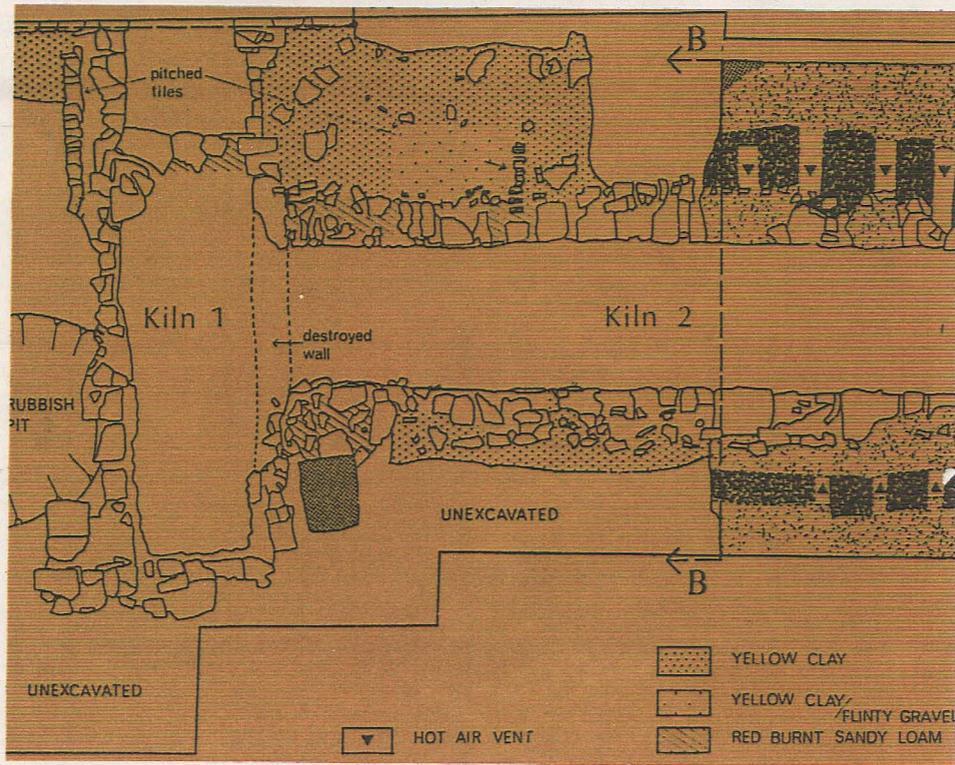


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HECKINGTON FEN, LINCOLNSHIRE



PRE-CONSTRUCT ARCHAEOLOGY

HECKINGTON FEN, LINCOLNSHIRE

AN ARCHAEOLOGICAL WATCHING BRIEF REPORT

FOR

ANGLIAN WATER SERVICES LTD.

BY

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1. ABSTRACT

In principle, the objectives of the watching brief were to observe and record any archaeological deposits which might have been encountered at known sites during the excavation of the trench for the water main replacement in Heckington Fen (the length of pipe trench in Great Hale Fen was excluded from the project). However, in practice it was also considered relevant to record randomly, but at fairly frequent intervals, the nature of the subsoil when visits were made. The purpose of this record was to serve as a palaeoenvironmental measure against which future archaeological investigations might be judged, and including research into the reasons for the intermittent occupation and abandonment of Heckington Fen from time to time in proto- and historic periods. Not least, these occupational variations could be to do with climatic changes and sea level variations during the past 2,500 years or maybe longer and thus the record could be an invaluable one not likely to be repeated.

As was noted in the watching brief, the pipe trench was planned to pass through several areas of archaeological potential. Chief among these areas is the medieval site Winkhill Manor with its related moat, three Romano-British sites (with one or two others relatively close to the route of the pipeline), and the Car Dyke, a Roman watercourse of some national - and, perhaps, international - significance. All of these sites are situated on, or alongside, Littleworth Drove. Excluded from the brief were three known saltmaking sites, two in Heckington Fen and one in Great Hale fen, together with the Midfendike, another watercourse parallel to but at some distance from the Car Dyke. This latter complex of Roman activity, which occurs on either side of the A17, close to The Oatsheaf, was scheduled to be cut through by the pipeline in mid-April 1994. It is unfortunate that no archaeological account was kept of the trench as it passed through the area for the reasons stated above. The chances of finding other Roman saltmaking activity here could have been relatively great while, at the same time, the opportunity for recording, at least, the width of the Midfendike - a seldom recorded monument - was also possible.

2. INTRODUCTION

Pre-Construct Archaeology was invited by Anglian Water Services Limited to conduct a watching brief on the new pipeline which was to be installed mainly in Heckington Fen but with a short length in Great Hale Fen. The construction of the water main lasted from 10 January until its scheduled completion at the end of April, 1994, a period of 16 weeks or so. From 11 January, 1994 two gangs operated simultaneously for virtually the entire time of the pipelaying and always at opposite ends of the area of activity. The period of the watching brief was from 10 January, 1994 to 15 April 1994.

3. LOCATION OF THE WATER MAIN

(see Fig. 1)

Anglian Water's replacement of the existing water main - mostly in Heckington Fen but to a lesser extent in Great Hale Fen - commenced simultaneously, more or less, at either end of Littleworth Drove, Heckington.

The western section was begun at the layby almost opposite to Winkhill Manor and proceeded eastwards until the narrow lane to Star Fen was encountered when the water main trench turned northwards and continued around the twisting lane which adjoins the fields of Star Fen. On its route from Winkhill Manor along Littleworth Drove the trench kept to the south of the road. Along Star Fen Lane, the trench was positioned on the left hand side of the verge, that is on the west for part of its way and then on the north as the lane turned to the east. Eventually, as Star Fen Lane rejoined Littleworth Drove, the trench usually was placed on the left, east side, of the lane. The construction of this length from Winkhill Manor to Star Fen and back to Littleworth Drove took from 10 January until 8 March 1994 although some time was used during this period to complete a connection on the layby to the southwest of Winkhill Manor.

