Aspects of the Romano-British landscape around holme on Spalding moor, east Yorkshire

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by

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ABSTRACT OF THESIS

Aspects of the Romano-British landscape around Holme on Spalding Moor, East Yorkshire

An examination was undertaken of the nature and extent of Romano-British settlement and industry in the context of the landscape around Holme on Spalding Moor. An environmental reconstruction of the study area was made, showing it to be marginal, low lying and prone to wetness. The most suitable land for exploitation were the ridges of Aeolian sands.

Systematic field survey over an 8 x 8 km square, together with cropmark evidence showed that site distribution was closely related to soil type, watercourses and other environmental constraints. A total of 106 Romano-British kiln and settlement sites, 49 sites with iron working or manufacture and several with evidence for glass working were discovered from fieldwalking, examination of museum collections and archives and excavations.

Worked flints and stone axes showed that there had been activity on the sand ridges near to watercourses since the Neolithic. The data suggests that settlement was intensified during the later Iron Age with iron working and manufacture being undertaken especially near the dendritic creek system in which the Hasholme Iron Age log boat sank. The Romano-British pottery industry seems to have built up around the same creek system, which provided a means of distribution to Shiptonthorpe, Brough and other Romano-British settlements further afield.

Fabric and form analysis of local wares when compared with pottery of known date showed that production began in the later 2nd century A.D., reaching a peak in the mid fourth. Clay was plentiful and managed woodland may have provided fuel for furnaced based industries.

Settlement types showed little change from the late Iron Age, but followed developments paralleled elsewhere, with some degree of Romanisation. Marine flooding did not cause the decline of industry and settlement in the area as has been previously suggested. It is possible that these settlements formed the basis of the hamlets within the parish of Holme on Spalding Moor, although continuity has yet to be proved.

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CHAPTER 1.

INTRODUCTION

1.1. Background.

"When we sees owt we knows nowt aboot, we just say its Roman and throws it intiv dreean ageean."

This reply was given by an old drainer to the Reverend W. Smith, who was investigating a supposed Roman well at Throlam, Holme on Spalding Moor. (Smith W., 1923). His answer not only highlights the frequent attribution of artefacts found during agricultural work, to the Roman period, but also implies that such finds were common. In 1853 the Reverend R. Whytehead gave a number of Roman 'urns' to the Museum of the Yorkshire Philosophical Society, which had been found in Holme on Spalding Moor. (Y.P.S.A.R. 1853). Other early chance finds of pottery were made at Tollingham in 1873 (Clark M., 1935) and Bursea Grange 1884/6 (K.I.N.C.M. 1182, 1983), the latter being part of the Mortimer Collection. (Also see Hicks and Wilson, 1975). A Roman lead coffin was found at Tollingham together with pottery in 1899 (Yorkshire Weekly Post, 14th January, 1899), but was stolen from outside the vicarage, where it had been used as an ornamental trough! (Pers.Comm. A. Dowson).

Kiln sites were excavated at Throlam by Sheppard and Corder in 1930 (Corder, 1930; 1931) and at Hasholme Hall by the East Riding Archaeological Society in 1970 and 1971. (Hicks and Wilson, 1975). Apart from this, Archaeological work in the Holme on Spalding Moor district was sporadic although some chance finds have been made during cultivation and drainage, some of which were followed up by local enthusiasts, (see Appendix 8.1.).

In 1980, at the suggestion of Mr. Peter Armstrong of the Humberside Archaeological Unit, it was decided that members of the field study group of the East Riding Archaeological Society should choose an area of the County to study in depth. The Holme on Spalding

Moor area was chosen by the author due to his long association with the village, his father farming at Hasholme Hall 1957 - 1975; a connection which has made survey work easier to carry out. The writer was also aided by the great enthusiasm and full cooperation of the farmers without which the work would have been impossible. The results of the work up to early 1982 appear elsewhere. (Halkon, 1983).

In 1983 fieldwork was 'formalised' as a basis for this dissertation in order to examine the Romano-British industrial and settlement pattern and its relation to the landscape, more systematically.

In addition to fieldwork, a series of research and rescue excavations have been carried out as part of the larger project, conducted by Durham University Archaeology Department with the East Riding Archaeological Society. (Millett and Halkon, 1984, 1985, 1986). As a complement to fieldwalking and excavation, Mr. J. Pocock of Bradford University has carried out extensive geophysical surveying, especially at Hasholme and Bursea. (Pocock, 1982, 1983). Although the results of the above work have been drawn upon, the scope of this dissertation is limited to the aims outlined in section 1.2 below.

1.2 Aims

In order to better understand the Romano-British settlement pattern within the landscape, a block of 6,400 ha was selected with its corners at SE 7740, 7732, 8532 and 8540, with the aim of giving a representative sample of soil types; covering both sides of the River Foulness in order to assess its possible influence and allowing comprehensive programme of fieldwalking to be carried out. The major goal of this dissertation is to ascertain the relationship between Romano-British settlement and industry, its distribution and chronology and to examine any factors which may have influenced it, such as soils drainage and environmental change.

1.3 Methods

To build up a general picture of the landscape of the study block, varied resources and techniques have been used in this thesis.

A. Non-Fieldwork

(i) Geological and Soil Maps.

(ii) Historical Documents and Maps relating to drainage both natural and man-made.

(iii) Evidence for environmental change from excavations.

(iv) Aerial photography.

(v) Museum records and collections.

B. Fieldwork

(i) Fieldwalking by line and grid.

(ii) Watching briefs and sample rescue excavations on recent drainage schemes.

1.4 Location and Topographical Description. (see Figure 1.1).

Holme on Spalding Moor appears in Domesday as 'Holm', an island rising out of the marshland. (Jensen, 1972). This large parish, over 8 sq km in area, consists of Holme itself, the hamlets of Wholsea, Bursea, Arglam, Welhambridge, Throlam, Tollingham and Hasholme. Three of these place names, Wholsea, Bursea and Hasholme, contain elements indicating that the area was wet when these settlements were named; for example: Wholsea, "Wealh's lake"and Bursea, "the Byre by the lake". (Smith A.H., 1937). To the south of the village of Holme is the low lying Walling fen, now agricultural land, drained by frequent ditches and the Market Weighton Canal, but once a large marsh, described by Leland in the sixteenth century as being

"So bigge that fifty-eight villages ly in and butting of it... sixteen miles in cumpace." (Hall, 1892).

Dominating the landscape to the north of the parish is Church

Hill, an inlier of Triassic keuper marl. (Wilson, 1948). Apart from Church Hill, the flatness is interrupted only by undulations in the Aeolian sand which rarely rise above 8 m O.D. (Furness and King, 1978).

The River Foulness, straightened and part canalised in the eighteenth century, but once meandering and bordered by swamps and lakes, forms the western, northern and southern parish bounderies of Holme on Spalding Moor. Its ancient course is betrayed by a wide band of alluvial soils. (see Figure 2.2) (Furness and King, 1978).

Without modern drainage and embankment, much of this low lying area would be flooded and indeed is still under water during wet winters. The present village with its spreading housing estates covers the northern section of the parish. All remaining areas, apart from the disused airfield and the milk factory, are farmland. The former, whose runways are being removed, is also returning to arable.

CHAPTER 2.

BACKGROUND TO THE LANDSCAPE OF THE PROJECT AREA

2.1 The geology of the landscape block. (see Figure 2.1)

2.1.1 Solid.

There is little variation in the solid geology of the landscape block, which is formed by Triassic mudstones and Keuper marl. (Kent, 1980). It does provide the landscape with its major feature, Church Hill, a Triassic inlier of marl capped with gravels of 'Older Drift' (De Boer, 1974). Gypsum occurs in the upper Keuper marl (Wilson,1948) which was exploited during the 19th century around Highgate (SE 828372).

