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**RSPB Beckingham Marshes: an  
archaeological watching brief**

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by

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## **Summary**

*As part of the wetland re-creation scheme at RSPB Beckingham Marshes, Nottinghamshire (NGR SK795905 ) an archaeological watching brief was carried out by BA-E. During the excavation of drainage ditches several features were recorded and the floodplain peat was exposed. Two east-west orientated ditches were identified during the excavation of ditch 8 which were infilled with peat and were sealed by the alluvium which blankets the area. No finds were recovered from these features and they do not appear on the historic mapping. In addition, they are sealed by the alluvium which is presumed to be Roman or later meaning these features could potentially be at least as old if not much earlier. Also recovered from these deep ditches was evidence of woodworking in the form of two pointed stakes of unknown date. These were recovered along with a sequence of bulk samples from the floodplain peat. It is recommended that the wooden remains be radiocarbon dated and that the bulk samples recovered be assessed for palaeoenvironmental remains.*

**KEYWORDS:** RSPB, Beckingham Marshes, Notts, peat,

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### 1. INTRODUCTION

In August 2010 BA-E were commissioned by the RSPB to undertake an archaeological watching brief at Beckingham marshes (Fig.1). This work was informed by several stages of investigation including a desk based assessment, two auger surveys and a palaeoenvironmental assessment (Hislop and Krawiec 2004; Tetlow and Moscrop 2006; Hill et al 2008; Hopla and Gearey 2009). The results of these investigations indicated that any ground breaking carried out at the site was likely to impact on the floodplain peat deposits which may disturb archaeological remains.

These previous investigations highlighted the presence of palaeochannels and floodplain peat deposits which were expressed in the topographical relief of the study area. Several large channels were visible as depressions and as such were avoided by any deep excavation to preserve the deposits in situ. The excavation of the deep ditches was unavoidable as they helped to drain the area alongside an oil pipeline.

The RSPB designed a wet grassland creation project that would contribute 95ha of BAP habitat, and support a suite of wetland species, including; breeding lapwing *Vanellus vanellus*, redshank *Tringa totanus*, and curlew *Numenius arquata*. The engineering scheme was designed with previous archaeological findings taken into account, such as river terraces, to reduce risk of damage to potential

archaeological remains. Further to this, the scheme also utilised prior research to locate shallow wet structures. As advised by the County Archaeologist, this included targeting works in the existing alluvial clay deposits of palaeochannels to create perched wet features in the form of scrapes and footdrains.

### 2. METHODS

#### 2.1 Fieldwork

This report was prepared in accordance with the Institute of Field Archaeologists Standard and Guidance for Archaeological Watching Brief (IFA 2001). The watching brief was undertaken in accordance with a Written Scheme of Investigation (Krawiec 2009), which was approved by the Local Planning Authority in accordance with guidelines laid down in Planning Policy Statement 5 (DCMS 2010).

The watching brief included the monitoring of the excavation of 3 ditches 1.40m deep, 4 shallow ditches 0.30-0.50m deep and 88 scrapes, between 0.10-0.40m deep. In addition several existing drainage ditches were cleared of vegetation by machine. Discreet archaeological features were hand excavated and recorded with pro-forma context sheets. These records were augmented with digital and monochrome photography. All features and samples were then added to an existing GIS model that was created for the earlier phases of this project (Hill 2008).

### 3. RESULTS OF FIELDWORK

The watching brief monitored the excavation of 3 ditches 1.40m deep in Fields 18 and 19 with intermittent monitoring on the 88 scrapes and 4 shallow ditches (Fig.2). Several existing ditches were also cleaned and re-profiled and were examined as part of this work. The two deep ditches were the most intrusive part of the groundworks and as such were monitored throughout their excavation.

#### Field 19

In Field 19 a c.290m long drainage ditch (Ditch 8) was excavated to a depth of 1.40m on an east west orientation (Fig.3, Plate 1). The stratigraphy encountered corresponded to that recorded during the auger survey (Tetlow and Moscrop 2006; Hill et al 2008). This primarily consisted of a woody humified peat with abundant reed remains and large wood fragments (Unit 2). Several small trees were also removed from this deposit with intact root balls and did not show any signs of being anthropogenically modified. The peat was then overlain by a 0.60m thick deposit of oxidised alluvium which was comprised of a grey orange mottled clay (Unit 1). This deposit was extremely dry which may be a reflection on the extensive drainage of the area and as a result of the dry summer.

