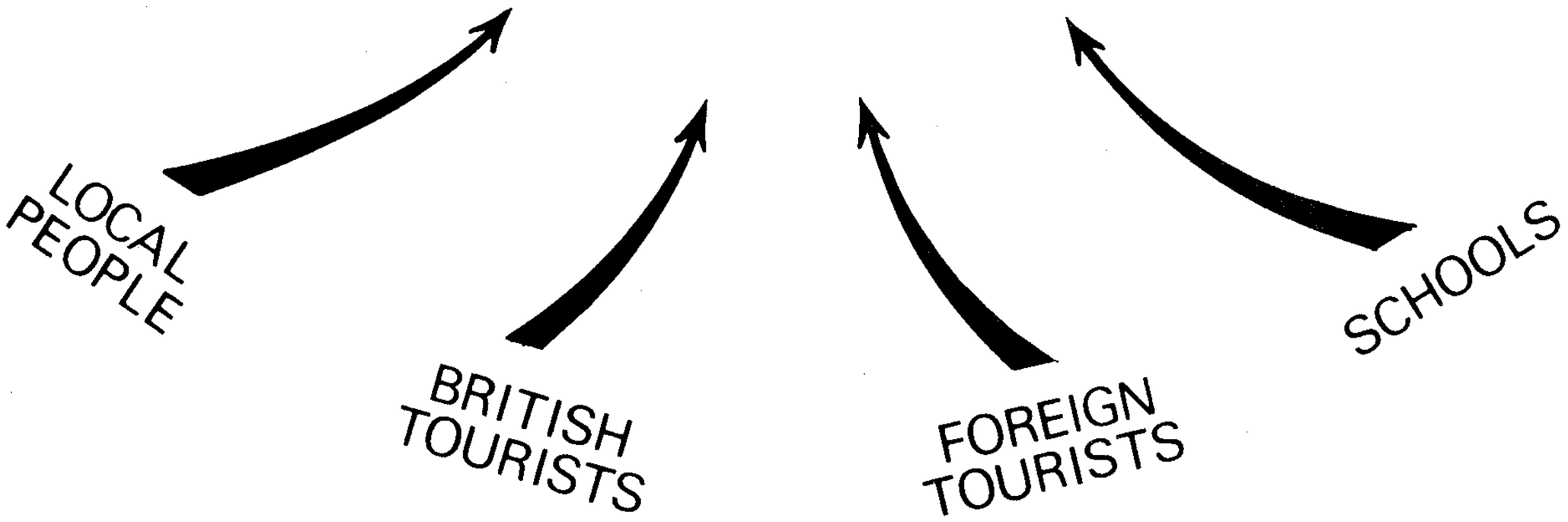




Fig. 42: Model for presentation of the Sutton Hoo Project (Carver/Hooper)

The *finds* are best presented in the British Museum, which is indeed the only place where they could realistically be conserved and protected. It will be desirable to give some sense of both finds and structures to site visitors, and this could be achieved through replication. Replication of finds has already been successfully done by the British Museum. Plans are in hand to replicate one or more ships, whose sea- and river-trials will be filmed. Replication of barrow structures and prehistoric buildings is also desirable. Rather than presenting the replicas of finds and structures on site, which could counteract the needs of site presentation, it would be preferable to establish a centre nearby and include the centre in the itinerary of a visit. A possible location does exist, the Little Sutton Hoo Dairy Farm situated out of sight of the barrow cemetery, on the path leading to the site from the ferry (Fig. 40).

The *historical significance* of the site and the *way archaeologists work* can undoubtedly be presented most effectively in the first instance through television. In addition, the arrangements for visits by schools and societies will continue and be expanded, and popular literature in quality productions be made available (see above).

In sum, therefore, the presentation of the site seems to require a combination of direct and indirect access, care of the site itself, to which limited and controlled access is permitted, being coupled with display centres elsewhere and comprehensive coverage by the media (Fig. 42). A display centre nearby with a carefully designed and evocative presentation based on replication will be an important asset here, particularly for schools and the visiting public. Such a centre would not be subject to the visiting restrictions of the site. It has been suggested that the position for the centre might be the Little Sutton Hoo Dairy Farm, whose development would also incidentally solve the major problems of living and working accommodation for the Research Project.

An alternative (or additional) scheme, which would however, require rather more investment, has also been explored, namely the establishment near Ipswich of a large display centre dealing with the whole of Anglo-Saxon England. This centre would provided a public shop window for the Anglo-Saxons (as the Jorvik Centre has for the Vikings), while at the same time promoting academic study through conferences and publications, as the Spoleto Centre does for early medieval people in general. The centre will act as a point of departure for visitors to a number of Anglo-Saxon sites in which the area is particularly rich, for example, West Stow, Bury St. Edmunds, South Elmham, and Dunwich (Fig. 32). The principal attraction might be a visit to Sutton Hoo itself which could be conducted either by road or by river and sea. Preliminary discussions with Woodbridge Town Council, Suffolk Coastal District Council, Suffolk County Council, the English Tourist Board and Professor Travis (of the Centre for Urban and Regional Studies at Birmingham) suggest that such a scheme would be successful given enough investment and a creative approach. The *Early English Heritage Project*, as it is called, is a development that could arise from the Sutton Hoo project, but the two are not interdependant.

