Sutton Common
Updated project design
(including assessment report and statement of potential)

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v 1.2
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Sutton Common 2003: The excavations of trenches (from right to left) 1, 3, 5 and 7. For scale, the main trenches were 30 m wide © CCT/APS UK. Note the eastern gateway visible in trench 3, where the ditches are interrupted. For many more photos, see the excavation's website: www.ex.ac.uk/suttoncommon.

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The Sutton Common Project

The Excavations of the Iron Age Enclosures at Sutton Common are funded by English Heritage and are being undertaken by the Department of Archaeology, University of Exeter and the Wetland Archaeology and Environments Research Centre, University of Hull. The work forms a major part of the Sutton Common Project.

The Sutton Common Project, which includes land acquisitions, wildlife and landscape enhancement, archaeological and palaeoenvironmental evaluations, research and conservation, and engineering works to raise ground-water levels, is spearheaded by the owners of the land, the Carstairs Countryside Trust (CCT), in partnership with English Heritage, English Nature, Countryside Agency, the Universities of Exeter and Hull and Grantham Brundell and Farran.

The Project forms one of the Countryside Agency's trial schemes in the Humberhead Levels 'Value in Wetness' Land Management Initiative, which is seeking new, economically viable and environmentally sustainable approaches to water and land management in the Humberhead levels.
Participation with the Askern Ward Community Partnership over future public access and enjoyment of the site seeks to contribute to the environmental and economic regeneration of this 'Coalfields' area in South Yorkshire.

This Project has been made possible through the co-operation of the Sheard Family Trust and financial support from: English Heritage, Heritage Lottery Fund, English Nature, Countryside Agency, DEFRA (Countryside Stewardship Scheme), Darrington Quarries (Landfill Tax Credits) through WREN - Waste Recycling Environmental, James Goodhart, The Pilgrim Trust and the Universities of Exeter and Hull. Help has also been given by the Doncaster Naturalists Society and Doncaster Arts (DARTS).

Sutton Common in 1997: ploughed-out and drying out. The smaller enclosure is visible as an earthwork; the larger enclosure as an soilmark, with the peats of the Hampole Beck showing up as darker soil marks

1 Background

'Sutton Common' is the name used by the Ordnance Survey for three fields centred on SE563122, approximately 500 m to the south of Askern Town, 8 km north of Doncaster in South Yorkshire. The village of Sutton and its Common form now part of the Parish of Norton and Campsall. The name has also been used for an Iron Age period site here formed by two 'enclosures', which are dissected by a palaeochannel named the Hampole Beck (South Yorkshire scheduled monument 291).

The site has had a long history of archaeological interventions, which is summarised in Appendix A. The most notable intervention at Sutton Common over the past 160 years were excavations in 1933, 1934 and 1935 under the direction of Emeritus Professor Whiting, which were published in the *Yorkshire Archaeological Journal* in 1936 (Whiting 1936). These excavations are of particular importance to our understanding of the site as the earthworks of both enclosures were still upstanding. Further work was undertaken by the South Yorkshire Archaeology Unit and the University of Sheffield following the partial destruction and subsequent drainage of the site in the early 1980s. A synthesis of these activities was published in the *Proceedings of the Prehistoric Society* by Mike Parker Pearson and Bob Sydes (Parker Pearson and Sydes 1997). This paper formed the basis for the project design of the excavations undertaken by the Universities of Exeter and Hull in 1998, 1999, 2002 and 2003.

In 1998 and 1999, a series of trial trenches were excavated. The excavations in 1998 echoed earlier work in that it showed that only the basal 20 cm of ditch deposits (represented by a blue clay) within the smaller enclosure were waterlogged and could continue to preserve any organic archaeological and palaeoenvironmental remains here. Within the larger enclosure the results indicated elaborate gateways on the eastern and western sides with massive oak posts, which were desiccating rapidly (Van de Noort & Chapman 1999). A second more systematic project of excavation was undertaken in 1999 (Van de Noort & Chapman 2000). This project established the alphanumeric excavation grid across the site and identified the survival of a range of internal features within the larger enclosure, including wood in varying stages of desiccation.

The project design for the excavations in 2002 and 2003 was submitted to English Heritage in January 2001. It had been intended to complete the fieldwork by the end of 2002, but the onset of Foot and Mouth Disease in England in the (wet) spring of 2001 forced a considerable delay of the activities. Discounting this 15-month period of delay, the project was completed within the timetable and within the budget, albeit variation orders were agreed (a) to accommodate the direct cost of postponing the work in 2001 (e.g. inflation) because of F&MD and (b) to accommodate small-scale extensions of the excavation programme, bringing the project design in line with the research framework for the British Iron Age, which was published in September 2001 (Haselgrove *et al.* 2001).

The project was founded on the understanding that any organic remains within the larger enclosure that still existed were desiccating rapidly, and this assumption was found to be wholly correct during the excavations. From 1997 onwards, these archaeological investigations formed part of the wider 'Sutton Common Project' (see Acknowledgements for further detail to the scale and scope of this work). This Project, lead by the landowner The Carstairs Countryside Trust (CCT), continues to play an active role in the management of the site and in the way the local and wider community engages with the historic environment at Sutton Common.

The excavations in 2002 and 2003 revealed *c.* 95% of the interior of the larger enclosure, and *c.* 25 % of the defensive structures that surrounded the larger enclosure, including both the east- and west-facing gateways. Approximately 10% of all internal features were excavated,

as was a sample of the defences. All large timbers associated with the two gateways were sampled for dendrochronological analysis.

1.1 Summary of the original academic objectives

The following extracts have been taken from the project design (Van de Noort and Chapman 2001):

(Summary p 2)
'The central academic question to be addressed by this project is: "What was the function of the Sutton Common site in the Iron Age?", with due regard to the possibility that the two phases of activity so far identified may represent sites constructed for different purposes. If this question were not to be addressed, then the Sutton Common site would remain an enigma, and its potential contribution to the study and understanding of the archaeology of Iron Age Britain would be unrealised.'

On the basis of previous publications (i.e. Parker Pearson and Sydes 1997), the project adopted the following preliminary phasing in the original project design:

(p. 9)
Phase 1: the construction of the palisade beneath the earthworks of the larger enclosure and activities associated with the palisaded enclosure up to the construction of the earthwork …

Phase 2: the construction of the earthworks of both enclosures, which on the basis of morphology are considered to be more or less contemporary, and activities associated with the earthwork enclosures …

Phase 3: initial deposition of sands in ditches, slumping of bank material and the deposition of the stones in the entrance way of the larger enclosure in antiquity …

Phase 4: peat development in the ditches and the palaeochannel ….'

The general aims were defined as thus:

(p 22-3)
'The academic research design is build around the need to understand the character, morphology, development and spatial patterning and environmental context of the Iron Age enclosures within a local, regional and national research context. Without such an understanding, the Sutton Common site remains an 'enigma' and, as such, the contribution of the site (and previous work) to archaeological knowledge remains rather limited. The main aims of the project are therefore to:

A) Define the **character** of the site at Sutton Common and the features inside the larger enclosure
B) Define the **morphology** of the site and features inside the larger enclosure
C) Define the temporal **development** of Sutton Common and the features inside the larger enclosure
D) Define the **spatial patterning** of the features inside the larger enclosure
E) Define the **social dimensions** of the site and its place in the wider landscape
F) Define the **interaction with the environment** at Sutton Common

A number of non-academic aims are included in the project:

G) Continue research into aspects of *in situ* preservation another aspects of archaeological site management and methodological research

H) Contribute to CCT's integrated management of the site within the partnership forged with statutory and other organisations and the local community
I) Develop education programmes and training programmes
J) Create opportunities for the public to visit the site.'

The specific research objectives were defined as a number of questions, each subdivided into questions that are answerable through specific archaeological and palaeoenvironmental methods or combinations of such methods:

(p 25-6)
'1: What was the character, morphology, development and spatial patterning of the palisaded enclosure in Phase 1? (aims A, B, C & D …)
1.1: What did the palisade enclose, and what activities were undertaken in the enclosed area?
1.2: When was the palisade built?
1.3: Where did the timber for the palisade come from?
1.4: What woodworking techniques were used in the construction of the palisade?
1.5: What was the impact of the building of the palisade on the environment?
1.6: How long did the palisade exist and was it repaired at any time?
1.7: Was the palisade burnt down?
1.8: Why was the palisade abandoned?

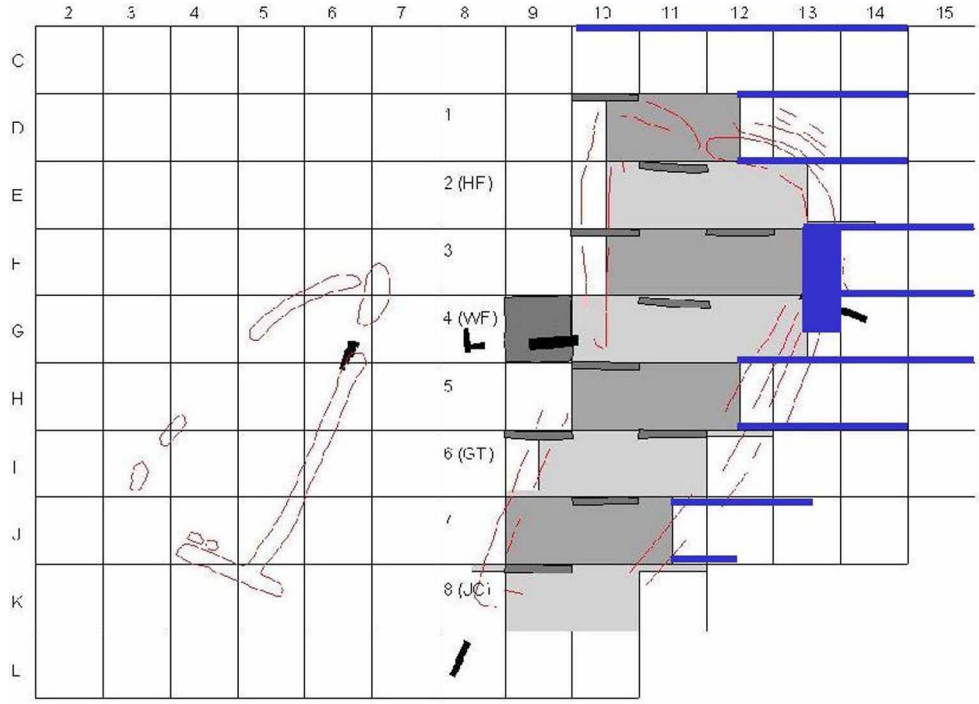
2: What happened to the site between Phases 1 and 2? (aims C & F)
2.1: What is the longevity of the intermediate period?
2.2: What happened to the environment of Sutton Common?

3: What was the character, morphology, development and spatial patterning of the earthwork enclosure in Phase 2? (aims A, B, C & D)
3.1: What did the earthwork enclose, and what activities were undertaken in the enclosed area?
3.2: When were the earthworks built?
3.3: Where did the timber for the earthwork structure come from?
3.4: What did the stone used in the earthwork structure come from?
3.5: What was the impact of the building of the earthworks on the environment?
3.6: How long did the earthwork enclosure exist and was it repaired at any time?
3.7: Was the earthwork enclosure partly demolished in antiquity?
3.8: Why was the site abandoned?

4: What was the interaction between human activity and the environment? (aim F)
4.1: What were the environmental changes at Sutton Common during the Iron Age and to what extent can the changes be attributed to human activity (e.g. the cutting of trees for the construction of the palisade)?
4.2: What was the exact nature of the Hampole Beck in the Iron Age, and how did it change during the periods of human activity?