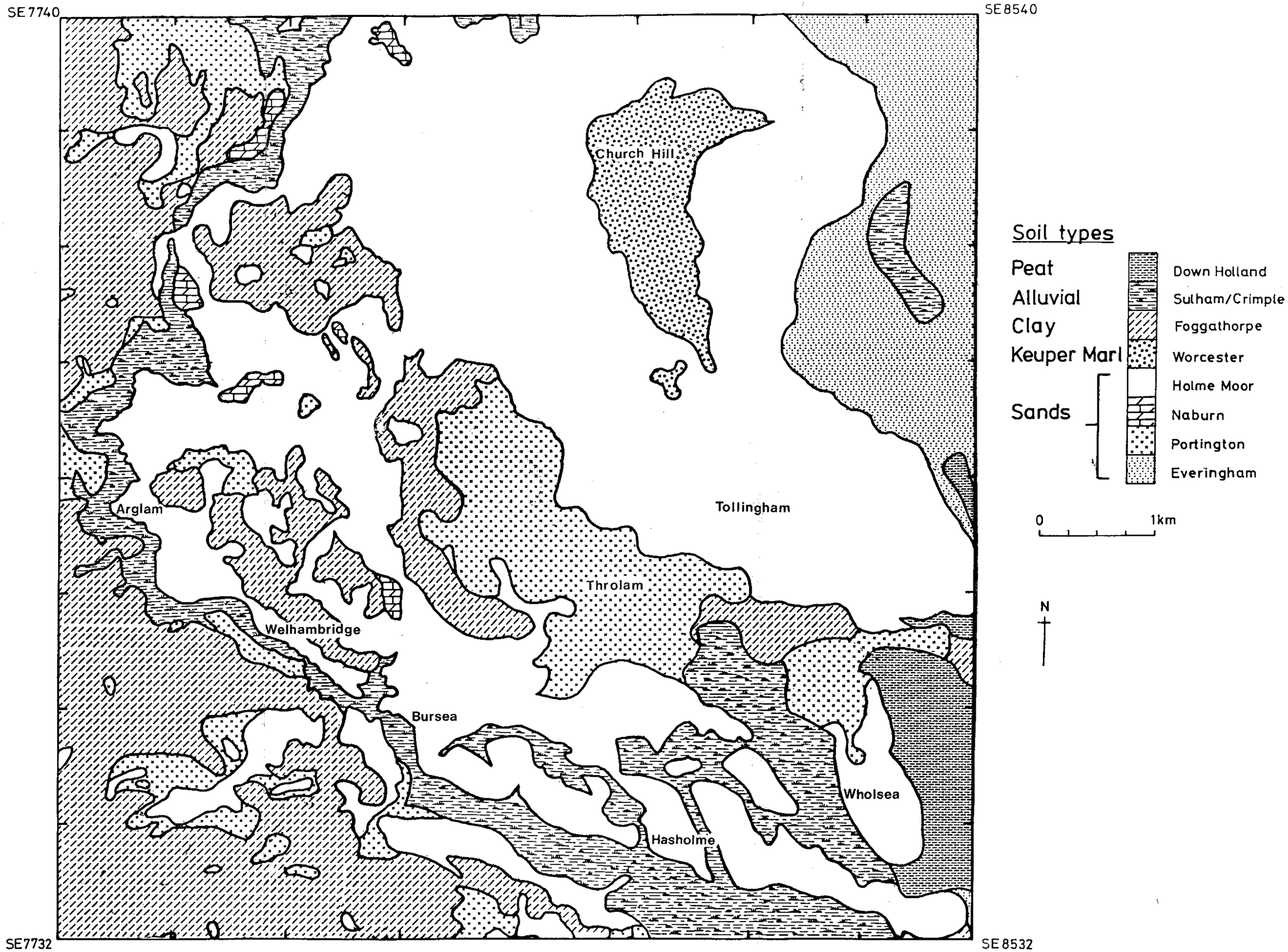
2.1.2 Drift.

It is the Drift rather than the solid geology which has a major bearing on the nature of the landscape around Holme on Spalding Moor. Study of the Selby Sheet (71) of the geological survey shows distinctive, varied and complex deposits in the 'Twenty-five foot Drift' of the Vale of York.

The Devensian glacio-lacustrine clays of Lake Humber, deposited c. 11,000 years ago (Gaunt et al, 1971) underlie the majority of other drift deposits. This almost stoneless blue clay provided the Romano-British potters with their raw material.

Overlying the clays are ridges of Aeolian and Glacio-Fluvial sands laid down between 9950 and 10,700 B.P. (Jones and Gaunt, 1976), undulations in an otherwise flat landscape. The Aeolian sand ridges rise above 8 m O.D. in some places. The remainder of the Drift is made up of Alluvium and Peat, which mainly follow the original course of the River Foulness and form an inlet running from Hasholme Garth (SE 833325) to New Bursea Farm (SE 820350). Recent work by Jordan (in Millett forthcoming) shows these deposits to have been formed by tidal salt marshes and a dendritic creek system (see section 2.3. below).

Figurue 2.2 The soils of the landscape block



The marked difference in the drainage qualities of the drift deposits is important in the consideration of areas most likely to be suitable for settlement. A more detailed insight into the landscape is provided by study of the soil types and discussed in section 2.2 below.

2.2 The soils of the landscape block. (see Figure 2.2).

Published soil maps only exist for the western third of the landscape block, however, through the generosity of Dr. R. Furness and Mr. S. King of the Soil Survey of England, unpublished material for the remainder of the landscape block has been made available, for the most part consisting of detailed surveys carried out in the late 1940's and 1950's by W.R. Heathcote. For the purposes of this dissertation, Heathcote's mapping has been generalised into basic soil types, whose properties are described in Table 2.1. There is a strong link between soil type and topography and in the absence of detailed contour maps the generalised soil map, Figure 2.2, provides a picture of the landscape. Ridges of Aeolian sand in the Naburn and Holme Moor soil series rise above the plain of the Foggathorpe clays and stretches of low lying 'carr' land whose soil is comprised of silty riverine alluvium and peat in the Sulham/Crimple complex.

The soil map Figure 2.2 shows the route of the River Foulness past and present and also the inlet described in section 2.1 in more detail, as well as a dendritic creek system.

As well as giving clues about past topography, study of the soils within the landscape block provides clues as to the suitability of certain areas for settlement and agriculture. Although further work is necessary to determine the exact nature of soil conditions around Holme in antiquity, it is possible to make a reconstruction based on modern soil data. The nature of the soils is summarised in Tables 2.1, 2.2 and 2.3.

Table 2.1. The Soil Types of the Landscape Block.

Deposit	Lithology	Soil Series	Soil Group	Wetness Class (see Table 2.2)	Land Capability (see Table 2.3)	Relief	% of Landscape Block (i)	Area (ha)
Sands	Fine sandy Aeolian	Holme Moor Common	Podzolic	III	3 e s	Slopes & crests of recent or fossil dunes slopes c.3°	45·7	2924·8
(Pleistocene and later)	"	Naburn	Brown soil	I	2 e s	Slopes & crests of hummocks 1 - 3°	0·5	32·0
"	"	Everingham	Ground water gley	IV	3 e s	Depressions in Aeolian sand plain Slope 0 - 1°	6·0	384
"	Sandy loam glacio-fluvial	Portington	Surface water gley	III	3 w s	Flat or slightly undulating	10·0	640.
Glacio-lacustrine (Devensian)	Clay	Foggathorpe	-	IV - V	3 - 4 w s	Clay plain 5 to 8 m slope 0 - 1°	22·8	1459·2
Keuper Marl (Triassic)	Reddish Marl	Worcester	-	IV - V	3 s w	Moderate to steep slopes	2·8	179·2
Alluvium (Pleistocene and later)	Peat	Down Holland	-	IV - V	3 w s	Flat relief	2·0	128
"	Peat over clayey/loamy Alluvium	Sulham/ crimple	-	V	5 w g	River flood plains little relief	9·8	672·2

(i) Percentage worked out by systematic points sampling. (Dalton R., et al, 1980, 13 - 25)

N.B. Soils under ·5% of the landscape block have been omitted.

Table 2.2. Soil Wetness Class. (Furness and King, 1978).

Class	Average duration per annum without drainage					
I		30	days	within	70 cm	depth
II	30 -	90	"	"	" "	"
III	90 -	180	"	"	" "	"
IV	180 -	335	"	"	" "	"
V		180	"	"	40 "	"
	or	335	"	"	70 "	"
VI		335	"	"	40 "	"

Table 2.3. Land Capability Class. (Furness and King, 1978).

(There is no class 1 land in the area)

Class 2 - Minor limitations reducing choice of crops and interference with cultivation.

" 3 - Land with moderate limitations that restrict choice of crops and/or demand careful management.

" 4 - Land with moderately severe limitations that restrict choice of crops and/or demand very careful management.

" 5 - Land with severe limitations that restrict its use to pasture and forestry.

Each class if further subdivided according to its limitations:

w = wetness
s = soil limitations
g = gradient and soil pattern limitations
e = liability to erosion

From these it can be seen that all soil types are subject to limitations, some of these severe, with wetness being the most common. Without modern drainage, cultivation and settlement on the Sulham/Crimple and Down Holland series would be extremely difficult. These areas were used solely for seasonal grazing until recent decades. The Foggathorpe series clays which present some problems even today, would also have been unmanageable. This leaves the Aeolian sands of the Holme Moor and Naburn series, with their superior drainage qualities as being the most favourable, followed by those in the Portington group.

From the soil evidence it appears that the difference between today's well managed agricultural landscape and that of the past is superficial, being largely the product of agricultural advances in the modern era.