Within a day, - on 11 January 1994 - a start was made on the section described above at the eastern end of Littleworth Drove at its junction with Sidebar Lane, moving westwards until it arrived at the eastern junction of Star Fen Lane and Littleworth Drove, immediately to the west of the Car Dyke and at the northern end of a track known as Sandygate Lane. This part of the water main replacement trench was finished on 28 January 1994.

Both trenching crews moved to new locations once their respective initial tasks were complete, the first gang going to East Heckington and the second to Sidebar Lane.

In East Heckington, the first stage of pipelaying was along the old main road. The pipe was placed on the north side of the road. When this was

achieved, the crew retrieved its position at the beginning, the eastern end, of the East Heckington pipeline and excavated the trench southwestwards across the main road (A17) and through the fields to Hall Farm in Great Hale Fen. Having completed this section, the pipeline was then continued from the point at which it had been temporarily abandoned to the west of East Heckington and proceeded along the A17 to the junction with Sidebar Lane; the pipe was laid on the north side of the main road throughout its the entire length on this part of the project.

The second crew, on Sidebar Lane, began its operation by connecting the pipe at the junction with Littleworth Drove. Once done, the pipeline moved northwards to Five Willow Wath, and slightly beyond (over Five Willow Wath Bridge) in order to connect with the houses around Five Willow Wath Farm. The final length of pipe trench was southwards from the junction of Littleworth Drove and Sidebar Lane, eventually connecting with the pipeline from East Heckington. The pipe trench was constructed on the west side of Sidebar Lane from Five Willow Wath Bridge to the junction with the A17; the only exception to this was when the pipeline crossed the road to the north of Five Willow Wath Bridge. No completion date can be given for the pipeline as the archaeological brief ended before the connection was made at Sidebar Lane/A17.

4. REASONS FOR THE WATCHING BRIEF

4.1. The Planning Background

4.1.i. North Kesteven District Council's local plan contains two statements relevant to the watching brief for the water main replacement in Heckington and Great Hale Fens: a. *Development proposals which are likely to adversely affect a scheduled ancient monument will not normally be approved,* and b. *Development proposals which are likely to adversely affect a site of archaeological interest will normally be subject to a condition of planning permission requiring archaeological investigations to take place before and/or during development.* (North Kesteven District Local Plan, 1992, 48). Both statements are expanded upon in their accompanying texts.

4.1.ii. There are various Acts and guidelines which are helpful to developers and, in particular, appropriate to Anglian Water's replacement water main in Heckington and Great Hale. Chief among these documents are: *The Ancient Monuments and Archaeological Areas Act 1970; The National Heritage Act 1983; The General Development Order 1988; and Planning Policy Guidance Note (PPG 16) on Archaeology and Planning 1990.* The latter, especially, is most useful in its application to the planning background.

4.2. The Archaeological Background

4.2.i. The parish of Heckington is relatively large, in the region of twice the area of the national average. This has not always been so and only came about after the drainage of the common lands in the fen were absorbed into the parish. Nevertheless, the nucleus of the medieval village, with a fine church at its centre, has, within its purlieus, some not inconsiderable archaeology: a Roman villa which was apparently subsequently subjected to Saxon occupation, a medieval moat (Winkhill Manor), a probable bronze age burial mound, together with a series of artifactual finds made over many years from the immediate area of the village.

Beyond the village and to the east is Heckington Fen (for the purpose of this report we are not concerned with the western edges of the parish). To

start with, the division between fen and upland is demarcated by the line of the Car Dyke, a Roman watercourse, situated almost exactly on the gravels between the two. But the Car Dyke has a related channel, the Midfendike (which has also been known as the Old Forty Foot). Both Car Dyke and Midfendike are important monuments in the ancient landscape of Heckington, as, too, are the other Roman sites, some industrial and some domestic, which once thrived in this area. Of the industrial sites, one was a tile kiln factory linked by a track to the villa to the west and to a possible *pagus* (a native peasant area) to the east. This *pagus* is now a scheduled site (no. 317). There are other native settlement sites of the Roman period throughout Heckington fen, one of which was almost certainly the living quarters for the tilers. Close to the Midfendike are three Roman salt making areas, one of which is within the parish of Great Hale. The three salterns are adjacent to the Midfendike but this entire complex was excluded from the watching brief and, thus, has to be omitted from this report except to say that an unofficial watch was kept on the area when the pipeline cut through the Midfendike. Beyond the Midfendike is the relatively recent hamlet of East Heckington and to the west of here was situated the now deserted medieval village of Garwick. Garwick is outside the scope of the report but East Heckington, although not mentioned in the brief, is the easternmost limit of the water main replacement.

Around and about the parish, chance archaeological finds have been made over many years - a stone axe here, a flint tool there, or, on occasions a scatter of bronze age pottery on the surface of this field or that; some Iron Age pottery is also recorded from Heckington, and, as would be expected, the medieval period is also well represented in this catalogue of random discoveries.

In all, Heckington, and to a lesser extent Great Hale, has seen much activity over several millennia.

5. GEOLOGY AND TOPOGRAPHY OF THE IMMEDIATE AREA

The following account of the soils and drift geology of the area was written by Denis Robson, a soil scientist who has spent many years working in Lincolnshire. The account was specially commissioned by Pre-Construct Archaeology for the purpose of this report.

"The higher ground on which Heckington stands consists of greyish till (boulder clay) containing chalk stones and has superficial loamy layers. Here seasonally waterlogged fine loamy over clayey soils of the Beccles series occur with similar though better drained soils of the Ashley series. Calcareous loamy over clayey soils of the Eyeworth series occur locally.

Glaciofluvial sand and gravel containing stones, flints and quartzite pebbles is present on the lower ground between Heckington and Howell. Permeable calcareous coarse loamy soils of the Ruskington series and sandy soils of the Newsleaford series occur here over an undulating clay substratum.