Towards the middle of Ditch 8 a band of blue grey silt 20m wide and 0.18m thick was recorded (Plate 2). This was then overlain by a well humified silt peat with abundant reeds and rootlets. This may represent a small channel which sits at the top of the peat and is sealed by the floodplain alluvium. This

channel was orientated northeast to southwest.

A single piece of worked wood was recovered from the base of Ditch 8 (Fig.3). It comprised a straight and even piece of roundwood 485mm long and 60 x 54mm in diameter, with the end being worked from two directions. The surface of the tool facets are degraded to the extent that no tool signatures were visible and no other information could be gleaned. The species of this piece is unknown and would require microscopy for formal identification.

#### Field 18

A second deep ditch (Ditch 6) was excavated in Field 18 on a north north west to south south east orientation, which was 1.40m deep and 430m long (Fig.3, Plate 3). The peat deposit in this field was slightly less woody than that encountered in Field 19 and trended into a more well-humified peat towards the top of the profile. The peat was extremely desiccated at the interface with the alluvium which sealed the peat deposit across the length of the ditch.

A single piece of worked wood was recovered from the base of Ditch 6, 1.40m below ground level (Fig.3). This was a straight and even piece of roundwood, trimmed at one end in one direction. The tool facet was concave and a partial toolmark was recorded, this is where the axe has become stuck and has left an impression in the wood. Again the species of this item could not be identified in the field and requires microscopy.

Also sealed by this alluvial deposit were two parallel, north east to south west orientated ditches [1006] and [1009] (Fig.4). These features were both u-shaped and were 2.00m wide

and 0.88m deep. Ditch [1006] was infilled by a poorly humified silty peat [1007] with abundant twigs and reed fragments (Fig.5 S2, Plate 4). This was overlain by a desiccated silty peat [1008] which may be the same as [1007] but has been affected by the land drainage that the site has been subject to since at least the 19<sup>th</sup> century. A total of 2 bulk samples and a 50cm monolith tin were recovered from this feature. A second ditch [1009] of similar character was also recorded 6m to the south of [1006]. This was infilled by the same type of silty peat [1010] as ditch [1006]. This was also overlain by the same type of desiccated peat unit [1011] (Fig.5).

No finds were recovered and so dating these features is highly imprecise without absolute dating methods (ie radiocarbon). Although the ditches underlie the alluvium, which is thought to be post Roman based on stratigraphic relationships at other sites within the Trent Valley, they could date from the Iron Age to the early Medieval period (Howard and Knight).

A third much larger ditch [1002] was also encountered during the excavation of Ditch 6 (Fig.5, S1, Plate 6). This was 3.00m in width and 1.43m in depth. The basal deposit was a blue grey silty peat [1003] with occasional twig fragments. This was overlain by a secondary fill of brown grey silt clay [1004]. This in turn was overlain by a black brown mixed hardcore and tarmac deposit [1005]. This ditch can be seen on the historic mapping of the 1<sup>st</sup> edition Ordnance Survey and is still extant in the Google earth imagery (Fig.5). It appears to have been infilled after 1948.

Another possible channel was identified in the section of Ditch 6. The feature appeared to be orientated north

east to south west and was 5.40m wide and 0.60m thick (Fig.5, S1). This channel sits fairly high in the sediment profile with a 0.40m thick basal deposit of well humified organic silt with abundant reed fragments (Unit 4). This deposit also contained a thin lense of poorly humified peat. Overlying this silty deposit was a desiccated peat deposit (Unit 3) 0.20m thick. This may be a small channel or pool located within the floodplain wetland and is sealed below the alluvium (Unit 1) which may mean it is contemporary with the two ditches [1006 and 1009].

#### *The scrapes and shallow ditches*

A total of 88 scrapes were excavated throughout the site and ranged in depth from 0.10-0.40m deep (Fig.3, Plate 7). These shallow pools barely penetrated the alluvium in most places and no features were recorded.

In addition to the scrapes, 4 shallow ditches were also excavated which again barely disturbed the upper alluvium, however Ditch 4 in Field 11 exposed the basal sand deposits in places. No features were seen truncating these sands but two small pieces of heat shattered stone were noted along the ditch's length.