5: What is the significance of the Sutton Common site in the wider context in the Iron Age? (aim E)
5.1: What is the (environmental or geological) origin of the raw materials, such as timber and stone, used at Sutton Common in the Iron Age?
5.2: What is the geographical origin of the cultural finds from Sutton Common?
5.3: What is the spatial, economic and political relationship between the Sutton Common site and the known Iron Age settlements and field systems of the Sherwood Sandstone area?

6: What are the factors causing the variable preservation of the archaeological wood?'



The alphanumeric grid used for the 1999, 2002 and 2003 excavations at Sutton Common, superimposed over the outline of the enclosures. North is at the top. Each grid measures 30 x 30 m.

- The 1998 trenches are shown in black
- The 1999 trenches in dark grey
- The 2002 trenches in medium grey and
- The 2003 trenches in light grey.
- The extensions in blue represent the changes made following the publication of the research framework for the Iron Age (Haselgrove *et al.* 2001), and were excavated in 2003.

1.2 A summary of the results of the project to date

To all sense and purpose, the large-scale excavations at Sutton Common in 2002 and 2003 were a success, with all set targets achieved. It is important to remember that all archaeological interventions prior to 1998 combined exposed less than 0.5% of the extent of the site, and that the much larger scale excavation over the last years have radically altered our understanding. These results are best described within a chronological framework (see below)

The adoption of a new phasing system is required to distinguish it from previously used and published phasing systems (e.g. Parker Pearson and Sydes 1997) which have been found to be in error. Most importantly, but somewhat confusingly, it was previously believed that the so-called palisade predated the bank-and-ditch arrangements by a considerable period, and that the larger enclosure at Sutton Common included two distinct phases of activity. We are now convinced that this was not the case, and that the 'palisade' formed an integrated part of the multivallate system of banks and ditches. However, our excavations did establish a period of re-use of the Sutton Common enclosures. This comprises a 'cemetery' of some 30 small geometrically shaped enclosures that were used for secondary deposition of cremation remains. Most of these were found to be badly truncated, but a suggested Late Iron Age or Early Roman date may be proposed on the basis of the sparse finds.

The excavations of 2003 incorporated the relevant recommendations from the then just published research framework for the Iron Age (Haselgrove *et al.* 2001) where possible, and

amendments to the original project design included: looking beyond the settlement's boundary (p. 10), excavation of terminals (p. 10), extended palaeoenvironmental sampling (p. 14), full-scale metal detecting of the site (p. 15), and the sieving of deposits, especially those that were thought to be potentially artefact bearing deposits (p. 15)

Phase 0: (Mesolithic to Bronze Age)

This phase includes all activities that precede the enclosure of the site; this embraces the Mesolithic, Neolithic and possibly Bronze Age period flints (including a number of arrowheads) that have been found either in the ploughsoil or within the natural sediments, the result of downward translocation, and the Bronze Age period bronze artefacts that have been deposited in 'wet places' in the wider landscape (fully discussed by Parker Pearson and Sydes 1993). Importantly, no *in situ* features such as hearths proceeding Phase 1a have ever been identified at Sutton Common. It also includes extensive evidence for the landscape development of the Sutton Common site, including the existence of an alder carr environment within the area of the former Hampole Beck, possibly up to the enclosure of the site in Phase 1a.

The reason for recognising these activities as a phase within the current project lies in the increased recognition for the use of the 'past in the past', of 'landscape memory' or (if one so wishes) a phenomenology of landscape that emphasises the importance of past human activities to prehistoric and early historic societies. This concept will play an important role in explaining Phase III (see below). It must be emphasised here that we do not suggest that the presence of early prehistoric material culture or the knowledge of this activity provides an explanation for the location of the enclosures, but we do recognise that a focus on wetlands existed well before the enclosures were constructed. Rather, by not discussing the archaeological activity preceding the enclosure of the site, we may stand accused of omitting information that within current archaeological thinking is considered important. Also, the inclusion of this archaeological material will provide a human element to the description of landscape history and development. The research to date on the palaeoenvironment suggest that the Hampole Beck was no longer a flowing river by the late Bronze Age/early Iron Age date. The flora is dominated by alder carr, which was cleared sometime in later phases of prehistory.

Phase Ia: (enclosure of the site – provisionally: early-middle Iron Age)

The excavations have revealed that the defences surrounding the larger enclosure belong to one rather than two separate phases. In the past, the so-called palisade was believed to predate the earthen ramparts, but this was found to be a misinterpretation of the evidence. In fact, the timbers which had been interpreted as the palisade appear to form a 'spine' of (presumably sharpened) stakes within a low earthen bank. Rather than predating the box rampart (see below), it is more likely that this bank was constructed (soon) after the box rampart, and that these multivallate defences formed part of a coherent 'design'.

In retrospect, the reasons for the misinterpretation are understandable and explainable. During past excavations, the 'palisade' was shown as a somewhat irregular or sinuous line of sharpened stakes beneath the remains of the Iron Age earthen embankment. The excavation technique adopted by Whiting, i.e. digging narrow trenches through earthen banks, would not have established the presence of post-pipes within these banks (Whiting 1937), whilst the scale of the excavations in the 1980s was too limited to notice any post-pipes in the now ephemeral remains of the banks after these had been bulldozed (Parker Pearson and Sydes 1997). However, post-pipes (and occasionally the stakes themselves) were found within bank remains during 2003, notably at the eastern end of the site.

Nevertheless, in previous publications, this line of stakes was interpreted as pre-dating the earthworks and, with reference to the south of England where several early development of

hillforts was found to be formed by a palisaded enclosure, was thus interpreted as a similar feature predating the earthworks at Sutton Common (albeit the defensive character of the palisade at Sutton Common was questioned – Parker Pearson and Sydes 1997). Independent dating evidence for this early phase, either in terms of absolute dating of the timbers or in terms of relative stratigraphy, did not exist. In recent years, much has been made about the dangers of interpreting the Iron Age of northern England within a framework of the 'British Iron Age' that is essentially based on evidence from Wessex and south-east England (e.g. Bevan 1999), and this appears to be a most interesting example.

The recent excavations allow a near-complete view of the defences of the larger enclosure. It appears that the defences formed part of a coherent 'design'. On the inside, we found a *c.* 3 m wide road or empty space, where no internal structures were built. Outside this road were two parallel rows of corresponding oak roundwood timbers, *c.* 2.5 m apart, and interpreted as a 'box rampart'. This feature was found as a continuous feature on all sides of the larger enclosure, with the only interruption at the entranceways on the east and west sides of the larger enclosure. Beyond the box rampart was a ditch, constructed in sections or 'scoops' of several metres long and the ditch was variable in depth – in fact, in places it appeared as a discontinuous structure akin a causewayed enclosure. This ditch was only found alongside the northeastern, eastern and southern sides of the enclosure, and was absent on the western end and the northwestern sides. Intriguingly, this absence corresponds with the extent of the wetlands outside the enclosure, with ditches only dug where the wetlands were at a considerable distance (>25 m) from the defences. On the western side of the larger enclosure, where it adjoins the Hampole Back, and *c.* 2 m beyond the box rampart, the remains of a low dry limestone wall have been recorded over the many years of excavations. The base of this wall lies somewhat below the presumed level of the box rampart, and this limestone wall may have formed one side of a low terrace, protecting the timbers of the box rampart from standing water in the former channel of the Hampole Beck, rather than the rampart itself, as previously suggested. Geological analysis of the stone has indicated that this is upper magnesian limestone, which can be found at or near surface levels at a distance of 1.5 km at Owston and Askern.

Outside this wall on the west side of the larger enclosure, and outside the ditch on the other sides, was an area of up to 5 m wide, which includes the sinuous line of stakes, the so-called 'palisade'. On the basis of the lay-out and stratigraphic observations, it is probable that this feature formed the centre line of a low concave earthwork. Although no evidence exists, these stakes may have been sharpened at their tops as well as their bases to add to the defensive character of the enclosure. Outside this earthwork, a second ditch has been found on the eastern side of the enclosure. Additional alignments of stakes, albeit small in dimensions compared to those described above, have been uncovered in the area to the east of this second ditch.

Previous research suggested that the larger enclosure may have had up to four entrances (facing north, south, east and west), but the recent excavations have shown that only two entrances ever existed here. The entrance facing west connects with the smaller enclosure across the Hampole Beck by means of a post-lined causeway, excavated in 1999. This causeway is up to 9 m wide, and this apparently non-defensive feature has given rise to the question whether the primary function of the Sutton Common site was one of safety and security, or one of symbolism and ceremony. The gateway was defined by six very large oak roundwood timber, providing the overall dimensions of the gateway of *c.* 4 x 18 m. The dimensions of the gateway facing east towards Shirley Pool were even greater. Defined by 10 large oak roundwood timbers, the gateway measures . 4 x 22 m, but narrows when entering the enclosure from the east. Additional structures were identifiable on either side of the gateway, where the terminals of the ditches of the defences were found to 'stop short'. These additional structures resemble the 'guard chambers' found in many hillforts across England.

The terminals of the ditches were filled with an array of material, including animal bones, charcoal, two human skulls, timbers (including one of yew, a species not encountered anywhere else on the site) a bone comb and a piece of pottery. For the moment, these are interpreted as ‘structural deposition’ (cf. Hill 1995).

Phase Ib: (furnishing of the enclosed site - provisionally: early-middle Iron Age)

We have found no stratigraphic evidence indicating a relative date for the structures built within the box rampart, but we assume at this point in time (following the generally accepted ideas) that the defences were completed by the time the interior was furnished. Some 600 postholes and posts can be attributed to rows of 4-post structures i.e. some 150 4-post structures have been identified in the field or the initial analysis), each row frequently including 3 or 4 such structures. Traditionally, such 4-post structures have been interpreted as ‘granaries’ – in 2002 we found considerable amounts of carbonised grain (spelt and emmer) in three postholes from 4-post structures, and in 2003 additional but sparser amounts of the same material from other 4-post structures, providing some support for the notion that these structures were indeed in use at Sutton Common as granaries. The taphonomic relationship between storing grain and finding carbonised remains in postholes remains a matter of keen debate, and it may be possible to advance this discussion on the basis of the material from Sutton Common.

As was the case with the defences at Sutton Common, the excavations found no examples where post-holes in the interior of the site inter-cut, nor is there any evidence of post being replaced. This suggests that the site was only used during a single phase or period, which may have extended over years rather than decades or centuries.

Apart from the many postholes representing rows of 4-post structures, some 3000 additional postholes and posts were found which have not (yet) been allocated to structures. Furthermore, the site seems to have several streets (including one linking the gateways) indicated by the complete absence of features, a well in the southern part of the site and several deep pits. The well and pits all seemed to have filled in rather rapidly, and despite their relative depth, no organic palaeoenvironmental remains were found within these. No roundhouses (i.e. circular ditches) have been found during the excavations, although the (remote) change exists that on final analysis of the features circular features may be identified. Suggestions to this effect as expressed in an English Heritage press release are in error.

Phase Ic: (provisionally: early-middle Iron Age)

In the past, we have suggested that some evidence for an abandonment of the site which was symbolic. Evidence includes limestone in both east and west gateway, and the dumping of timbers in the ditch of the smaller enclosure. The ‘structural deposition’ in the terminals of the east gateway could, conceivably, also belong to such a symbolic abandonment.

In all, it may be that phase 1 (a, b and c) includes a few years only – dendrochronological analysis provides a unique opportunity to gain insight into the real dynamics of Iron Age society.