Greyish clayey marine alluvium with silty deposits on the slightly higher sinuous former creek ridges (roddons) succeeds the till and gravel deposits eastwards. The road from East Heckington to South Kyme (*Sidebar Lane*) is close to this boundary and the underlying sandy or loamy deposits often have thin organic layers resulting from progressive waterlogging as water levels rose prior to the deposition of the alluvium. Peat layers which developed over the alluvium under quiet water conditions are now represented only by dark greyish brown topsoils through wastage after drainage and cultivation to give clayey Wallasea soils. The thickness of the alluvium varies because of the underlying nature of the gravel and till substrata. (Hodge et al, 1984)."

Topographically, the area under consideration is typical of much of the silt fens of South Lincolnshire. As would be expected, there are no dramatic views nor hills nor stands of trees to relieve the landscape. Occasional hedges are to be seen together with a few houses and other buildings dotted across the expanse of these flat lands. Drainage ditches

and dykes are evident everywhere. The exception to this picture is the hamlet of East Heckington, a relatively recent settlement towards the extreme eastern edge of the parish of Heckington, alongside the main road to Kings Lynn (A17) which is also the parish boundary between Heckington and Great Hale. Rarely does the land level rise above 5m; in places, the land surface drops to the 2m mark. The chief watercourse in the area is the Heckington Ea (misspelled on modern maps as Eau), which is to the north.

As Mr Robson states above, this part of Heckington and Great Hale has been subjected to periodic marine and fluvial inundations. Indeed, some of these inundations almost certainly happened in historical, or proto-historical times when the sea would have been much closer to Heckington than it is now (Simmons, 1980, 56-73). Notwithstanding this assertion, it is obvious from the known archaeology that this part of Heckington Fen was more populous in the Roman period than in modern times. (see also 6 below for a fuller account).

6. BACKGROUND - Sites of Known Archaeological Significance.

Heckington has a rich archaeology, as, too, does Great Hale. The principal sites in Heckington are Roman and medieval, but other archaeological periods are represented. Firstly, however, a brief consideration should be given to the historical backgrounds of each settlement. Both are mentioned in Domesday, but it is clear that Heckington 900 years ago was as pre-eminent then as it is now. There are eight references to Heckington against a single entry for Great Hale (Foster and Longley, 1921; Heckington 15, 52, 109, 121, 156, 182, 198, & 229; Great Hale 109). From the references to Heckington a small window gives a view of life in William 1's day; the king, among others, held land including marsh; there were fisheries in the parish (maybe referring to a monastic establishment); and also recorded was a church together with a priest. By comparison, the information for Great Hale is scant. Nevertheless, the entries contained in Domesday are often selective, none more so than for Great Hale where, although no church is mentioned, clearly a church was probably in existence before the Norman Conquest (Taylor and Taylor, 1965, 276-8). The tower of Great Hale church remains as a monument to remind us of Great Hale's Saxon pretensions. Equally, the place-name Great Hale, may indicate an earlier period altogether than that for Heckington. *Hale* may derive from a Celtic word meaning salt, indicating that the influence of the sea was present at that time (Simmons, forthcoming), whereas *Heckington* is of more recent origin, being Old English (Ekwall, 1960, 230).

Expanding on the reference to salt in the previous paragraph, there are known ancient saltworking sites in both Heckington (Simmons, 1975, 166) and Great Hale (Hallam, 1970, 270-1). These sites are all Roman and are relatively close to the Midfendike, a Roman drainage channel (Simmons, 1979, 183-196). They are also close to the route of the water main replacement pipeline and, thus, the salterns together with the Midfendike are all important archaeological considerations in this area, although the brief did not specifically highlight these implications. Indeed, the water replacement pipeline is planned to cut through the Midfendike with no arrangement for monitoring the process, in an archaeological sense.

Other Roman sites occur in Heckington, not least of which is the suspected villa which lies to the south of the village. In the past, traces of mosaics have been located here, along with large quantities of pottery, coins, tiles and other building material. Later in its life, the villa appeared to attract Saxon settlement - unmistakeable potsherds from this period have been found here. Also located along Littleworth Drove, there are several more Roman sites of various sizes, important among which are two immediately on either side of the Car Dyke and a cropmark site east of here and to the south of Littleworth Drove (Schedule 317). Again to the south of Littleworth Drove, and to the west of the Car Dyke, is a Roman industrial site of some significance, that of a tile kiln complex which was excavated in 1970 (Simmons, 1977). A Roman road, or track, appears to link the tile factory, the scheduled site deeper in the fen, and the villa closer to Heckington. In so doing, the track crosses the Car Dyke at a relatively high position to the south of Littleworth Drove. Further afield, but still in the parish of Heckington, are several more Roman find spots one of which is close to Winkhill Manor. However, the largest of the Roman monuments extant, or partially so, in the parish of Heckington is the Car Dyke. This Roman channel is extensive in the County and runs more or less north-south from Washingborough to Market Deeping before it enters Cambridgeshire. A parallel channel to the Car Dyke, the Midfendike, is located generally some 2 to 3 miles to the east, but only occurs in the silt fens of Lincolnshire. Together, these two channels form part of an early Roman drainage system (Simmons, 1979, 183-196). In particular, the Heckington length of Car Dyke presents a challenging research topic with its peculiarities of land levels, road crossings and apparent blockages (Simmons, *ibid*). Beyond the Midfendike lay the Roman marshes (Simmons, 1980, 56-73), later to become Heckington Fen when once it was drained.

Pre-Roman finds in Heckington are relatively commonplace and range in type from Iron Age and Bronze Age pottery to flint tools and weapons from various prehistoric periods, to a bronze flanged axe and two polished stone axes, the latter having been found near to Littleworth Drove. Closer to the village is, or was, an earthwork known as Butts Hill which Trollope considered to be 'A British or Saxon barrow' because of the discovery of part of an urn, several socketed spear heads and many fragments of bones

when it was levelled in 1815. (Trollope, 1872, 386). There is, of course, the possibility that the mound could have been constructed in the former period and re-used in the latter.

