



Archaeological Field Unit

The Great Fen Project: An Archaeological Desk-based Assessment

Rebecca Casa Hatton 2002

Cambridgeshire County Council

Report No. 208

Commissioned by The Wildlife Trust for Cambridgeshire



The Great Fen Project: An Archaeological Desk-based Assessment

(NGR TL 2300/9200 to 2200/8200)

Rebecca Casa Hatton, MA, PhD

June 2002

With Contributions by Dr. Paul Spoerry

Editor: Stephen Macaulay, BA, MPhil, AIFA Illustrator: Jon Cane, BA



Report No. 208

©Archaeological Field Unit Cambridgeshire County Council Fulbourn Community Centre Haggis Gap, Fulbourn Cambridgeshire CB1 5HD Tel (01223) 576201 Fax (01223) 880946

arch.field.unit@cambridgeshire.gov.uk http://edweb.camcnty.gov.uk/afu

SUMMARY

This desktop assessment was commissioned by Mr. Chris Gerrard, The Great Fen Restoration Project Manager. The Great Fen Project is a long-term partnership project including English Nature, the Environment Agency and the Wildlife Trust. It aims to restore over 3000 hectares of Fenland habitat to Huntingdonshire between Huntingdon and Peterborough. In doing so it will connect Woodwalton Fen National Nature Reserve with Holme Fen National Nature Reserve to create a very large site with conservation benefits for wildlife and socio-economic benefits for people.

The project area extends across the parishes of Woodwalton and Holme. It also comprises the easternmost portions of the parishes of Conington, Denton and Stilton, together with the southern part of the parish of Yaxley, between NGR 2300/9200 and 2200/8200.

Based on the comprehensive assessment of the available sources, this study attempts to define the archaeological potential of an area of Fen to the north of Huntingdon, Cambridgeshire. It also offers recommendations for future archaeological work.

To date, there is scant record of pre-medieval activity in the study area. Early prehistoric and Roman finds have been few, and their distribution suggests that occupation occurred on the uplands surrounding the fen basin.

Although unsuitable for permanent occupation, the fen was an attractive source of food and natural resources.

During the early Mesolithic the present fen basin was dry land drained by a series of rivers flowing out into a major outlet through the Wash.

Scatters of worked flint as early as the Neolithic period and spanning throughout the Bronze Age may indicate working sites identifiable through disturbed deposits in the modern plough soil. Bronze Age artefacts are also known from the area.

Prehistoric remains include wooden trackways which cross the Woodwalton fen.

During the Roman period the high boulder clay was well settled. Finds from Whittlesey Mere may indicate some degree of water-management.

Saxon remains are unknown from the region, despite a reference to Glatton manor in the Domesday survey, possible toponomastic reference to a Saxon Hide and the remains of Cnute's Dyke.

Evidence of medieval activity survives as extant earthworks and cropmarks (i.e. ridge and furrow) on the higher ground, and as remains of fisheries along the side of Whittlesey Mere.

Medieval and Post-medieval remains are primarily linked with drainage works. Lodes, wind pumps and drainage mills are known from cartographic evidence and, in many cases, still survive as extant remains.

The study area is presently arable, except for the two reserves. Archaeological features and deposits are likely to have been severely affected by drainage, land reclamation and the conversion of pasture into arable from the post-medieval periods to the present times.

Although Roman and Medieval occupation occurred on the higher ground and is, therefore, least likely to be affected by the proposed wetland restoration project, rewetting of the Holme-Woodwalton fen may impact on unknown archaeological deposits and features, metalwork and organic material being more likely to be affected by destabilised environmental conditions.

TABLE OF CONTENTS

1	INTRO	ODUCTION	1		
2	GEOL	OGY AND TOPOGRAPHY	3		
3	SOUR	CES AND CONFIDENCE RATING	4		
4	ARCE	IAEOLOGICAL AND HISTORICAL BACKGROUND	7		
5	DEPO	SIT MAPPING AND ARCHAEOLOGICAL POTENTIAL	16		
6	POTENTIAL SURVIVAL OF ARCHAEOLOGICAL REMAINS				
7	THE F	POTENTIAL IMPACT OF THE PROPOSED DEVELOPMENT	20		
8	RECC	OMMENDATIONS	20		
9	CONC	CLUSIONS	25		
	NOWLE ERENCE	EDGEMENTS ES	25 26		
LIST	OF FIG	GURES			
Figure Figure Figure Figure	2 2 3	Location Map Archaeological Map of the Study Area Moores' Map Bodger's Map	1 2 10 11		
APPE!	NDICES				
Append Append		List of SMR Entries Time Chart	29 32		

The Great Fenland Project: An Archaeological Desk-based Assessment

(NGR 2300/9200 and 2200/8200)

1 INTRODUCTION

This desktop assessment was commissioned by Mr. Chris Gerrard, Great Fen Project Manager. It was funded by Fenside Waste Management Ltd.

Based on the comprehensive assessment of the available sources this study attempts to define the archaeological potential of an area of Fen to the north of Huntingdon, Cambridgeshire. The Great Fen Project aims to restore over 3000 hectares of fenland habitat to Huntingdonshire between Huntingdon and Peterborough. In doing so it will connect Woodwalton Fen National Nature Reserve with Holme Fen National Nature Reserve to create a very large site with conservation benefits for wildlife and socio-economic benefits for people. The project also includes the preservation of the local historical/archaeological resources as part of the wetland heritage.

The project area extends across the Western Fens of Cambridgeshire. It comprises the greater part of the parishes of Wood Walton (centred at TL 2200/8400) and Holme (centred at TL 2200/8900), the easternmost tongues of the parishes of Conington, Denton and Stilton, and a very small area in the southern part of Yaxley (Fig. 1).

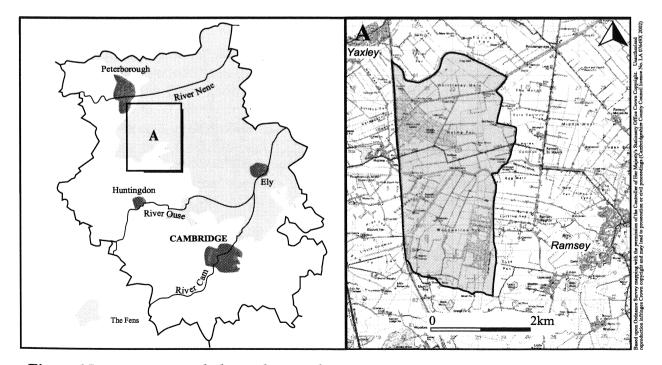


Figure 1 Location map with the study area shown in tone

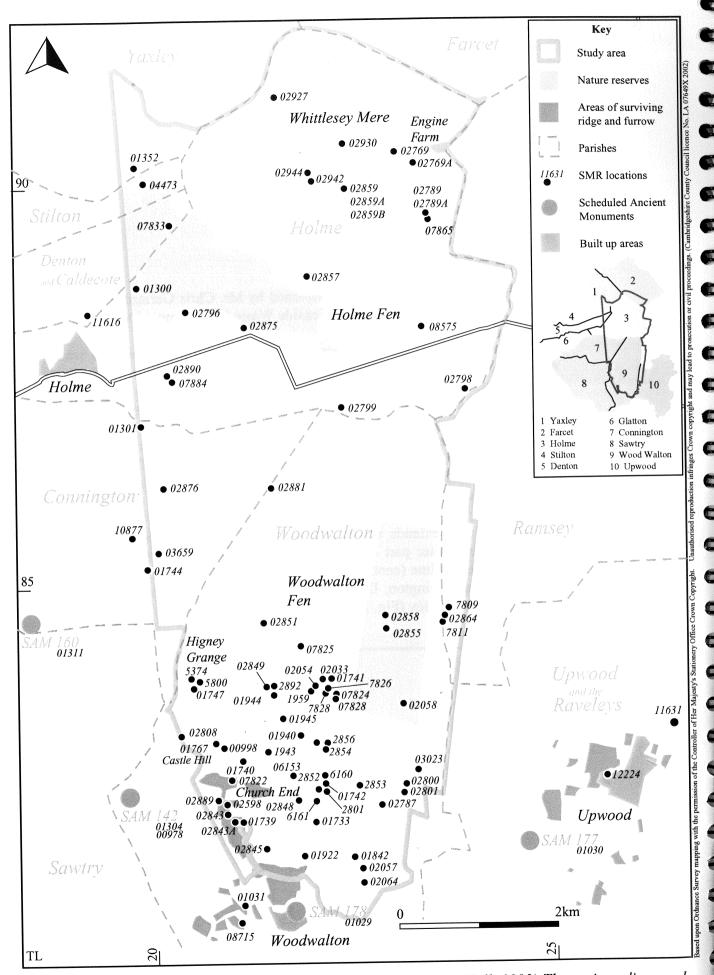


Figure 2 Archaeological map of the study area (Regions based on Hall, 1992) The regions discussed in the text are shown as colour zones on the inset parish map (based on Hall, 1992). The study area is shown on the inset as a red outline.

