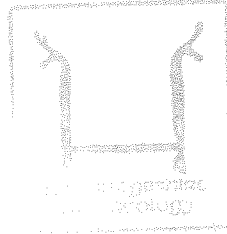
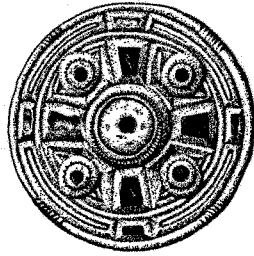


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Archaeological Field Unit

Government Oil Pipeline-Sawtry, Cambridgeshire

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1993

Cambridgeshire Archaeology

Report No A19

Commissioned By The British Pipeline Agency Limited.

ABSTRACT

In September 1993 a watching brief was carried out by Cambridgeshire Archaeology along a selected section of a new pipeline being laid to the east of the A1, south of Sawtry TF1878 - TF1879, Cambridgeshire (fig 1). The route of the pipeline passes through an area of cropmarks possibly prehistoric field systems and or enclosures, and also, under the main Roman road Ermine Street. The pipeline runs mostly alongside an existing pipeline, which is why, due to ground disturbance, no archaeological features were identified when the topsoil was removed down to the top of the subsoil, along the pipeline easement. The removal of the topsoil near the A1 (Ermine Street) revealed no Roman activity in the form of features, although, four residual sherds of pottery were found south of Monks' Wood Farm, which were identified as being Roman in date. The cutting of the pipe trench revealed a series of ditches, also, south of Monks' Wood Farm, which had archaeological potential but, were later found to be field drains when comparisons were made with other field drains also discovered in the pipe trench.

COUNTY ARCHAEOLOGICAL POLICY

Archaeological planning in Cambridgeshire is essentially based on the County Sites and Monuments Record (SMR). This consists of over 11,630 recorded entries, varying from find spots of individual artefacts to extensive monuments and archaeological landscapes. 250 of these are currently deemed worthy of statutory protection and are now designated as scheduled ancient monuments (SAM) by the Secretary of State for the Environment.

In Cambridgeshire the majority of archaeological sites and monuments only survive below the ground. These can sometimes be identified from aerial photographs, in which they show up as variations in overlying crops. However, there are many sites which do not show up in this way and whose existence has not been recognised as yet. Thus the SMR is an incomplete catalogue of the surviving archaeological remains in Cambridgeshire, to which previously unknown sites are continually being added. For this reason the lack of recorded evidence cannot be taken as proof that a particular area is archaeologically sterile.

The need for effective management of the County's archaeological resource is clearly recognised by Cambridgeshire County Council. It is the Council's policy to safeguard significant archaeological sites, and development on scheduled ancient monuments and other important sites will not normally be permitted (Structure Plan Policy P14/12), whilst the setting of a monument is also a matter which can affect the determination of a planning application. There may be other sites where there is considered to be no overriding case for preservation. Here a programme of field work will probably be required to allow for the excavation and recording of remains with minimal loss of information (Structure Plan Policy P14/13).

Additionally, specific guidelines have set out procedures for pipelaying projects:

Phase 1 (Route selection): Notification of proposed route and pipelaying specifications to County Archaeological Office; desktop assessment of known archaeological sites on SMR; design adjustments to avoid important archaeological sites.

Phase 2 (After route selection): Field investigation as appropriate, including fieldwalking, geophysical survey, earthwork survey and trial trenching to include all areas of recorded remains and known archaeological potential which may be affected; full excavation or preservation of newly evaluated sites; sample excavation of remaining sites and archaeological features after soil stripping operations.

Phase 3 (During construction): Provision of recording brief during pipe trench construction; notification by contractors of any finds discovered.

Phase 4 (Post construction): Post-excavation analysis and publication of results.

INTRODUCTION

In August 1993 the British Pipeline Agency Limited notified Cambridgeshire Archaeology (C.A) of the removal of topsoil along the pipeline route between Sawtry and Alconbury Hill TF1878 - TF1879. The pipeline route passes through a field which contains possible prehistoric fields systems (SMR 00815), and where the pipeline traverses the A1 (the main Roman road, Ermine Street), where there could be a likelihood of Roman features and artefacts. A brief for the archaeological recording was prepared by the County Archaeology Office (CAO), and the archaeological field unit of Cambridgeshire County Council undertook the work.

METHODOLOGY

Initial research (desktop evaluation) was carried out using secondary historical sources, SMR information, and aerial photographs of the area, noting the position of any monument that might be directly or indirectly affected by the route of the pipeline.

The sequence of pipeline laying is that a 12m wide easement is stripped of the topsoil, and then a 0.6m wide trench is dug for the pipe to a depth of 1.5m, a depth well below any archaeological remains in this area. Although the pipe trench would destroy any archaeology, the stripping of the easement and subsequent passage of machines might damage ephemeral features present in the subsoil. After the pipe has been laid, the trench is back-filled and the topsoil replaced. The process of trench excavation, pipelaying and back-filling is very rapid.