The medieval period in Heckington is represented in various ways. The church has already been mentioned, but there is also the deserted medieval village of Garwick, and Winkhill Manor with its moated site lying close to Littleworth Drove. Butts Hill has been alluded to in the previous paragraph; it could also have used for medieval archery practice. (Trollope, *ibid*).

The parish of Heckington presents an intriguing picture for the archaeologist and none more so than those parts of Heckington - Littleworth Drove, Star Fen and East Heckington - where about half the water main replacement pipe line was to be constructed. The opportunity to take part in the work was welcomed.

7. OBJECTIVES OF THE WATCHING BRIEF

In general terms, all archaeological remains should be seen as finite, and a non-renewable source (PPG 16; see also The Planning Background 4.1. above). Ideally, it is necessary for archaeologists to be able to discuss projects with potential developers before any earthmoving work commences. The policy which Anglian Water Services Limited has adopted with regard to conservation is laudable, and particularly so when much of the work is outside the control of Planning Acts. With this well founded policy it is possible to formulate a practical programme of archaeological investigation before the start of any groundwork. The water main replacement in Heckington and Great Hale presented such a chance and a brief was written by the County Archaeologist in which most areas of potential threat were stated to Anglian Water.

8. REQUIREMENTS FOR WORK

8.1 Pre-Construct Archaeology, as the chosen archaeological contractors for the work, undertook to comply with the requirements of PPG 16, to observe the standards suggested by the Institute of Field Archaeologists with regard to watching briefs, and to adhere to the County Archaeologist's brief. In this way, not only were those areas of archaeological importance, designated as such by the County Archaeologist, observed, but also much of the entire length of the pipeline was inspected. The work included the examination of the subsoil for archaeological features together with their recording, and the observation of natural deposits, again recording details wherever necessary. Nevertheless, as mentioned in 1 above, time did not always allow for this criterion to be resolved to the ultimate.

8.2 After completion of the fieldwork, Pre-Construct Archaeology arranged with the City and County Museum, Lincoln for the long term storage of all artifacts, and the deposition of the site archive, as well as a copy of the report commissioned by Anglian Water Services Limited, the report to comply with the recommendations listed in paragraph 7.1.3. in the County Archaeologist's brief.

8.3 The site code used by Pre-Construct Archaeology is HF 94 and the Archive Number for reference at the City and County Museum Lincoln is 9.94.

9. RESULTS OF THE WATCHING BRIEF

9.1 The route of the water main is detailed in 3 above. Work commenced at the western end, Littleworth Drove, on 10 January 1994 but by the next day two gangs were employed. Thus, except for the first day, construction continued at both ends simultaneously often necessitating journeys of up to 2 miles between the two and, on some days, more than one double journey was required. In all, 45 journeys were made from Pre-Construct Archaeology's office to the pipeline; mostly the visits lasted from 2 to 3 hours each but on 15 separate occasions they lasted for a full working day. Details of the visits were made on daily log sheets which then became part of the project's archive.

(Fig. 1 - Site Plan - relates to the description given below)

9.2 Littleworth Drove to Star Fen Lane (western junction)

In this section of the water main replacement programme, the major site of note is Winkill Manor with its moated site. Of Winkhill Manor it is recorded: "The family of Winkhill, long resident in Heckington, gave their name to the south aisle of the church Their residence stood half a mile north east of the village, within a moated area consisting of about an acre of land, the only approach to which was over a bridge on the western side. It was pulled down in 1780." (Trollope, 1872, 386-7). The vestigial remains of the moats can still be seen and, indeed, it is almost certain that the southernmost ditch is immediately adjacent to and parallel with Littleworth Drove. For this reason, it was essential that a strict watch was kept on the pipe trench as it passed along this part of Littleworth Drove. Nothing was found of significance and it was clear that Littleworth Drove had always respected the curtilage of the Winkhill Manor in this area. However, where the layby and Littleworth Drove meet, close to Winkhill Manor, the chance recovery of a copper alloy powder horn, of uncertain date and very much battered and flattened, was found by a member of the pipelaying team (pl. 3).

To the east of Winkhill Manor and on the north side of Littleworth Drove at a distance of about 150m (at TF 152454) there is a small Romano-British site which, in fieldwalking, has revealed, *inter alia*, Roman tiles, presumably from the tile kiln site deeper into the fen (see below). Worked flints have also been found in this general area. Again, like Winkhill Manor, nothing was found in the pipe trench which could be related either to the Romano-British site or to the worked flints. It should also be noted that a Roman road may have been cut obliquely by Littleworth Drove in this locality (Simmons, 1975, 72) but no trace of it was seen in the pipe trench.

Between this point and the junction with Star Fen Lane there were no other archaeological finds.

9.3 Star Fen Lane

There are no known archaeological sites in the immediate vicinity of Star Fen Lane nor did anything of an archaeological nature occur in the water main trench. However, one point of note is the change of soils here compared with the western end of Littleworth Drove.

9.4 Littleworth Drove - Sidebar Lane to Star Fen Lane (eastern junction)

Towards the eastern end of Littleworth Drove and to the south of the road lies a large Romano-British site which is now protected by law (TF 179455 - Schedule number 317). The site was originally discovered by aerial archaeology and it covers in one ploughed field about 15 acres (6 ha). That it goes beyond the extent of one field there can be little doubt and particularly so when the aerial photograph is examined in any detail. Thus, it constitutes a major native settlement with the chance of it extending northwards towards Littleworth Drove. Furthermore, another aerial photograph (private collection) shows a road or track leading from this site across the Car Dyke, past the Roman tile kiln factory and towards Heckington. Unfortunately, for one reason or another, the scheduled site has not been investigated archaeologically on the ground although it is visited on a fairly regular basis by treasure hunters. Because there was a

possibility that the Roman site could come close to Littleworth Drove this part of the pipeline trench was watched in some detail but with negative results.