2 GEOLOGY AND TOPOGRAPHY

The regional divisions that follow are based on the Fenland Survey (Hall 1992).

2.1 Holme Region (Fig. 2)

The Holme region includes most of Holme fen, together with the north-eastern part of Whittlesey Mere and small areas of Denton and Stilton fen. The ground surface at Holme fen is thought to have been some 1.60m OD in 1848, i.e. prior to the drainage of Whittlesey Mere. Two decades later it had fallen to -0.72m OD (1870) and to -2.25m in 1978. Subsequent decline was caused by the installation of new pumps at Whittlesey Mere (Hutchinson 1980). Presently, most of the region is arable, with the exception of Holme Fen National Nature Reserve.

The geology of the Holme region consists of bedrock of Oxford Clay, both on the fen edge and in the basin. During the early post-glacial period the fen basin developed a deciduous forest that was later engulfed (and is still preserved) in fresh-water peat.

Marine clay reached the eastern part of Holme Fen and Whittlesey Mere. Holme Fen basin developed an acidic peat, which began to form above the water table in the late Mesolithic period. The limits of marine/brackish deposition were reached during the mid Bronze Age. The clay layers at Holme Fen are the result of this incursion. No later marine material reached the area (Waller 1994, 191, ff.). The roddons in the marine clay were active during the Bronze Age and were buried by peat later in that period (Hall 1992, 30).

Whittlesey Mere was a fresh-water lake that was in existence by the early Roman period (Hall 1992, 26 ff.). The lithostratigraphy of a borehole survey at Engine Farm shows a sequence of present (disturbed) ground between – 1.38m to –2.08m, silty marl between –2.08m to –2.48m, black peat between – 2.48m and –2.96m, blue clay (fen clay) between –2.96m to –3.13m, and dark brown peat at –3.13m and 3.16m. The water entering the mere mostly coming from the river Nene was calcareous and deposited shelly-clay marl. Calibrated radiocarbon dating suggests that the upper black peat below the marl formed around 100 BC-95 AD, i.e. in the Late Pre Roman Iron Age (LPRIA)/early

¹ All carbon based forms contain a stable isotope, ¹²C and a radioisotope, ¹⁴C, which is present in the atmosphere. Whereas C12 after death of a living organism remains stable, C14 begins to decay. By measuring the ratio between ¹²C and ¹⁴C it is possible to calculate how much time has elapsed since an organism died. However, due to fluctuations of the amount of ¹⁴C present in the atmosphere in the past, it is necessary to calibrate the radiocarbon dates. A mean to achieve calibration is through dendrochronology. By counting back the annual growth rings of the trunk, pieces of wood of known age could be dated and the real age compared with the radiocarbon date.

Roman period, suggesting that Whittlesey Mere was in existence during the early part of the Roman period. As at Holme fen, brackish conditions appear to have entered the Whittlesey basin after c. 5000 bc and to have persisted to c. 1250 bc, i.e. from the later part of the Mesolithic period to the mid Bronze Age (Waller 1994, 191 ff.).

2.2 Woodwalton Region (Fig. 2)

The region comprises the fen-edge basins of Wood Walton and Conington. In the southern part of the region a scarp of upland rises fairly sharply from 0m to 37m AOD. The land is mostly arable, with the exception of small wooded areas and Wood Walton Nature Reserve.

Flandrian deposits consist of Nordelph Peat over Oxford Clay that is exposed and visible at the fen-edge slopes. Marine clay ('Fen Clay') of Flandrian origin occurs in the north-eastern part of the region where the clay is covered with peat. Further east there are marls deriving from Ugg Mere in the parish of Ramsey. On the high ground is clayey Till with occasional patches of glacial gravel (Hall 1994, 33; BGS Sheet 172).

Although several metres of organic material have disappeared due to drainage, the steepness of the scarp causes the fen to extend across much of the same area as it did before drainage.

2.3 Yaxley Region (Fig. 2)

The portion of Yaxley included in the study area is part of the Farcet/Yaxley region.

Yaxley Fen consists of deep peat without marine clay. There was continuous growth until the seventeenth century when drainage works began. As the result of draining, peat loss has been considerable. Between 1947 and 1983, for instance, some 1.2m of peat wasted away (Hall 1992, 12).

Given the paucity of archaeological evidence, in this report the finds form Yaxley have been included in the discussion of the Holme region (below).

3 SOURCES AND CONFIDENCE RATING

Abbreviations

AFU CCC CUCAP	Cambridgeshire County Council Cambridge University Collection of Aerial Photographs format
HRO	Huntingdon Record Office National Monuments Record

PPG Planning Policy Guidance
SAM Scheduled Ancient Monument
SMR (Cambridge) Sites and Monuments Record

VCH Victoria County History

3.1 Sites and Monuments Records

The SMR of Cambridgeshire County Council records several finds in the study area. Most entries refer to prehistoric and Roman stray finds uncovered during drainage works, and medieval and post-medieval occupation sites and field systems known from documentary sources and, in some cases, still visible as cropmark and earthwork remains. Some entries also refer to industrial activity and, in particular, to mills, dykes and pumping-stations for drainage.

The information provided by the SMR is affected by the following:

- Distribution of entries with a bias towards periods that are well represented by material culture, i.e. medieval and post-medieval remains. This bias has its roots in the kind of information provided by the Ordnance Survey records, i.e. the precursor of the SMR, that placed emphasis on extant remains, including earthworks, and important finds' spots
- The SMR collection represents a variable source of information that has been influenced by fieldwork strategies, collection of finds, antiquarian observations, local and professional interests
- Some entries still refers to old parish boundaries

3.2 Archaeological Surveys

The study area has benefited from both archaeological and environmental surveys conducted from the 1930s (Woodwalton, Godwin & Clifford 1938; Holme Fen and Whittlesey Mere, Godwin & Vishnu-Mittre 1975). Recent work includes the Fenland Survey series. English Heritage began the funding of Wetland Archaeological Surveys in 1973 (Somerset Level Project). The Fenland Project started in 1976 covering the former wetlands in Lincolnshire, Cambridgeshire, Norfolk and Suffolk. With reference to the study area, mapping of the ancient wetland and the identification of archaeological remains (Hall 1992; Hall & Coles 1994) was combined with re-phasing and redating of sedimentation of Flandrian deposits in the Holme Region and Whittlesey Mere Waller 1994).

The area is known through the work of local antiquarians, with particular reference to Jesse Robert Garrod (1874-1959) of the Cambridge and Huntingdonshire Archaeological Society (later Cambridge Antiquarian Society). Garrod was archaeological correspondent to the Ministry of Works. He also curated and added to the collection of antiquities at Huntindgon Literary Institution made by Robert Fox in the nineteenth century. The collection was the founding material for the Norris Museum at St Ives (Hall 1992, 33).

The project area has not been affected by development and has not benefited from archaeological investigations under the guidance of PPG16 (1990).

3.3 Cartographic Evidence

Pre-enclosure maps of Huntingdonshire were commissioned from the seventeenth century as part of the fen surveys undertaken in advance of drainage of the Bedfordshire Level (e.g. Moore's Map of 1685, Fig. 4, Jeffreys' Map of 1768, Bodger's Map of Whittlesey Mere of 1786, Fig. 3). One of the earliest maps is a manuscript belonging to Robert Coton (1603-5). The manuscript is probably based on a now lost original map by William Hayward (c. 1604).

The first comprehensive and detailed maps of the study area are the Tithe Maps of Glatton *cum* Holme (1841) and Wood Walton (1839-40). Later maps include Ordnance Surveys from the end of the nineteenth century onwards.

As a whole, the available cartographic evidence provides useful information for the post-medieval and modern development of the region, and shows the extent of the anthropogenic impact on the fens.

3.4 Documentary Sources

The study area is known through regional documentary sources, e.g. VCH, which tend to be biased towards the following:

- The medieval ecclesiastical history
- The medieval origin and development of the villages with emphasis on extant monuments
- Social history

There are also regional studies that concentrate on specific research topics, e.g. place-names (Mawer & Stenton 1969).

As a whole, the available documentary sources provide useful and reliable information on the historic, economic and social development of the villages.

3.5 Aerial Photographs and Overlays of Aerial Photographs

The SMR has a collection of maps showing overlays of aerial photographs digitised in the 1980s from research in the CUCAP and NMR.

Aerial photographic collections (RAF, CUCAP) show small areas of medieval ridge and furrow on the high ground immediately to the south and south-east of the study area.

Although the aerial photographic record is generally biased towards features

on dry and light soils and arable land, the distribution of cropmarks is consistent with the environmental development of the area and the formation of peat in the fen-basins.

No re-assessments of the collections have been undertaken in recent times.