## C. *CONCLUSION*

With a small amount of investment and development, the valuable resource that is Sutton Hoo can be presented to the public as an integrated portfolio: to all age groups from young children to the aged and infirm; to those remote from the site by means of television, books and periodical literature; to those wishing to visit the site by guided tours of the site itself and by an exhibition of replicated finds, boats and structures nearby; and to those wanting to see the original finds, by the exhibition in the British Museum (Fig. 42). Sutton Hoo is uniquely poised to take advantage of a presentaion programme of this kind, but its viability does not depend on large numbers of feet crossing the turf of the site itself, and it is right that it should not. The amenity of the residents should continue to be respected. The number of visitors during site operations should be kept low, to avoid damage to the archaeological work and danger to the visitors themselves. Above all the atmosphere of Sutton Hoo itself is worthy of protection; a special atmosphere sensed from lineaments of human behaviour captured in a vulnerable fragment of early landscape.

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TABLE 1

List of Archaeological Interventions at Sutton Hoo, 1860–1985

| Interv. No. | Area/Zone | Date | Responsible | Activity |
|---|---|---|---|---|
| 1 | (not located) | 1860 | Barritt | removal of mound |
| 2 | Mound 3 | 1938 | Brown | excavation |
| 3 | Mound 2 | 1938 | Brown | excavation |
| 4 | Mound 4 | 1938 | Brown | excavation |
| 5 | Mound 1 | 1939 | Brown & Phillips | excavation |
| 6 | Mound 1 | 1965-70 | Bruce-Mitford | excavation |
| 7 | Mound 1 | 1967-70 | Ashbee | excavation |
| 8 | Mound 1 | 1971 | Carney | excavation |
| 9 | Mound 1 | 1971 | Carney | excavation |
| 10 | Mound 1 | 1971 | Carney | excavation |
| 11 | Area A | 1966 | Longworth & Kinnes | excavation |
| 12 | Area C | 1970 | Longworth & Kinnes | excavation |
| 13 | Area B | 1968-69 | Longworth & Kinnes | excavation |
| 14 | Area B | 1968-69 | Longworth & Kinnes | excavation |
| 15 | Area B | 1968-69 | Longworth & Kinnes | excavation |
| 16 | Area B | 1968-69 | Longworth & Kinnes | excavation |
| 17 | Mound 11 | 1982 | West | record of robber pit |
| 18 | Zone A | 1983-84 | Copp | surface feature mapping |
| 19 | Zones D, F | 1983-84 | Copp & Royle | fieldwalking |
| 20 | Zone F | 1984 | Carver | excavation |
| 21 | Zone F | 1984 | Carver | excavation |
| 22 | Zone D | 1984 | Carver | excavation |
| 23 | Zone A | 1984 | Carver | excavation |
| 24 | Zone B | 1984 | Carver | excavation |
| 25 | Zone A (Mound 5) | 1984 | Carver | grass removal |
| 26 | Zone A (Mound 2) | 1984-85 | Carver | inspection |
| 27 | Zones A, D, F | 1983-84 | Royle | metal-detector survey |
| 28 | Zones A, B, F | 1984 | Gorman | magnetometer survey |
| 29 | Zones A, F | 1984 | Gorman | radar survey |
| 30 | Zone A | 1983-84 | Bruce, Ingram & Cooper | contour survey |
| 31 | Zone C | 1984 | Carver | inspection |
| 32 | Zone F | 1985 | Carver | excavation |
| 33 | Zone A | 1966 | Hipkin | contour survey |
| 34 | Zone A | 1980 | Hipkin | contour survey |
| 35 | Zone F | 1984 | Bartlett | fluxgate survey |
| 36 | Zone F | 1985 | Walker | resistivity survey |
| 37 | Zones D, F | 1985 | Gurney | phosphate survey |

TABLE 2

Methods of remote mapping used during site evaluation

| Evaluation Method | Equipment | Accuracy/ Sensitivity | Used in Zones | Area Covered |
|---|---|---|---|---|
| Contour Survey (INT. 30) | 1. TOPCON GTS-2 EDM<br><br>2. NIKON NT 2A 20 Theodolite with NIKON ND 160 EDM | Contours plotted to 10cm vertical intervals. Distance error 1 cm. Theodolite read to 0° 0′ 1″ | A | 34,500 $m^2$ |
| Surface Mapping (INT. 18) | NIKON NT 2A theodolite for surveying | Features plotted to approx 10 cm accuracy | A | 34,000 $m^2$ |
| Fieldwalking (INT. 19) | NIKON NT 2A theodolite for surveying | Finds plotted to approx 10 cm accuracy | D, F | 73,000 $m^2$ |
| Phosphate Survey (INT. 37) | | Samples taken at 20 m intervals with 1 m accuracy | F | 100,000 $m^2$ |
| Metal Detection (INT. 27) | 1. Arado 120B Deep Seeking Metal Detector - Classifier<br><br>2. C-Scope VLF TR770 Metal Detector - Discriminator | Both discriminate between Fe and non-Fe metals, deep and shallow targets. Targets plotted to approx. 10 cm accuracy | A, D, F | 35,500 $m^2$ |
| Proton Magnetometry (INT. 28) | Paired Geometrics G856 Memory-Mag Proton Magnetometers | 0.1 gamma | A, B, F | 780 $m^2$ |
| Fluxgate Magnetometry (INT.35) | Fluxgate Gradiometer | 1 gamma | F | 1,080 $m^2$ |
| Resistivity (INT. 36) | Geoscan Research Resistance Meter RM4 | Resolution from 1 ohm to 0.01 ohm | A, F | 1,500 $m^2$ |
| Radar (INT. 29) | Ground penetrating pulse radar, designed by M. Gorman, Scott Polar Inst. | Requires calibration according to frequency | A, F | 520 $m^2$ |
| Magnetic Susceptibility | Bartington MS1 | 13 Samples taken in all from INT. 20 and INT. 22 | D, F | |
| Trial Excavation (INTS. 20, 21, 22, 23, 24, 26, 31, 32) | | | A, B, C, D, F | 2812 $m^2$ |