The picture that emerges from the soil evidence is one of ridges of relatively dry Aeolian sands standing out in a generally wet and seasonally flooded landscape complementing the place name evidence referred to in section 1.1 above. In such a marginal area, even minor changes in climate and/or sea level could have made significant differences to settlement potential. (Millett and Halkon forthcomming.

2.3 Drainage and water courses within the landscape block.

2.3.1 Introduction.

Section 2.2 shows that much of the area would have been seriously affected by wetness without modern drainage. The main natural drainage channel is formed by the River Foulness. In such a low lying and varied landscape, this complex drainage system has frequently shifted its course. Ramm (1978, 110) states that,

"The course of the river has to some extent been lost as a result of the construction of the Market Weighton Canal."

He also suggests that some canalisation took place during the Roman period and that the pottery kilns were sited near the River Foulness. Swan also writes that,

> "Few recorded Romano-British kilns appear to be sited farther than about 400 m from a spring or other water source....those lying close to a river or large stream would have had the added advantage of ready access to water transport." (Swan, 1984, 6).

In order to evaluate these explanations of Romano-British site distribution and to attempt a reconstruction of the possible drainage pattern within the Holme landscape block at this period, the next section aims to examine alterations to the drainage pattern through documentary, aerial photographic and environmental evidence.

2.3.2 Documentary evidence for drainage in the landscape block.

The River Foulness has its source in the foothills of the Yorkshire Wolds at Londesborough (SE 877459) and near Market Weighton (SE 895435). It forms the northern, western and southern parish boundaries of Holme on Spalding Moor (see Figure 1.1). The Market Weighton Canal was constructed in 1772 and joins the river at Wholsea (SE 847316) and thereafter drains into the River Humber at Weighton Lock, Faxfleet (SE 874267). Subsequent alterations to its course have been carried out by the Market Weighton Drainage Board, the Yorkshire Water Authority and local farmers. Meanders and bends have been straightened, sections embanked and extensive areas of the river's flood plain drained and embanked so that now little of the ancient carr land survives.

A comparison of the latest Ordnance Survey sheets with earlier editions (O.S. editions 1977, 1908, 1855) shows that many bends have been straightened, some of this activity was carried out during the 1940's. (Pers. Comm. Mr. W. Atkinson, who worked on these schemes for

the Market Weighton Drainage Board).

Before the Market Weighton Canal was constructed in 1772, "Some 20,000 acres were still subject to be overflowed with water for want of proper outfalls into the River Humber." (House of Commons Journal, 25th February, 1772, quoted in Duckham, 1973).

According to late 18th century accounts, the area was still subject to flooding despite canalisation (Sheppard, 1966). The canal did, however, drain a branch of the river running towards Tollingham, which is shown on the 1772 canal survey plan, (Smith, 1772). This particular branch of the River Foulness is important, as Tollingham, one of the major areas of Romano-British activity, is now some distance from the river. A late eighteenth century map of low lying areas of Hasholme shows that the boundary between Hasholme and Wholsea was formed by the route of this old watercourse. (C.R.O. Beverley, D.D.M.W. 7/382). This former branch of the river can also be seen from cropmark evidence which will be discussed later (see Figure 2.3).

An Inquisition of 1664 describes seventeen man made watercourses draining the area between the Rivers Foulness and Humber, (Sheppard, 1966) and maps by Speed and Morden show the River Foulness meeting the Skelfleet near Hasholme, the former reaching the River Humber between Blacktoft and Faxfleet and the latter at Broomfleet, (Metcalfe, B., 1954). The cutting of the Skelfleet has been dated to c. 1425 (Sheppard, op.cit.) and suggests the need for draining the area and providing another outfall into the Humber.

There are numerous mediaeval charters referring to commissions for the inspections of banks, drains and other watercourses, both artificial and natural (Allison, 1979). Without this, much of the very low lying area would be flooded and there is plentiful evidence showing that this was frequent, (Hall, 1892). Several charters provide topographical information concerning the Holme area. A grant of land to

the hospital of St. Giles in Beverley, dating from 1185 to 1215 refers to an area of Holme being:

"Pars est in arida terra et alteram est in marisco." (Clay, 1965). Another charter dated 1230 - 1251 refers to 'Rise-briggker' (Clay 1965). The derivation of this word has been given as a brushwood trackway. (Smith, 1937, 235). During the straightening of a bend in the River Foulness in the 1940's, such a brushwood trackway was discovered. (Pers. Comm. Mr. F. Hawcroft, Sikes House Farm). Such a trackway would presumably be very necessary for crossing the marshy areas. A further charter, granting land to Selby Abbey (1210) includes a reference to drainage:

"In latitudine a terra mea que vocatur Schiraykes per medium le Flet usque ad Fulna ad conductum aquae." (Clay, 1965, 72).

The earliest documentary reference to the River Foulness occurs in a charter of King Edgar dated to A.D. 959 granting lands in Howdenshire and describing their boundaries. Scholars agree that this is genuine and it is worth quoting a large section of it as it mentions several important topographical details relating to landscape and drainage during the later Anglo-Saxon period. Hart (1975) and Metcalfe (1954) have reconstructed the boundaries and identified the places mentioned. The Charter runs as follows:-

"These are the bounds of Howden. From Usan, up Wilbaldes Fleote to the 'Dic'. Along the 'Dic' to Deorwentan right on to Caerholm, along the dyke all round the wood to the Fulanea, to Ealdon Deorwentan back to the Usan."

Hart (1975, 112 - 3) suggests the following interpretations:-

Usan = River Ouse.

Fleote = Fleet is a common name for local drainage dykes or creeks. The proposed route for this is from Asselby to join the Ouse at SE 725260.

Dic = Dyke.

Deorwentan = River Derwent. (SE 700300)

Caerholm = Holme on Spalding Moor? (SE 805385)

Fulanea = Foulness (SE 775345)

The references to 'Wilbaldes Fleote' and the 'Dic' are important as the vocabulary is reasonably interpreted as showing that drainage had been carried out before 959. Caerholm, could very well refer to Holme on Spalding Moor as it may be derived from the Old Norse 'carr' - a marsh or water meadow and Holm - an island or hill, a meaning close to that of the present place name. (Smith, 1937, 235). As yet there is no supporting evidence for the alternative interpretation of 'Caerholm' - a fortress on a hill.

The charter goes on to list the townships of Howdenshire, Knedlington, Barnhill, Cavil, Thorpe, Hive, Eastrington, Belby and Kilpin. When plotted against the geological drift deposits, five out of eight of these townships are located on the sand and gravel deposits which are higher and drier than the surrounding area, some separated by alluvium, forming islands of settlement in tracts of marshland. (Metcalfe, 1954, 9).

At present, a large proportion of the area immediately south of the River Foulness is between 3 m and 1 m below the average level of the River Humber at normal spring tide. Without major embankment, most of this tract of land between the higher ground along the southern stretch of the River Foulness would be inundated.

Assuming that there has been no great change in water levels since the Roman period it is possible that such conditions existed then. (Work undertaken in the summer of 1986 by David Jordan near the Hasholme Boat site, may show some changes).

The only real expansion of settlement in the Middle Ages in the

Wallingfen took place along the new drains. (Sheppard, 1966; Metcalfe, 1954).

Documentary and soil map evidence coalesce in showing the superficial nature of environmental change; even with modern drainage and embankment, various areas in the southern part of the landscape block are flooded at certain times in the year.

In antiquity, the landscape consisted of a series of sandy ridges rising out of the marshland, and it was these that were the most suitable for agriculture and settlement. Although abundant water made conditions in some places difficult, it did provide a communications system and a resource for the Roman industries.

2.3.3 River systems and drainage within the landscape block from aerial photography and soil map evidence.

This section attempts to reconstruct the pre-Market Weighton canal river system within the landscape block using the following evidence:-

a) Humberside County Planning Department aerial photographs held at Beverley.