3.6 Conservation Areas and Scheduled Monuments

There are no designations within the study area. However, several Scheduled Ancient Monuments (SAM) of national importance are located to the south of the study area (Fig. 2):

- Homestead Moat or Wood Walton Moat (SAM178, SM27185, SMR01029 TL2171/8094)
- Bruce's Castle Farm Moat (SAM160, SM29708, SMR01311, TL 1850/8450)
- Manor of Moygnes, Moat (SAM 177, SMR01030, TL 2480/8180)
- Castle Hill Motte and Bailey (NMR27186, SMR01767, TL2108 8278)
- Sawtry Abbey Earthworks (SAM142, SMR01304, 00978, TL 1980/8240)

4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND (Fig. 2, Appendix 1)

4.1 Holme Region

Prehistoric

The stratigraphic sequence at Holme fen and Whittlesey Mere shows a basal wood peat (or alder fen wood) followed by eutrophic vegetation, which was succeeded by an acidic raised bog. Clearance commenced in the Neolithic period with the decrease of elm and oak trees. A second more intensive but short-lived clearance occurred at the end of the Neolithic period/early Bronze Age with a marked fall in pollen of oak and elm trees. The late Bronze Age witnessed the largest scale of clearance and agriculture in Holme Fen (French & Pryor 1992, passim).

Early prehistoric activity is represented by a few scatters of worked lithics dating to the Mesolithic and Neolithic period (SMR02857 and SMR02890/Hall 1992, Site 4?) from the fen basin. None of these finds' spots is likely to indicate the presence of settlements (Hall 1992, 29).

The Bronze Age too is poorly represented and most of the objects dating to this period are unprovenanced, as in the case of socketed bronze axes, gouges, hammers and spearheads (SMR02769 and SMR02944). Many bronze objects from the Whittlesey area belong to the Bodger Collection in Peterborough Museum.

Undated finds comprise small assemblages of worked flint (SMR07884 and SMR02859b).

No Iron Age Sites are known here.

No prehistoric sites were identified during the survey of the peat of Yaxley Fen (Hall 1992, 19ff.). Nonetheless, there are records of lithics of Neolithic and Bronze Age date from the area under study (SMR04473).

Roman

During the Roman period Holme Fen was wet and occupation occurred on the upland further west (Hall 1992, 30). However, stray artefacts have been found during drainage works both in the fen basin (e.g. SMR01300, quern and pottery) and in the Mere (e.g. SMR02962, stamped pewter plates and SMR 02919, fourth century Castor Ware).

As the Mere had already formed by the first century AD, it is possible that these items were parts of cargoes lost during crossing by boat. If this interpretation is correct, Whittlesey Mere was used as part of the communication and transport route through the fen as early as the Roman period.

There are no certain Roman finds from the area in Yaxley. Within the study area the SMR records the recovery of pottery (SMR01352) of uncertain date (prehistoric/Roman?).

Saxon and Medieval

No Saxon finds are known from the Holme region. However, a peninsula referred to as Swere Hord is depicted on Jeffrey's Map of Whittlesey Mere (1966-1968). The name probably means 'neck' of land from the Old English sweora and (h)ord (Mewer & Stenton 1969, 190-191). Mewer and Stenton (1969) discuss the connection of Sweorord(a) with Swoerdora, a hide listed in the Tribal Hidage.

A Saxon Hide was a taxable land unit sufficient to support an extended family. The Tribal Hidage (seventh century) for East Anglia lists a number of local groups possibly reflecting a situation for the fifth century when small Hides were sustained by more sophisticated elites. Competition between increasingly powerful elites may have trigged the development of a regional hegemony by the end of the sixth century (Scull 1992).

Holme is first recorded as *Glatton cum Hulmo* in 1167. *Holmr* is descriptive of a water-surrounded site, i.e. an island or a peninsula. Until the nineteenth century it was a hamlet or chapelry of Glatton, and it followed the descendent of the manor of Glatton with Holme until the early part of the twentieth century. Following the Norman Conquest, Glatton and Holme were attached to the Honour of Boulogne and, later, in the thirteenth century, to the de Rivers

(de Dudauville) family. A family of de Holme was living during the thirteenth and fourteenth century. Robert Holme was a knight whose services had probably been owned by the de Rivers (Page *et al.* 1974, 184 ff.).

Whittlesey Mere is first recorded as *Witlesmere* in 963-84, meaning mere of *Witel* (person name). Part of it is said to have been granted by Wulphere, king of Mercia to the Abbey of Peterborough on its foundation in 657. After the Danish invasions, and the destruction of the abbey, the property lapsed to the king, until the abbey was re-founded by the bishop of Winchester. The property was later confirmed by King Cnut to Thorney Abbey. It is not clear how the transaction occurred. It is possible that Peterborough Abbey held only fishing rights, whereas Thorney held manorial as well as fishing rights. In the sixteenth century the northern part of Whittlesey Mere was included in the manor of Farcet.

Despite the grants to the abbeys, the greater part of the Mere probably lay in the manor of Glatton *cum* Holme. In the mid thirteenth century the manor was granted by the king to Richard Earl of Cornwall who passed all his claim in fisheries (i.e. length of shore line with fishing rights) in the mere to Ramsey Abbey. By the fifteenth century it was administrated as part of the Duchy of Lancaster from Higham Ferres in Northamptonshire. During the seventeenth century the overlordship of the Mere passed with the manor of Glatton that was purchased by the Coton Family (Page *et al.* 1974, 184 ff.).

The medieval landscape of the region was dominated by lodes, i.e. networks of natural watercourses and artificial canals (e.g. Cnute's Dyke, tenth century, Holme Lode) linking all the major vills (i.e. territorial units corresponding to modern townships or civil parishes) and monasteries, including Ramsey and Sawtry.

Yaxley was one of the most important ports in the area. The site is no longer visible. It was probably located at the landward end of Yaxley Lode and was approached through March and the meres in Whittlesey and Ramsey (Hall 1992, 12 ff.). The same probably applies to Holme where a 'place by the stream at Holme (i.e. Holme Lode) for washing herrings' is mentioned in 1300 (Page 1974, 184). The Lode old route survives as earthwork remains (SMR11616) that run parallel to the parish boundary.

The economic importance of Whittlesey Mere throughout the medieval period was further enhanced by the fact that it was part of the transport network in the Fenland. The discovery of medieval limestone blocks with masons' marks during drainage at Engine Farm would suggest a lost cargo of building material (from Peterborough?) that failed to reach a designated monastic house or other important building (Hall 1992, 32).

Other medieval finds from the Mere include a bronze cauldron and pewter plates (SMR 07833), and a sword and silver thurible of c. 1350 (SMR02930). These latter are supposed to have belonged to Ramsey Abbey and been thrown into the mere at the Dissolution. Alternatively, the metalwork may have been part of lost cargoes directed to one of the local abbeys.

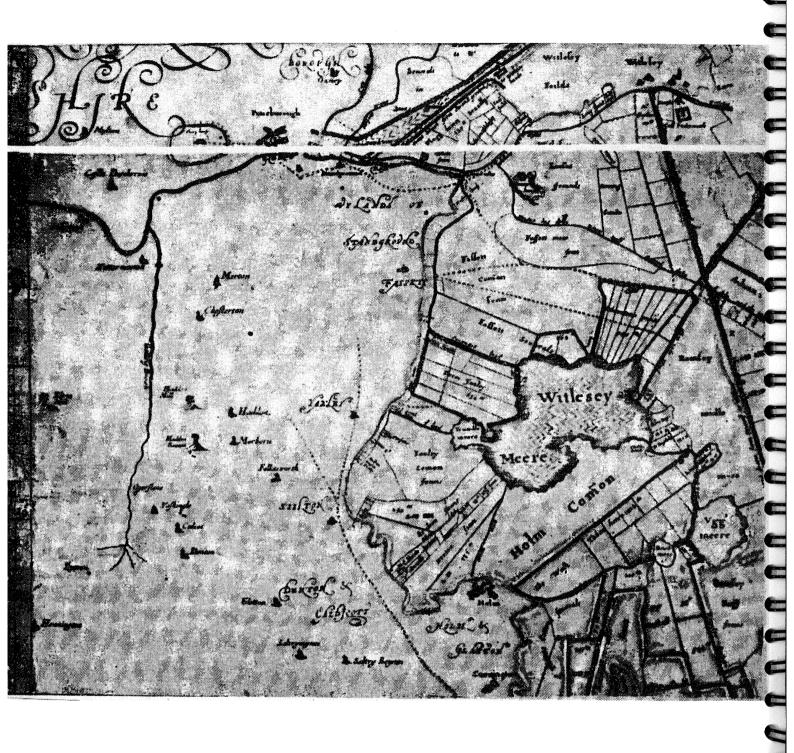


Fig. 3 Moore's Map of 1706 (first published in 1685)