Phase II: (provisionally: early-middle Iron Age) intermittent period

Palaeoenvironmental analysis was undertaken from several sections from the inner and outer ditches. The samples were all taken by palaeoenvironmental specialists, and the area north and south of the east gateway were preferred for reasons of preservation and depth of stratigraphy. The assessments, involving the preliminary analysis of pollen, insects and macrofossils, indicated that no evidence for human activity was forthcoming from the ditch fills, rather that all proxy materials suggest a ‘natural’ hydroseral succession within the ditches.

This evidence not only tallies with the archaeological interpretation of a very short phase of human activity on the Common, but also suggests that the abandonment was an abrupt event, rather than a slow decline.

Phase III: (provisionally: late Iron Age or early Roman period)

One of the most remarkable results of the recent excavations was the discovery of a 'cemetery', provisionally dated to the late Iron Age or early Roman period. The cemetery comprises *c*. 30 geometrically shaped 'mini enclosures', maximum 3 m long and 2 m wide, with circular, semi-circular, near-square, rectangular and oblong shapes present. In two instances, concentrated cremation remains were found within these mini enclosures, and at least one of these was found in a posthole of a former 4-post structure – the stone packing for this post was still in place. In the other instances, no concentration of cremation remains were found, but 'flecks' and fragments of cremation remains were found in the narrow ditch fills. The majority of these mini enclosures were badly truncated, and their function was not recognised until the 2003 campaign. Many of the ditches of these mini enclosures intercut, suggesting (again) short-term use rather than monumental design.

Only one small find was found *in situ* within the cemetery: a green glass bead. However, about 15 minutes before the end of the excavations in 2003, local metal detector enthusiast Ian Stead invited by the excavators to complete his full survey of the excavations, found a strip of hammered gold from the area of the cemetery. Initial analysis puts the find in the later part of the 1st century BC-1st century AD, providing a provisional date for the cemetery.

We interpret the cemetery as a re-use of the marsh fort as an example of the archaeology of memory/use of the past in the past, with the mini enclosures being on purpose ephemeral, being the place of secondary deposition (and occasional burial) of the cremation remains. The mini enclosures may have enclosed small mounds, but we have found no evidence for this. The cemetery was found on the western third of the larger enclosure only, and may have been matched by similar structures on the east side of the small enclosure across the palaeochannel of the Hampole Beck. The cemetery has no known parallels.

AP of the set of small enclosures containing cremations and cremated fragments in Trench 7
© CCT/ APS UK

2 Summary statement of potential

The excavations at Sutton Common between 1998 and 2003 have produced a data set of the near-complete interior of England's largest 'marsh-fort', or lowland multivallate enclosed site, and extensive evidence of the enclosing features, including the two entranceways. The archaeological features, combined with in depth information on the archaeological wood and the high-precision dendrochronological dating, provides an unparalleled basis for analysis, not just for this type of site, but also for the Iron Age of England in general. Palaeoenvironmental evidence provides both contextual information on landscape change, and insights into the function of the site. The material culture is very limited, but forms part of a process of 'structured deposition', and is as such of considerable interest to our understanding of Iron Age perceptions. The site was re-occupied by a cemetery – this is an extremely rare find for the later Ion Age, and the relevant structures and associated finds warrant full publication.

Below, summary statement of potentials are provided for the data and materials from Sutton Common – the full assessments are included in the back as Appendix 2.

2.1 Archaeological features

The potential of the archive from the Sutton Common Project relates to the ability to identify and define structures rather than to disentangle complex stratigraphy. It is therefore extremely well-suited to digital archiving and geographically informed database (specifically GIS-based) interrogation. The spatial GIS database would include a digitised record of all contexts. This would then be related to databases from other analyses, including palynology, geoarchaeology, plant macro-fossils, lithology, archaeological wood and dating results. Through the construction of a complete and integrated GIS database it will be possible to address questions relating to the character of the site, its morphology, its development and spatial patterning. It will also be possible to model interaction with the local environment and, in conjunction with both the wood results and the hydrological results, it will be possible to provide a more accurate picture of the processes of *in situ* preservation (*cf*. Van de Noort *et al*. 2001, Chapman and Cheetham 2002), and inform on the site's future management. The availability of the resulting digital through the Archaeology Data Service (ADS) will also provide a wider remit for education and training and public participation. Primarily the digital database will enable prehistoric structures to be identified and constructed as 'objects' within the database. These can then be related to the phasing, dating and function identified through other analyses.

Currently the GIS data consist of a basic DEM of the site (calculated from approximately 5000 GPS survey points – Chapman and Van de Noort 2001), trench outlines and associated data from each of the previous investigations by the universities of Hull and Exeter. In addition, GIS-ready data exist for much of the earlier water table modelling (Van de Noort *et al*. 2001) and an outline database of context allocation. Additional digital data include the scanned trench plans and section drawings (approximately 400) and photographic record.

The current project will incorporate the digitising of features as GIS shapefiles based upon the scanned site plans. Associated databases will include relevant dating material and interpretation thus enabling interrogation to produce plans showing the phased distributions and the locations of features such as 4-post structures. The data will be collated within ESRI ArcGIS version 8.3, and adapted for longevity by the Archaeology Data Service.

2.2 Archaeological wood

Within the limitations set by the preservation of archaeological wood, the research potential can be summarised as thus. The species of the timbers used can inform on several levels. It has the potential to demonstrate selective use for the properties of particular timbers. For example, it has already been demonstrated that oak is preferred for the majority of the structures

on site, a likely function of its strength and durability. An insight into the contemporary landscape on and around the site can be gained from the composition, age and morphology of trees in the landscape, and ring patterns can be used to infer the origin of the timbers.

Despite the poor condition of many of the timbers from the site, preservation of toolmarks is very good in parts and even signatures survive on several samples. Such data may aid the interpretation of when and how elements of the enclosures were constructed. Woodworking techniques are well demonstrated from the assemblage and further work on the surviving toolmarks has the potential to reveal further valuable information.

Of great interest in terms of the archaeological wood resource from Sutton Common is the condition of the timbers. It is of no great surprise that the more deeply buried samples are the best preserved on site, as these are not subject to seasonal fluctuation in the water table. It is smaller-scale variations in the burial environment which appear to have greatly affected the survival of some timbers. In some cases, even adjacent timbers that are seemingly contemporary, display marked variation in their condition. The palisade stakes is a good example of this phenomenon.

The archaeological wood assemblage from Sutton Common is of undoubted national importance. Almost 250 timber samples have been recovered, with initial analysis confirming the potential of the assemblage to make major contributions to research of the British Iron Age. The wood is a rare and highly valuable resource which will enhance the understanding of the period nationally by helping to define the regional characteristics of the Iron Age in this area of the country. Defining and evaluating the differences between regions in the Iron Age has been identified as a core objective of future research into the British Iron Age (Haselgrove *et al.* 2001).

2.3 Dendrochronology and radiocarbon dating:

As indicated in the original project design, dendrochronology was always seen as playing a vital role in dating phases of activity on the site. Only a small number of samples from earlier excavations have been studied but these have shown the potential for cross-matching between individual timber ring-width sequences offering the potential for relative dating. This addresses key questions regarding phasing. The availability of a greater number of suitable samples from the 2002 and 2003 excavations, and their derivation from a range of contexts, offers the potential not only to clarify internal site chronology through relative dating, but also greatly increases the potential for absolute dating against external, previously dated chronologies. The potential contribution of the Sutton Common excavations to Iron Age studies of hillforts and other multivallate settlements is unparalleled.

Given the restricted availability of previously dated tree-ring chronologies for the Iron Age, it is possible that whilst a well-replicated site master sequence may provide internal relative dating, no absolute dating will be achieved for any such site masters. Should this prove the case, serious consideration should be given to ‘wiggle-match’ radiocarbon dating decadal blocks of wood from samples which have formed part of any such master. It is envisaged that all samples taken for dendrochronology will be retained to allow for such an eventuality.

Apart from the use of radiocarbon dating to fix any floating dendrochronological dates through ‘wiggle-matching, radiocarbon assay will be used for dating the cremation cemetery of presumed late Iron Age or early Roman period date, will provide data points for the environmental reconstruction based on pollen analysis and may be used as to provide independent dates for macrofossils.

2.4 Small finds

Analysis of the flint would enable a clearer understanding of activities which predated the construction of the enclosures. The collection of finds associated with the Iron Age phase of occupation consists of the possible quern stones, part of the small collection of pottery fragments, the bone comb, the glass bead, and gold object. A single lead object found by metal detecting the ploughsoil is considered to be of post-medieval date. Analysis of these finds will help to answer questions relating to the activities that were happening within the enclosures. It will also help to establish the links between Sutton Common and the wider landscape through analysis of the source materials. Where this material was found in one of the ditch-terminals, it should be treated as belonging to a structural deposit (cf. Hill 1995), and inferences relating to ritualised behaviour and cosmology should be considered.

Flints: Previous flint assemblages recovered during the work of Sheffield University and the Humber Wetlands Survey have been fully analysed (Parker Pearson and Sydes 1998, Head *et al*. 1997). For the purpose of this project, following analysis of the assemblage, a summary statement characterising the exploitation and settlement of the Common in the Mesolithic and early Neolithic period suffices, aimed at providing insight into the landscape evolution prior to the Iron Age.

Pottery: Pottery in South Yorkshire of Iron Age date is extremely rare, and any such material found should be studied in detail, including through thin section analysis. The largest pieces of the pottery is seen as belonging to the 'structurally deposited' material found in one of the terminals of the eastern entrance, but a few scraps of pottery were found in the interior.

Quern Stones: Three fragments of quern stone were identified during the excavations, all from contexts of postholes or posts from the interior of the larger enclosure. Ritual or structured deposition of quern fragments are known from many sites in the British Isles in prehistory, and this is currently the topic of a PhD study undertaken by Sue Watts (Exeter University).

Comb: A single bone weaving comb was found in one of the ditch terminals of the eastern gateway – it is not decorated but in a good state of preservation. Many complete examples are known from Iron Age Britain, and their 'otherworldly' use in deposition has been observed elsewhere (e.g. Hodder and Hedges 1977).

Glass bead: The glass bead was the only find directly associated with the late Iron Age/early Roman cemetery. It is a blue-green bead with 'twirls' of white – further analysis will place it in an extensive corpus of Iron Age glass beads (Guido 1978), and scientific analysis including XRF will further place it within known distributions of particular types of glass (Henderson 1989).

Gold: The single strip of hammered gold was found by metal detectorist Ian Stead working for us during the excavations. The gold strip was found in the area of the cemetery, and we assume an association here. Not much can be said about the item, but XRF analysis (at the University of Exeter) may help to identify the provenance of the gold, and a possible function may be determined.

Lead*:* The single lead object was found by metal detectorist Ian Stead, and is believed to be post-medieval or modern in date. No further analysis is proposed for this object.

2.5 Human remains

The analysis of human remains and cremated material have the potential to inform us on aspects of ritual, and assist in determining aspects of the function of the enclosure (Q1 - 2000-03 project design), and highlight the activities that relate to its use in relation to burial

and ritual. The analysis of the human remains potentially inform on aspects of demography and pathology on the crania; similar studies where possible on the cremated remains and isotopic analysis of bone samples for use in dietary reconstructions on the uncremated samples, which will also be used for radiometric dating.