## TABLE 3

### List of Relative and Absolute Dates obtained at Sutton Hoo

| Period | Location | Material | Method | Date |
|---|---|---|---|---|
| PREHISTORIC | | | | |
| Earlier-Mid Neolithic | A,D,F<br>A, F | Ceramic<br>Flint | Typology<br>Typology | 3500-2500 bc |
| Later Neolithic | A, F,<br>A, D, F, | Ceramic<br>Flint | Typology<br>Typology | 2500–2000 bc |
| Later Neolithic/<br>Earlier Bronze Age | A, D, F,<br>A, D, F, | Ceramic<br>Flint | Typology<br>Typology | |
| Earlier Bronze Age | A, D, F,<br>A, D, F,<br>Mound 2 | Ceramic<br>Flint<br>Faience Bead | Typology<br>Typology<br>Typology | 2000–1500 bc |
| Middle Bronze Age | A<br>A, D, F, | Ceramic<br>Flint | Typology<br>Typology | 1800–1200 bc |
| Later Bronze Age | | | | 1200–800 bc |
| Iron Age | A | Ceramic | Typology | 800bc–43 AD |
| ROMAN | D, F | Fragmentary Ceramics | | |
| EARLY MEDIEVAL | F<br>Mound 1 | Ceramic<br>Coins | Typology<br>Typology of form & fabric | 450-700 AD<br>After 625 AD |
| | Mound 1 | Decorated Metalwork | Typology | 7th C AD |
| | Mound 1 | Wax from Lamp | C 14 | 523 ± 45 AD |
| | Mound 1 | Wood from Burial Chamber | C 14 | 629 ± 45 AD |
| | Mound 1 | Silver Dish | Imperial Stamp | 491–565 AD |
| | Mound 1 | Historical Association | | 624/625 AD |
| | A | Skull from Grave | C 14 | 746 ± 79 AD |
| | Mound 3<br>Mound 2 | Stone Plaque<br>Decorated Metalwork | Typology | 6th C AD<br>6th C AD |
| | F/20/9 | Human Bone | C 14 | 620 ± 90 AD |

TABLE 4

Burials excavated at Sutton Hoo to 1985

| Feature | Body | Orientation (Head-Feet) | Attitude | Grave Goods | Structure | Comment |
|---|---|---|---|---|---|---|
| Mound 1 | Inhumation Translation? | W–E | | Rich Assemblage | Burial Chamber in ship beneath barrow | |
| Mound 2 | Inhumation | (robbed) | (robbed) | Rich Assemblage | Burial Chamber in ship beneath barrow | |
| Mound 3 | Cremation | | | Rich Assemblage, Cremation on Oak Tray | Beneath Barrow | |
| Mound 4 | Cremation | | | Rich Assemblage, Cremation in Cauldron | Beneath Barrow | |
| Longworth C1 | Inhumation | S–N | On side, knees flexed | | | |
| Longworth C2 | Inhumation | SW–NE | On back | | | |
| Longworth C3 | Inhumation | W–E | On back | | | |
| Longworth P1 | Inhumation | E–W | Skull only | | | |
| Longworth A iv | Cremation | | | In urn | | |
| Longworth A iii | Cremation | | | | | |
| F9 | Inhumation | NW–SE | On back | Coffin? | | C 14 date: c.70 AD |
| F101 | Inhumation | W–E | On back | In coffin | | |
| F102 | Inhumation | E–W | Prone with hands tied | | | Execution? |
| F106 | Inhumation | W–E | On back | In coffin with joint of meat | | Flint packing in upper grave |
| F108 | Inhumation | W–E | On back | | | |
| F109 | Inhumation | W–E | On back | | | |
| F137 | Inhumation | E–W | On back, neck broken | | | Execution? |
| F146 | Inhumation | SE–NW | Prone, hands tied | | | Execution? |
| F154 | Inhumation | W–E | On back | | | |
| F161 | Inhumation | W–E | In 'ploughing' position | With 'plough' and 'staff' | | Execution? |
| F163 | Inhumation | W–E | Kneeling, top of head missing | | | Execution? |
| F166 | Inhumation | W–E | On back, hands stretched above head | | | |
| F173 | Inhumation | W–E | On back, hands clasped | | | |
| 2059 | Inhumation | E–W | Kneeling | | | Execution? |