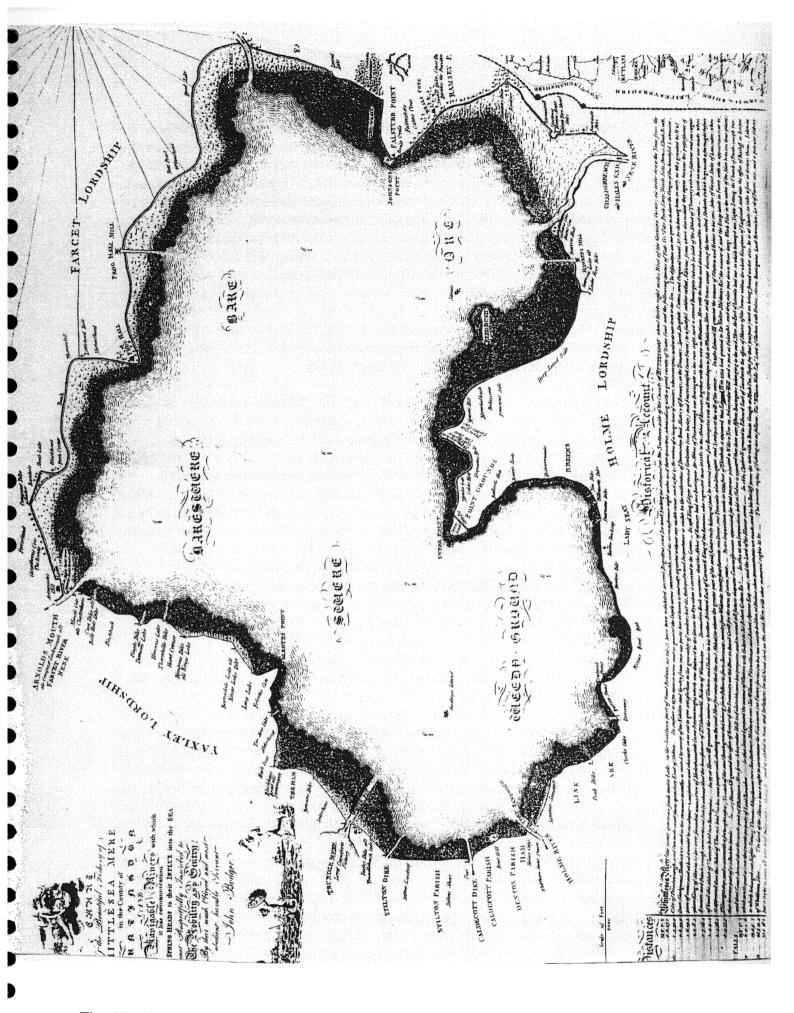


Fig. 4 Bodger's Map of Whittlesey Mere of 1786

Finds from the Mere also confirm the existence of fisheries referred to in the sources. In the late seventies two medieval fisheries were discovered on the south side of Whittlesey Mere. The westernmost site (SMR 02859, 02859A, 02942, Hall 1992 Site 2) was investigated in 1991. It consisted of two mounds with a large quantity of thirteenth and fifteenth-sixteenth century pottery, pieces of limestone (from buildings?) and burnt material. Lead weight for fishing lines and nets were uncovered in the same location during a fen blow. The site was interpreted as a fishery of Ramsey Abbey with seasonal domestic occupation. The fishbone remains in the guts of pikes suggest that the fishery was specialised in fishing for pike, a luxury fish destined to Ramsey Abbey (Lucas 1998).

This site may have also represented the location of a short-lived House of Austin Friars founded in 1260 at Whittlesey Mere.

The other site (SMR2769A and 07865, Hall Site 3) produced similar artefacts, together with seventeenth century pottery, a windmill mound and soil marks of small enclosures possibly dating to the post-medieval period.

It is interesting to note that the friary and fisheries were located on the peninsula referred to as Swere Hord on Jeffrey's Map of Whittlesey Mere (above). In Bodger's Map of 1786 the same peninsula is referred to as Point Grounds that comprises Swere Hord and Monk's Lode, this latter possibly referring to the presence of the friary.

There is no evidence for medieval agricultural practices in the Holme Region. During the medieval period there was no major reclamation of wetland.

Post-medieval and Modern

The parish of Glatton *cum* Holme was enclosed in 1820. No Enclosure Map was ever produced.

Most of Holme fen was drained during the seventeenth century with the digging of the Bevill's Leam dyke system. Wind pumps (SMR02875) and drainage mills are known from cartographic evidence (Moore's Map of 1685). However, the Mere was left undrained together with a large portion of Holme Fen to the south. The upland further south was subdivided into large square fields (Moore's map of 1685). By the beginning of the nineteenth century the extent of the Mere was unaltered (Tithe Map of 1841). The Tithe Map shows the undrained portion of fen, referred to as Rough Fen, and the arable further south, by now subdivided into smaller plots. The map also depicts two windmills. One of the mills is located near Engine Farm. The second mill is located near the southern parish boundary marked by New Dyke. The site is now occupied by Charterhouse Farm. Documentary sources refer to a wind pump (SMR02799) at the same location as the mill.

Whittlesey Mere was drained between 1849 and 1853. Drainage mills and pumps are known from cartographic and documentary sources (SMR02799

and 02875), and through archaeological investigations (SMR08575; Middleton 1987).

Drainage of the Mere and the fen as a whole has had a profound impact on the landscape. The loss of water caused an initial compaction in sediment volume. Organic sediments decomposed and were washed or blown away. As the land surface was lowered, drainage deteriorated, thus necessitating further drainage to lower the water table (Waller 1994, 44). The extent of peat shrinkage has been obtained by means of the Holme post that shows that the peat levels fell rapidly at first and then more slowly (Darby 1983, 178 ff.).

Holme Nature Reserve adjoins Whittlesey Mere. After the Mere was drained in 1851, it was ploughed and then converted into a sporting estate. In 1952 it was acquired by the Nature Conservancy (now English Nature).

4.2 Wood Walton Region

Prehistoric

Evidence for prehistoric activity in the Wood Walton region appears to be as early as the Mesolithic period. With reference to the study area, three main sites have been identified on glacial gravel on the top of a small promontory jutting into the southern fen (SMR05800). These sites appear to be predominantly Mesolithic/Neolithic, with little Bronze Age material (Hall 1994, 37-38). Scatters of lithics mainly dating to the Neolithic period have been identified immediately to the north (SMR02851) and to the south near the edge of the fen-basin (01747, 01959, 02854, 01740, 01741, 01742, 01940, 01943, 01944, 01945, 07824, 07826, 07827 and 07828) and on the scarp (SMR01739, and 01922). Bronze Age pottery has been found in the area (SMR02854). The distribution of these finds further supports the existence of early prehistoric sites of some importance at this location.

Further scatters of Neolithic worked flint have been uncovered near the eastern parish boundary (SMR07809 and 07811).

Finally, Neolithic axes have also been found in Conington Fen (SMR10877).

Bronze Age lithics and metalwork, including socketed bronze spearheads (01744) and a shield (SMR03659) from Conington, are scarce and mainly confined to the uplands to the south of the study area. However, the distribution of stray finds (SMR01733, 02057, 02845, 02852, 02033, 02056, 02058, 03023 and 07825) and finds scatters (SMR02054) within the study area would suggest continued activity on the gravel promontories and along the fen-edge from the Mesolithic period.

Undated prehistoric finds comprise small scatters of worked flint (SMR02864) and stray finds (SMR 02853: axe).

With reference to the later prehistoric period, despite the antiquarian records of Iron Age kiln waste and pottery at Grange Farm (SMR01842), no Iron Age sites were identified within the study area during the Fenland Survey (Hall 1992, 38). The closest evidence for occupation comes from the boulder clay plateau of Sawtry and the Riptons.

Roman

The fen basin does not appear to have attracted occupation in Roman times. The fen itself was too deep to support occupation and there was very little dry skirtland (Hall 1994, 38).

The closest evidence for Roman activity is found on the scarp that borders the southern edge of the fen basin, to the south of the study area (SMR 07823). Stray finds from the fen area include coins (SMR2808), quernstones (SMR00998 and 02892) and pottery (SMR02849) of uncertain provenience.

Saxon and Medieval

Wood Walton is first mentioned in the Domesday Book (1086) as *Waltune*, from the OE *weall-tun*, meaning 'wall-enclosure' or 'enclosure by the wall'. An alternative interpretation may suggest a possible *weald-tun* referring to the local wooded clays (Mawer & Stenton 1969, 225).

No Saxon remains are known from the area under study despite early references to the Manor of Wood Walton.

Medieval Wood Walton was a dispersed settlement that comprised three nuclei, i.e. the present village of Wood Walton, Higney Grange (SMR05374) and Church End (SMR07822). This latter was dominated by Castle Hill (SMR01767). Remains of ridge and furrow extend from Higney Grange to the village of Wood Walton (e.g. SMR 02889, 06160 and 06161).