Another, but smaller, Romano-British site was found some years ago to the west of the one described in the preceding paragraph, but, in this case, abutting Littleworth Drove and within a short distance of the east bank of the Car Dyke (site located at TF 174456). The site appears to be spread across two fields. Littleworth Drove at this point bends considerably as it crosses the Car Dyke. The chances of the modern road cutting through the Roman settlement site were relatively great but, in the event, the sections of the pipeline trench were made up of natural material.

The junction of the Car Dyke and Littleworth Drove in Heckington Fen has been written about at greater length elsewhere (Simmons, 1975, 109 & 113). Suffice it to say, however, that between Littleworth Drove and a position some 300m to the south (ie where the Roman track crosses the Car Dyke) there is an apparent rise of 2.5m, a not inconsiderable incline in a watercourse which has been generally assumed to be for navigation (for instance, most O.S. Maps of the region invariably label the channel *Roman Canal*). Indeed, the name of the farmhouse, Holmes House, close by the Roman tile kilns and track crossing the Car Dyke, gives another indication of the topography of the land here. Holmes House is an ancient establishment (Trollope, 1872, 386) and the place-name *holmes* is suggestive of an island, i.e. a higher piece of land in the fen of the middle ages. (Ekwall, 1960, 246). The opportunity to examine the Car Dyke in this area is, therefore, one of some priority (see pl.1 for a general view of the Car Dyke and Littleworth Drove crossing). The results of this examination are shown in fig. 3 and can be compared with the more extensive results from the cross section in Billingham (Simmons, 1975, 96). It should be said, however, that the weather conditions experienced at the time of the crossing of the Car Dyke by the pipe trench were appalling - heavy snow followed by driving rain, often torrential, so much so that the eastern part of the trench was dangerous for entering. Thus, only the western end of the top of the Car Dyke was recorded. In this section, peat was reached at about 1m below the present land surface in the Heckington Fen pipe laying operation as it

crossed the Car Dyke in Littleworth Drove (Plate 2). This depth is about +1m O.D.N. and compares with +2.5m O.D.N. at a point some few metres south of of where the Roman track crosses the Car Dyke and where a similar peat surface was previously noted (Simmons, 1975, 111). In essence, this is the most significant find made during the Heckington pipelaying project, and confirms that the Car Dyke here had a considerable slope downwards south to north.

Close to the Car Dyke, to the southwest at TF 171452, lies the Roman tile kiln factory, adjacent to Holmes House. Between the tile kilns and Littleworth Drove is yet another Roman site (TF 167454), but this site may be the habitation area for the tilers rather than a farmstead. Whatever its nature, the possibility of the pipe trench cutting through Roman remains was relatively high. Unfortunately, nothing was found.

10. DISCUSSION

Littleworth Drove, Heckington has been the subject of some intensive archaeological fieldwork over many years. The name - Littleworth - suggests that at one time the land here was of insignificant value. But was this always so? If the Car Dyke is seen, arguably, as the division between fen or marsh, (i.e. a freshwater affected landscape against a salt water affected one) and upland, and therefore 'bad' land as opposed to 'good', variations of land use might indicate differences caused through a multiplicity of conditions: worsening and ameliorating weather patterns, transgression and recession of the sea, lowering and heightening of the water-table and so on. All of these effects can be studied as they relate, albeit subtly, to the ancient land settlement along Littleworth Drove. The known improvement in climatic conditions at about 100AD gave Roman administration the chance to drain a good proportion of the land between the River Slea in the north to Bourne in the south, and between the Car Dyke in the west to the Midfendike in the east. Into this tongue of land was attracted a whole array of new settlers. Their remains can be detected everywhere, including several sites along Littleworth Drove. Indeed, it can be said that Roman land use and occupation in Heckington Fen was a microcosm of what happened generally in the silt fens of Lincolnshire. More than this, other types of activity came to Heckington Fen in this period, not least of which were saltmaking and a brick and tile factory, with a road connecting some of the sites each with the other.