Skulls:
The two skulls were found in one of the ditch terminals of the eastern entrance, and will therefore be dealt with as structured deposited material. The skulls have associated dentitions and on cursory examination the skulls potentially provide sufficient morphological traits to determine gender. In addition, the dentition can provide some indication of childhood stressors (non-specific: enamel hypoplasias) and general dietary components (calculus - proteins: caries - carbohydrates). Heavy stable isotope work will be undertaken on the teeth to try and see whether these were local or from some more distant population.

Cremations:
The cremations (7 in all) belong the 'cemetery' of secondary deposited cremation remains, and form an exceptional component of the site. Analysis and identification of the material recovered from cremations is difficult, as only a limited range of elements are usually recovered from such samples, e.g. odontoid process of the axis, mandibular condyles and the petrous part of the temporal at the base of the skull (Mays 1998). In addition, some indication of the viability of the cremation process can be obtained from the study of the colour of the cremated remains, whilst recovered bone weights will enable a consideration of the completeness of the remains as recovered.

2.6 Faunal remains

The analysis of the faunal component from this site will provide insights into the nature of the activities undertaken within the enclosure. In particular, the faunal remains will provide insights into the nature of the domesticated species exploited by the users of the site and should wild species be identified then insights into hunting activities will be forthcoming. Isotope studies of these remains will also provide a background to the isotopic analysis of the human material.

Human-environment interactions will be discernible through faunal analysis, as this will provide direct insights into the nature of the economic/subsistence activities of the groups, along with isotope analysis. Exploitation strategies of herd animals, butchery practices and culling strategies all have the potential to be inferred from the assemblages.

In addition to the significant potential for the faunal remains to contribute to an outline understanding of economy of this period, the specific context of many of the remains, being located at the ditch terminals, suggests that we are looking at structured deposition that mirrors the structuring in the deposition of the human skulls at the ditch terminal. The significance of these aspects lies in identifying what specific species are being used in this deposition process and whether we can distinguish any preference for discrete body part representation in the structuring, as is evident in the deposition of human skulls at such locations.

2.7 Geology

The limestone wall, forming a revetment on the western side of the larger enclosure, was investigated for geological characteristics. The lower Magnesian Limestone shows location-specific geo-chemical signatures and it was hoped that geological analysis of the samples could contribute to linking the site with a defined environment. However, the material sampled from the excavation proved that only upper Magnesian Limestone had been used. A survey of surface and near-surface quarries within a radius of 1 mile from the site, showed that all archaeological material could have been gathered from here. No further geological work is therefore proposed.

2.8 Palynology

The samples assessed as part of the borehole survey were not found to be afflicted by problems of preservation and as such, the availability of both 'on site' and 'off site' contexts for pollen analysis allow the academic research objectives to be addressed. Additional questions arising from the assessments may also be identified. Specifically, the pollen data from Trenches 3, 4 and 5 indicates that alder woodland characterised the environment of Sutton Common for the period following the cutting of the ditches with apparently little evidence for heavily disturbed ruderal contexts.

Analysis of 'on site' and 'off site' sequences will allow the former record to be placed within the longer term context of vegetational change at the site provided by the latter. It will also permit the investigation as to what extent the apparently low level of impact identified from the ditch fills is typical of the wider context of the site's environment both in the period preceding and that following monument construction.

Establishing the nature and extent of human impact on the environment over the last 2000 years has previously been identified as a priority for east England, since most organic deposits suitable for palaeoenvironmental reconstruction have been heavily impacted upon by drainage, ploughing and peat cutting (e.g. Van de Noort & Ellis, 1999, 2000, 2001). The data that is available tends to be plagued by problems of absolute dating and its derivation from sampling sites marginal to the 'cultural' landscape (e.g. Kirby & Gearey 2001). The only substantial long term palaeoenvironmental records currently available for this region have been derived from the raised mires of Thorne and Hatfield Moors (Smith 2001, Gearey in prep.) which tend to provide a 'spatially smoothed' record of regional vegetational change.

At Sutton Common, the presence of deposits in proximity to an excavated archaeological site allows questions regarding the precise nature of environmental changes associated with human activity during the later prehistoric period to be addressed. It has been hypothesised that by the later Iron Age, the landscape of east Yorkshire was open and organised, but to date the opportunity to reconstruct individual components of this landscape mosaic and the precise palynological signal of the construction of a specific monument has not been forthcoming. In terms of national research priorities, the character of lowland cultural landscapes are generally poorly understood, resulting in an over-reliance on data from upland areas which tend to be richer in suitable deposits, to extrapolate to lowland contexts. Palaeoenvironmental data from Sutton Common should begin to redress this balance.

The value of analysing 'off site' deposits such as are preserved in the palaeochannels is that these have the potential to produce long term sequences of environmental change, which will provide a context for the record from the 'on site' deposits discussed above. Furthermore, it is only through the analysis of the 'off site' deposits that certain of the main academic questions can be addressed.

It is thus recommended that detailed palynological analyses are carried out on a sequence which includes the maximum temporal depth in the deepest depth of sediment and includes as much of the later Holocene as is available. The suggested sampling location is that at which the palynological assessment suggests a record of vegetational development from the early through to the mid-Holocene and possibly including the later prehistoric period is preserved in c.2.5 m of sediment (Lillie & Schofield 2002: 22). This will provide both a useful long term picture of vegetational change and also a record against which the 'on-site' information derived from the ditch and buried soil can be compared. It is recommended that this sequence will be sampled at 0.08m intervals and 500TLP for all sequences (except for the buried soil which is only 0.10m thick -interval of 0.02m for this). More closely-spaced analyses will be undertaken where abrupt changes occur. In addition, it is recommended that critical horizons of this sequence are dated by radiocarbon following consultation with the

relevant parties and following the completion of the palynological analyses. The writing up of the palynology will be closely co-ordinated with the macrofossil and insect analysis at two team-meatings.

2.9 Macrofossils

The potential for detailed macrofossil analysis to contribute to our understanding of the site can be defined as thus:

1) Plant macrofossil analysis of charred remains from a selection of posthole- and pit-fills from across the site may inform on differential use of the 4-post structures and pits across the site. It is recommended that 50 samples of 5 kg each will be selected from such contexts from across the site, with a preference for those that have produced moderate numbers of wheat glume-bases during the assessment.

2) Providing dating is reasonably secure, it is desirable that those samples giving substantial insect groups from the ditch-terminals near the east gate are analysed in detail, using larger subsamples (5 kg is probably a good compromise). Such analysis would give a more refined view of depositional conditions and of environment and (where appropriate) human activity in the surroundings. Plant remains from these samples should be recorded to provide a framework for the interpretation of invertebrates and to investigate further the evidence for daub-like material and ?burnt turves/peat appearing in some of the ditch fills. Combined with the study of other structured deposits from these contexts (including the human skulls, animal bones, weaving comb, yew wood and pottery), this potentially provides new insight into the practice of structured deposition. A total of 10 samples is recommended

3) Plant and insect macrofossil analysis from the deep ditch in Trench 4, combined with the palynological analysis, will provide an insight into the vegetation in the immediate post-construction phase of the fort, including the period of the reuse of the marsh-fort as a cemetery, and also a late Holocene sequence of vegetation change that is rare for the Humber Wetlands. A dating framework through radiocarbon assay is required.

2.10 Geoarchaeology

One of the questions proposed during excavation was whether the space between the two enclosing ditches could have comprised a bank that had subsequently been truncated in the 1980s. This question is important for the overall interpretation of the site, for it would allow us to identify a buried soil horizon associated with the period of the construction of the enclosure. The description of the section combined with the analysis of the sampling programme described above have the potential to assess the survival of a buried Iron Age soil horizon.

Around almost all postholes in Trench 3 and throughout the site in general, there is a tendency for the postholes to be haloed by light grey soil material. The question arose during excavation as to the nature of this light grey material. Does it represent Iron Age soil material that has infilled the post holes as the posts dried out or is it microbiological activity that has bleached the surrounding subsoil? Seeing that this soil horizon has been effectively destroyed, as described above, it is impossible to make a direct comparison. Therefore, the monolith samples were taken in Cell F13, radiating out from two different postholes to compare the grey bleached material with the background subsoil. These samples will furthermore be compared to the soil profiles sampled in both Trench 3 and Trench 5.

In Trench 5, where the western extension meets the main trench, there is an exposure of the two enclosing ditches with the internal bank under which is a buried soil. However it is unclear whether this soil is the Iron Age land surface that was sealed at the time of abandonment, or if it is the more current land surface that was buried by the bulldozing of the site in the 1980's.

Therefore the monolith samples taken have the potential to establish a comparative pedological characterisation with the soil profile in Trench 3 (described above) that may help to resolve this issue.

The postholes containing possible cremation burials in Trench 7 were sampled in order to verify if both contain cremations. Micromorphological analysis has the potential to confirm this through the microscopic identification of both ash and bone material.

3 Aims and objectives

3.1 Academic/post-excavation research design

The specific research aims that will be addressed during analysis are discussed below, and the contribution which they are expected to make to archaeological knowledge at a *national level*, has been set within the research framework for the Iron Age, *Understanding the British Iron Age – An Agenda for Action* (Haselgrove *et al.* 2001). This research framework was published after the Sutton Common Project Design has been completed, but it provides an excellent context of the current framework of national (and to a point local and regional) research priorities, against which the specific research aims to be addressed during analysis and the contribution which they are expected to make to archaeological knowledge, can be assessed.

A) Define the **character** of the site at Sutton Common and the features inside the larger enclosure; B) Define the **morphology** of the site and features inside the larger enclosure, and D) Define the **spatial patterning** of the features inside the larger enclosure

On a *national level*, the Sutton Common site will make a important contribution to the study of enclosed settlements, including hillforts. The fact that Sutton Common is the only large enclosed site (excluding earlier ring forts) out of an estimated 3300 such larger enclosed sites in the UK for which the near-complete interior has been excavated, provides an unrivalled opportunity to understand the character of the site; when combined with the high-precision dating (see C below) and palaeoenvironmental and material culture studies, it is possible that Sutton Common will become a type site for this period. The smaller enclosure is still believed to be an elaborate entrance way into the large enclosure, and on the basis of its morphology, it has been suggested that the name enclosure is a misnomer, rather this complex comprises two ditch-and-back arrangements. The geophysical survey strengthens this argument.

Recent discussions in Iron Age archaeology have highlighted a range of unresolved issues in hillfort studies (e.g. Hill 1995, Collis 1994). One is the recognition that the term ‘hillfort’ is probably inappropriate to describe the huge variation in design, date and (presumably) function without detailed research – the excavations at Sutton Common clearly contribute significantly to this debate. This research also highlights the fact that many enclosed settlements in the Iron Age were not located on hills – this work will therefore address the longstanding bias of research on well-preserved hill based enclosed sites, especially in Wessex and the south of England, such as Danebury (Cunliffe 1995) or Crickly Hill (Dixon 1994), by highlighting the evidence for the ‘marsh forts’ of England. The recent publication of the Wardy Hill ringwork at Coveney, Ely (Evans 2003) offers an interesting, albeit a considerable younger example of lowland multivallate sites, but the book does not provide an overview of lowland marshforts comparable to those of Sutton Common.

The plant macrofossil analysis from the site will assist in defining character and spatial patterning of the site – carbonised grain was a frequent find from certain postholes, providing a potentially important inside in the use of areas within the enclosure for specific functions.