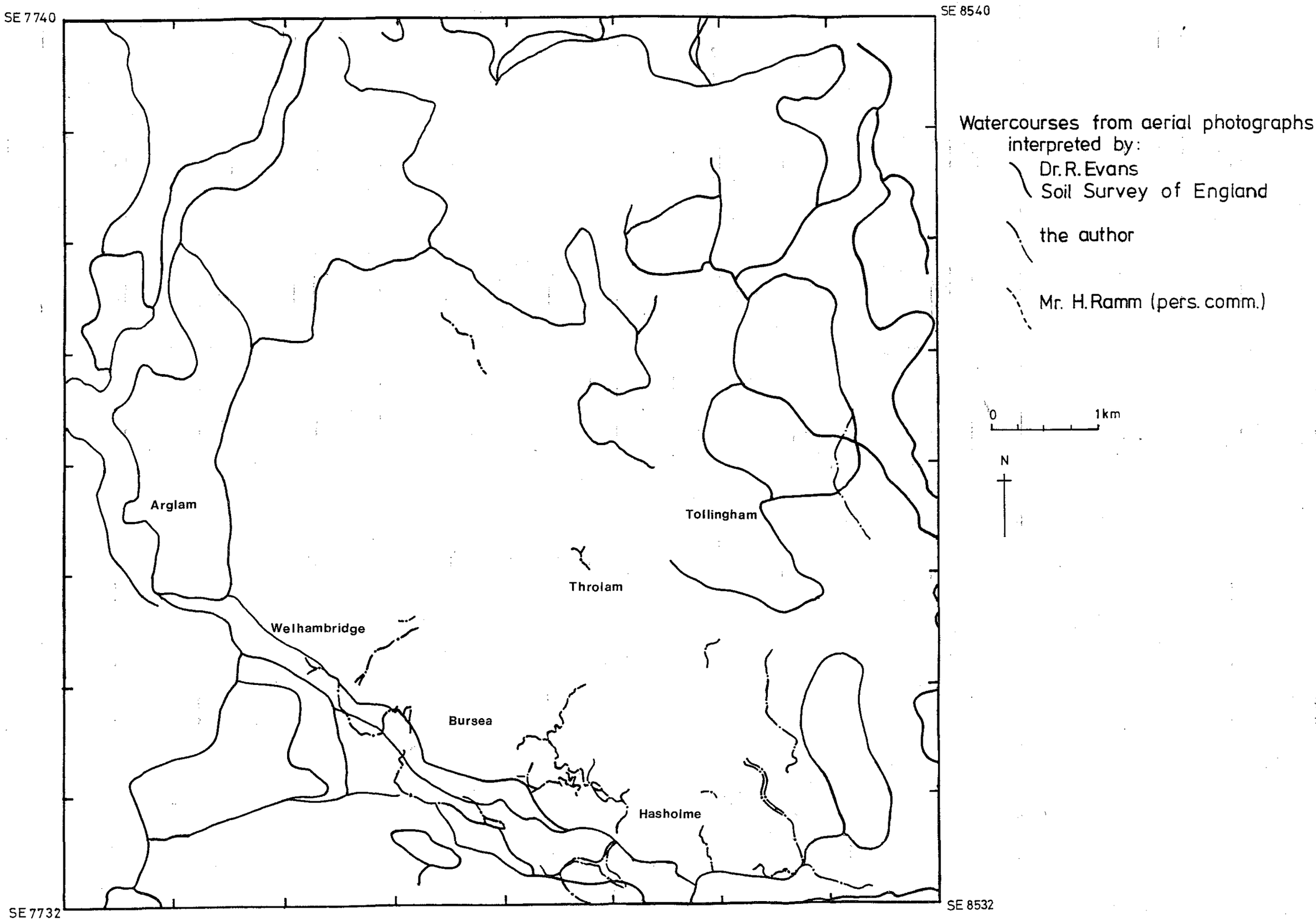
b) National Monument Record (henceforth N.M.R.) aerial photographs.

c) Air photographic plots of river systems held by the Soil Survey of England office, Bishop Burton.

d) Plots of watercourses by Mr. H. Ramm of the Royal Commission on Historic Monuments, York.

Figure 2.3 shows the watercourses shown by the above sources. As yet only the creek system which contained the Hasholme Boat has been dated. Precise dating will only be achieved by a programme of research excavation designed to tackle this problem. The large number of watercourses shown in Figure 2.3 meander across the low lying areas, most of which lie in a broad band of alluvial soils in the Sulham/Crimple

Figure 2.3 The watercourses within the landscape block



soil series (see Figure 2.2). The presence of numerous small streams, many of which no longer exist as running watercourses, fits in well with place name evidence as Runner End (Runner - a small stream) at SE 805384 and Water End, SE 789383, are both near such watercourses.

The discovery of the later Iron Age logboat in a watercourse at Hasholme Hall (SE 821327) demonstrates that it was open at this period. Clustering of Romano-British kiln and settlement sites around the same feature at Bursea (SE 813335) may also demonstrate that it was navigable at a later period. (see Figure 3.5). Jordan (in Millett forthcoming) suggests that this watercourse was part of a dendritic creek system running into the Humber Estuary. The bank of this watercourse was visible above ground level until 1975 in the carr at Hasholme Hall (SE 821328), but has now been ploughed out. Its route may, however, be followed as a depression and soil mark running from SE 807336 to 811333 and some bank is still upstanding on East Bursea Farm at SE 810335 and has been preserved as a field boundary. The south-eastern section of the same watercourse can also be seen on aerial photographs running as a clear meander at Yokefleet Grange (SE 819324). It runs on towards Hasholme Hall and then on to Bursea (805335) and appears on the soil map (see Figure 2.2) as a finger of alluvium, broadening out just south of Bursea House. The meaning given for Bursea as the 'Byre by the lake' may indicate that there was open water here in the early mediaeval period. (Smith, 1937, 235). The field in which the watercourse ended was still known as 'the Bog' in the 18th century and despite modern drainage, water still collects in the depression formed by the stream channel. Aerial photographs also show an inlet at Bursea (SE 812331) which corresponds with soil maps. This inlet showed very clearly as a cropmark in the summer of 1986. Other watercourses linked to the ancient course of the River Foulness show

up as crop and soil marks south of Welnambridge at SE 795335, in an area still known as 'The Sikes' (Sikes - small watercourse). The stream bed running towards Tollingham was described in section 2.3.2 and appears to have been drained by the Market Weighton Canal. This too can be followed on the ground and on aerial pnotographs. The discovery of a mediaeval bridge at Stray Farm, Holme on Spalding Moor (SE 845397) in the summer of 1986, showed that this stream had been crossed during the 13th or 14th century and that there was also an earlier, broader river bed with a structured peat fill. There is a possibility that this channel was open water during the Romano-British period, especially if the proximity of sites around it in the Throlam and Tollingham area is taken into account. (see Figure 3.6). The aerial photographs showing the course of this stream at Tollingham (SE 842355) also show a number of Iron Age and Romano-British enclosures near to it (N.M.R. SE 8435/13 284). This relationship has also been noted by Evans (1985, 95).

2.3.4 The landscape block and coastal change.

Sheppard (1966) has suggested that the Wallingfen was once a large saltmarsh, extending from near the junction of the Rivers Derwent and Ouse eastwards to Brough, some 6 km wide. Soil and geological maps clearly show an inlet of alluvium and estuarine clay in this area (see Figure 1.1). This is consistent with the view that the Roman town of Brough (SE 9427) and the extensive villa complex at Brantingham (SE 932287) are near its eastern shore. (Pers. Comm. P. Armstrong). The changing 'shorelines' at Brough can be seen in field boundaries. The Roman sites of F axfleet A and B (SE 87472573) (Kingston upon Hull Museums Bulletin No. 1, 1968), lie at the southwestern shore of this inlet. Site A produced material largely from the Iron Age and early Roman period and is below the present waterline; site B, which produced later Roman material, including Holme on Spalding Moor greyware pottery is at a higher level.

(Bartlett, 1971; Pers. Comm. Mr. J. Leonard). Mr. Leonard also reported finding Romano-British material in a possible watercourse running NNW towards Hasholme which follows the reconstruction given by Ramm. (1978, 111).

There is a paucity of evidence for Roman settlement between Faxfleet, Holme and Brough, although some pottery has been found at Gilberdyke and Blacktoft (Clark, M.K., 1935; Loughlin and Miller, 1979). Wasters listed as being found at Newport are in fact from Bursea Grange, Holme on Spalding Moor. (K.I.N.C.M., 1182, 1983). If this negative evidence is a true reflection of the settlement pattern, the Roman centres at Brough and Faxfleet lie on the shoreline of the inlet, and Holme, with its ridges of Holme Moor Aeolian sand provides the first dry land north of the inlet and the creek system running through it gives access to the Wold foothills and the rest of the Humber drainage basin. Evidence to support the idea of a changing coastline can be found elsewhere, in Lincolnshire and Norfolk, which is closely linked with marine transgression. (Simmons, 1977, 1978).

2.3.5 The Holme landscape block and marine transgression.

Lamb (1981, 57) writes that during the later Roman period,

"A great estuary or Danish type Fjord reaching up to Norwich was caused by sea flooding in the period A.D. 300 - 400."

Given the low lying nature of the Humber basin and the southern portion of the Holme landscape block, such a marine inundation has been given as a reason for the end of the Romano-British settlement and industry in this area.

Ramm (1978, 124), Radley (1970, 1 - 16) and Eagles (1979, 190 - 3) all argue that marine flooding was responsible for the decline of Roman York and settlements in the Humber basin such as Brough and Faxfleet.

The study of the deposits around and beneath the Hasholme Boat

show that there were alternating periods of marine transgression and regression, including a rapid transgression of a limited nature about 175 years before the sinking of the boat. (Jordan in Millett forthcoming). There is now some doubt as to whether such a transgression occurred during the later Roman period.