## 4. DISCUSSION AND CONCLUSIONS

The watching brief at Beckingham Marshes has presented an opportunity to examine a small area of the sediment archive. The floodplain peat observed in the deep ditches (6 and 8) was extremely abundant in natural roundwood debris indicating that the floodplain wetland at some point was a rich, wooded landscape. The bulk samples that were recovered from Field 18 may present an opportunity to examine the floodplain environment

further. Previous palaeoenvironmental work focused on pollen analysis which although revealed the pollen to be poorly preserved, did illustrate the development of an onsite alder carr environment (Hopla and Gearey 2009:4). It is possible that the bulk samples recovered during the watching brief will contain insect and plant remains which may provide a clearer insight into the landscape evolution of the floodplain.

Research carried out to the south of Beckingham, at Bole Ings, demonstrated the onset of peat accumulation to have begun during the Mesolithic period, 8000-4000BC (Brayshay and Dinnan 1999). At this point the Trent would have been a multi-channel, anastomosing system with extensive wetlands on the floodplain. The work carried out at Bole Ings recorded high energy braided palaeochannels which indicate the floodplain was unstable during this time.

The Mesolithic is characterised by mobile communities of hunter gatherers existing in short-lived camps in order to exploit seasonally available resources. The features of this period are extremely difficult to detect in the archaeological record and mainly comprise flint scatters or isolated flint finds. At nearby Miserton Carr and Tiln a number of flint cores have been recovered (Dolby 1986). Although no such remains have been identified at Beckingham this may not be an accurate reflection on the levels of human activity at this time.

Towards the end of the Mesolithic the floodplain was beginning to change, becoming dominated by alder carr (Brayshay and Dinnan 1999:125). The pollen record examined at Beckingham also indicated a heavily wooded

landscape and probably dates to the early Neolithic, 4000-2000BC, which correlates well with the results from Bole Ings (Brayshay and Dinnan 1999:125, Hopla and Gearey 2009:3). This change in vegetation is most likely a response to the changes in the River Trent's hydrology leading to raised groundwater levels. The floodplain would have become more waterlogged, seeing a decline in plants less tolerant to these conditions. The dry-land would have been defined by a closed canopy forest with isolated clearings, possibly used by grazing animals. This reflects the general picture of the onset of the Neolithic in the Trent valley with sporadic areas of clearing for cereal cultivation and the grazing of livestock.

The alder carr environment appears to peak during the Middle Bronze Age (BETA-260811, 1250 to 1240 cal BC, 1220 to 980 cal BC) at Beckingham (Hopla and Gearey 2009:4). The evidence from Bole Ings also suggests a period of floodplain stability at this point (Brayshay and Dinnin 1999:125). This is probably due to the lack of widespread clearance of the landscape. Although there is evidence that some limited clearance had occurred in the wider landscape due to the presence of *Ribwort Plantain* (Hopla and Gearey 2009:4). The settlement evidence during the Bronze Age in this area is sparse, however, finds of bronze ingots from Gainsborough as well as a wealth of bronze objects indicate that it may have been one of the centres of Bronze working in the region (Davis 1999).

By the end of the Bronze Age at Bole Ings, the period of floodplain stability had ceased however there is evidence for small scale clearance continuing leading to the expansion of grasslands and reedswamp (Brayshay and Dinnin 1999:126). This increasingly open

landscape would have led to further waterlogging of the floodplain, with the lack of trees leading to an increase in surface runoff and river bank instability. This would have led to a decline in the alder carr replacing it with an open sedge fen. An increase in river sediment load would have led to overbank sedimentation and the development of multiple stable channels occupying the floodplain.

The heavily vegetated floodplain would have been an easily exploitable resource during Prehistory. The worked wood recovered from the base of Ditches 6 and 8 (c1.40m below ground level) may be an indication of this prehistoric exploitation. The items do not show saw marks and have clear axed facets. However, without absolute dating this is an educated guess. Previous radiocarbon dating at the site indicates the late Iron Age (BETA-260810, 3340-330 Cal BC, 200 to 30 Cal BC) to be 1.28m below ground level (Hopla and Gearey 2009:4). It is perfectly feasible to suggest that although evidence for settlement is lacking the floodplain may yet reveal more activity relating to this period. Despite the sparse nature of the distribution of the coppiced items they represent significant finds and indicate that people were here and managing the wetland resource, possibly during Prehistory. These finds may also be considered as indicators that other activities may have been taking place on the floodplain and have yet to be encountered.