On a *regional level*, the site at Sutton Common remains the most important site of Iron Age date, and the definition of its character is of considerable importance. The area (of eastern England) has been described by Cunliffe (1991: 529-542) as an area which are characterised by ring-forts in the late Bronze Age and where ‘villages and open settlement’ dominate in the second century BC, with no settlement pattern for the intermediate period. Such syntheses do not take into account the Sutton Common or similar sites (e.g. Grimthorpe on the Yorkshire Wolds), which sit uncomfortably in such a description. Thus, on a regional level, defining the character of an enclosed site such as the Sutton Common site, and revisiting previously excavated sites will provide a basis for a complete rethink of the nature of settlement in the

Iron Age of eastern England. The importance of Sutton Common to the understanding of Iron Age society of Northern England (as a whole) has also been previously recognised (e.g. Haselgrove 1999).

On a *local level*, it is nearly impossible to overstate the importance of the Sutton Common site. Sutton Common is the only surviving prehistoric earthwork site, and the proposed analysis will contribute greatly to our understanding of the area in later prehistory. Linking it to the extensive field systems identified by Derek Riley (e.g. 1980), and the more recent fieldwork on these field systems (e.g. Cumberpatch 1995) may provide a completely new and integrated landscape archaeology. Furthermore, it will address issues of modes of subsistence and environmental exploitation not previously studied.

As such, the research will benefit considerably from integrating information from the many studies of hillforts elsewhere, and the English Heritage 'hill fort project'.

C) Define the temporal **development** of Sutton Common and the features inside the larger enclosure

We have little doubt that one of the most important contribution Sutton Common can make at *a national level* lies with its potential to date (relatively if not absolutely) the different phases of activity on the site. The broad date ranges obtained from radiocarbon dates for the Iron Age period in England have resulted in an imprecise understanding of temporality and the dynamics of processes of change (Haselgrove *et al.* 2001: 2-7: chronology and 25-31: processes of change). The Sutton Common site, where dendrochronology is expected to produce either floating or absolute dates for the main activities such as the construction of the defences, gateways and four-post structures, will be entirely without parallel in England in terms of its potential to study the dynamics of the processes observed. We could find, for example, that the construction phasing on the site should be expressed in years, rather than decades and centuries, providing a significant new insight into and understanding of the dynamics of the Iron Age. If dendrochronological analysis on its own will not produce absolute dates, absolute dates can be obtained through 'wiggle-matching' of radiocarbon dates.

On a *regional and local level*, a clearer understanding of the temporal development of the site would be the first step towards building a 'genuine Iron Age' (cf. Haselgrove 1999); none of the field systems identified through aerial reconnaissance in the lowlands of the Humberhead Levels have to date been dated, principally because of the absence of pottery of Iron Age date in the region, and such sites are typically described as 'late prehistoric/Roman' (e.g. Cumberpatch 1995).

An important wider contribution of this work would be the provision of replicate dates which would strengthen, and possibly lengthen, the dendrochronological master curve for this part of England.

E) Define the **social dimensions** of the site and its place in the wider landscape

On a *national level*, the social dimensions of the Iron Age is currently one of the main themes of debate (Haselgrove *et al.* 2001: 22), with on the one hand concept of hillforts as residences of elite groups and as proto-urban centres with redistributive functions (e.g. Cunliffe 1995), and on the other hillforts being seen as groups of enclosed farmsteads (e.g. Hill 1995). Much of this debate is based on the evidence from Wessex and southern England, as already argued above, and the excavations of Sutton Common will provide an important 'northern' perspective to this debate (Haselgrove *et al*. 2001: 14). 'All regions are important to reconstructing the complex social mosaic of the period, and need to be understood in their own right' (ibid: 23). The full analysis of the archaeological features and their dating will provide an important contribution to this debate.

In a wider landscape that comprises largely undated or poorly dated sites and field systems, the excavations at Sutton Common will provide a significant advance in our understanding of the social system in the region; if, as stated in the research framework for the Iron Age, regional differences and the concept of regionality lie at the heart of much debate on the British Iron Age (ibid: 22), then redefining the Iron Age of South/West Yorkshire on the basis of the Sutton Common work is both of *national* and *regional* importance. Utilising the aerial photographic data and recent work undertaken as part of the planning process (most notably that undertaken as part of the A1-M1 link road; Roberts *et al.* 2001), it will be possible to develop clearer concepts of what this regionality entails.

F) Define the **interaction with the environment** at Sutton Common

As a former wetland, Sutton Common, holds the potential to provide a more detailed understanding of the interaction of enclosed sites with the environment than has ever been possible for hillforts, a theme identified as of *national* importance (Haselgrove *et al.* 2001: 14). The impact of the construction of the site on the woodland in the region, through detailed study of the archaeological wood, and aspects of agriculture, through the analysis of plant macrofossils and animal bones, will greatly enhance our understanding of this aspect. The (possible) very short period of activity at Sutton Common may prevent such direct links to be made on the basis of pollen analysis, although this technique will still provide important information on the general environmental changes in later prehistory.

On a *regional* and *local* level, the study of archaeological wood, animal bones, plant macrofossils and pollen, may contribute to a much clearer appreciation of the mode of subsistence for this period. Previously, pastoralism has been considered to be the dominant mode of subsistence, but this view may now have to be reconsidered.

Although no further work on the geology of the stone used at Sutton Common is proposed, existing data shows that the limestone used could have come from any of 5 near-surface limestone outcrops within 1 km of the site.

G) Continue research into aspects of *in situ* preservation and other aspects of archaeological site management and methodological research

The need for detailed studies in aspects of *in situ* preservation and other aspects of archaeological site management and methodological research has been recognised in *English Heritage Strategy for Wetlands* (Olivier and Van de Noort 2002), and the Sutton Common site has since long been recognised as a ‘beacon site’ for such research. By combining the existing hydrological data with further geoarchaeological analysis and linking this to the quality of preservation of archaeological wood, new insights into the phenomenon of variable preservation may be obtained.

The above objectives remain fully relevant to the post-excavation process, but with the fieldwork stage of the project completed, we need to add the following research objectives:

H) Describe the late Iron Age **burial rites** present at Sutton Common

Outside the East Yorkshire ‘Arras culture’ burials, the funerary archaeology of the Iron Age remains very poorly understood. Haselgrove *et al.* 2001 (p 12-14) understandably highlight the need for detailed study of Iron Age burials wherever these are encountered. Such a detailed analysis of the cemetery discovered during the excavations at Sutton Common must therefore be recognised as of *national* importance. The combined detailed study of the archaeological features, human remains and associated small finds (glass bead and golden ‘ingot’) will provide an unparalleled example of late Iron Age or early Roman funerary behaviour.

The cemetery (or more accurately: the secondary deposition of cremated material) at Sutton Common links with two current (and linked) debates in mortuary archaeology: the use of the past in the past (identified in Haselgrove *et al.* 2001: 14, as a research theme of considerable importance) and the concept of ephemeral monuments, typical of secondary depositions (e.g. Williams 2003).

On a *regional* and *local* level, the cemetery at Sutton Common is simply the first opportunity to develop a detailed insight into funerary practices of the later Iron Age/Roman period.

The two skulls, found in one of the terminals of the eastern gateway, are more appropriately explained as forming part of structured deposition (see below), and full analysis of the material will be undertaken. within this context, although the frequent discovery of skulls in ditch terminals must also be understood within the context of the burial practices of the day.

I) Material culture, Symbolism and Cosmology

Recent discussions on the Iron Age have highlighted the concept of 'structured deposition', whereby material is deposed of using guiding cosmological principles may be used to actively construct multiple social identities (Haselgrove *et al.* 2001: 19-20). It is believed that much can be learned from detailed studies of such deposits, and contributions to this phenomenon are of *national importance*. The material from Sutton Common that are considered to be structured deposits include :

- the two skulls and some timbers including the only piece of yew found on the site in the outer ditch terminal to the north of the entrance;
- the bone weaving comb and pottery (including the only substantial piece of pottery from the site), in the inner ditch terminal to the north of eastern entrance
- the majority of the animal bones in the two terminals to the south of the eastern entrance.

The structurally deposited artefacts and bones at Sutton Common were found within a matrix of well-preserved deposits containing palaeoenvironmental information. Through the integration of all this material, new insights into this phenomenon may be obtained.

As is true for many other aspects of Iron Age archaeology, the study for this particular aspect has been dominated by studies from Wessex and the south of England, and on a *regional* and *local* level, the detailed and integrated description of the phenomenon of structural deposition for this region should be considered of great importance.

J) Describe the Iron Age **woodworking technology** and **woodland management** as is visible from the remains from Sutton Common

The archaeological wood collection from Sutton Common is biased towards the architectural

Aims & Objectives	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**
Methods/Groups										
Archaeological features	•	•	•	•	•		•	•	•	
Archaeological wood	•	•				•	•		•	•
Dendrochronology	•	•	•	•	•	•				•
Small finds	•							•	•	
Human remains	•							•	•	
Faunal remains	•	•		**?**		•			•	
Geology	•					•				
Palynology	•					•			•	
Plant macrofossils	•	•		•		•			•	
Invertebrates	•			•		•	•		•	
Geoarchaeology	•						•	•		

Table 1: Linking objectives with methods ***• link; ? possible link***

side, with no portable artefacts present, but nevertheless is unrivalled for its period. The construction techniques used (with flat-bottomed posts set into very tight post pits) may not be typical for Britain (but better known from the Low Countries, where people were similarly forced to adapt to building in relative soft sediments), but its detailed study is of *national importance*. The study of the archaeological wood, combined with dendrochronological studies, may also provide unrivalled insight into the woodland management of the Iron Age.

The table above links the aims and objectives (A to J) described above with the methods and groups selected for analysis described below.

3.2 Publication

In a large number of aspects, the excavations at Sutton Common will provide information of national importance: in its ability to determine with a great confidence the morphology, spatial patterning and function of this large enclosed site; the scale of excavations of the interior of the site; the ability to date the phases of activity to much higher precision than has been achieved previously; a clear understanding of the interaction with the environment; the secondary deposition of cremations utilising an 'ancient' monument; an example of integrated study of 'structural deposition'; a unique archaeological wood assemblage. A monograph is the only form of publication that would do credit to the importance of the site. The most appropriate publishers for this research report are English Heritage and the Council for British Archaeology. An outline of the chapters is presented below.

The monograph has been designed to take account of recent concern that the orthodox monographs, where specialists reports are presented separately rather than integrated in the text, and where 'data' have been separated from interpretation. This concern is both generic (Jones *et al.* 2003) and specific to the Iron Age of Britain (Haselgrove *et al.* 2001: 10). The proposed monograph will include integrated and contextualised discussions of assemblages and less compartmentalisation into specialist categories.

In order to preserve standards of detailed reporting, it is proposed that a full digital resource will be prepared and submitted to the Archaeological Data Service in York. This will allow detailed scrutiny of the primary record without adding numerous pages of text and tables to the monograph. As the use of GIS forms a central component of the excavations at Sutton Common and the post-excavation project (see below: 4.1), this will be achieved at limited cost.

Furthermore, in a few occasions (esp. woodworking technology and palynology), the relevant specialists are asked to submit papers to specialist journals – full discussion of these aspects of the work would benefit dissemination to a specialist audience, rather than inclusion in the research monograph (see further details below).

Professor John Collis (Sheffield), an internationally recognised expert on the Iron Age, has been invited to act as third editor of the research monograph. His specific role is to place the information presented within the context of English/British and European Iron Age research, by alerting authors to relevant (published and unpublished) parallels from outside the wetland contexts, and to assure that information from the Sutton Common site relevant to current debates in Iron Age archaeology are suitably dealt with.