Recent excavations undertaken by the York Archaeological Trust in Rougier Street (Pearson, 1985) have failed to find evidence of cataclysmic flooding at this time. Deposits once thought to have been the result of flooding have been shown to have been misinterpreted. Hall (1978, 32) also stresses that no such deposits had been found on any excavation in the city. Claims for such flooding further east are also suspect.

At Brough, Wacher (1958) postulated that a major cause of decline was the accumulation of about 1 m of silt over shingle created by marine flooding. A further site of the Roman period at North Ferriby (SE 980250) was reported by the original excavator as being covered with around 0·25 m of marine clay (Wright, 1947). At South Ferriby sluice (SE 976211), where Romano-British occupation occurred on slightly raised banks beside the River Ancholme, the site was overlain by nearly 2 m of light brown clay, which was identified as representing further marine transgression, (Smith, A.G., 1958). At Faxfleet (SE 875257) however, the layer of deposit over the Romano-British site there has been identified as being up to 0·5 m of modern Humber warp, (Bartlett 1968, 5; Leonard, J., pers. comm.) and not a fourth century flood deposit. Warping, by allowing high tides to flood through sluice gates and deposit their sediment, was common in the 19th century (Heathcote, 1951). A systematic programme of sampling and soil analysis is therefore needed to differentiate between 'natural' and 'artificial' marine deposits.

As yet there is no evidence for any great marine inundation

ending the Romano-British pottery industry of Holme on Spalding Moor around A.D. 370 as Eagles (1979, 197) suggests. On the contrary Evans has argued (1985, 305) using the later Roman pottery discovered during the author's fieldwork (Halkon, 1983), that the Holme kilns continued after this time.

It is difficult in an area of such localised topographical variation to make a generalised statement about the effect of marine flooding in the Humber Estuary and its accompanying river systems, although it is likely, given the low lying and marginal nature of the Holme area, that minor changes in climate and/or sea level could have made significant differences to settlement potential. The chronology of sites in the Holme area will be discussed in greater depth in section 4.9 below.

2.4 Summary of the background to the Holme landscape.

Although much work still needs to be done, especially in sampling and dating peat and other environmental deposits, it is possible drawing from geological, pedological, documentary and aerial photographic sources to reconstruct a general impression of the landscape of the study area. All the evidence shows that wetness was the major environmental constraint and would still be so without modern drainage and land management. The ridges of Aeolian sand in the Naburn and Holme Moor soil series have provided the most suitable land for exploitation since the Neolithic (see Figure 3.2) although the extent of this prehistoric phase has not yet been fully explored. Devensian Glacio-lacustrine clay provided a raw material suitable for potting and the river system a means of communication to the Wold's foothills, the Humber drainage basin and beyond. Analysis of the pollen and other environmental evidence around the Hasholme boat (Turner in Millett forthcoming) show the area near the creek system to

have been wooded with oak - alder woodland with some hazel. It is not yet certain what the extent of clearance was in the prehistoric, but it is hoped that further environmental analysis will provide more information on this matter. Aerial photography does provide some information for the Iron Age period (see section 6).

The next chapter aims to show how this landscape was exploited during the Romano-British period by the examination of the evidence from fieldwalking.

CHAPTER 3.

FIELDWALKING

3.1 Aims and methods of sampling.

Up to 1982 fieldwalking had been centred mainly around known kiln site areas at Hasholme (SE 820330) and Bursea (SE 815337) (Halkon, 1983). In 1983 the research area was expanded to an 8x8 km block (see section 1.2), with the aim of establishing the nature and extent of Romano-British settlement and industry and relate this to environmental factors. The microtopography, soils and drainage of the study area are so varied that any general conclusion concerning the relationship between soils, drainage and sites based on any low intensity random sampling strategy seemed inappropriate. In chapter 2, the likelihood that the environmental constraints affecting modern settlement patterns are very similar to those affecting settlement in the Roman period was discussed, therefore a systematic method of sampling based on the present tenurial system and ensuring an even coverage of the area was adopted.

Using sheets SE 83 (1977) and SE 73 (1981), at a scale of 1 : 25,000, the method adopted was to walk the available land on one farm within each 1 km ordnance survey grid square. Where a farm straddled more than one grid square, several areas of the same farm were walked in order to give even coverage in each grid square. A list of selected farms in each km square is shown in Table 3.1. Permission for fieldwalking to take place was granted on 55 farms. This goal was achieved largely due to the generosity, interest and cooperation of the landowners. Permission was refused only on the airfield and therefore previous work had to be relied on, (Hull Museums site index; Corder and Sheppard, 1930; Loughlin and Miller, 1979, 42 - 43). Although it is unlikely that work in this area will alter the conclusions reached here, it is desirable that a detailed

Table 3.1. A table showing the farms walked in each kilometre square.

SE 40	77	78	79	80	81	82	83	84	85
39	Seaton Old Hall	Seaton New Hall	Dial House	Spen House	Park Farm	Bar Farm	Bar Farm	Stray Farm	
38	Lincoln Flats	Leylandii Marl Pits Farm	Woodlands Farm	Runner End (The Home-lands)	Castle Farm	Beacon Farm	Woodlands Farm	Woodlands Farm	
37	Ragdale Hills (Holme House)	Home House Monk Farm	Oak Farm	Sober Hill Farm	Rose Tree Farm	Highgate	High Garth	Duck Nest Farm	
36	Arglam Grange	Common Farm	Sand Hill Farm	Prospect House	Forest Farm	Skiff Farm Ladies Parlour	Tollingham	Landing Farm	
35	Arglam Grange	Arglam Farm	Sand Hill Farm	Lodge Farm	Bramley Farm	Throlam Farm	Hasholme Carr Farm	Tollingham	
34	Johnson's Farm	Welhambridge West Warham Farm	Welhambridge Farm	Bramley Farm	Bursea Grange	Bursea Grange	Hasholme Hall	Wholsea	
33	Fir Tree Farm	Chestnut Farm	Sikes Farm	East Bursea Farm	Bursea House	Hasholme Hall	Hasholme Garth	Wholsea	
32		Fir Tree Farm		Bloomhill Farm	Yokefleet Grange	Hasholme Grange	Sand Hill Farm	Sand Hill Farm	

survey is undertaken as the airfield tarmac has been removed and the area returned to arable. Some farmers indicated that they had found material such as pottery and slag and the position of these discoveries was noted by the author.

3.2 Methods of fieldwalking.

Work was carried out during the winters and springs of 1980 - 6, when the land was available for fieldwalking. Hall (1985, 27) notes the importance of conditions of agriculture in artefact recovery. Where possible, fields were walked some time after ploughing, when clods were weathered out and experience showed that much could still be collected in land sown with winter cereals.

The project relied mainly on experienced volunteers from the Field study group of the East Riding Archaeological society, enthusiastic but inexperienced members of the writer's evening classes and sixth form Archaeology students. Although Haselgrove (1985, 23) has discussed the effect of the difference in ability or performance on data collection, Shennan (1985, 43) has argued that the 'walker effect' is fairly minor. About 40% of the fieldwalking was carried out by the writer alone.

As opportunities for fieldwalking were limited to weekends and school holidays, it was only possible to walk most fields once. The fields selected were systematically line walked (Fasham, et al, 1980). Line spacing varied according to the number of participants, but where possible was between 10 and 20 m. Pottery, slag and kiln debris were collected and their position plotted. Concentrations of material assumed to represent sites where activity had been focused were then grid walked (Fasham, et al, 1980; Steane and Dix, 1978) in 5 or 10 m squares laid out by triangulation from a known point on the ordnance survey maps and marked out with canes. Finds were collected in bags allocated for each square. This method was also used in con-

junction with geophysical surveying (Pocock, 1982; Halkon, 1983, 19 and 21).

Information was recorded on Humberside Archaeology Unit Field Record Sheets (see Appendix 8. 7) and the area surveyed marked on the appropriate ordnance survey map. The extent of fieldwalking is shown on Figure 3.1. Both finds and records are being deposited in Kingston upon Hull City Museums.

3.3 The results of fieldwalking.

3.3.1 Introduction.

The details concerning each site can be found in Appendix 8.1. The assumption that 'clusters of artefacts continue to be converted into sites' has been discussed by Haselgrove (1985, 9). It has also been shown by Shennan (1985, 83) that some scatters of Romano-British pottery may be the result of manuring. In the Holme on Spalding Moor survey however, the presence of material with pottery such as burnt stone, kiln furniture and slag, together with aerial photographic evidence (see Chapter 6) would suggest that tne majority of these sites are 'real' although excavation would of course be the final test.