TABLE 5

Predicted Survival of Archaeological Information

| | Fields Zones D, F | Beneath Barrows | On Flat | Remote Sensing (incl. Fieldwalking) |
|---|---|---|---|---|
| Earthworks | X | X | X | X |
| Negative features deeper than 1m | X | X | X | X |
| Negative features deeper than 0.5m | X | X | X | |
| Negative features deeper than 0.20m | | X | | |
| Soil pollen | | X | X | |
| Flint and stone | X | X | X | X |
| Burnt grain | X | X | X | |
| Charcoal | X | X | X | |
| Wood (grain) | | X | | |
| Wood decay products | X | X | X | |
| Bone decay products | X | X | X | |
| Human body products | X | X | X | |
| Noble metals | X | X | X | X |
| Iron (decay products) | X | X | X | X |
| Pottery | X | X | X | X |

TABLE 6

Information Recovery Levels

| LEVEL | COMPONENT | FIND | CONTEXT | FEATURE | STRUCTURE | LANDSCAPE | e.g. |
|---|---|---|---|---|---|---|---|
| A | (not recovered) | Surface finds<br>PLOT 2-D | Inferred by sensor<br>OUTLINE PLAN | Inferred by sensor<br>OUTLINE PLAN | Inferred by sensor<br>OUTLINE PLAN | Inferred by sensor | Field walking |
| B | (not recovered) | Large finds<br>RECORD EXAMPLES<br>KEEP EXAMPLES | Defined by shovel<br>DESCRIBE | Defined by shovel<br>SHORT DESCRIPTION.<br>OUTLINE PLAN | as features | PLOT STRUCTURES<br>on OS | 19th C<br>House |
| C | (not recovered) | All visible finds. RECORD ALL. KEEP EXAMPLES. MAY PLOT BY $m^2$ | Defined by coarse trowel<br>DESCRIPTION (Munsell for mortars and natural) | Defined by coarse trowel<br>FULL DESCRIPTION.<br>DETAILED PLAN<br>HEIGHT | Defined by coarse trowel<br>EXCAVATE AS ONE.<br>PHOTOGRAPH | 1:100 PLAN<br>PROFILE | 16th C<br>Pits |
| D | SAMPLE SIEVING of spoil on site for presence of specified material (spoil not kept) | All visible finds PLOT 3-D and KEEP ALL | Defined by fine trowel<br>DESCRIPTION (Incl. Munsell)<br>PLAN 1:20 | Defined by fine trowel<br>FULL DESCRIPTION<br>DETAILED PLAN 1:20 (colour coded)<br>CONTOURS<br>PHOTOGRAPH (B/W) | Defined by fine trowel<br>EXCAVATE AS ONE.<br>PHOTOGRAPH by PHASE | 1:100 PLAN<br>CONTOUR SURVEY | Timber trace building |
| E | TOTAL SIEVING of spoil on site for presence of specified material and KEEP SPOIL | All visible finds PLOT 3-D and KEEP ALL | Defined minutely<br>DESCRIPTION (Incl. Munsell).<br>PLAN (natural colour) 1:10 or 1:5 contour | Defined minutely<br>FULL DESCRIPTION<br>PLAN (colour) 1:10 or 1:5<br>CONTOUR.<br>PHOTOGRAPH | Defined minutely<br>EXCAVATE AS ONE.<br>PHOTOGRAPH by PHASE | (as LEVEL D)<br>CONTOUR SURVEY | Skeleton |
| F | MICRO SIEVING soil block in laboratory | (as component) | (as LEVEL E) and LIFT AS BLOCK | (as LEVEL E) | (as LEVEL E) | (as LEVEL D) | Storage pit fill |