Higney Grange is located in the south-western corner of the development area. It was granted to Ramsey Abbey in 1134 as a demesne, later referred to as a hermitage (Hart and Lyons 1884 in Hall 1992). The site (SMR05374) presently consists of earthworks surrounded by a rectangular ditched enclosure of manorial type. To the south and east low profile ridge and furrow hems up to the site. There are also remains of a medieval woodland (Rackham 2000, 35). References in the Domesday Survey and in later medieval sources suggest the presence of a few woods scattered on the fen islands. Similarly, place-names in the parish of Wood Walton (Mawer & Stenton 1969, 225-226) are reminiscent of woods and groves that were enclosed and later cleared.

The Castle (SMR01767) is located near the southern boundary of the study area on a small hillock. Known as Castle Hill, it appears to have once consisted of either a conical mound or a ring work on the hilltop, surrounded by a deep wide ditch. Part of the motte survives as an irregular curved bank. Below it is a small portion of the original ditch. To the north and east are earthwork paddocks and hollow ponds. Earlier shallow ridge and furrow lie

within and outside the bailey ditch. Nothing is known of the history of the castle that was presumably built in the early twelfth century by Ernald de Mandeville when he removed his soldiers from Ramsey Abbey (Page 1974, passim).

Church End (SMR07822) is located immediately to the south of Castle Hill. It is a shrunken village where there are six houses left. Medieval remains include hollows and earthworks. Pottery found in the area dates from the twelfth century onwards.

The present day village of Wood Walton is the largest of the three medieval nuclei. Earthwork remains of house-platforms in rows between fields of ridge and furrow survive on the western side of the village. There, patches of cobbles were noted during ploughing (SMR08715). Immediately to the north remains of a moated site have been recorded (SMR1031). A second moated site (Homestead Moat) lay on the south-east skirts of the village (SMR01029, SAM178). Homestead moat consists of a large triangular enclosure encompassed by a fairly wide moat now mostly dry and with an entrance about the middle of the south-western side. At the northern corner there are indications of an inner enclosure and towards the south-west corner is another inner moat. The site also comprises a mill mound/platform and a fishpond. There is no evidence for ridge and furrow.

The church of St Andrew (SMR02843) is located between Wood Walton and Church End. The earliest elements date to the thirteenth and fourteenth century, although a reference in the Domesday Survey to a church in the manor of Wood Walton may indicate an eleventh century predecessor. A twelfth century gravestone (SMR02843A) would also confirm the existence of a pre-thirteenth century church at the same location.

The church of Wood Walton Manor was given to Ramsey Abbey. After the Dissolution it followed the descent of the manor.

In the reign of Edward the Confessor Saxi of Walton held the manor. After the Conquest it was given to Hugh the Bolebec. Grants were later made to Ramsey Abbey. At some stage, the manor was subinfeudated (Manor of Walton and Manor of Walton Bevilles). At the Dissolution Henry the VIII granted the Manor of Walton to Richard Williams alias Cromwell. Around the middle of the sixteenth century the two manors were purchased and reunited by Robert Coton (Page 1974, 236 ff.).

Although outside the scope of this study, it is worth mentioning the presence of two moated sites near the study area, i.e. Bruce's Castle (thirteenth century) in Conington (SMR01311, TL1840/8458) and the Manor of Moygnes near White House Farm in Upwood (SMR01030, TL 246-/818-). This latter was held by Ramsey Abbey and represented one of the three manors of Sawtry. Sawtry consisted of three parishes, of which Sawtry Judith contained the Cistercian House founded in 1147. After the Dissolution, the village and grange were deserted. Remains of both abbey (SMR01304 and 00978) and village (SMR01020) survive as earthworks.

Post-medieval and Modern

The parish of Wood Walton was never enclosed.

Documentary sources for the Wood Walton region suggest that during the medieval period land reclamation was piecemeal (Darby, 1983, 30). However, as for the Holme Region (above), from the seventeenth century drainage of the Middle Level has deeply affected the fen landscape. Wind pumps and drainage mills are known from cartographic evidence (e.g. SMR02800, 02801, and SMR02876 and 01301 in Conington). In some cases they still survive, albeit in disuse (e.g. SMR 02881).

Woodwalton Fen is one of Britain's oldest nature reserves, having been purchased in 1910 by the Hon Charles Rothschild and donated to the Society for the Promotion of Nature Reserves (now the Royal Society for Nature Conservation) in 1919. It has been a national nature reserve since 1954. In 1977 the Middle Level Commissioners embarked upon a five-year major improvement scheme to lower the water level in the area between Whittlesey and Ramsey. The Nature Reserve was deemed adequate for flood storage purposes (Darby 1983, 227).

Unknown Date

Near the boundary with Holme a short-cut across a small embayment to Ramsey may represent a possible (prehistoric?) trackway (Malim 2000).

Remains of unknown date include a timber-built 'causeway' which runs from Honey Hill, Ramsey Heights, to Castle Hill, Wood Walton (SMR02855). Although known from antiquarian observation as a 'Roman Causeway' this feature is likely to be prehistoric.

Immediately to the north, there are remains of a peat mound (SMR02858). Fragments of clay tobacco pipes have been collected from the area. It is possible that the mound represent the platform of a windmill, as similar platforms are recorded in the area (above).

Finally, near the southern fen-edge cropmarks visible on aerial photographs include a double ditched feature (a causeway?) leading to a large curvilinear enclosure (SMR 06153). These remains have been included in the prehistoric landscape (Hall 1992, Site 6).

5 DEPOSIT MAPPING AND ARCHAEOLOGICAL POTENTIAL

To date, there is scant record of pre-medieval activity in the study area, although ploughing and drainage works from the post-medieval period have prompted the recovery of stray artefacts in both the fen basin and in Whittlesey

Mere. Early prehistoric and Roman finds have been few, and their distribution suggests that occupation occurred on the uplands. Although unsuitable for permanent occupation, the fen was an attractive source of food and natural resources.

During the early Mesolithic the present fen basin was dry land drained by a series of rivers flowing out into a major outlet through the Wash.

With reference to the Holme Region, the limits of marine/brackish deposition of clay were reached during the mid Bronze Age when the roddons in the marine clay area were active, and thus unsuitable for occupation, and peat formed relatively quickly later in that period (Hall 1992, 30). Nonetheless, scatters of worked flint as early as the Neolithic period may indicate working sites (e.g. SMR 02890) identifiable through disturbed deposits in the modern plough soil.

During the Bronze Age some activity took place in the Holme-Wood Walton region, leaving scatters of metalwork. Although there is no record of votive offerings, it is not unlikely that some of the unprovenanced Bronze Age metalwork and lithics from the region may belong to ritual deposits in wetland locations, according to a widespread pattern along the fen edge (Pryor 1991; *Id.* 1992).

Another class of monuments associated with the fenlands is the wooden trackways. These provide evidence of communication routes and seasonal wetland exploitation, with particular reference to movement of cattle to summer pastures, hunting and fishing. Remains of a Neolithic trackway connecting occupation sites were discovered buried deep in the peat of the Somerset levels in 1970 (Coles, B. & Coles, J. 1986). Trackways appear to have represented ritual foci, whether acting as barriers or ceremonial routes. In the late 1980s, investigations at Flag Fen near Peterborough uncovered remains of a Bronze Age wooden trackway leading to a platform. Broken and unbroken 'ritually deposited' bronze artefacts were found in association with it (Pryor 1991).

During the Roman period the high boulder clay was well settled. By then, Whittlesey Mere was a fresh-water lake, which may have been used as part of the navigation network. The lodes through Cambridgeshire are no longer believed to be part of the Roman transport system due to lack of finds at their landward ends. The lodes are generally assigned to the late Saxon period and, in particular, to the newly re-founded monasteries (e.g. Cnute's Dyke), and interpreted as attempts at water management (Hall 1996). However, finds from the Mere may indicate some degree of water-management during the Roman period.

Saxon remains are unknown from the region, despite the indirect reference to Glatton manor in the Domesday Survey, toponomastic evidence for a Saxon Hide and the remains of Cnute's Dyke.

Evidence of medieval activity survives on the Woodwalton scarp as extant

earthworks and cropmarks (i.e. ridge and furrow) visible on aerial photographs. Sites of wharfs/fisheries have been found along the side of the mere.

6 POTENTIAL SURVIVAL AND RATING OF ARCHAEOLOGICAL REMAINS

6.1 Potential Survival of Archaeological Remains

Within the study area there is potential for the survival of remains of all periods. Mapping suggests that the prehistoric period may be under-represented, as the location of prehistoric remains is least well known and finds least well preserved.

The study area is presently arable except for Woodwalton Fen National Nature Reserve and Holme Fen National Nature Reserve. Archaeological features and deposits are likely to have been affected by drainage and land reclamation, as suggested by the recovery of stray finds of pre-Medieval date in the course of drainage works and subsequent ploughing. The key causes of the widespread destruction of the wetland monuments are water abstraction, conversion of pasture into arable, peat wastage, erosion and extraction, urban and industrial development (English Heritage Strategy for Wetlands 2002).