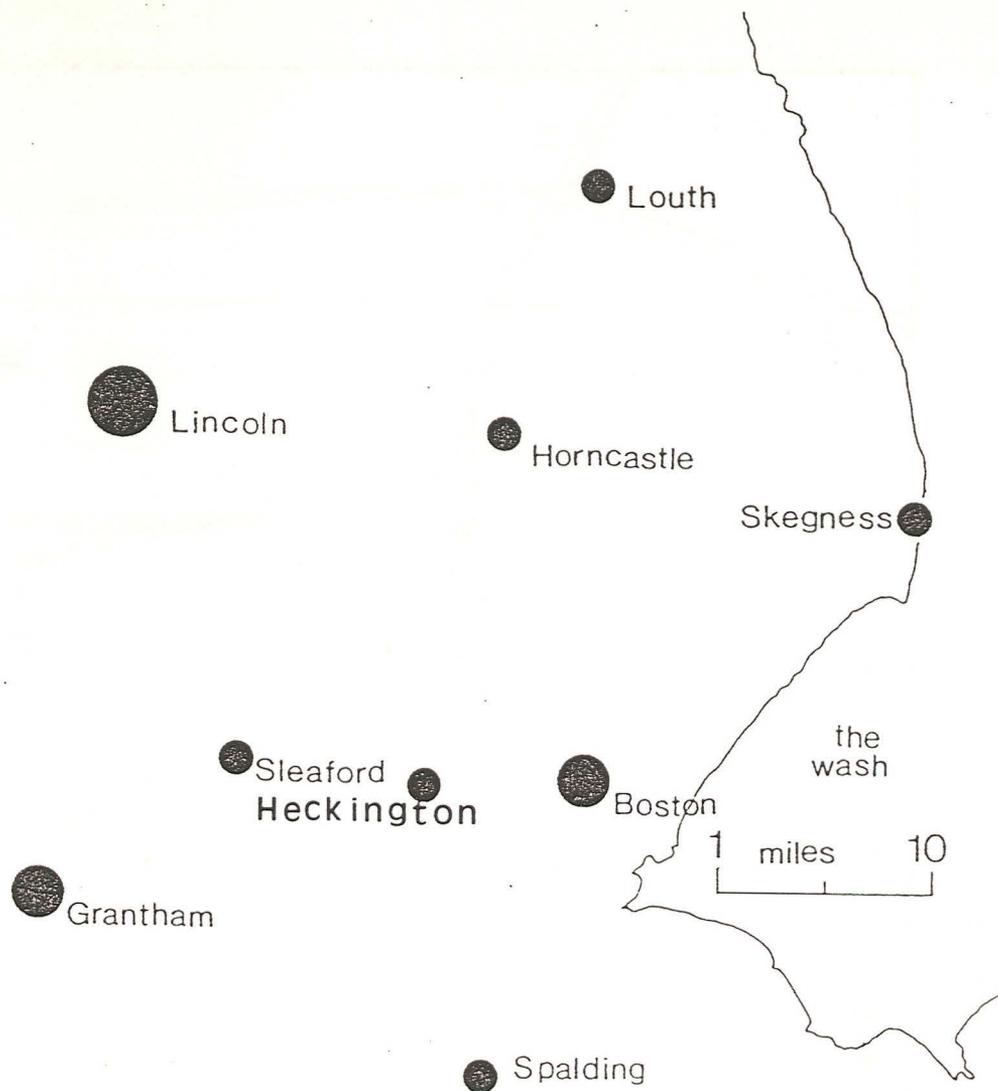
Periodically, other people left their marks along Littleworth Drove in particular, and Heckington Fen in general, from pre-history to the middle ages and beyond. A stone axe, flint tools and weapons, Iron Age pottery, Saxon pottery, Winkhill Manor with its moat, and sand quarries all attest to millenia of human avocation hereabouts. It is thus galling to report that little of archaeological significance, for one reason or another, can be adduced from the watching brief, with the exception of the record of the topmost layers of the Car Dyke and the noting of the substrata in a variety of places.

11. ACKNOWLEDGEMENTS

Pre-Construct Archaeology would like to thank Anglian Water Services Limited for the opportunity to conduct the watching brief and for taking an interest in the work as it progressed, especially the site engineer involved (Mr P. Holditch). Thanks are also due to the staff of the County and City Museum, Lincoln who gave assistance when required. None of the work could have been done without the co-operation of the two crew leaders (Mr John Hill and Mr Andrew Hill) and their teams and PCA would like to show its appreciation, too, in this respect. Finally, a special tribute should be made to Denis Robson for his erudite account of the soils and geology of the area.

12. REFERENCES

- Ekwall, E., *The Concise Oxford Dictionary of English Place-Names*, 4th ed., Oxford, 1960.
- Foster, C.W., & Longley, T., *The Lincolnshire Domesday and the Lindsey Survey*, 1924 (reprinted 1976), Lincoln.
- Hallam, S.J., in Phillips, C.W. ed., *The Fenland in Roman Times*, Royal Geographical Society, 1970.
- Hodge, C.A.H. et al, *Soils and Their Use in Eastern England*, Bull. Soil Surv. Gt. Br., 1984.
- North Kesteven District Council Local Plan, 1992.
- Pevsner, N., & Harris, J., *The Buildings of England: Lincolnshire*, 2nd ed., London, 1989.
- Simmons, B.B., *The Lincolnshire Fens and Fen Edge North of North*, unpublished M.A. dissertation Univ. of Leicester, 1975.
- Simmons, B.B., *Roman Tile Kilns at Heckington, Lincs*, Boston, 1977.
- Simmons, B.B., The Lincolnshire Car Dyke: Navigation or Drainage? in *Britannia X*, 1979.
- Simmons, B.B., Iron Age and Roman Coasts Around the Wash, in ed. Thompson, F.H., *Archaeology and Coastal Change*, Soc. of Antiq., Occasional paper (New Series) I, London, 1980.
- Simmons, B.B., Iron Age and Roman Coasts Around the Wash, in ed., Bennett, S., & Bennett, N., *An Historical Atlas of Lincolnshire*, Univ. of Hull, 1993.
- Simmons, B.B., *The Survival of Celtic Place-Names in the Lincolnshire Fens*, in *Papers Relating to the Lincolnshire Car Dyke*, forthcoming.
- Taylor, H.M., & Taylor, J., *Anglo-Saxon Architecture*, C.U.P., 1965.
- Trollope, E., *Sleaford and the Wapentakes of Flaxwell and Aswardhurn*, London, 1872.
- Wainwright, G.,J., et al, *Exploring Our Past Strategies for the Archaeology of England*, London, 1991, pp 5-8.



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|---------------------------|------------------------------------|
| 1. Winkhill Manor | 14. East Heckington |
| 2. Romano-British Sites | 15. Hall Farm |
| 3. Car Dyke | 16. Five Willow Wath |
| 4. Littleworth Drove | 17. Roman Villa (site of) |
| 5. Roman Saltmaking Sites | 18. Bronze Age Barrow - Butts Hill |
| 6. Midfendike | 19. Roman Tile Kilns |
| 7. A17 | 20. Roman Track |
| 8. Oatsheaf | 21. Garwick |
| 9. Layby | 22. Parish Boundary |
| 10. Star Fen | 23. Heckington Ea |
| 11. Star Fen Lane | 24. Heckington Church |
| 12. Sidebar Lane | 25. Great Hale Church |
| 13. Sandygate Lane | |