The two ditches recorded below the alluvial clay are considered to be contemporary as their morphology and deposits are the same. It is thought that since they are sealed by the alluvium, they may pre-date the end of the Roman period. However, this is based on evidence from other sites within the

Trent Valley and without a secure chronology this cannot be determined with any confidence. The fact that the ditches are also infilled with a peaty deposit indicates that no widespread drainage had taken a place at the site and that it was still fairly wet. There are also indications that a similar ditch has been observed by members of the Beckingham and Saundby History group. It is hoped that information from the group will be integrated in this archive.

The further work recommended will help to complete the schedule of works at Beckingham. It may also shed light on the exploitation of the wetland resource prior to 19<sup>th</sup> century land drainage.

## 5. RECOMMENDATIONS

- Assessment of plant and beetle remains from ditch [1006] accompanied by a radiocarbon date.
- Species identification of the wooden items.

## 7. ARCHIVE

The paper archive, samples and worked wood are held in temporary storage at BAE

## 8. ACKNOWLEDGEMENTS

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## 9. REFERENCES

Brayshay, B.A and Dinnin, M 1999 Integrated palaeoecological evidence for biodiversity at the floodplain-forest margin. *Journal of Biogeography* 26,1, 115-131

Davis, R 1999 Bronze Age metalwork from the Trent Valley: Newark, Notts to Gainsborough, Lincs. *Transactions of the Thoroton Society* 103:25-48

Department of the Environment (DoE) 1990 *Planning Policy Guidance Note 16: Archaeology and Planning*

Hill, TCB, McKenna, R and Vorenhout, M 2008. *Beckingham Marshes, Nottinghamshire: A palaeoenvironmental evaluation of fluvial deposits associated with the River Trent*. BA-E report 1769

Institute of Field Archaeologists (IFA) 2001 *Standard and Guidance for Archaeological Watching Brief*, rev. edn.

Hislop, M and Krawiec, K 2004. *Beckingham Marshes, Nottinghamshire: an archaeological desk-based assessment*. BA report 1232

Hopla, E and Gearey, B.R 2009 *Beckingham Marshes, Nottinghamshire: a palaeoenvironmental assessment of deposits associated with the River Trent*. BA-E report 1929

Knight, D and Howard, A.J 2004 *Trent Valley Landscapes*

Krawiec, K 2009 *Written Scheme of Investigation for an archaeological watching brief at Beckingham Marshes*. BA-E 2115