During the programme of fieldwalking, 22 'new' kiln sites and 54 settlement sites were discovered, bringing the total of sites with Romano-British pottery within the landscape block to 106. As well as sites producing Romano-British pottery and iron slag, there were 27 with evidence of iron working alone. These sites are discussed in more detail in section 5.1 of this dissertation.

3.3.2 Sites and soils.

Regression and correlation analysis showed that the area of each soil type walked was representative of the total area of each soil type within the landscape block. ($r = 0{\cdot}95896$).

Table 3.2. The amount of each soil type walked.

Soil type (for full description see Table 2.2)	Total area		Total area of each soil type walked	
	%	ha	%	ha
Holme Moor	45·7	2924·8	53·98	642·4
Naburn	0·5	32·0	·88	10·5
Everingham	6·0	384·0	2·21	26·3
Portington	10·0	640·0	8·0	95·2
Foggathorpe	22·8	1459·2	13·27	157·9
Worcester	2·8	179·2	3·53	42·0
Down Holland	2·0	128·0	3·98	47·4
Sulham/Crimple	9·8	672·2	12·39	147·4

Only 2 km squares in the southwestern extremities of the landscape block were not walked (see Table 3.1). In both these squares the clay soil of the Foggathorpe series was predominant (see section 2.2).

Figure 3.3 shows the distribuiton of sites on the different soils of the landscape block; Table 3.3 summarises this information.

Table 3.3. Table showing the relationship between kiln and sites with R.B. Sherds (presumed settlement sites) and soils.

Soil type	Sites with R.B.Sherds	Kiln Sites	Total	No. of sites per ha walked [1]
Holme Moor	57	24	81	0·13
Naburn	2	2	4	0·38
Everingham	0	0	0	0
Portington	4	6	10	0·11
Foggatnorpe	3	2	7	0·04
Worcester	4	0	4	0·009
Down Holland	0	0	0	0
Sulham/Crimple	0	0	0	0

1 - $\frac{\text{Total number of sites on soil type}}{\text{area of soil type walked (ha)}}$

Figure 3.1 The area walked within the landscape block

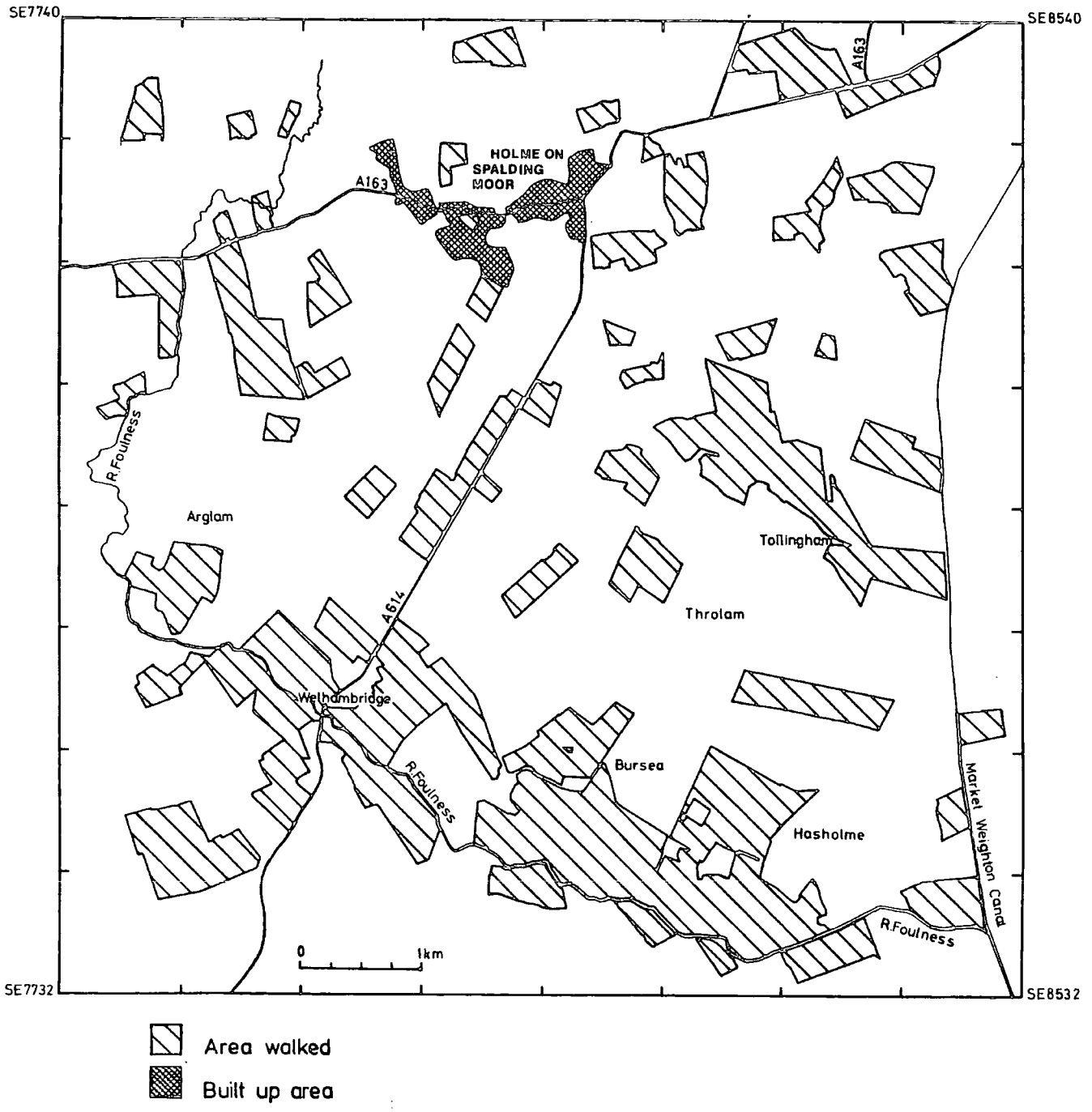
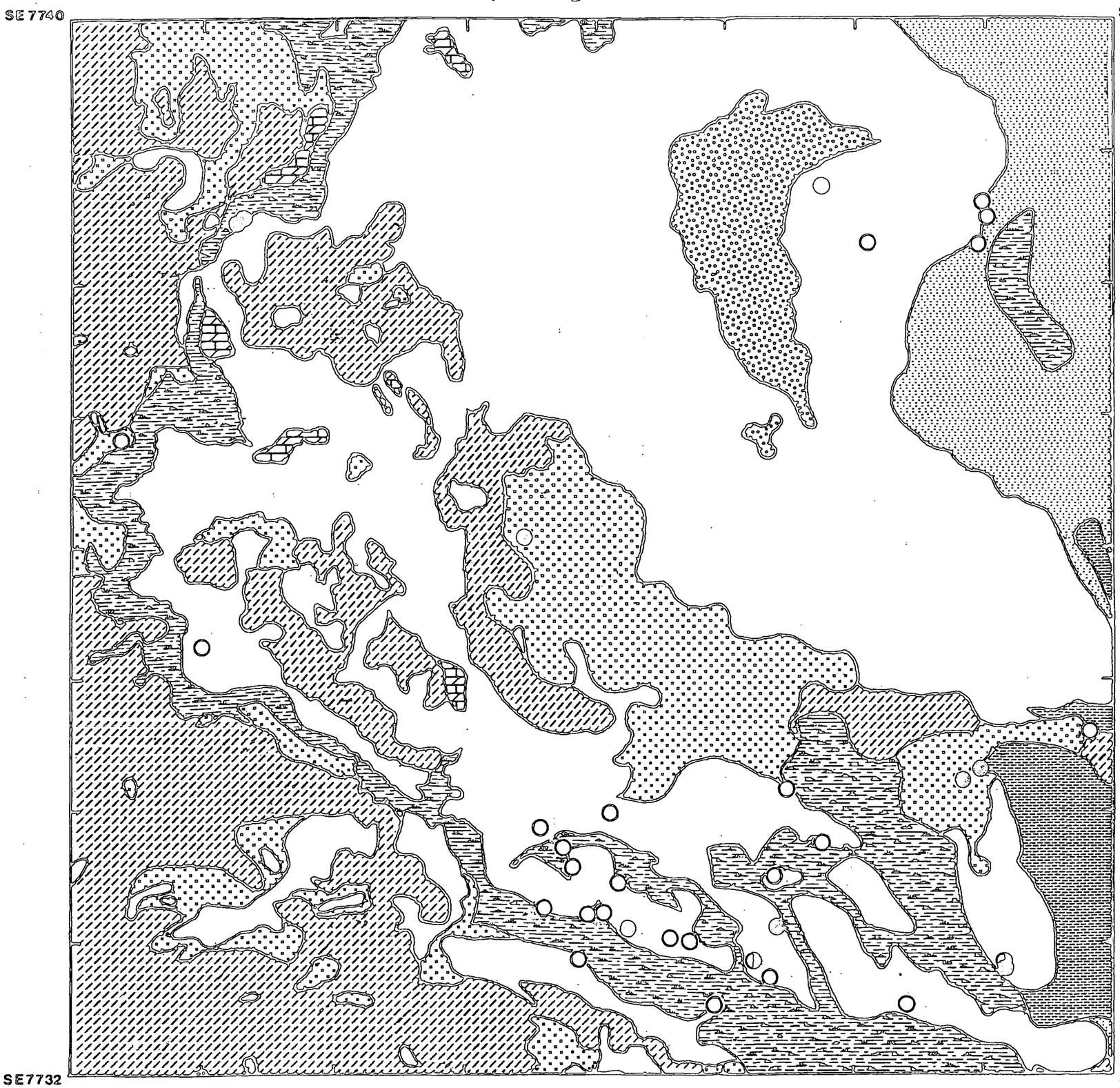


Figure 3.2 Distribution of Prehistoric sites on the soils of the Holme on Spalding Moor area.