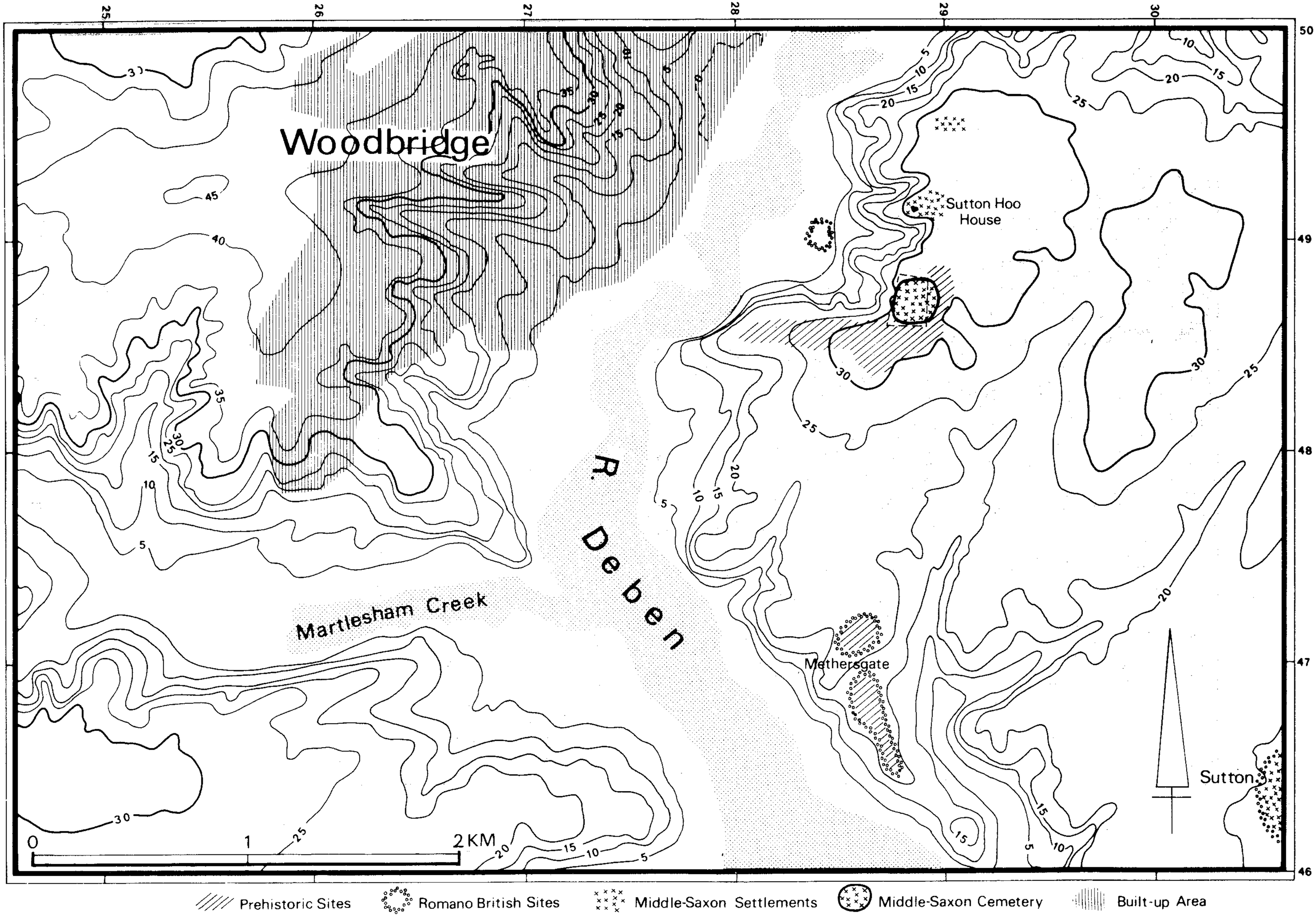


Fig. 4: Topography of the archaeological area at Sutton Hoo (Birkeland/Hooper)

TABLE 8

The Volume of the Barrows and their Area Equivalent

| Mound No. | Radius of Base (k) | Height (h) | Area in Plan ($k^2$) | Volume ($\frac{h^3}{6}+\frac{hk^2}{2}$) | Flat equivalent ($\frac{v}{0.40}$) |
|---|---|---|---|---|---|
| | m | m | $m^2$ | $m^3$ | $m^2$ |
| 1 | 15.00 | 2.75 | 706.5 | 982 | 2455 |
| 2 | 15.00 | 2.10 | 706.5 | 747 | 1867 |
| 3 | 13.00 | 2.00 | 531 | 535 | 1334 |
| 4 | 9.10 | 0.90 | 260 | 117 | 292 |
| 5 | 12.25 | 0.20 | 471 | 47 | 118 |
| 6 | 10.50 | 1.00 | 346 | 173 | 432 |
| 7 | 15.00 | 1.80 | 706.5 | 639 | 1597 |
| 8 | 9.10 | 0.90 | 260 | 117 | 292 |
| 9 | 10.50 | 1.25 | 346 | 217 | 543 |
| 10 | 13.75 | 1.80 | 593 | 535 | 1338 |
| 11 | 9.10 | 0.75 | 260 | 97 | 243 |
| 12 | 10.50 | 0.45 | 346 | 78 | 194 |
| 13 | 8.37 | 0.30 | 220 | 33 | 82 |
| 14 | 9.10 | 0.30 | 260 | 39 | 97 |
| 15 | 7.75 | 0.30 | 189 | 28 | 70 |
| 16 | 10.00 | 0.30 | 314 | 47 | 118 |
| 17 | 10.00 | 0.30 | 314 | 47 | 118 |
| 18 | 10.00 | 0.30 | 314 | 47 | 118 |
| 19 | 10.00 | 0.30 | 314 | 47 | 118 |