The effect of drainage on peat shrinkage has been discussed above. It is however worth reiterating that changes caused by the anthropogenic impact on the landscape (mainly through drainage and farming) has had a profound effect on the survival of both archaeological and environmental remains in the fen basin.

Through the Mesolithic period the water-table rose. As a consequence, early sites in the fen basin are likely to have been buried, despite recent peat wastage. Some of these sites may be represented by scatters of lithics in the Woodwalton region (Reynolds 2000).

Neolithic/Bronze Age sites have been identified in the Woodwalton region during the Fenland Survey (Hall 1992, 33ff.). These sites lie on glacial gravels of two small promontories jutting into the fen and are too high above the peat level to expect the survival of wet remains. At the time of discovery, their exposure (through ploughing?) appeared to be recent, since pottery does not survive frosting (Hall & Coles 1994, 50). Ploughing and peat shrinkage are likely to represent a constant threat to prehistoric sites, with particular reference to organic remains and metalwork.

Roman and medieval finds are located on the high lands. Therefore, they have not been directly affected by drainage works, although ploughing poses a threat.

No recent air-photographic surveys have been conducted to assess the impact on the medieval landscape caused by the introduction of modern farming techniques. The CCC collection of vertical photographs (1998) may provide some information. However, they have never been assessed for archaeological purposes.

6.2 Rating of Survival

The finds from the study area suggest activity from the Mesolithic period.

With the exception of fieldwalking programmes by the Fenland Survey, most available evidence for the fen basin comes from antiquarian observation. Absence of archaeological investigations other than fieldwalking has prevented an assessment of the state of preservation of potentially buried remains. As a result, despite the record of finds from the fen basin, rating of survival for the prehistoric period can only be described as unknown. For the later periods there is evidence for activity on the scarp where the rate of survival of remains is expected to be higher. Medieval remains are visible as earthworks/

Holme Region

Mesolithic/Neolithic unknown
Bronze Age unknown
Iron Age unknown
Roman unknown

Medieval low for field-systems

moderate for occupation/fisheries

Post-medieval low for field-systems/moderate for occupation

Industrial high for drainage works

Woodwalton Region

Mesolithic/Neolithic unknown
Bronze Age unknown
Iron Age unknown

Roman unknown in the fen basin

moderate on the higher ground

Medieval moderate for field-systems and settlements

on the higher ground

Post-medieval moderate for field-systems and occupation

Industrial high for drainage works

7 POTENTIAL IMPACT OF THE PROPOSED DEVELOPMENT ON THE ARCHAEOLOGICAL RESOURCES

The proposed fen restoration programme entails the recreation of wetland conditions. There are two main aspects of this programme which may affect the local archaeological resources, groundwork and re-wetting.

With reference to the former, any intrusion below the present level of the topsoil (e.g. construction of buildings, excavation of channels, water-catchments basins, etc.) has the potential to destroy archaeological remains where present.

Any burden on the present ground surface (e.g. embankments) will potentially cause compaction of the deposits underneath. Compaction can be damaging to small archaeological features and thin layers of soil. It can also destabilize environmental conditions and damage organic remains.

With reference to re-wetting, changes of the water table will alter the subsurface environment. The introduction of oxygenated water and, indirectly, possible agricultural inorganic nutrients, could euthrophicate the soil, causing a burst of microbial activity, accelerated decomposition of organic material in archaeological deposits and enhanced corrosion of metalwork, until stable anoxic conditions are re-established (Peter Murphy, Pers. Comm.).

8 RECCOMENDATIONS

On request of Mr Chris Gerrard, The Great Fen Project Manager, this section includes recommendations for archaeological work. It also includes brief observations concerning education-related topics and presentation of the wetland archaeology to the general public.

The known records of finds would indicate a variety of archaeological remains within the study area from the Mesolithic period. These form important components of a wider landscape in the context of the anthropogenic impact on the fen environment through time

As previously stated, condition of preservation is variable, whereas potential threats to continued preservation is dependant on the present and future land management of the areas containing archaeological remains. Although evidence has been recovered through drainage and agricultural activities from the post-medieval period onwards, these activities are also likely to have damaged the remains and/or made them more vulnerable to deterioration.

National, Regional and Local Priorities

The area under study is of National and International importance from a nature

conservation point of view.

From an archaeological point of view, of regional importance are the earthwork remains and cropmarks (ridge and furrow) at Higney Grange. Although outside the proposed wetland restoration zone, the group value of these remains acquires importance in the context of a medieval shrunken village and is further enhanced by the presence of medieval Scheduled Ancient Monuments and National Monuments in the surrounding areas.

Of regional importance are the extant industrial remains associated with drainage in the Woodwalton and Holme fen (drainage pumps, mills, lodes). Some of the lodes and dykes date back to the Saxon period and appear to be related to the monastic sites in the region, namely Ramsey Abbey and Sawtry Abbey. The group value of these remains is therefore enhanced by continuity of use in the contexts of water management (communication routes and drainage). The Policy Statement of English Heritage (*Industrial Archaeology: A Policy Statement*, September 1995) draws attention to the need to identify, protect, restore and publicise industrial buildings and monuments and complete associated theme studies.

The remains of medieval fisheries on the Mere are of regional importance. As with the lodes and dykes, they represent evidence of water management and exploitation of the local economy in the context of the surrounding monastic sites. Evidence for a Friary on the same location as one of the two known fisheries further enhances the group value of these remains.

Uncertainty rests over the interpretation of the prehistoric finds from the fen basin. Of potential regional interest are the remains of ancient wooden trackways. Association with 'ritual' deposits would enhance the group value of this category of structural evidence. The piecemeal collection of data on preserved trackways shows the existence of a long-lived tradition of communication routes. The available evidence is still too scattered to allow an assessment of the extent of these routes.

Management Plans

Management plans for the study area are outlined in the Great Fen Project study (courtesy of Mr. Gerrard, Great Fen project Manager). The area is predominantly arable. The aim is to restore 3000ha of fenland habitat, by regulating flood relief in the Woodwalton area and drainage in the Holme area. There are plans to acquire the arable land within the designated area, to improve access, expand education activities and create business opportunities.

Archaeological Work

In addition to this, management on targeted sites of archaeological interest would allow significant improvements. Surveys and recording of the known evidence is highly recommended, including the areas outside the restoration zone.

Earthworks and cropmarks should be surveyed by means of earthwork surveys and geophysical surveys). Damage caused by roots, ploughing, and weather/animal/human erosion should be assessed.

Earthwork and geophysical surveys should also be conducted alongside the Mere to assess the condition of the fishery sites and associated earthwork remains and deposits.

Existing dykes and ditches should be surveyed by examining selected profiles in order to study sequences of deposition and buried soil with preserved organic remains in waterlogged conditions. A systematic survey of dykes in the Peterborough Fen was conducted in the 1980s (French & Pryor 1993). It shows the limitations and the potential of this type of project.

Extant remains of industrial structures should be recorded to allow assessment of the surviving evidence for potential long-term management.

With reference to the fen basin, in 1999 Cranfield University undertook a hydrological study of the project area on behalf of the Wildlife Trust. The study showed periodic water fluctuations with loss of water once every four years. In 2000 the WWF-UK conducted a soil survey. The study revealed a loss of peat at a rate of about 2cm a year. Further borehole surveys may help to analyse the soil stratigraphy in advance of archaeological investigations. It would be useful to have updated base-line information on the depth and type of sediments, and on the current water-table, water content and seasonal fluctuations for an initial environmental appraisal of the area under study (Peter Murphy, Pers. Comm.).

Should organic waterlogged remains be encountered, these will have to be assessed through non intrusive investigations, when possible, to establish the degree of preservation and implement a long-term conservation plan. It is recommended that any remains under immediate threat are excavated and recorded. For major remains, e.g. trackways, preservation *in situ* could be achieved by monitoring the water-level, by setting up a system of pumps and pipes to bring in water, and by building a bund to prevent water loss. A similar plan was successfully implemented for the preservation of the Sweet Track in the Somerset Levels (Coles 1995, Brunning *et al.* 2000).

Metalwork, artefacts and ecofacts should be studied in the context of undisturbed deposits and retrieved for conservation. Conservation is achieved by monitoring light, temperature and humidity of acid-free storage containers.

Woodwalton Fen is suffering from the inundation of winter water. There are plans to use the area to provide flood relief. However, the reservoir will be redesigned. With reference to Holme Fen, there are plans to divert the drains that cut across the fen causing it to dry out. The restoration plan entails the erection of buildings and re-cutting of ditches. Groundwork should be monitored through watching briefs and targeted excavations to assess the date, character, extent and degree of preservation of archaeological and environmental remains immediately under threat, and to propose strategies for

future conservation plans.