○ Neolithic polished stone or flint axes
o Neolithic and Mesolithic worked flints
◐ Flints and axes

Soil Types

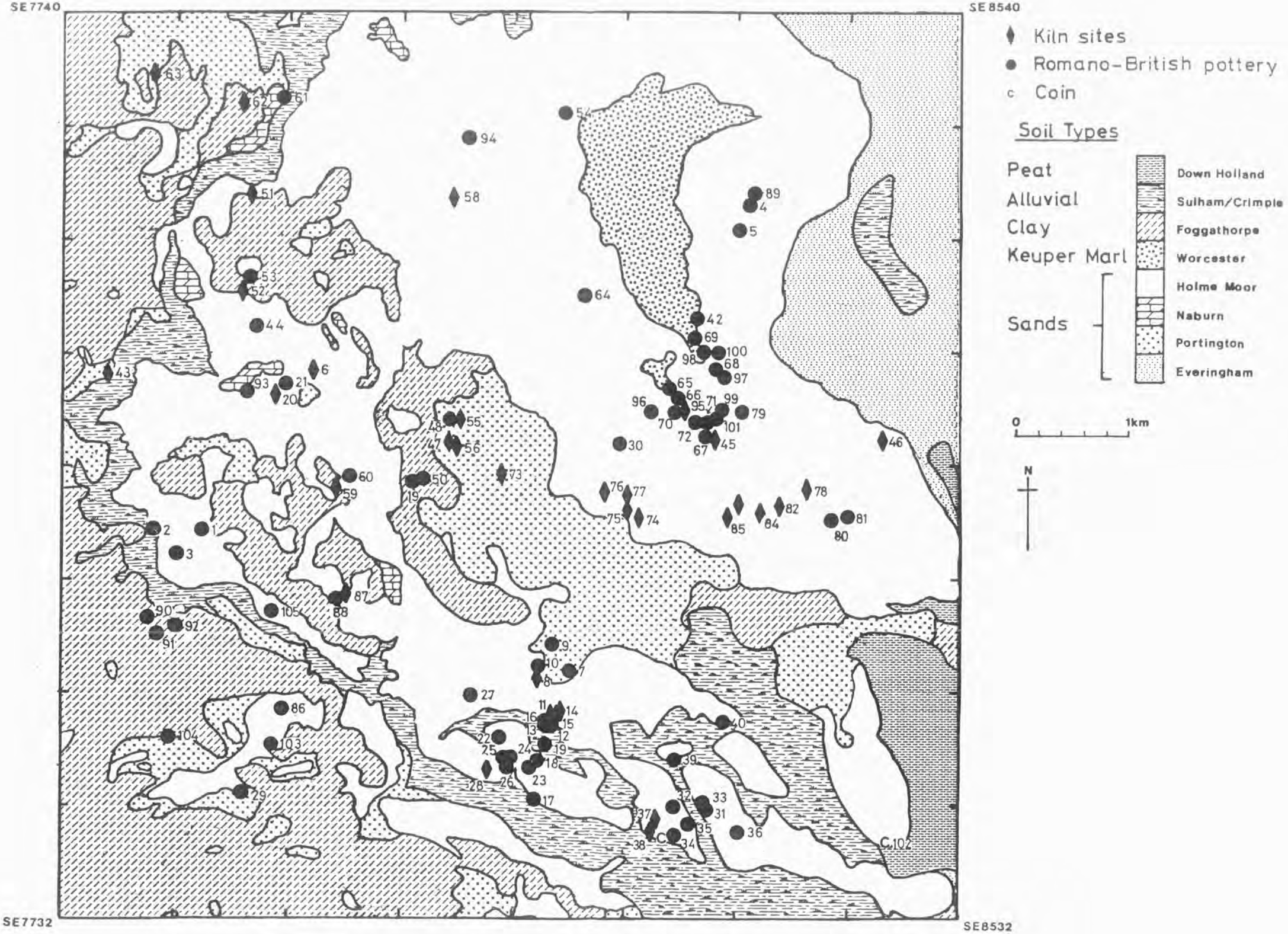
Peat
Alluvial Clay
Keuper Marl
Sands

Down Holland
Sulham/Crimple
Foggathorpe
Wercester
Holme Moor
Naburn
Portington
Evoringham

0 1km

N

Figure 3.3 Distribution of Romano-British kiln and settlement sites on the soils of the Holme upon Spalding Moor area



Eighty-nine per cent of the total number of sites lie on the sandy soils of the Naburn, Holme Moor and Portington soil series which form hillocks, ridges and low rises. Preference is shown for the Naburn sand which is highest and best drained of the sands. There is no evidence from fieldwalking for settlement on the low lying and waterlogged Everingham sands (see Table 2.2).

The remaining sites were on the waterlogged clays of the Foggathorpe or Worcester soil series (see Table 2.2). Although they are waterlogged, the soils of the Worcester series form the highest land in the landscape block and of the seven sites on the Foggathorpe clays, four were on rises in the fields which were likely to be better drained. There was no evidence for settlement on the alluvium of the Sulham/Crimple soil series or the peat in the Down Holland soil series, which are both low lying and waterlogged (see Table 2.2).

Shennan (1985, 53) and Hall (1985, 28) have discussed the avoidance of heavy clay soils in the Iron Age and before. Within the Holme landscape block, the avoidance of heavy clays and waterlogged soils would also appear to be a factor in determining the location of Romano-British settlement and kiln sites. A preference for higher, better drained sandy land was also noted by Evans (1985, 93). Although the soils of the Worcester series form the highest land in the Holme landscape block, they are also waterlogged which could explain the low density of settlement on them.

3.3.3 The relationship between sites and watercourses.

Swan (1984, 6) stated that most kiln sites lie within 400 m of a watercourse. However, she does not mention in her work whether she based her work on present day or Romano-British watercourses. A reconstruction of the possible river systems during the Roman period in the Holme landscape block is described in section 2.3. Although

absolute dating is not yet possible, there is evidence that the creek system in which the Hasholme Boat had sunk was open in the later Iron Age and may have remained so until the middle ages (see section 2.3). Figure 3.4 shows the distribution of sites with R.B. pottery on the possible 'Roman Period' water system and the distances of sites from the nearest water course are summarised in Table 3.4.