TABLE 9

Projected Programme for the Excavation of the 'minimum viable sample' in Fig. 33

| | | | | | | 1 1986/7 | | 2 1987/8 | | 3 1988/9 | | 4 1989/90 | | 5 1991/2 | | 6 1992/3 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SECTOR | MOUND | SIZE | AREA | WEEKS | COST | A | B | A | B | A | B | A | B | A | B | A | B |
| 1 | — | 32 x 96 | 3072 | 56 | 28000 | 8 | (8) | | | 16 | 16 | 16 | | | | | |
| 1 | 16 | 47m$^3$ | 118 | 3 | 1500 | | | | | | 3 | | | | | | |
| 2 | — | 32 x 72 | 2304 | 48 | 24000 | | | 32 | | 16 | | | | | | | |
| 2 | 2 | 747 m$^3$ | 1867 | 39 | 19500 | | 8* | | 31 | | | | | | | | |
| 2 | 5 | 47 m$^3$ | 118 | 3 | 1500 | | | | 3 | | | | | | | | |
| 4 | — | 32 x 96 | 3072 | 64 | 32000 | | | | | | | 16 | | 32 | | 16 | |
| 4 | 6 | 173 m$^3$ | 432 | 9 | 4500 | | | | | | 9 | | | | | | |
| 4 | 18 | 47 m$^3$ | 118 | 3 | 1500 | | | | | | 3 | | | | | | |
| 5 | — | 48 x 48 | 2304 | 48 | 24000 | | | | | | | | | | 32 | 16 | |
| 5 | 7 | 639m$^3$ | 1597 | 33 | 16500 | | | | | | | | 33 | | | | |
| 8 | — | 32 x 48 | 1536 | 32 | 16000 | | | | | | | | | | | | 32 |
| | | | No. of weeks on site 'A' team | | | 8 | | 32 | | 32 | | 32 | | 32 | | 32 | |
| | | | No. of weeks on site 'B' team | | | | 8 | | 34 | | 31 | | 33 | | 32 | | 32 |
| | | | | | Cost per year | 8000 | | 33000 | | 31500 | | 32500 | | 32000 | | 32000 | |

*Assuming SMC is obtained in 1986

TABLE 10

Expenditure 1983–86

| HEAD | 1983/84 | 1984/85 | 1985/86 | Total |
|---|---|---|---|---|
| Director | 12008 | 11749 | 11495 | 35252 |
| Project Assistant | | 2129 | 540 | 2669 |
| Manager | 1147 | 4473 | 4488 | 10108 |
| Secretary | | 1500 | 2571 | 4071 |
| Research Assistant | 2256 | 4839 | 6380 | 13475 |
| Research Assistant | | 4839 | 6380 | 11219 |
| Publication Supervisor | | | 1740 | 1740 |
| Illustrator | 1643 | 3530 | 6175 | 11348 |
| Programmer | | 2600 | 1551 | 4151 |
| Consultant | 2390 | 4285 | 630 | 7305 |
| Sub total | 19444 | 39944 | 41950 | 101338 |
| SITE COSTS | | | | |
| Supervisor | | 2340 | 2470 | 4810 |
| Photographer | 243 | 695 | 1043 | 1981 |
| Site Assistant | | 287 | 700 | 987 |
| Site Assistant | | 718 | 779 | 1497 |
| Site Assistant | | 431 | 779 | 1210 |
| Site Assistant | | 497 | 533 | 1030 |
| Manual Costs | 5795 | 4546 | 3370 | 13710 |
| Accomodation | 4535 | 3912 | 2597 | 11043 |
| Photography, Equipment, Travel, Office | 8333 | 9941 | 9185 | 27459 |
| Sub Total | 18905 | 23367 | 21456 | 63727 |
| Survey | 500 | 2000 | 2000 | 4500 |
| TOTAL | 38849 | 65311 | 65406 | 169565 |

TABLE 11

Forecast cost of excavating the minimum viable sample

(Figures allow for an annual increment for project team)

1. Project Team

| | 1986/7 | 1987/8 | 1988/9 | 1989/90 | 1990/1 | 1991/2 | 1992-7 | TOTAL |
|---|---|---|---|---|---|---|---|---|
| Director | 11783 | 19846 | 20656 | 21895 | 23209 | 24602 | 147003 | |
| Project Assistant | 7427 | 7873 | 8345 | 8846 | 9376 | 9939 | 21702 | |
| Management | 2597 | 2798 | 2966 | 3144 | 3333 | 3533 | 1873 | |
| Secretarial | 2907 | 3081 | 3266 | 3462 | 3670 | 3890 | 23242 | |
| Research Assistant | 7500 | 7950 | 8427 | 8933 | 9469 | 10037 | 59974 | |
| Research Assistant | 4000 | 7950 | 8427 | 8933 | 9469 | 10037 | 59974 | |
| Environmental Assistant | 1772 | 4240 | 4494 | 4764 | 5050 | 5353 | 24823 | |
| Illustration | 6250 | 6625 | 7023 | 7444 | 7890 | 8364 | 49978 | |
| Computer Programming | 1413 | 2998 | 5250 | 5513 | 5844 | 6194 | 16262 | |
| Equipment | 1000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2500 | |
| Specialist Costs | 1000 | 2000 | 2000 | 2000 | 2000 | 2000 | 6000 | |
| Expenses/Contingency | 1500 | 2500 | 2500 | 2500 | 2500 | 2500 | 10000 | |
| Overheads | 6189 | 6793 | 7087 | 7512 | 7963 | 8441 | 44663 | |
| | 55338 | 76654 | 82441 | 86946 | 91773 | 96890 | 467994 | 958036 |

S/Total to 1992 £490042

(cont., over)

TABLE 11 (cont.)