It was not possible to undertake fieldwalking to investigate areas of potential prior to construction work because relevant fields were still under crop. The first stage of fieldwork was thus to strip the topsoil down to the top of the subsoil with a mechanical digger supplied by the contractor. It is at this interface between topsoil and subsoil (especially in heavily ploughed fields), that archaeological remains can be most easily seen. The soil stripping was monitored in areas considered to be of archaeological significance and strategic areas cleaned with a hoe.

BACKGROUND INFORMATION

Prehistoric and Roman Periods:

Located to the south of Monks' Wood Farm, are a series of cropmarks which could be prehistoric enclosures or field systems (SMR 00815), also in this area an Iron Age quern stone has been recorded. Where the pipeline traverses the A1 (Ermine Street) Roman pottery has been recorded (SMR 02068).

Medieval Period:

Located in a field to the north of Monks' Wood Farm, can be found medieval ridge and furrow running north-west - south-east and north - south. Although this is largely ploughed-out, they can still be seen as cropmarks.

RESULTS

Desktop evaluation: known archaeological sites adjacent to the route of the pipeline.

00814 TL185 / 794 - CROPMARK, POTTERY, RIDGE AND FURROW.

Field system, probably late Iron Age / Romano-British, visible as cropmarks. Surface finds of Romano-British pottery to the north of the area. Some ridge and furrow also visible on aerial photographs. References: RAF APs 106G/UK/635. 3376-3377 10/08/1945

00815 TL187 / 791 - CROPMARKS, ENCLOSURE.

Field system and possible enclosure, probably early prehistoric settlement, seen on Ordnance Survey aerial photographs taken in 1973.
Reference: CUCAP APs 14/06/1973 BNG, 41-43, RC8-AK 247,252

00816 TL1875 / 7913 - QUERN.

Part of an Iron Age beehive quern found in 1953.

00819 TL190 / 800 - POTTERY.

Surface scatter of Roman pottery, slight mound now ploughed flat, possibly a Roman barrow.

02068 TL1830 / 7860 - POTTERY.

Surface scatter of Roman pot sherds, possibly from one vessel of Cream Ware, dated to AD 200 at latest. Found during excavation of a pipetrench. No features were identified.

04066 TL184 / 791 - ROMAN COIN.

Stray find of a Roman coin of Faustina II.

I - Ridge and furrow running north-west - south-east and north - south, visible as cropmarks (Pelling, R and Leith, S. 1992)

Fieldwork

It was decided to carry out a detailed observation of topsoil removal and at a later date the cutting of the pipe trench along the pipeline route, south of Monks' Wood Farm, in an attempt to locate the prehistoric field systems (SMR 00815), plus, any Roman features or artefacts that may occur where the pipeline traverses the A1.

To the south of Monks' Wood Farm, within the easement four sherds of Roman pottery were found. Unfortunately, the pottery could not be associated with any visible features, and is probably residual-deriving from the topsoil.

DISCUSSION

The removal of the topsoil along the route of the pipeline south of Monks' Wood Farm, revealed no prehistoric or Roman activity within the easement. The reason for the lack of prehistoric activity could be due to the laying of an earlier pipeline 4m to the east of the modern pipe, causing a large amount of ground disturbance thus, obscuring any archaeological features.

A number of Roman pottery sherds were found along the pipeline easement (fig.1), which were considered to be residual, as they could not be associated with any archaeological features. The lack of Roman activity can be attributed to the pipeline easement ending 30m from the A1 (Ermine Street), thus, decreasing considerably the chances of locating further evidence of Roman activity.

The cutting of the pipe trench revealed three ditches located at 10m, 23m and 50m, south of the Monks' Wood Farm access road. The usual procedures of section drawing and photographs could not be followed in the case of the ditches mentioned above, as it was considered to be too dangerous, working near heavy machinery, and the constant threat of dust inhalation, so just the photographic recording procedure was followed, keeping safety in mind, continually.

The fill of each ditch consisted of a dark brown slightly silty clay, which, unfortunately, is very similar to the fills of the field drains also identified in the pipe trench.

It is possible that the plot taken from the aerial photographs is inaccurate, but it is more likely that any prehistoric archaeological evidence was destroyed by the laying of the earlier pipeline 4m to the east of the modern pipe.

REFERENCE

Cambridgeshire County Council (1993) *Sites and Monuments Record*.
Pelling, R and Leith, S. 1992 *A1 Widening Scheme - Alconbury - Fletton Parkway*

ACKNOWLEDGEMENTS

The author would like to thank the British Pipeline Agency, Stockton Pipelines LTD, for supplying plans of the pipeline route. Thanks must also go to Mary Alexander, Stephanie Leith, Richard Heawood and finally, Tim Reynolds, Project Manager.