All proposals for alterations should be submitted to the relevant Planning Authorities who will inform the Archaeology Officers. Based on the available evidence and known historical and archaeological background of the development area, the Archaeology Officers will make recommendations to the Planning Authority for archaeological work to be undertaken. The Archaeology Officer will then issue briefs that contain requirements for the recommended archaeological investigations (evaluation/sondage, excavation, watching brief, etc.).

Relevant planning policies include Planning Policy Guidance, Archaeology and Planning 1990 (PPG 16) issued by the Department of Environment, and Ancient Monuments and Archaeological Areas Act 1979 issued by the Department of Environment under the advice of English Heritage..

As Bryony Coles observes (Coles 2001b, passim), the area of wetland protected for ecology is greater than that where wetland archaeology is the main concern. However, Coles draws attention to the possibility of combining wildlife and archaeological interests. There are case studies of successful projects in Somerset, as in the case of the preservation of Sweet Track in the Shapwick Heath National Nature Reserve (above), or at West Sedgemore where wetland restoration has prompted the designation of Areas of High Archaeological Potential (AHAP) by Somerset County Council.

Therefore, grant aid could be employed to achieve dual objectives: archaeological preservation and restoration of the wetland environment.

Publicising archaeology and reaching out to the people are further important aspects of the promotion of wetland archaeology. By enhancing public awareness, it is also possible to enhance public support and attract investors in image.

Public presentation

The study area has full potential for the fruition of the archaeological resources. The restoration scheme includes the creation of a network of pedestrian, bridle and cycle paths, water courses for boat moorings and visitor centres.

Earthwork remains may require the creation of new access routes or re-routing of existing ones, should human erosion pose a threat.

Waterlogged remains may be preserved *in situ* (above). However, visual reconstructions in suitable areas would be appreciated by the visitors.

Following consultation with the relevant local museum authorities, finds could be preserved inside the visor centres in cabinets suitable for conservations. An example of a visitor/exhibition centre can be found at Flag Fen, Peterborough.

Permissive paths should be sign-posted and networked in order to facilitate access to the remains. Picnic areas should be designated and sign-posted. The wetland evidence is rarely visible in situ, being buried under ground. Compared with later visible remains such as earthworks, for instance, the wetland evidence is more vulnerable to damage. Therefore, 'engagement with the public is all the more necessary' (Coles, 2001a, 5).

Information and interpretation boards should be located near the archaeological remains, whether visible or buried and in the visitor centres. Other than the medieval earthworks located to the south of the Great fen, archaeological sites within the study area do not lend themselves to visual interpretation.

It is recommended that a web page is designed and updated to promote the site and associated events.

Education

Education projects could see the involvement of professional archaeologists through talks and guided tours for the general public and students.

Didactic material could include activity books and publications aimed at students, and education packages aimed at teachers. Archaeology is a cross-curricular subject, not simply restricted to the history Key Stages and could be included in material covering English, Maths, Geography, Science as well as History.

Research topics for schools could include comparing present and past exploitation of the local Fenland (Local Studies), comparisons between different wetland areas in Britain and in Europe. More specific topics would be period related, for instance prehistoric evidence in the fens, the history of the Romans in the fens, the history of the medieval monastic sites and villages, the history of drainage, the modern anthropogenic impact on the fen environment (both archaeological and environmental/ecological issues).

Practical projects could include programmes of reconstruction of ancient monuments and excavations under archaeological supervision, together with demonstrations and participation in the reconstruction of ancient technology (e.g. wood working and flint knapping) under professional supervision.

Practical projects could also include traditional surveys of earthworks (contour surveys by dumpy-level, plane-table drawings, Ordnance Map based surveys) under archaeological supervision.

Besides the didactic programmes, activity days at weekends aimed at the family nuclei could involve a series of events from guided tours to demonstration of ancient technology.

The web-site could be used to provide relevant information for school projects, as well as promote events.

9 CONCLUSIONS

The object of this study was to assess areas of archaeological potential and the possible effects of the proposed scheme on such areas by consulting a wide range of available sources. These comprised SMR information, cartographic evidence and documentary sources that were integrated to produce the general historical and archaeological background to the study-area. Particular emphasis was placed on the natural and anthropogenic changes affecting the fen environment. The study has also offered recommendations for future archaeological work.

The finds from the area under study indicate that the fen was exploited as early as the Mesolithic period. Whittlesey Mere and the basin as a whole continued to be exploited during the Roman period. Exploitation of the fen environment reached its peak in the course of the Middle Ages with the management of natural and artificial water-routes to facilitate trade and transport.

The study area is presently arable. Archaeological features and deposits are likely to have been severely affected by drainage, land reclamation, and the conversion of pasture into arable.

Although Roman and Medieval occupation occurred on the higher ground and is, therefore, least likely to be affected by the proposed wetland restoration project, re-wetting of the Holme-Wood Walton fen may impact on archaeological deposits and features of all periods, metalwork and organic material being more likely to be affected by destabilised environmental conditions.

ACKNOWLEDGEMENTS

The author would like to thank Mr. Chris Gerrard, Great Fen Project Manager who commissioned this study.

Special thanks are also due to Dr. Peter Murphy of English Heritage, for his valuable comments on environmental issues, and to Dr. Paul Spoerry for his comments on medieval topics.

The archaeological project was managed by Stephen Macaulay (AFU).

The illustrations were produced by Jon Cane (AFU).

REFERENCES

Bibliography

Brunning, R. et al. 2000, Saving the Sweet Track. The 'in situ' Preservation of a Neolithic Wooden Trackway, Somerset, UK. Conservation and Management OF archaeological Sites 4: 3-20.

Coles, B. 2001a, 'A Past less Foreign: Wetland Archaeology and its Survival in European Perspective', in B. Coles & A. Oliver (eds.): 1-6.

Coles, B. 2001b, 'Britain and Ireland' in B. Coles & A. Oliver (eds.): 23-34.

Coles, B. & Oliver, A. (eds.) 2001, *The Heritage Management of Wetlands in Europe*. EAC Occasional Paper 1, WARP Occasional Paper 16 & English Heritage.

Coles, B. & Coles, J 1986, Sweet Track to Glastonbury: The Somerset Levels in Prehistory. London.

Coles, J. 1995, Wetland Management. A Survey for English Heritage. WARP Occasional Paper 9, WARP, Exeter

Darby, H. C. 1983, The Changing Fenland. CUP

Edmonds, E. A. & Dinham, C. H. 1965, Geology of the Country around Huntingdon and Biggleswade. Geological Survey of Great Britain. HMSO.

English Heritage: Archaeology and Wetlands. An English Heritage Strategy.

French, C. & Pryor, F.1993, *The South-West Fen Dyke Survey Project 1982-86*. East Anglian Archaeology Rep. 59. Fenland Archaeological Trust.

Hall, D. 1992, The Fenland Project No. 6: The South-Western Cambridgeshire Fenlands. EAA 56 & Cambridgeshire County Council.

Hall, D. & Cole, J. 1994, Fenland Survey an Essay in Landscape and Persistence. English Heritage.

Hutchinson, J. N. 1980, 'The Record of Peat Wastage in the East Anglian Fenlands at Holme Post, 1848-1978 AD, *J. Ecol.* 68: 229-249.

Kirby, T. & Oosthuizen, S. (eds.) 2000, An Atlas of Cambridgeshire and Huntingdonshire History. APU.

Lucas, G. et al. 1998, 'A Medieval Fishery on Whittlesey Mere, Cambridgeshire' in Medieval Archaeology XLII: 19-44.

Malim, T. 2000, 'Prehistoric Trackways', in T. Kirby, & S. Oosthuizen, (eds.) 2000: Ch. 11.

Mawer, A. & Stenton, F.M. 1969, *The Place-names of Bedfordshire and Huntingdonshire*. English Place-name Society, Vol. III, CUP.

Middleton, Paul 1987. Chalderbeach Farm (TL234882). Cambridge SMR.

Olivier, A. 2002, 'Launch of the European Archaeological Council (EAC) Wetland Strategy. Statement'. European Parliament Brussels, 22nd January 2002. http://www.ramsar.org/wwd2002_rpt_archaeology_olivier.htm

Page, W. et al. (eds.) 1974, The Victoria History of the County of Huntingdon, Vol. III, London (VCH).

Pryor, F. M. 1991, Flag Fen Prehistoric Fenland Centre, London

Pryor F. M. 1992, 'Discussion: The Fengate/Northey Landscape'. *Antiquity* 66: 518-31.

Rackham, O. 2000, Woodland, in T. Kirby, & S. Oosthuizen, (eds.) 2000: Ch. 35.

Reynolds, Tim 2000, 'The Mesolithic', in T. Kirby, & S. Oosthuizen, (eds.) 2000: Ch. 6.

Scull, C. 1992, 'Before Sutton Hoo' in M.O.H. Carver (ed.), The Age of Sutton Hoo, The Boydell Press: 3-23.

Waller, M. 1994 (ed.), *The Fenland Project No. 9: Flandrian Environmental Changes in Fenland*. EAA Rep. No. 70. Fenland Project Committee, Cambridgeshire County Council.