The provisional title of the monograph is *Sutton Common; the excavation of an Iron Age marsh-fort and cemetery*, and will be edited by Robert Van de Noort, Henry P. Chapman and John R. Collis

	Author(s)*	Est. no. words	No. figures
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Acknowledgements			
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• Archaeological interventions up to 1997			
• Micro-topographical survey 1997			
• Aims and objectives	RVdN	1000	1
• Project Design	RVdN/HC	1500	3
• Organisation of the project: excavations in 1998, 1999, 2002 and 2003	RVdN	1500	2
Chapter 2: Setting the scene: The 'Sutton Common Project' (words: 8000; figures: 11)			
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• Hydrological studies and monitoring	JC	2000	4
• Rubbish and Archaeology	RVdN/IP	500	2
• Conclusion: The past, present and future of Sutton Common – Sutton Common as an asset	RVdN/IC	2000	0
Chapter 3: Methodologies (words: 7500; figures: 27)			
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• Finds analysis	Specialists	300	2
• Human remains	ML/JMK	500	4
• Palaeoenvironmental remains: Palynology, insects, macrofossils, geoarchaeology, geology	AH/BG/HK/GA/CP	1000	
• Geophysical survey	AP	1000	2
• Conclusions	HC/RVdN	500	0
Chapter 4: The Iron Age marsh-fort (words: 28,500; figures: 86)			
• Introduction	RVdN/HC	500	1
• The landscape context			
• Geology, physical landscape	RVdN/HC	1000	3
• Palaeoenvironment: pollen, lithostratigraphy			
• Human-environment interaction	BG	2000	3
• Meolithic and Neolithic activity	RVdN/HC/BG	1000	1
• Phasing and development			
• Stratigraphy	HC/RVdN	500	4
• Dendrochronology	NN	2000	2
• Radiocarbondating	PM	1000	2
• Conclusion			
• The defences (including gateways and causeways)			
• Description of features	HC/WF	4000	10

• Dating	NN/PM	500	1
• Wood technology	GT	3000	20
• Stone	CP	500	2
• Querns	ML/AKO/specialist	2000	5
• Structural depositions: human remains, animal bones,	SW	1000	1
pottery, bone comb, yew wood	AH/BG/HK/GA	1500	5
• Palaeoenvironmental sequences: pollen, insects and			
macrofossils, geoarchaeology	HC/WF/RVdN	1000	
• Conclusions and reconstructions			
• The internal structures			
• Description of features	HC/WF	2500	10
• Dating	NN/PM	200	1
• Wood technology	GT	1000	10
• Stone	CP	300	1
• Palaeoenvironmental information: macrofossils	AH	1000	2
• Conclusions and reconstructions	HC/WF/RVdN	500	
Chapter 5: The cemetery (words: 10,000; figures: 21)			
• Introduction	RVdN/HC	500	1
• The cemetery:			
• Description of features	HC/WF	2000	4
• Dating	PM	500	1
• The human remains	ML/JMK	1500	3
• Finds: glass bead, gold ingot, bangle	Specialists	2000	5
• Georachaeology	GA	500	2
• Analysis and Discussion	RVdN	2000	4
• Conclusions and reconstructions	RVdN/HC	1000	1
Chapter 6: Contexts (words: 10000; figures: 20)			
• Introduction	RVdN	500	1
• Local context: the site in its landscape setting	HC	1500	3
• Regional context: overview of the Iron Age in South and	HC	3500	5
West Yorkshire			
• National context:	RVdN		
• (multivallate) enclosed settlements and the marsh forts of			
England	WF	3000	8
• mortuary practices	RVdN	500	2
• Conclusion	RVdN/HC	1000	1
Chapter 7: Conclusions (words: 6000; figures: 8)			
• The Sutton Common enigma resolved	RVdN/HC	1000	1
• Sutton Common and the Iron Age chronology	RVdN/HC	1000	2
• The contribution to the 'enclosed settlement' debate: function			
and development	RVdN/HC	1500	2
• Burial rituals in the later Iron Age	RVdN/HC	1000	2
• The future of Sutton Common	RVdN/HC ao	1500	1
Bibliography	All	10000	0
Appendices		5000	5
Total		92,500	189

Table 2: Book outline. * = for explanation of the initials, see 5.1

Additional dissemination:

- Digital excavation archive, to be submitted to the Archaeological Data Service, York. The digital resource will include a complete GIS database that will incorporate the surface DEM, water table data, trench outlines (for 1998, 1999, 2002 and 2003) and a coverage showing

contexts. The latter will be linked to a spatial database that will include context interpretations and dating where appropriate to enable interrogation of the overall database, in addition to providing the potential for generating phase diagrams and functional diagrams (e.g. positions of 4-post structures). Depending on discussions with the publisher of the monograph, we may also wish to consider to include a CD with relevant data in the book, in addition to this material being available on-line through the ADS

- Iron Age wood technology: the archaeology of Sutton Common, S. Yorkshire: by Gavin Thomas, *c.* 6000 words for *Environmental Archaeology* or *Journal for Wetland Archaeology*
- Vegetation history of the Humberhead Levels based on the Sutton Common material: by Benjamin Gearey, Allan Hall and Harry Kenward, *c.* 5000 words for *Environmental Archaeology* or regional natural history journal.

'Popular' publications (following the excavations) are planned in:

- *Current Archaeology* 2004/05
- *The March of Time* (a popular book edited by Roly Smith with 12 contributions on various aspects of Sutton Common, including one on the excavations. Due date: June/July 2004).

4 Methods statement

4.1 General statement

A central component of the post-excavation analysis is the use of GIS (which was already used at both the design stage of the excavations and the excavations themselves) for integrating the different data sources and for general analysis of information. The use of an integrated GIS will enable us to provide specialists with the relevant information prior to their analytical work, and will also enable rapid integration of the specialist reports.

Detailed statements on methods used by the individual specialists are presented in Appendix 2.

4.2 Task list

Task 1: Management of the project: financial administration, maintaining contact with all members of the team, landowner and other stakeholders, providing progress reports to English Heritage and general management of people and data.

Task 2: Analysis of archaeological data

- Task 2.1: Generate a spatial digital archive in a GIS format consisting of all site contexts, recorded in plan. This will enable the efficient production of maps and plans from the site and will provide an effective and re-useable archive for future use. In addition this will form the basis for further analyses of the data that would not be feasible otherwise (see task 12).
- Task 2.2: Interpret the archaeological features, principally using the digital archive, cross-referenced with the excavation archive
- Task 2.3: Produce initial (i.e. preliminary phased) plans of the site
- Task 2.4: Writing up of archaeological features, describing the main structures on the site, following the outline provided in Table 2.
- Task 2.5: Provide all specialists with contextual information on all features, finds and samples.
- Task 2.6: Team meetings of archaeologists (RVdN, HC, WF) with environmental specialists (AH, AO, BG, GA, GT, HK) at the beginning of the analysis in year 1 and after integration of specialists reports (Task 12) in year 2

Task 3: Archaeological wood

- Task 3.1: Photography of a selection of the archaeological wood – this work should commence as soon as possible as the material is generally in a poor state of preservation, and despite submerging the majority of wood in a specially designed wet-tank in a cold and darkened room, the microbial activity has not been halted
- Task 3.2: Drawing of details of selection of archaeological wood – similarly, this work should commence as soon as possible
- Task 3.3: Writing up of wood technology etc, following the outline provided in Table 2.

Task 4: Dendrochronology and dating

- Task 4.1: Sampling archaeological wood for dendrochronology, immediately after tasks 3.1 and 3.2 have been completed
- Task 4.2: Dendrochronological analysis
- Task 4.3: Organise wiggle matching if dendrochronology fails to provide absolute dates
- Task 4.4: Writing up of dendrochronological dates, incorporating wiggle-matching if required, following the outline provided in Table 2, and production of a CfA report
- Task 4.5: Radiocarbon dating of samples (cremations, pollen , invertebrate and plant macrofossils)
- Task 4.6: Determination of an outline phasing based on this material;
- Task 4.7: Producing comments on any radiocarbon dates

Task 5: Small finds analysis and report production

Task 5.1: Flint

- Task 5.1.1: Analyse flints
- Task 5.1.2: Drawing/photography of a small selection of flints
- Task 5.1.3: Flint report production, following the outline provided in Table 2

Task 5.2:Pottery

- Task 5.2.1: Analyse pottery, including thin sectioning analysis of specimen
- Task 5.2.2: Drawing/photography of the rim sherd
- Task 5.2.3: Pottery report production, following the outline provided in Table 2

Task 5.3: Bone weaving comb

- Task 5.3.1: Analyse comb
- Task 5.3.2: Drawing/photography of the comb
- Task 5.3.3: Comb report production, following the outline provided in Table 2

Task 5.4: Glass bead

- Task 5.4.1: Analyse glass bead, including XRF analysis
- Task 5.4.2: Drawing/photography of the glass bead
- Task 5.4.3: Glass bead report production, following the outline provided in Table 2

Task 5.5: gold 'ingot'

- Task 5.5.1: Analyse gold 'ingot' including XRF analysis
- Task 5.5.2: Drawing/photography of the gold 'ingot'
- Task 5.5.3: Gold 'ingot' report production, following the outline provided in Table 2

Task 5.6: quern stone fragments

- Task 5.5.1: Analyse quern stone fragments
- Task 5.5.2: Drawing/photography of quern stone fragments
- Task 5.5.3: Quern stone fragment report production, following the outline provided in Table 2

Task 6: Human and faunal remains analysis and report production

Task 6.1: Skulls from outer ditch

- Task 6.1.1 Analyse skulls
- Task 6.1.2: Select samples and undertake isotope analysis
- Task 6.1.3: Produce skulls report, following the outline provided in Table 2

Task 6.2: Cremations from cemetery

- Task 6.2.1: Sieving samples containing cremations
- Task 6.2.2: Analyse cremation remains
- Task 6.2.3 Select samples for radiocarbon dating (linked to Task 4.5)
- Task 6.2.4 Produce cremations report, following the outline provided in Table 2

Task 7: Faunal remains

- Task 7.1: Sieving samples containing
- Task 7.2: Analyse faunal remains
- Task 7.3 Produce cremations report, following the outline provided in Table 2

Task 8: Pollen analysis and report production

- Task 8.1: Select and prepare pollen samples
- Task 8.2: Analyse and interpret pollen samples
- Task 8.3: Select subsamples for radiocarbon dating (linked to Task 4.5)
- Task 8.4: Produce palynology report, following the outline provided in Table 2.

Task 9: Macrofossil analysis and report production

- Task 9.1: Process soil samples
- Task 9.2: Analyse macrofossil samples
- Task 9.3: Select samples for radiocarbon dating (linked to Task 4.5)
- Task 9.4: Produce macrofossil report, following the outline provided in Table 2

Task 10: Geoarchaeology analysis and report production

Task 11: Collate, cross-reference and edit specialist reports for monograph text

Task 12: Integrate specialist reports with archaeological information. This integration and the modelling of palaeoenvironmental data in relation to the archaeology will be achieved through the application of models of spatial patterning of vegetation types based upon the palaeo-record in addition to the known hydrology of the site. The GIS can provide a forum for bringing together all data sources into one inter-relational format. This will form the platform for interpretation, reconstruction and illustration.

Task 13: Final dating and phasing
Task 13.1: Produce final scheme of phases of activity at Sutton Common
Task 13.2: Update site plans and text in accordance with the final phasing (linked to task 2.4) and produce final plans of the different phases of activity for publication, based on GIS maps

Task 14: Production of reconstruction drawings
Task 14.1: Produce a birds-eye view of Sutton Common in the Iron Age within a wide landscape setting
Task 14.2: Produce a birds-eye view of Sutton Common in the Iron Age
Task 14.3: Produce three detailed reconstruction drawings, including one of the western and/ or eastern gateways.