2. Site Team

| | 1986/7 | 1987/8 | 1988/9 | 1989/90 | 1990/1 | 1991/2 | 1992-7 | TOTAL |
|---|---|---|---|---|---|---|---|---|
| Team Supervisor | 2709 | 10836 | 10836 | 10836 | 10836 | 10836 | 10836 | 67725 |
| Photographer | 1200 | 4800 | 4800 | 4800 | 4800 | 4800 | 1200 | 26400 |
| Finds Supervisor | — | 4160 | 4160 | 4160 | 4160 | 4160 | 4160 | 24960 |
| Temporary Staff | 8000 | 33000 | 31500 | 32500 | 32000 | 32000 | — | 169000 |
| Illustration | — | 2450 | 3200 | 3200 | 3200 | 3200 | — | 15250 |
| Equipment | 2500 | 6000 | 6000 | 6000 | 4000 | 2000 | — | 26500 |
| Specialist Costs | — | 2000 | 2000 | 2000 | 4000 | 6000 | 6000 | 22000 |
| | 14409 | 63246 | 62496 | 63496 | 62996 | 62996 | 22196 | 351835 |
| | | | S/Total to 1992 | | £329639 | | | |

3. Regional Survey

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Suffolk Arch. Unit | 5260 | 5525 | 5800 | 6095 | 6400 | 6715 | 6715 | 42510 |
| | | | S/Total to 1992 | | £35795 | | | |

4. Total

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Totals | 75007 | 145425 | 150737 | 156537 | 161169 | 166601 | 496905 | 1352381 |
| | | | S/Total to 1992 | | £855476 | | | |

TABLE 12

EQUIVALENT COST OF BM EXCAVATION 1965–1971 (1965 costings)
Excluding conservation and post-excavation

| | INT 6 (Bruce-Mitford) | INT 7 (Ashbee) | INT 8 - 14 (Longworth, etc) | Total |
|---|---|---|---|---|
| | 1965 - 1971 | 1968 - 1970 | 1966, 1968-70 | |
| | 42 weeks | 18 weeks | 20 weeks | 80 weeks |
| B M Staff or equivalent | R. Bruce-Mitford<br>A. Evans<br>N. Williams<br>K. Miller<br>G. Joysmith<br>Y. Crossman<br>P. van Geersdale | P. Ashbee<br>R. Ashbee<br>C. Long<br>T. Carney<br>A. N. Other | I. Longworth<br>I. Kinnes<br>N. Rosenfeld | |
| | (7) 294 MW | (5) 90 MW | (3) 60 MW | |
| Vols: | 15 630 MW | 30 540 MW | 15 300 MW | |
| COST | | | | |
| Staff Salary – £7000 pa | 294 MW<br>39,577 | 90 MW<br>12,116 | 60 MW<br>8,077 | 59,770 |
| Staff Subs. – £15 pd | 30,870 | 9,450 | 6,300 | 46,620 |
| Vols. Subs – £2 pd | 8,820 | 1,080 | 600 | 10,500 |
| Shelter | 10,000 | | | 10,000 |
| Running Costs | 42,000 | 6,000 | 8,000 | 56,000 |
| | 123,707 | 28,000 | 22,977 | 182,890 |
| | | | 1985 equivalent (x6) | £1,097,340 |
| | | | Cost over six years | £1.09 M |

TABLE 13

Attrition of the Sutton Hoo Monument as a result of the proposed

Research Campaign 1983–1993

| | | Before 1983 | | | After 1993 | | |
|---|---|---|---|---|---|---|---|
| Resource | Estimated Total | Excavated ha | Excavated % | Conserved % | Excavated ha | Excavated % | Conserved % |
| Prehistoric Earthworks | — | — | — | — | — | — | — |
| Prehistoric Flat Site | | | | | | | |
| Zone A | 4 ha | 0.24 ha | 5 | | 1.3 ha | | 66 |
| Other zones | 10 ha | | | | 0.08 ha | 0.80 | 99.20 |
| Total | 14 ha | | | | 1.38 ha | 10 | 90 |
| Early Medieval Earthworks | | | | | | | |
| By number of barrows | | | | | | | |
| Major Barrows | 7 | 1 | 14 | 86 | 4 | 57 | 43 |
| Minor Barrows | 12 | — | — | 100 | 3 | 16 | 84 |
| Total barrows | 19 | 1 | 5 | 95 | 7 | 37 | 63 |
| By Area Equivalent | | | | | | | |
| Major barrows | 0.95 ha | 0.24 | 25 | 75 | 0.60 | 66 | 34 |
| Minor barrows | 0.19 ha | — | — | 100 | 0.04 | 19 | 81 |
| Total Barrows | 1.14 ha | 0.24 | 21 | 79 | 0.67 | 59 | 41 |
| Early Medieval Flat Site | | | | | | | |
| Zone A | 4 ha | | | | 1.30 | 33 | 66 |
| Zone D | 1 ha | | | | 0.08 | 8 | 92 |
| Total | 5 ha | | | | 1.38 | 28 | 72 |

Appendix 1

# LIST OF SPECIALIST COLLABORATORS ON THE SUTTON HOO SITE EVALUATION: 1983–1985

## SITE WORK

Alan Aberg, National Monuments Record (loan of Sonic Tape, advice on archive).