Waller, M. 1994, 'Postdepositional Changes and Origin of Roddons' in M. Waller (ed.) 1994: Ch. 4.IV.

Waller, M. 1994, 'Ugg Mere and Whittlesey Mere' in M. Waller (ed.) 1994: Ch. 9.III.

Waller, M. 1994, 'South-western Fens (Cambridgeshire)' in M. Waller (ed.) 1994: Ch. 9.V.

Maps Consulted

Bodger's Map of 1786: Whittlesey Mere in the County of Huntingdon. CCCAFU.

Jeffrey's Map of 1766-1768: The County of Huntingdon Surveyed Anno MDCCLXVI and Engraved by Thomas Jeffrey Geographer to his Majesty MDCCLXVIII. CCCAFU.

Moore's Map of 1706: A Map of Ye Great Levell of Ye Fenns. First Published 1685.

In Page 1974.

Hayward's? Map of 1604: *Map of the Fenland*. Manuscript of the South-Western Portion of Fenland 1603-5, with the signature of Sir Robert Coton. In Page 1974.

Holme Tithe Map of 1841. HRO2196/25.

Wood Walton Tithe Map of 1839-40. HRO LR 21/363.

OS Hunts. VI.13, IX.4-IX.8, X.1 1887 1st ed. 1901 2nd ed. 1926 edition

BGS Ramsey Sheet 172, England and Wales 1:50 000 (Provisional Series)

APPENDIX 1: LIST OF SMR ENTRIES

WOOD WALTON

REC NO	GRID REF	KEYS	PERIOD	FORM
00998	TL/2087/8296	quern	Ro	stray find
01733	TL/22/82	axe	BA	stray find
01739	TL/211-/82	worked flint	Neo	stray find
01740	TL/211-/828-	worked flint	Neo	stray find
01741	TL/222-/838-	worked flint,	Ne	stray find
01742	TL/221-/825-	axe	Neo	stray find
01747	TL/205-/837-	worked flint	Ne	stray find
01922	TL/2186/8155	axe	Ne	stray find
01940	TL/218-/831-	adze, axe	Neo	stray find
01943	TL/214-/829-	worked flint,	Neo	stray find
01944	TL/215-/836-	axe, chisel	Ne	stray find
01945	TL/216-/833-	axe	Neo	stray find
01959	TL/217-/835-	axe, chisel, adze		find scatter
02033	TL/220-/837-	arrowhead	BA	stray find
02054	TL/217-/835-	pottery	BA	find scatter
02057	Tl/226-/814-	arrowhead	BA	stray find
02058	TL/231-/835-	palstave, bog oak	BA	stray find
02064	TL/226-/812-	house, pottery, shell, animal bone, brick, glass, pipe, key,	P Med	finds scatter
02598	TL/2087/8218	weight	U	stray find
02787	TL/2283/8222	farm house		roofed building
02800	TL/231-/825-	wind pump	P Med	documentary evidence
02801	TL/221-/824-	wind pump	P Med	documentary evidence
02808	TL/2037/8310	coin	Ro	stray find
02843A	TL/209-/822-	gravestone	Med	other structure
02845	TL/2163/8163	arrowhead	BA	stray find
02848	TL/2180/8225	coin	P Med	stray find
02849	TL/214-/837-	pottery	Ro	stray find
02851	TL/214-/845-	axe	Neo	stray find
02852	TL/2202/8243	axe	BA	stray find
02853	TL/2240/8251	axe	Preh	stray find
02854	TL/220-/830-	axe	Mes	stray find
02855	TL /229-/844-	causeway	U	excavation
02856	TL/220-/831-	adze	BA	stray find
02858	TL /229-/846-	mound, clay pipe	U	earthwork
02864	TL/2360/8451	worked flint	Preh	
02881	TL/215-/862-	wind mill	P Med	
02892	TL/215-/837-	quern	Ro	stray find
03023	TL/2325/8266	palstave	BA	stray find
05374	TL/205-/837-	earthwork, ridge, and	Med	earthwork

REC_NO	GRID_REF	KEYS	PERIOD	FORM
		furrow, manor?		
05800	TL/206-/837-	worked flint, axe	Neo, BA	finds scatter
06153	TL/217-/826-	trackway, ditch, enclosure, pot boiler	U	cropmark, soilmark
06160	TL/221-/826-	field system	Med	cropmark
06161	TL/220-/823-	enclosure	Med	cropmark
07809	TL/2365/8455	axe	Neo	finds scatter
07811	TL/2358/8450	worked flint	Neo	finds scatter
07824	TL/2226/8361	worked flint	Neo	finds scatter
07825	TL/2182/8421	axe	BA	finds scatter
07826	?	worked flint	Neo	finds scatter
07827	TL/2196/8366	worked flint	Neo	finds scatter
07828	TL/2226/8361	worked flint	Neo	finds scatter

HOLME

REC NO	GRID REF	KEYS	PERIOD	FORM
01300	TL/199-/887-	pottery, quern	Ro	finds scatter
02769	TL/2348/8961	spear, axe, gouge, hammer		stray find
02769a	TL/2348/8961	pottery, wind mill mound, bank (earthwork), enclosure	Med, P Med	finds scatter, earthwork
02796	TL/205-/884-	worked flint	Mes	finds scatter
02798	TL/239-/874-	wind pump	P Med	documentary evidence
02799	TL/224-/872-	wind pump	P Med	documentary evidence
02857	TL/220-/888-	worked flint	Mes	stray find
02859	TL/2248/8990	kiln, pottery, stone, wharf	Med	finds scatter
02859A	TL/2248/8990	pottery	P Med	finds scatter
02859B	TL/2248/8990	worked flint	Preh	finds scatter
02875	TL/212-/882-	wind pump	P Med	documentary evidence
02890	TL/2029/8761	worked flint settlement, flin working site	Neo	find scatter
02919	TL/2313/9034	pottery	Ro	stray find
02927	TL/2164/9106	coin	P Med	stray find
02930	TL/2246/9048	censer, sword	Med	stray find
02942	TL/22/90	friary	Med	documentary evidence
02944	TL/22/90	spear, axe, gouge hammer	, BA	stray find
02962	TL/2290/9045	plate, pottery	Ro	stray find
07865	TL/2350/8955	wharf	Med	
07884	TL/2035/8760	worked flint	Preh	finds scatter

***************************************	REC_NO	GRID_REF	KEYS			PERIOD	FORM
***************************************	08575		worked	wood,	?	P Med	excavation
-			drainage mill				

CONINGTON

REC_NO	GRID_REF	KEYS	PERIOD	FORM
01301	TL/199-/870-	windpump	P Med	documentary evidence
01744	TL/200-/852-	spear	BA	stray find
02876	TL/202-/862-	wind pump	P Med	documentary evidence
10877	TL 1977/8556	axe	Neo	stray find
03659	TL/201-/854-	shield	BA	stray find

YAXLEY

REC_NO	GRID_REF	KEYS	PERIOD	FORM
04473	TL/2/9	worked flint, stone		finds scatter
11352		ridge and furrow	Med	earthwork

STILTON

04473	TL/2/9	worked flint, stone	Neo / BA	finds scatter
REC_NO	GRID_REF	KEYS	PERIOD	FORM

DENTON AND CALDECOTE

REC_NO		KEY	-		PERIC		FORM
07833	TL/203-/895-	jug, potte	• /	cauldron,	Med / I	P Med	finds scatter

APPENDIX 2: TIME CHART

This chart is loosely based on Burgess, C. 1980, *The Age of Stonehenge* for the prehistoric period and on Adkins, L. & Adkins R.A. 1982, *A Thesaurus of British Archaeology* for the Saxon and medieval period. It follows conventional terminology and chronological periods, with no regard for regional variations and sub-periods.

Date	Geology Period		Age System	Archaeological Period	
1,000,000	Q U	P L			Lower
500,000	A T	E I			
100,000	E R	S T		PALEOLITHIC	Middle
30,000	N A	O C	STONE AGE		Upper
10,000	R Y	E N		MESOLITHIC	Early
6000		E			Late
3500		H			Early
2900		L O		NEOLITHIC	Middle
2500		C E			Late
2000		N E			Early
1500		0	BRONZE AGE		Middle
1000		R			Late
600		F L			Early
300		AN	IRON AGE		Middle
100		D R I			Late
IBC/AD		A N			LPRI

Date	Historical Period	
AD43-AD410	ROMAN	
V century. AD	Sub-Roman	
AD 450-650		Early
AD 650-850	SAXON	Middle
AD 850-1066		Late
AD 1066-c. 1200		
	MEDIEVAL	NORMAN
c. 1200-c. 1500		
<i>c</i> . 1500-c. 1800	POSTMEDIEVAL	





The Archaeological Field Unit Fulbourn Community Centre Haggis Gap Fulbourn Cambridge CBI 5HD Tel (01223) 881614 Fax (01223) 880946