Task 15: Undertake outstanding data-gathering
Task 15.1: Update regional context if the site, revisit South Yorkshire and West Yorkshire SMRs, NMR, and undertake full analysis of recently published material dated to the Bronze Age, (including the bronze objects ritually deposited in wet places in the region (cf. Parker Pearson and Sydes 1996) and Iron Age through the British and Irish Archaeological Bibliography (BIAB) and the ISI Web of Knowledge. The recent publication by the YARFF team: *The Archaeology of Yorkshire; an assessment at the beginning of the 21st century* (Manby *et al.* 2003) may form a starting point, but it should be noted that the Iron Age archaeology of West and South Yorkshire was not considered here!
Task 15.2: Produce a national overview of information on the Iron Age lowland/marsh-forts in England and Wales. This forms an important part of new research, aimed at providing a national framework for the Sutton Common site, and drawing attention to a (growing) number of Iron Age lowland enclosed sites, that have previously not been fully recognised. Note that the recent publication of the 1st century BC ringwork at Coveney (Evans 2003) does not include such an overview, only reference to sites similar in morphology in the Cambridgeshire Fens and one such site in Oxfordshire.
Task 15.3: Produce additional reports:

- Digital excavation archive, to be submitted to the Archaeological Data Service, York. The digital resource will include a complete GIS database that will incorporate the surface DEM, water table data, trench outlines (for 1998, 1999, 2002 and 2003) and a coverage showing contexts. The latter will be linked to a spatial database that will include context interpretations and dating where appropriate to enable interrogation of the overall database, in addition to providing the potential for generating phase diagrams and functional diagrams (e.g. positions of 4-post structures). Depending on discussions with the publisher of the monograph, we may also wish to consider to include a CD with relevant data in the book, in addition to this material being available on-line through the ADS
- Iron Age wood technology: the archaeology of Sutton Common, S. Yorkshire: by Gavin Thomas, *c.* 6000 words for *Environmental Archaeology* or *Journal for Wetland Archaeology*
- Vegetation history of the Humberhead Levels based on the Sutton Common material: by Benjamin Gearey, Allan Hall and Harry Kenward, *c.* 5000 words for *Environmental Archaeology* or regional natural history journal.

Task 16: Select and reproduce photographs and drawings for publication

Task 17: Writing introductions, overviews and conclusions, editing of text
Task 17.1: Write introductions, overviews and conclusions
Task 17.2: Submit text and illustrations to John Collis for comment and advice
Task 17.3: Update text and illustrations in the light of Collis' comments

Task 18: Prepare material for publication
Task 18.1: Editing of all text
Task 18.2: Cross-checking of text and captions
Task 18.3: Integration of text and figures
Task 18.4: Submission of material for external review.

Task 19: Submit archive to Doncaster Museum

- Task 20: Prepare digital archive for submission to the Archaeological Data Service. The project will produce appropriate metadata and documentation during the course of the analysis work to enable the digital material to be deposited with ADS. The project will contact ADS at an early opportunity to discuss and confirm what degree of metadata is required for the level of deposition and dissemination envisaged. This will include the creation of dublin core format metadata for aspatial data, and NGDF format metadata for the spatial data. Contact between HC and the ADS will be maintained for the duration of the project, but for accounting purposes, the extra 5 days allocated for this task have been put in the final year of the project.

5 Resources and programming

5.1 Staffing and equipment

The project team for the post-excavation analysis will involve:

AH: Dr Allan Hall (University of York/English Heritage)
- Responsibilities: Task 9.2-4
- Expertise: over 25 years experience in plant macrofossil analysis, numerous publications

AKO: Dr Alan Outram (University of Exeter)
- Responsibilities: Tasks: 7.2 and 7.3
- Expertise: lecturer in archaeology specialised in zooarchaeology

AP: Andy Payne
- Responsibility: Task 17.1
- Expertise: Many years as EH geophysicist

BB: Dr Bruce Bradley (University of Exeter)
- Responsibilities: Tasks 5.1.1, 5.1.3
- Expertise: Over 30 years as an archaeological consultant, with specialist knowledge of flint and flint-knapping technologies, author of numerous papers on this topic

BG: Dr Benjamin Gearey (Hull University)
- Responsibilities: Task 7
- Expertise: many years expertise in pollen analysis in the Humber wetlands and further afield, ample publications

CC: Dr Chris Cumberpatch (freelance)
- Responsibilities: Tasks 5.2.1 (organise only), 5.2.1, 5.2.4
- Expertise: PhD in prehistoric ceramic analysis (Sheffield), over 10 years as freelance archaeologist in South Yorkshire, with specialist interest in ceramics
- The thin sectioning of the pottery will be undertaken either by Alan Vince, David Williams or Rob Ixer – this work will be organised by CC

FI: Francis Issitt (freelance; employed by the University of Exeter for the duration of the work)
- Tasks: 6.2.1, 9.1
- Expertise: Several years experience with archaeological sampling processing and analysis, including with the EAU York and University of Exeter.

GA: Dr Gianna Ayala (GA; University of Sheffield)
- Responsibilities: Task 10
- Expertise: PhD in Geoarchaeology, fieldwork experience with English Heritage

GT: Gavin Thomas, BA MSc (University of Exeter)
- Responsibilities: Tasks 3
- Expertise: formerly: Project Officer of the Humber Wetlands Project, responsible for archaeological wood analysis; currently: Research Fellow at the University of Exeter

HC: Dr Henry Chapman MIFA (University of Hull)
- Responsibilities: Tasks 2.1-5, 11, 12, 13, 15.1
- Expertise: formerly, Project Officer of the Humber Wetlands Project and Co-director of excavations at Sutton Common; currently: Research Fellow at the University of Hull.

HK: Dr Harry Kenward (HK; University of York/English Heritage):
- Responsibilities: Task 9.2-4
- Expertise: over 25 years experience in plant macrofossil analysis, numerous publications

IC: Ian Carstairs
- Responsibility: Task 17.1
- Expertise: Trustee of the Carstairs Countryside Trust

IP: Ian Panter (English Heritage)
- Responsibility: Task 17.1
- Expertise: Regional Science advisor for English Heritage Yorkshire region, Director of the Archaeology and Rubbish project

JC: Professor John Collis FSA (University of Sheffield)
- Responsibilities: Task: 17.2
- Expertise: author of several books a numerous papers on the Iron Age of Britain and Europe

JD: Dr JD Hill (British Museum)
- Responsibilities: Tasks 5.5.1, 5.5.3
- Expertise: Keeper of the Department of Prehistoric and Roman Archaeology, British Museum, an expert on the Iron Age and specialist knowledge of prehistoric and Roman gold and treasure

JH: Professor Julian Henderson (University of Nottingham)
- Responsibilities: Tasks 5.4.1, 5.4.3
- Expertise: Professor of archaeologcial science, numerous papers on prehistoric glass

JLC: James Cheetham (University of Hull/freelance)
- Responsibility: Task 17.1
- Expertise: PhD (student) with responsibility for hydrological monitoring at Sutton Common

JM: Jacky McKinley (Wessex Archaeology)
- Responsibilities: Task 6.2.2-4
- Expertise: International renowned specialist in analysis of prehistoric cremation remains, underpinned by numerous publications

KL: Keith Miller (English Heritage)
- Responsibility: Task 17.1
- Expertise: Inspector of Ancient Monuments

ML: Dr Malcolm Lillie (Hull University)
- Responsibilities: Task 6.1.1-3
- Expertise: PhD (Sheffield) in human remains analysis, publications

MR: Mike Rouillard (University of Exeter)
- Responsibilities: Tasks 5.1.2, 5.2.3, 5.3.2, 5.4.2, 5.5.2
- Expertise: Over 25 years as technician (now Senior Technician) in the Dept of Archaeology, University of Exeter

NN: Nigel Nayling (University of Wales, Lampeter)
- Responsibilities: Tasks 4.1, 4.2, 4.4, 4.6
- Expertise: Ten years of dendrochronological study and analysis, and many more years as archaeologist with special interest in wetlands

PM: Peter Marshall (English Heritage)
- Responsibilities: Tasks 4.3, 4.5
- Expertise: Several years of working with, and advising on, dating issues on behalf of English Heritage

RVdN: Robert Van de Noort FSA MIFA (University of Exeter)
- Responsibilities: Tasks 1, 2.2, 2.3, 2.4, 4.7, 11, 12, 13, 14, 16, 17, 18, 19
- Expertise: formerly Project Manager of the Humber Wetlands Project and Director of Excavations at Sutton Common; currently: Head of Archaeology at the University of Exeter.

SG: Seán Goddard (University of Exeter)
- Responsibilities: Tasks 3.1, 3.2, 14
- Expertise: Over 25 years as technician (now Senior Technician) in the Dept of Archaeology, University of Exeter

TT: Dr Tina Tuhoy (freelance)
- Responsibilities: Tasks 5.3.1, 5.3.3
- Expertise: PhD in prehistoric weaving combs (Exeter), over 30 years of fieldwork and teaching experience, mostly in the southwest of England

SW: Susan Watts (freelance)
- Responsibilities: Task
- Expertise: currently studying for a PhD (Exeter) on the symbolic use of querns stone fragments in prehistoric Britain; freelance quern specialists

WF: William Fletcher, BA (University of Exeter)
- Responsibilities: Tasks 2.2-4, 15.2
- Expertise: 15 years fieldwork, Project Officer of the Humber Wetlands Project, currently Research Fellow at the University of Exeter

5.1.2: No additional training is required for any of these tasks

5.1.3: All materials and equipment needed to fulfil the tasks defined in the method statement are available to the appointed team members.

5.1.4: All activities will adhere to the Health and Safety and Ethics guidelines of the University of Exeter, or to the relevant guidelines of the employing institution of any specialist not employed by the University of Exeter.

5.2 Timetable

General statement: It is intended to bring the completed monograph to publication at the earliest opportunity, reflecting the importance of the site. However, we also recognise that many specialists and participants to this project have other obligations, and the timetable has been developed in recognition of this. Nevertheless, we intend to bring the proposed monograph to completion by the end of February 2005, in a period of just under two years. It is intended that the publication of the monograph will be achieved either in 2007 or 2008, depending on the speed of the referee and publisher.

Two timescales for the completion of this are provided: one in case dendrochronology is able to provide absolute dates for the main phase of activity on site (Phase 1), the other if this is not possible and wiggle matching of radiocarbon dates is required to provide absolute dates.

If dendrochronology provides absolute dates
Year 1: 1 April 2004 – 30 March 2005

Involves tasks: 1, 2.1, 2.2, 2.3, 2.4, 2.5, 3.1, 3.2, 3.3, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 5, 6, 7, 8, 9, 10

Year 2: 1 April 2005 – 30 March 2006
Involves tasks: 1, 11, 12, 13, 14, 15, 16, 17, 18

Year 3: April 2006
Involves tasks: 1 , 19, 20

If dendrochronology can not provide absolute dates, and wiggle-matching of radiocarbon dates is required (allow one year):
Year 1: 1 April 2004 – 30 March 2005
Involves tasks: 1, 2.1, 2.2, 2.3, 2.4, 2.5, 3.1, 3.2, 3.3, 4.1, 4.2, 4.3, 4.5, 5, 6, 7, 8, 9, 10

Year 2: 1 April 2005 – 30 March 2006
Involves tasks: 1, 4.4, 4.6

Year 3: 1 April 2006 – 30 March 2007
Involves tasks: 1, 11, 12, 13, 14, 15, 16, 17, 18

Year 4: April 2007
Involves tasks: 1, 19, 20

Below, we have worked with the former scenario, based on the assessment of the archaeological wood for dendrochronological dating (see Nigel Nayling's report), and as not to confuse the reader of the budgets. However, in case the dendrochronology cannot produce absolute dates, the impact on the cash-flow would be limited, i.e. what is shown as Year 2 becomes Year 3, and Year 3 becomes Year 4.