Peter Berry (Site Manager).

Christopher Brooke (Specialist Photography).

John Bruce (Contour Survey).

Malcolm Cooper, Stafford Polytechnic (Contour Survey and Plotting Programme)

Brian Durham, Oxford Archaeological Unit (Photographic Kite)

George Edens, K and C Mouldings (Silicon Rubber Moulds).

John Gowlett, Research Laboratory for Archaeology, Oxford (C14 Dating)

Jim Hooker, City University (Photogrammetry).

Cliff Hoppitt, Woodbridge (Aerial Photography).

David Ingram, University of Birmingham (Contour Survey, Plotting Programme).

Sean MacGrail, National Maritime Museum (Loan of P32 Camera).

Peter Miller (Model Aircraft Photography).

John Minks, USAF Base Woodbridge (Helicopter Flight).

Edward Morgan (Specialist Photography).

Mark Newman, Bordesley Abbey Project (Prehistoric Assessment).

Brian Ribbans, (Hot Air Balloon Pilot).

Juliet Rogers (Human Bone Analysis).

Steve Rothera, Essex County Council (Botanical Survey).

Mick Sharp (Specialist Photography).

Ray Sutcliffe, BBC (Film Producer).

Michael Tite, British Museum (C14 Dating, Conservation).

Jill Walker, AERE Harwell (C14 Dating).

Nigel Williams, British Museum (Consolidation and Lifting of Grave Deposits).

Martin Woodhall, Milk Marketing Board (Soil Chemistry).

Appendix 1 (cont.)

REMOTE SENSING AND SURVEY

Helen Atkinson, Department of Quaternary Research, Stockholm (Sedimentology)

Amanda Balfour, University of Birmingham (Display Design).

Alister Bartlett, HBMC (Fluxgate Gradiometry).

Victoria Bryant, University of Birmingham (Aerial Survey).

Caroline Fleming, University of Birmingham (Display Design)

Margaret Gelling, University of Birmingham (Documentary Survey).

Mike Gorman, Scott Polar Institute (Radar and Magnetometry).

David Gurney, Norfolk Arachaeological Unit (Phosphate Survey).

Mike Hayes, University of Birmingham (Chemistry of Decay).

Rosemary Hoppitt, Woodbridge Museum (Documentary Research).

Mike Kelly, Bradford University (Resistivity)

Edward Martin, Suffolk Archaeological Unit (Prehistoric Suffolk)

John Newman, Suffolk Archaeological Unit (Regional Survey).

Judith Plouviez, Suffolk Archaeological Unit (Roman Suffolk).

Tony Travis, University of Birmingham (Tourism)

Keith Wade, Suffolk Archaeological Unit (Regional Survey).

Roger Walker, Geoscan Research Limited (Resistivity)

Ron Warmington, University of Birmingham (Display Design).

Peter Warner, Homerton College, Cambridge (Documentary Survey).

Stanley West, Suffolk Archaeological Unit (Early Medieval Suffolk).

Tony Wilkinson, (Sedimentology)

Rowan Whimster, Cambridge University Committee for Aerial Photography (Aerial Photography)

Appendix 2

## PROPOSED SUTTON HOO PROJECT TEAM

Director: Martin Carver BSc FSA MIFA (Director, Birmingham University Field Archaeology Unit. Medieval Archaeologist, Hon. Secretary Insititute of Field Archaeologists).

Consultant on Prehistory: Ann Ellison MA MIFA FSA (Prehistorian, Research Fellow, University of Birmingham, formerly Director of Trust for Wessex Archaeology).

Senior Supervisor: Peter Leach BA MIFA (Formerly Field Officier with Western Archaeological Trust. Prehistoric, Roman and Medieval Excavation director).

Assistant Presenter: Phil Rahtz MA FSA (Professor of Archaeology at York University).

Project Secretary: Jenny Glazebrook BA MA (Field Archaeologist, Supervisor with Sandwell Arch. Proj., formerly of Birmingham University).

Photographer: Nigel Macbeth (Freelance Photographer).

Supervisors: Angela Evans BA MIFA (Assistant Keeper in the Department of Medieval and Later Antiquities, British Museum).
Gillian Hutchinson, BA MIFA (Medieval Researcher at the Archaeological Research Centre, National Maritime Museum).
Andrew Copp BA MA AIFA (Prehistorian, Field Archaeologist, former student of Sheffield and Birmingham).
Catherine Royle BA MA AIFA (Survey Specialist, Field Archaeologist, former student of Birmingham).

Leverhulme Project Supervisor: Phil Bethel BA MIFA (Former Supervisor with Department of Urban Archaeology, London).

Manager: Andrew Brooker-Carey BA (Manager, Birmingham University Field Archaeology Unit).

Publications Officer: Elizabeth Hooper BA (Publications Officer and Illustrator, Birmingham University Field Archaeology Unit).

SUTTON HOO SOCIETY

President: HRH Duke of Edinburgh.

Chairman: Malcolm Miles (Managing Director, BSP Interactive Foundations Ipswich).

Secretary: Sqdn. Ldr. R Beardsley.

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