**Figures**

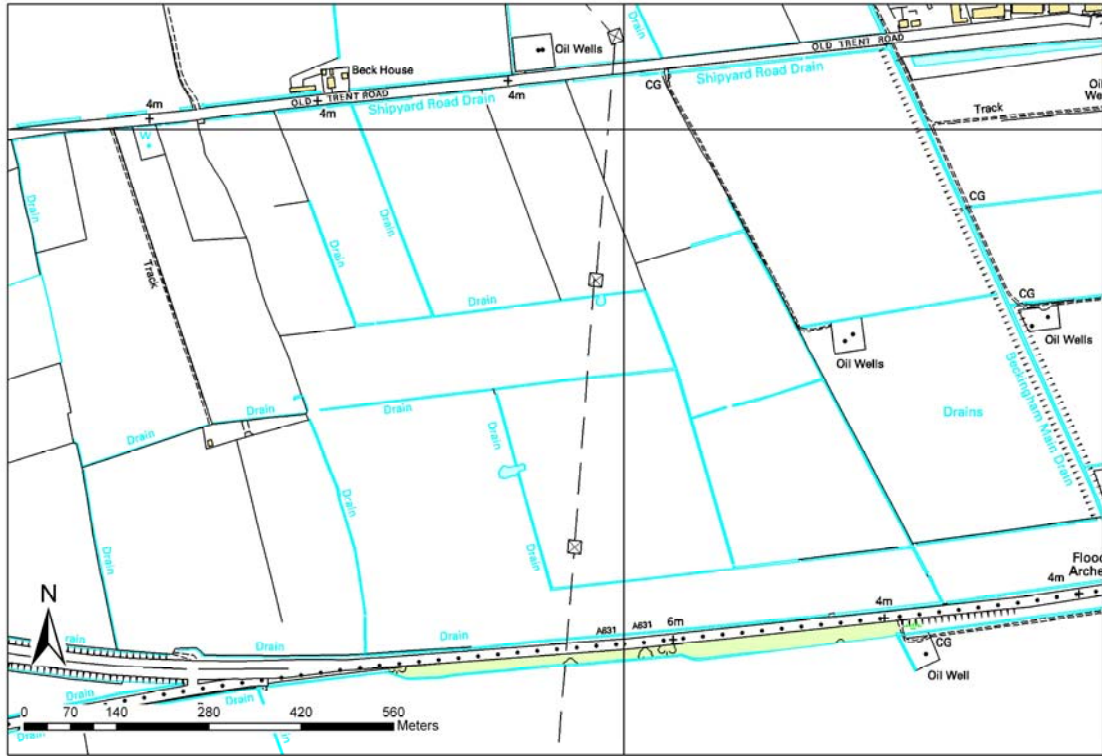


Figure 1



Figure 2

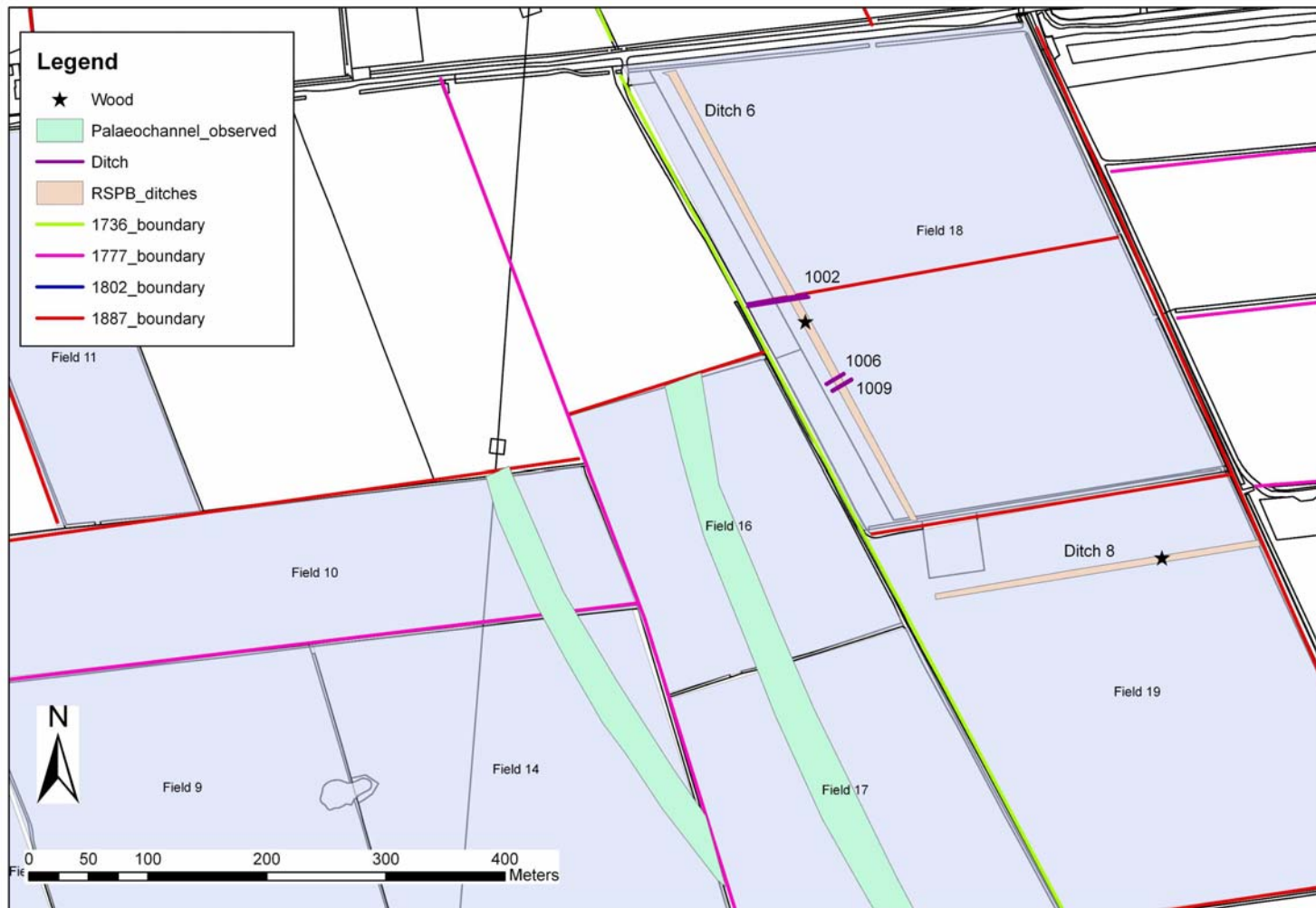


Figure 3