GLOSSARY OF ARCHAEOLOGICAL TERMS.

Anglo-Saxon. The period dating between the withdrawal of the Roman legions in 410 and the Norman invasion of 1066. Within this period several ethnic groups from northern Europe vied for control of the British Isles, including the Angles, Saxons, Jutes, Danes, and Norwegians. The latter two groups are collectively known as the Vikings and became involved in British politics from the eighth century, later than the others. The Vikings were successful in occupying a large part of the north and Midlands of England, before providing a King (Cnut) for the whole of England. For most of this time England was divided up into several kingdoms until Saxon resistance to Viking incursions led to the unification of England under Aethelstan and Alfred.

Artefact. Any object made by people. Generally, this word is used for finds such as pottery, stone tools, or metal objects, but it can be used in a much wider context in that the landscape we have today is a product of human activity and is thus an artefact itself.

Bronze Age. Prehistoric period c. 2000 - 700 BC when bronze was used for many types of tools and weapons.

Cropmarks. Archaeological features below the ploughsoil can affect the growth of sensitive crops through moisture retention or loss. For example, the growth of cereal crops over buried ditches or pits will encourage rapid growth leading to tall, dark coloured plants, whereas walls and roads will lead to stunting and faster yellowing of the crop. These discrepancies in crop growth can be easily detected from the air, and by taking photographs the cropmark patterns can be plotted onto maps and given provisional interpretation.

DMV. Deserted medieval village. For various reasons medieval settlements were sometimes abandoned or shifted their location. Earthworks of the old village can often be seen showing the position of house platforms, crofts, lanes, and ponds.

Earthworks. Archaeological features that are still extant above ground as banks and ditches, platforms, roads, ponds, canals, etc. They were either constructed of soil or became covered by it at a later date, leaving the archaeology showing in relief.

Enclosures. An area defined by a continuous surrounding ditch. These may be enclosures around human settlements, fields, or paddocks for stock. Rectilinear enclosures are ones with straight sides and corners, whilst curvilinear enclosures are ones with rounded sides.

Fieldwalking. Technique of archaeological survey. Walking over ploughed and weathered soil, an experienced observer can collect many ancient artefacts, and by plotting the distribution of such find spots on maps an idea of the use of the landscape can be built up for each period of the past.

Geophysical Survey. Investigation of changes occurring in the magnetic and electrical characteristics of the soil, which can often be induced by human activity.

Iron Age. Prehistoric period c. 700 BC - AD 43 when iron was used extensively for tools and weapons. The period traditionally ends with the Roman invasions of AD 43 but in fact there was a considerable time of adjustment after this date when the Iron Age way of life continued with little change from Roman influence.

Medieval. Historic period that begins with William the Conqueror's invasion in 1066. Post-Medieval is generally considered to date from 1500.

Moated site. In the medieval period moated enclosures proliferated. An area surrounded by water filled ditches would leave a platform or island on which to build a house. There were several reasons for this: defence in times of lawlessness, a ready source of water for the needs of the house and an anti-fire measure, a handy reservoir for fish and water fowl, and a response to the demands of fashion and prestige. These moated sites were often manors, and occasionally old manor houses are still to be found enclosed by their moat.

Neolithic. Prehistoric period c. 3500 - 2000 BC when farming and pottery were introduced. Stone tools of fine workmanship were produced and exchanged over long distances, but before the use of metals.

Ridge and Furrow. Medieval cultivation techniques led to a phenomenon of corrugated fields. Strips of land were allotted to individuals and a furrow was left between one person's strip and the next, leading to a corrugated ridge and furrow effect. Ridge and furrow shows up as cropmarks on air photographs and more rarely as earthworks in pasture fields.

Ring-ditch. A continuous circular ditch which is all that remains of a ploughed out round barrow, or the drainage ditch (eavesdrip gully) that surrounded a round-house.

Roman. Historic period AD 43 - 410 when much of Britain was part of the Roman empire. The term **Romano-British** is now widely used to describe the people of this period, as few were Roman themselves, but they were a provincial manifestation of the empire developing in a unique way. AD 410 was the date the legions were withdrawn, but the Romano-British culture continued for some time into the 5th century in tandem with Anglo-Saxon migration.

Round barrow. A Bronze Age burial mound formed by heaping up earth over a central burial. They have several forms, including numbers of encircling ditches, and can have many burials in them. The first burial is known as the primary burial. Subsequent ones are referred to as secondary burials. It has often been suggested that these burial mounds are a way of marking tribal territories, and they are often placed in prominent locations. They can occur in clusters known as "barrow cemeteries".

Water meadow. Area of pasture in which artificial channels have been cut to allow the field to be flooded with water. Used particularly to stimulate early season growth of grass.



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