For the detailed planning of this project, see the GANNT chart appended as Appendix 3.

5.3 Budgets

1. Overall budget and year-by-year cash-flow
The detailed budgets have been omitted to protect commercial confidentiality.

	As of 01/04/04		
Total costs in Year 1: 01/04/04 to 31/03/05		Inflation: 0%	**79,998**
Total costs in Year 2: 01/04/05 to 31/03/06		Inflation: 2.5%	**49,679**
Total costs in Year 3: 01/04/06 to 31/03/07		Inflation: 2.5 + 2.5%	**5,148**
Total project	**133,525**		**134,825**

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Appendix 1: Chronological overview of archaeological interventions at Sutton Common

1845 Enclosures mapped by the Ordnance Survey, shortly after enclosure of the common.

1854 Date of published map by the Ordnance Survey again within Sutton Common. Enclosures marked 'Crook Hills'.

1860s Described and mapped archaeologically by the Rev. Scott F. Surtees who interpreted the enclosures as the remains of a Roman military camp (Surtees 1868). His plan of the site includes three wooden stumps in the area between the two enclosures that may have related to a causeway.

1908 Challenge to Surtee's interpretation in a publication by A. Hadrian Allcroft who included the enclosures on Sutton Common within his gazetteer of earthworks in England. Reflecting on the swampy context of the site, he believed that dwellings lie on top of the inner bank and that the settlement must have been a refuge for fugitives due to the less than habitable conditions (Allcroft 1908, 246-7). He also noted that a line of stakes ran between the western entrance to larger enclosure and the eastern entrance of smaller enclosure, both entrances identified as breaks in the bank and ditch.

1909/1910 Dr. Corbett of Doncaster excavated part of the site to discover a number of finds including pottery, but the records were lost.

1910-1914 Series of examinations undertaken by Major Crawthorne Anne and Mr. G.B. Charlton who excavated three trenches through the 'mounds' on the western side of the larger enclosure. They also examined several of the 'hut circles' in which decayed wood and thatch were found plus a number of arrowheads and human bones. At one of the 'gates' a pathway of brown pebbles was discovered.

1926 Investigations by Mr Day from Doncaster Grammar School who excavated trenches through all three ramparts on the northern side of the larger enclosure. He also examined the entrance to the northern gate finding fallen stakes in the inner ditch within the lowest deposit that consisted of a blue clay. A stake was also found *in situ* half way between the two enclosures. Other finds included human bones within the north gateway and a *Bos longifrons* skull. No records were kept of this work and the finds were lost (Whiting 1936).

1933-1935 Excavations in the late summers of 1933, 1934 and 1935 under the direction of Emeritus Professor Whiting, published in the Yorkshire Archaeological Journal in 1936 (Whiting 1936). His work was restricted to sectioning the main earthworks and investigating features visible on the tops of the banks. Two trenches were extended further. Trench I cut across the centre of the earthworks on the eastern side of the smaller enclosure was extended half way across the interior of the enclosure and the same distance into the palaeochannel. Trench IIc was excavated further to the north and was extended from the bank a further *c.* 40 m into the channel. His findings included carbonised wheat, a baked clay ball, a possible net sinker, possible dug out, several flint implements and waste and a number of bones including human, ox, sheep and goat and some *Bos lonigrons* horns. He concluded that there were at least two phases to the site. The first phase was represented by the wooden palisade or stockade that was found surrounding the northern section of the larger enclosure and was seen in part elsewhere including under the bank at the northern end of the smaller enclosure. The second phase was at 'probably a

much later date' (Whiting 19356, 79) when the two 'sandbanks'; were occupied by the people who erected the ramparts. A stone revetment of poor quality construction including pieces of wood faced these.

Whiting was certain that these occupants were generally, if at all, unaffected by Roman culture and therefore suggested that the site was prehistoric. This conclusion was supported by the discovery of Romano-British pottery higher up within the ditch on the western side of the smaller enclosure. He also recognised that the site was unusual, not being a lake village because there were no piles to suggest that any part of the site stood on water. He also noted that it couldn't be classed as a contour camp. He did not consider it to be a fortress either due to the relatively low ramparts and therefore suggested that it was a site of refuge, perhaps with banks constructed to keep out the water on all sides. Occupation had been short lived, suggested by the small number of finds, and it was concluded that the first phase had been at some time during the Bronze Age. Whiting argued that the earthworks had been constructed at a later date by a 'poor and primitive' people before the end of the second century AD, and perhaps before the Roman period. A detailed plan by Bennett and Hill accompanied the publication of Whiting's work.

1937 Scheduling of the site on the basis of Whiting's work.

1979-80 The larger enclosure was bulldozed for arable agriculture by the tenant farmer. The bulldozing of the smaller enclosure was halted by staff of Doncaster Museum (passing on a bus) but only after it had destroyed the southeastern corner where originally an easterly extension of the southern side ran towards the Hampole Beck palaeochannel. Before and after aerial photographs were taken by Derrick Riley (1982, 20) and the soil marks on later photographs demonstrate the amount of damage that was done. At the time of bulldozing large quantities of wood and stone walling were seen and a few fragments of quernstone were recovered (Parker Pearson & Merrony 1993).

1982 Ministry for Agriculture initiated a scheme of drainage whose deep dikes dropped local water levels on the Common by *c.* 2 m (Parker Pearson & Sydes 1997, 223).

Late 1980s Concern over preservation met by English Heritage commissioning three separate archaeological assessments.

1987 Two trenches excavated within the smaller enclosure: A/C over on e of Whiting's trenches to enable comparative assessment of preservation (Sydes & Symonds 1987).

1988 A second assessment led to the excavation of two further trenches (D and E), this time within the larger enclosure to assess the preservation of organic material within the ditches (Adams *et al.* 1988).

1992 One of the 1987 trenches was reopened for comparative study of preservation (Sydes 1992).

1993 Sheffield University Department of Archaeology, South Yorkshire Archaeological Services and Doncaster Museum carried out excavations. This assessment reopened the earlier trenches, but also opened a new trench – trench F – on the eastern side of the smaller enclosure (Parker Pearson & Merrony 1993). This work also investigated the huts originally identified by Whiting and concluded that a lack

of beam slots and other features could suggest no more than ambiguous posted structures. On top of one of the banks however, within trench E, a four-post structure was found which was considered by the excavators to be part of a granary rather than a box rampart. This conclusion could not be further substantiated due to the narrow widths of the trenches. Further work included environmental assessments (including Buckland 1987, Hale 1987) which were published with the results from much of the earlier work in 1997 (Parker Pearson & Sydes 1997 see below). The overall conclusions of this work indicated that the smaller enclosure acted as an annex or gateway entrance to the larger enclosure and that a route through the site could be postulated.

1996 Humber Wetlands Project assessed the site and its landscape through field walking and aerial photographic analysis (Head *et al.* 1997, 233 and 236-8). Previously discovered scatters of worked lithics had been found on two raised 'islands' (SUT1 and SUT2 – Sydes & Symonds 1987) to the northwest of the enclosures adjacent to the Hampole Beck, although a third island (SUT3) to the northeast revealed no worked material. A row of stakes was also recorded in the drain section between SUT1 and SUT2. Field walking by the Humber Wetlands Survey revealed worked flint in this area, particularly from the area of SUT2 (Askern-7), dating from the later Mesolithic to the early Bronze Age (Head et al. 1997, 233 and 236-8), indicating that the palaeochannel might have been flowing at this time (*cf.* Lillie 1997, 73).

1997 Mike Parker Pearson and Bob Sydes publish their paper on Sutton Common in the *Proceedings of the Prehistoric Society*. The paper summarizes most previous research, and a summary of findings within a wider geographical context.

The paper provides a phasing for the site, which was adjusted for the excavations in 2002/03:

PHASE 0: All activity pre-dating the construction of the palisade including Parker Pearson & Sydes' (1997) phases 1 and 2. Activity on the Common, and particularly on the island later occupied by the larger enclosure, includes Neolithic and Bronze Age material, mostly flint, which has to date not been associated with any in situ features. The Mesolithic sites to the north of the Iron Age enclosures are outside the physical boundaries of this project.

PHASE 1: The construction of the palisade beneath the earthworks of the larger enclosure and activities associated with the palisaded enclosure up to the construction of the earthworks, similar to Parker Pearson & Sydes' (1997) phase 3. Although the stake alignment across the Hampole Beck palaeochannel may belong to this phase, no hard evidence exists for this. Material of this phase is referred to as *primary*.

PHASE 2: The construction of the earthworks of both enclosures, which on the basis of morphology are considered to be approximately contemporary, and activities associated with the earthwork enclosures, included in Parker Pearson & Sydes' (1997) phase 4. The accumulation in the ditches of the deposits containing worked wood also belongs to this phase. The 9 m wide causeway is also tentatively considered to have been constructed in PHASE 2, albeit without dated evidence. Material of this phase is referred to as *primary*.

PHASE 3: Initial deposition of sand in ditches, slumping of bank material, and the deposition of stones in the entranceway of the larger enclosure in antiquity. Material of this phase is referred to as *secondary*.

PHASE 4: Peat development in the ditches and the palaeochannel, included in Parker Pearson & Sydes' (1997) phase 4. Later use and activity on the enclosures is included in this phase, corresponding to Parker Pearson & Sydes' (1997) phase 5. Material of this phase is referred to as *tertiary*.

1997 Land purchased by the Carstairs Countryside Trust.

1997 Centre for Wetland Archaeology topographical survey of the site (Van de Noort & Chapman 1997, Chapman & Van de Noort 2001). The results from this survey led to a proposal to investigate preservation at the site (Van de Noort 1998), and the creation of a project design (Chapman & Van de Noort 1998) aimed at both assessing groundwater conditions and investigation the quality of preservation of the archaeology. In autumn 1997 a network of piezometers was installed and began to be monitored (Van de Noort *et al.* 2001, Chapman & Cheetham in press).

1997-2003 Water table monitoring and burial environment assessment undertaken as part of a PhD scheme of work by James Cheetham.

1998 Centre for Wetland Archaeology preservation assessment took place as part of the same project as the water table monitoring (Van de Noort & Chapman 1999). The archaeological -assessment consisted of four trenches crossing the eastern entrance to the smaller enclosure and the western, eastern and southern entrances to the larger enclosure. The results from this work echoed the previous conclusions that only the basal 20 cm of ditch deposits (represented by a blue clay) within the smaller enclosure were still preserved. Within the larger enclosure the results indicated elaborate gateways on the eastern and western sides with massive oak posts. The eastern side displayed phasing evidence with the earlier palisade and the western side displayed evidence of stonewalling.

1999 Due to the higher than expected levels of preservation that were encountered a second more systematic project of excavation was undertaken by the Centre for Wetland Archaeology (Van de Noort & Chapman 2000). This project established the alphanumeric excavation grid across the site. A 30 x 30 m square was excavated around the entrance to the larger enclosure, with ten 30 x 3 m trenches excavated in the top sections of the other grid squares in an alternate pattern.