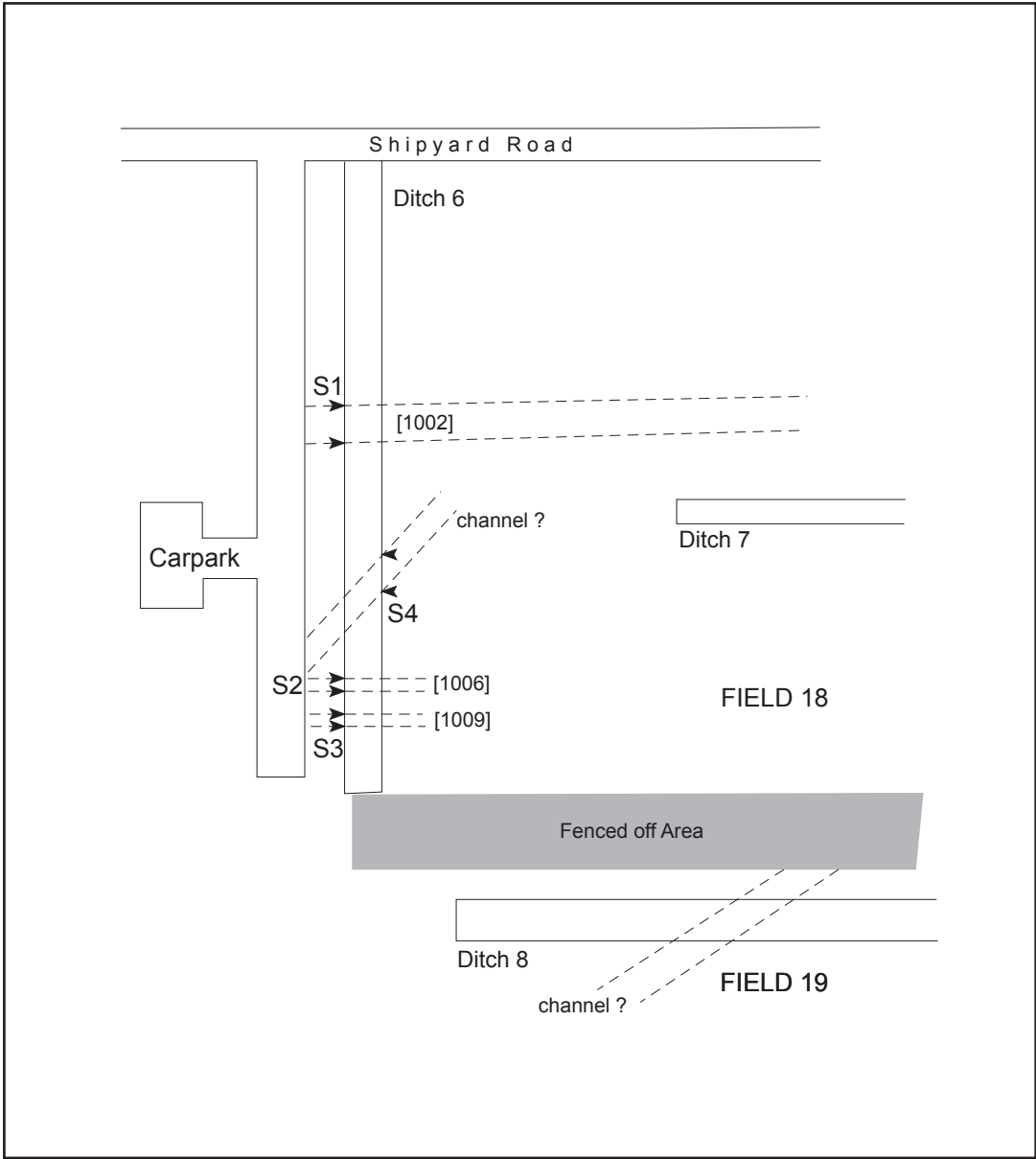


Fig. 4

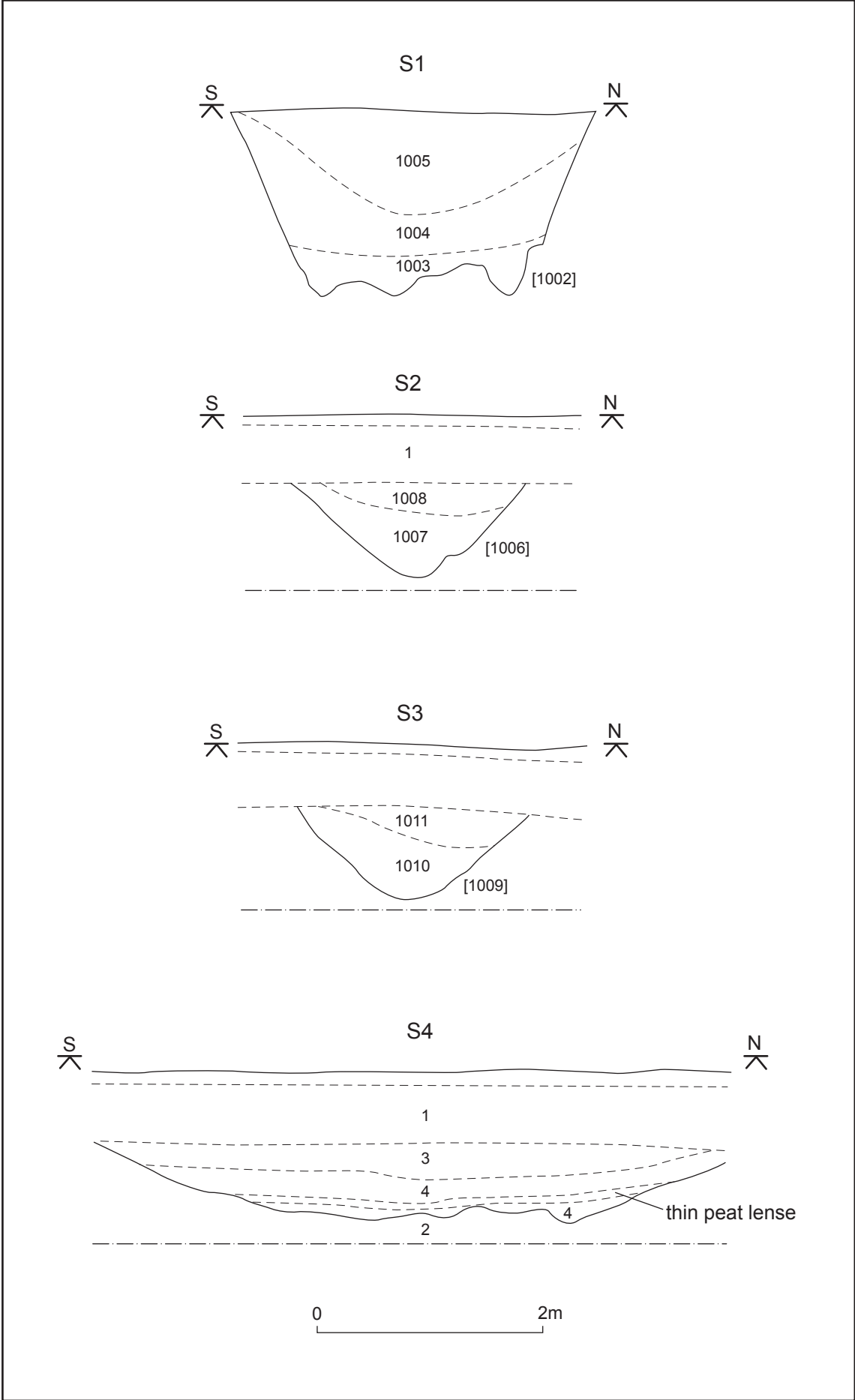
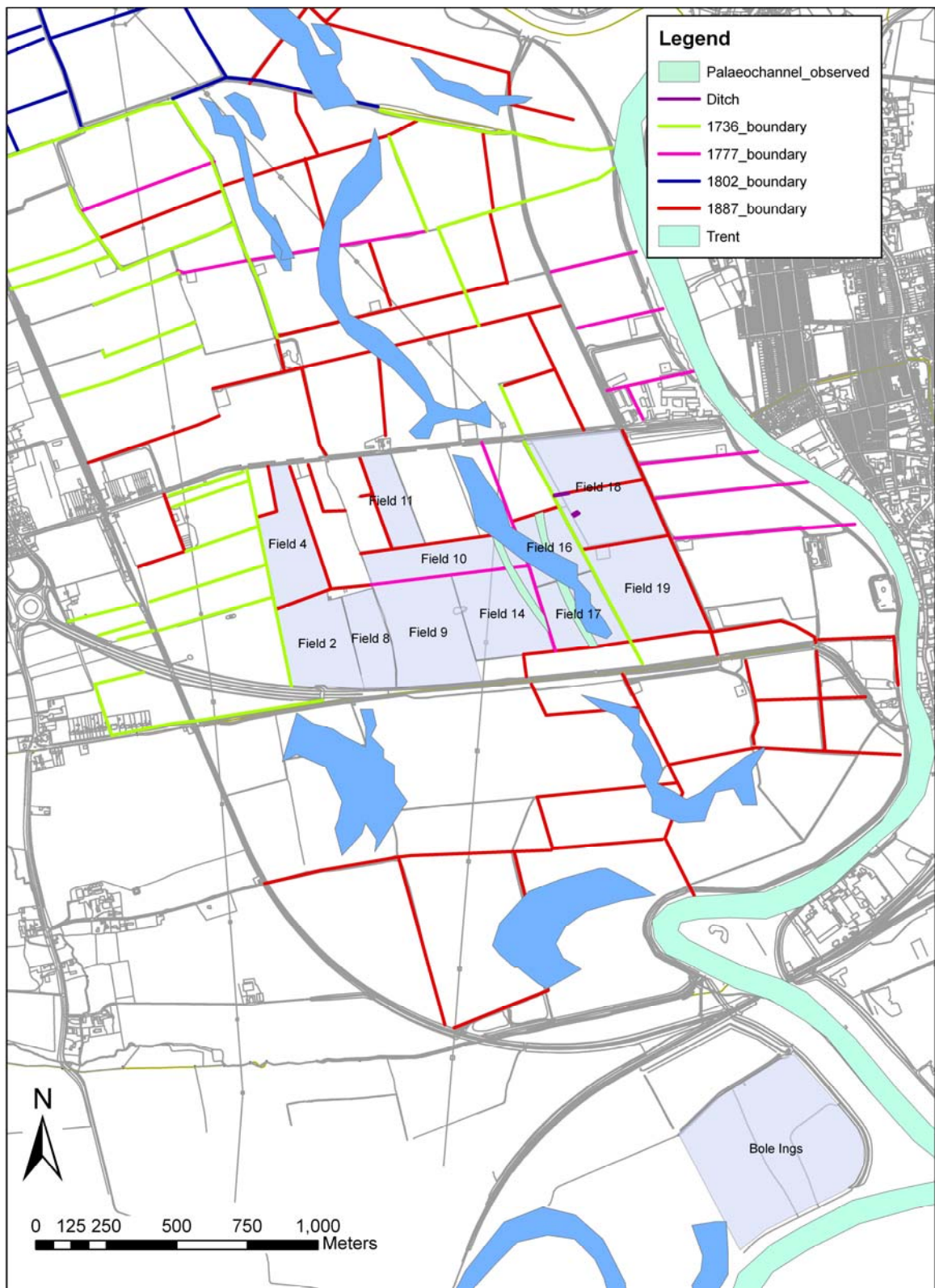


Fig. 5





**Figure 6**

## **Plates**





**Plate 1: Ditch 8 looking east**



**Plate 2: Shallow channel in ditch 8**





**Plate 3: Ditch 6 looking north**



**Plate 4: Ditch 1006 (outlined for clarity)**





**Plate 5: Ditch [1009]**



**Plate 6: Ditch [1002]**





**Plate 7: Scrapes in Field 19**