Fig. 1 Location Map and Key to Fig.2

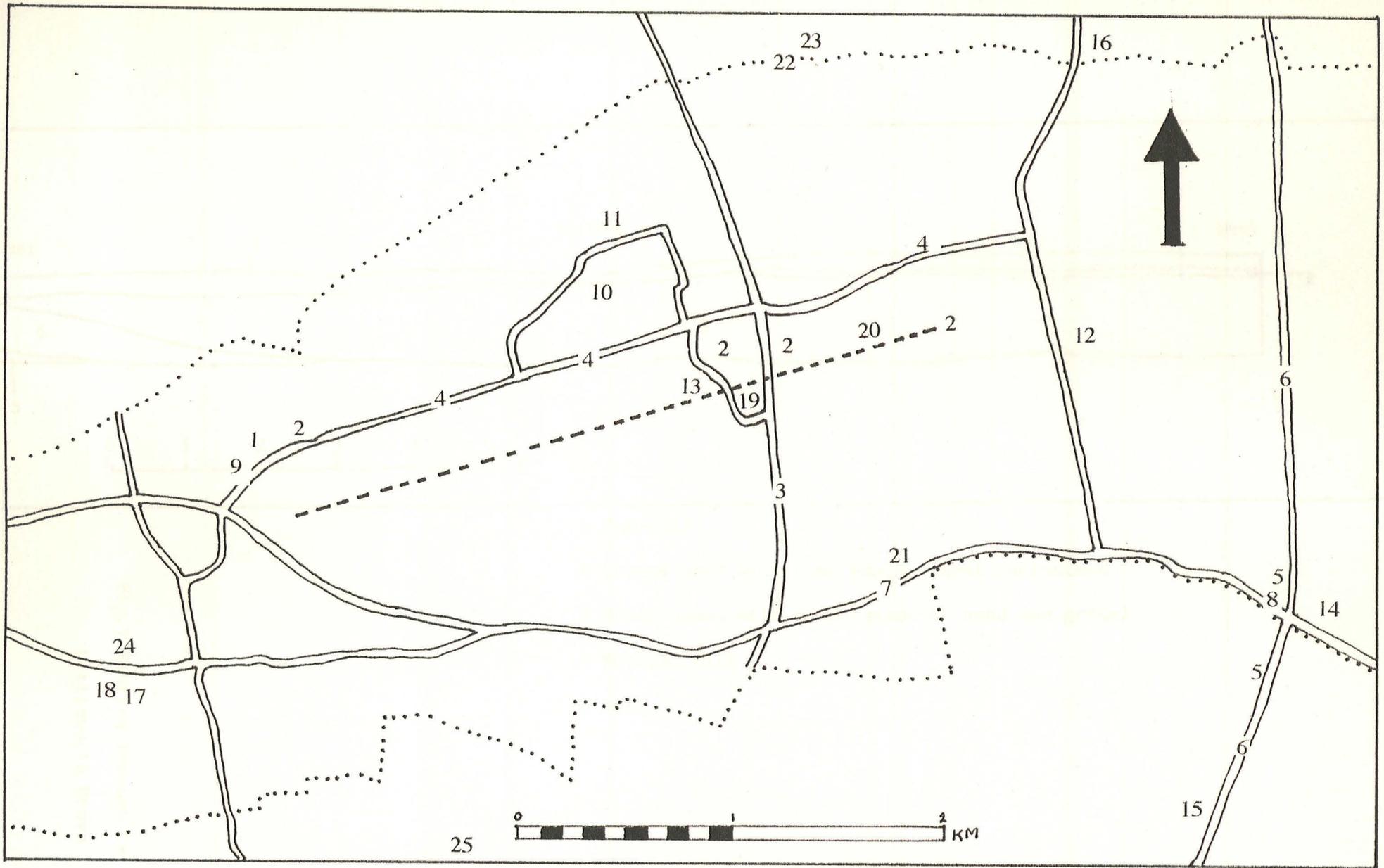
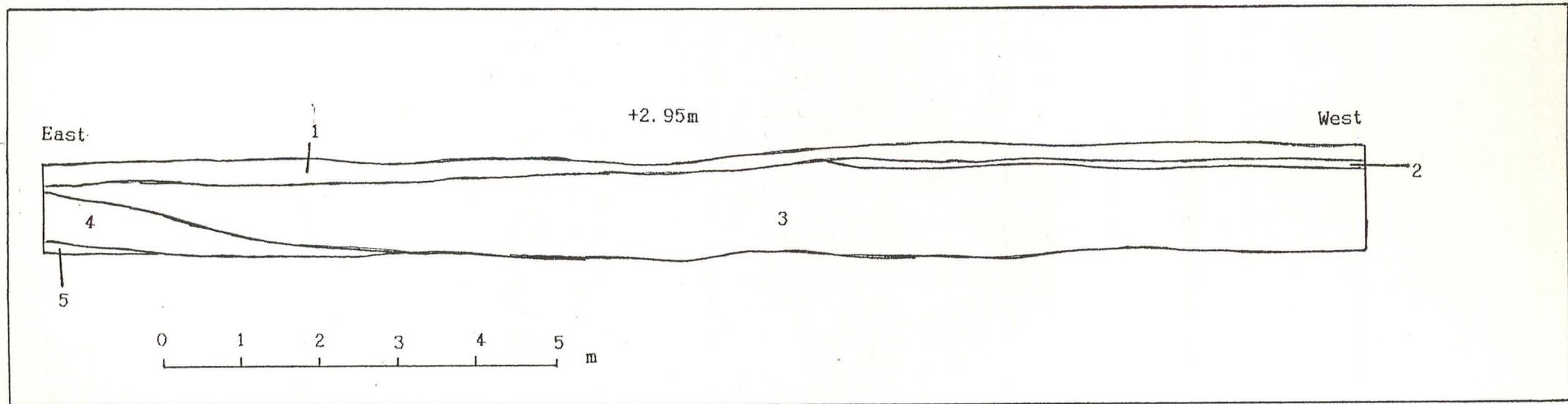


Fig. 2 Site Plan



- 1 Top soil
- 2 Orange sand with some small gravel inclusions
- 3 Brown humus with with lenses of sand and gravel
- 4 Mottled silt
- 5 Peat

Fig. 3 Section Through Car Dyke,
Littleworth Drove



Plate 1. General View of Car Dyke, Littleworth Drove

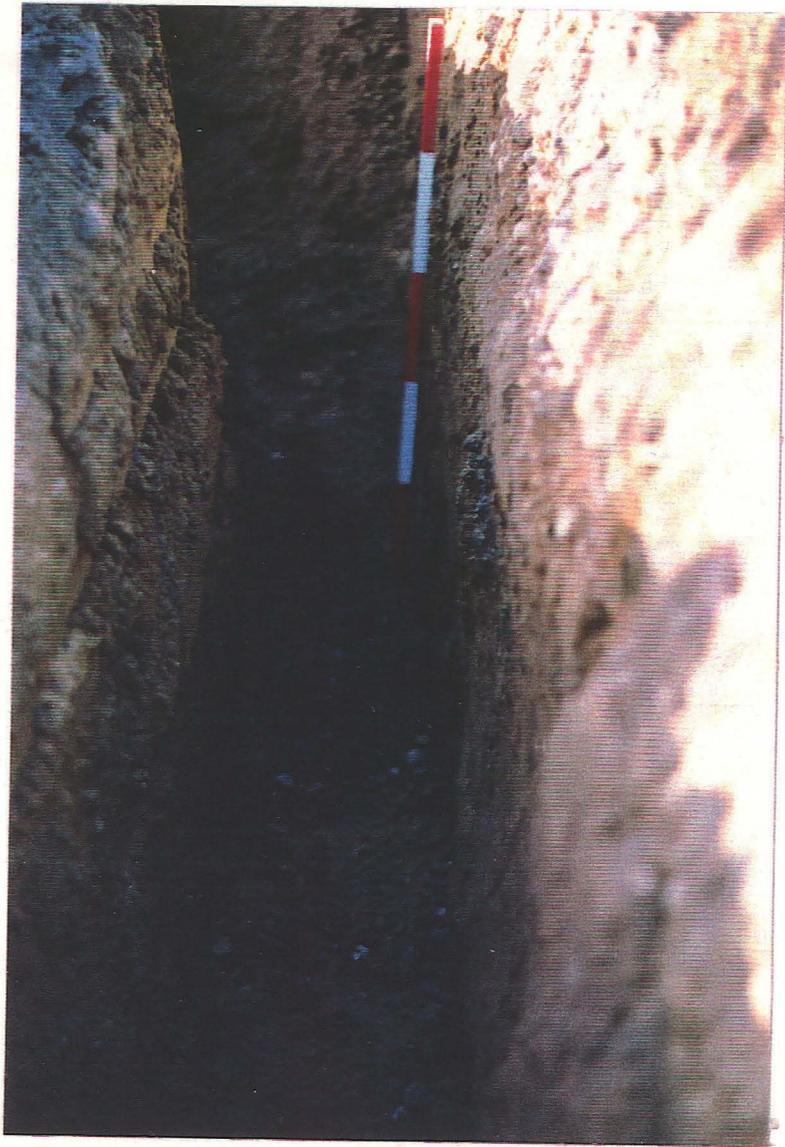


Plate 2. Peat in Trench - Car Dyke/Littleworth Drove

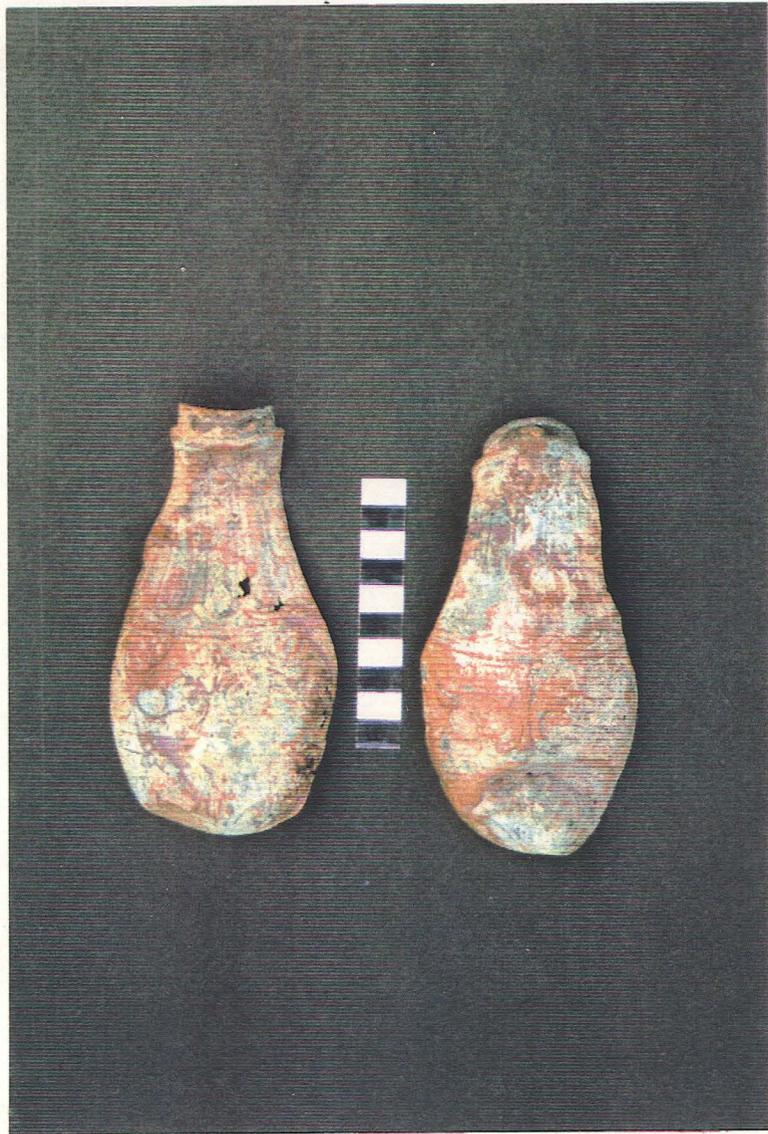


Plate 3. Powder Horn