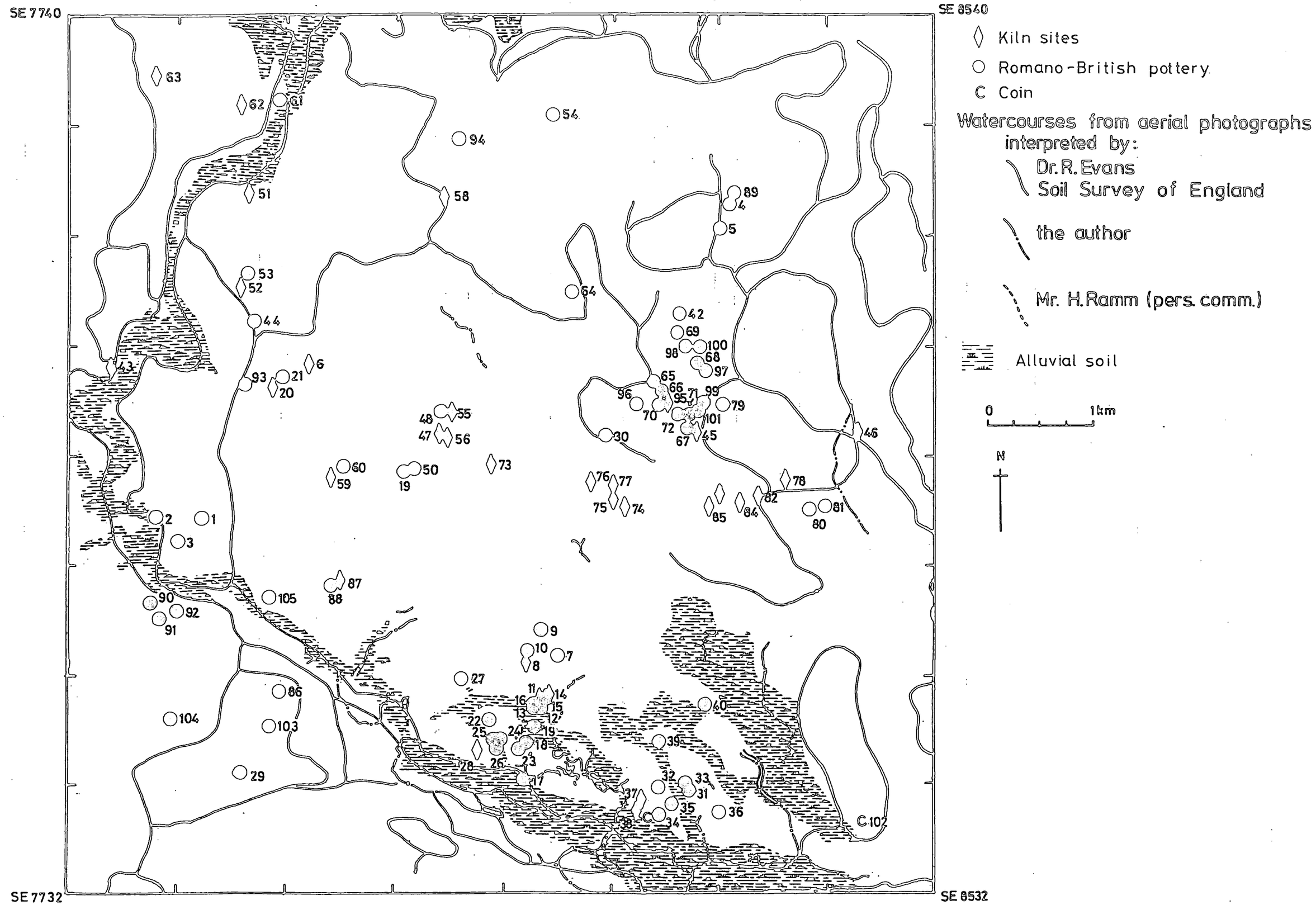
Table 3.4. Distance of sites from water courses.

Distance[(1)]m	Settlement Sites	Kiln Sites	Total
0 - 100	37	14	51
101 - 200	13	5	18
201 - 300	10	5	15
301 - 400	2	3	5
401 - 500	4	3	7
501 - 600	0	0	0
601 - 700	2	2	4
701 - 800	1	0	1
801 - 900	0	2	2
901 - 1000	0	0	0
1001 - 1100	0	0	0
1101 - 1200	2	0	2
1201 - 1300	1	0	1
Total	72	34	106

(1) - Measurements taken as described in Appendix 8.1.

This analysis shows that 76% of all kiln sites lie within 400 m of a water course; 57% of all kiln sites were within 200 m of a water course and the furthest distance of a kiln site from a water course was 875 m. However, location near a water course would not appear to be of importance only to kiln sites as 86% of all settlement sites were within 400 m of a water course and the furthest distance of a settlement site from a water course was 1225 m.

Figure 3.4 The distribution of sites with Romano-British pottery in relation to the watercourses of the landscape block.



3.3.4 Conclusion.

Within the Holme on Spalding Moor landscape block, both Romano-British settlements and kiln sites show a marked preference for higher, better drained sandy soils. Evans (1985, 96) noted the similarity between the landscape of the Holme area and that of the Fens, a comparison also made by Metcalfe (1954, 3). It has been noted that Iron Age settlement and Romano-British kilns in the Fenland of Norfolk showed preference for the greensand and avoided alluvium and peat (Gregory 1982, 351). This matches site distribution within the Holme landscape block.

The positioning of sites on tne sands not only provides a drier environment for settlement, but also gives ready access to the major raw materials for potting. Suitable clay can be obtained either under the sand (see section 2.1) or from adjacent clay soils (Figure 3.3) and sand 'the most frequently used non-plastic constituent of pottery' (Swan, 1984, 3) is readily available.

Most sites within the Holme landscape block are within easy reach of watercourses, some of which provide a means of access to the Humber estuary and beyond. This supports the relationship between sites and watercourses suggested by Hicks and Wilson (1975, 51), Ramm (1979, 110) and Evans (1985, 94). The concentration of sites around the main creek system at Bursea and Hasholme is particularly noticeable (see Figure 3.4). It is therefore probable that this estuarine creek system provided the major form of transportation for the products of the Holme on Spalding Moor kilns.

CHAPTER 4.

THE POTTERY FROM THE HOLME LANDSCAPE BLOCK

4.1 Introduction.

The pottery reports of the Throlam (Corder, 1930) and Hasholme (Hicks and Wilson, 1975) have been used as the basis of this chapter. The results of the work on the pottery from Shiptonthorpe (Millett and Halkon, 1986) and Bursea House (Millett and Halkon, 1983, 1984, 1985, 1986) are not yet fully available. The main aims of examining the pottery were to quantify the sherds found on each site, to identify characteristics of fabric and form and to provide chronological framework for the sites in the Holme area. The recent work of Dr. J. Evans (Evans, 1985) has been drawn on in order to place the Holme Pottery Industry in the wider context of northern Roman Britain and provide much needed external dating evidence.

4.2 The fabric of the pottery in the Holme landscape block.

Details of the fabric of pottery found are given in Appendix 8.3. Given the higher ratio of body sherds to rim sherds apparent in the data, as is often the case in pottery collected during fieldwalking, it was decided that a close study should be made of the fabrics of the sherds as well as their forms. The sherds were categorised into fabric groups and from this information it was hoped that it would be possible to establish a chronology of sites within the landscape block based on the presence or absence of certain fabrics. The number of sherds per site and the mass of each sherd was recorded for all sites where material was available. Sherd weight, it has been argued (Millett, 1985, 33) represents a better measure of quantity that sherd number.

In order to differentiate the fabric of sherds, the guidelines laid down by Peacock (1977, 21 - 33) were followed and it was found that the greyware pottery of the area could be divided into three local

fabric types. Fabric four was the late fourth century Huntcliff or signal station ware, recognised by Corder at Throlam (Corder, 1930, 24) and by Hull (1932). The main characteristics of these fabrics are outlined in Table 4.1.

Table 4.1. Definitions of the most common Holme fabrics.

Fabric	Colour	Hardness	Feel	Inclusions or Voids
1	dark grey	hard	smooth sometimes burnished	some sand and small flints on occasion (wheel thrown)
2	light grey to sandy brown	fairly soft	slightly rough	frequent sand, some small flint, some weathered out to produce voids (wheel thrown)
3 "Dalesware" Type (1)	light grey to sandy brown	fairly hard	pimply gritty	frequent ill assorted inclusions. 0·5mm to 2mm angular flints, some black specks (iron), sand and quartz (wheel thrown)
4 "Huntcliff"	dark grey, black, to sandy brown	variable	smooth but pitted	frequent voids (hand thrown)

(1) This the wheel-thrown copy in sandy-grey fabric of the "Dalesware" coarse shell gritted handmade cooking pots widespread in the north east beginning c. 200 A.D. (Loughlin, 1977; Evans, 1985, 242)

Holme products fabrics 1 and 2 match Evans' fabrics 200 and 165 respectively (Evans, 1985, 132 - 3). Although the other fabrics found were relatively rare, the most common being Crambeck parchment ware (Corder, 1937, 371 - 392) dated to the late fourth century by Evans (1985, 305), it was possible to use these sherds to provide a basic chronological framework. Samian ware (Hartley, 1969) was only

found during fieldwalking and excavation on five sites and a very small amount of Nene Valley ware was also identified. Some sherds of pottery have been identified at site 104 (Fir Tree Farm - see Appendix 8.3.), which consist of cream, hard fabric with grey and red flecking, caused by inclusions, which could be a Lincolnshire product, (Pers. Comm. J. Evans). This site also has the only Dalesware proper (see Table 4.1, note 1) so far found in the landscape block, which has also been attributed to the Lincolnshire kilns (Evans, 1985, 242; Swan, 1980, 26). This pottery, which is hand thrown, is browner, softer and contains more inclusions than its wheel thrown 'Dales type' counterpart. Dales type pottery was manufactured at Hasholme (Hicks and Wilson, 1975, 60) and Bursea House (Millett and Halkon forthcoming). The remainder of the pottery consisted of local handthrown wares spanning the Roman period (Millett pers. comm.).

A summary of the fabrics of the pottery from each site is given in Figure 4.1 and the data appears in Appendix 8.3.

Figure 4.1 The relative percentages of the mass of the fabric of pottery on sites with more than fifteen sherds.

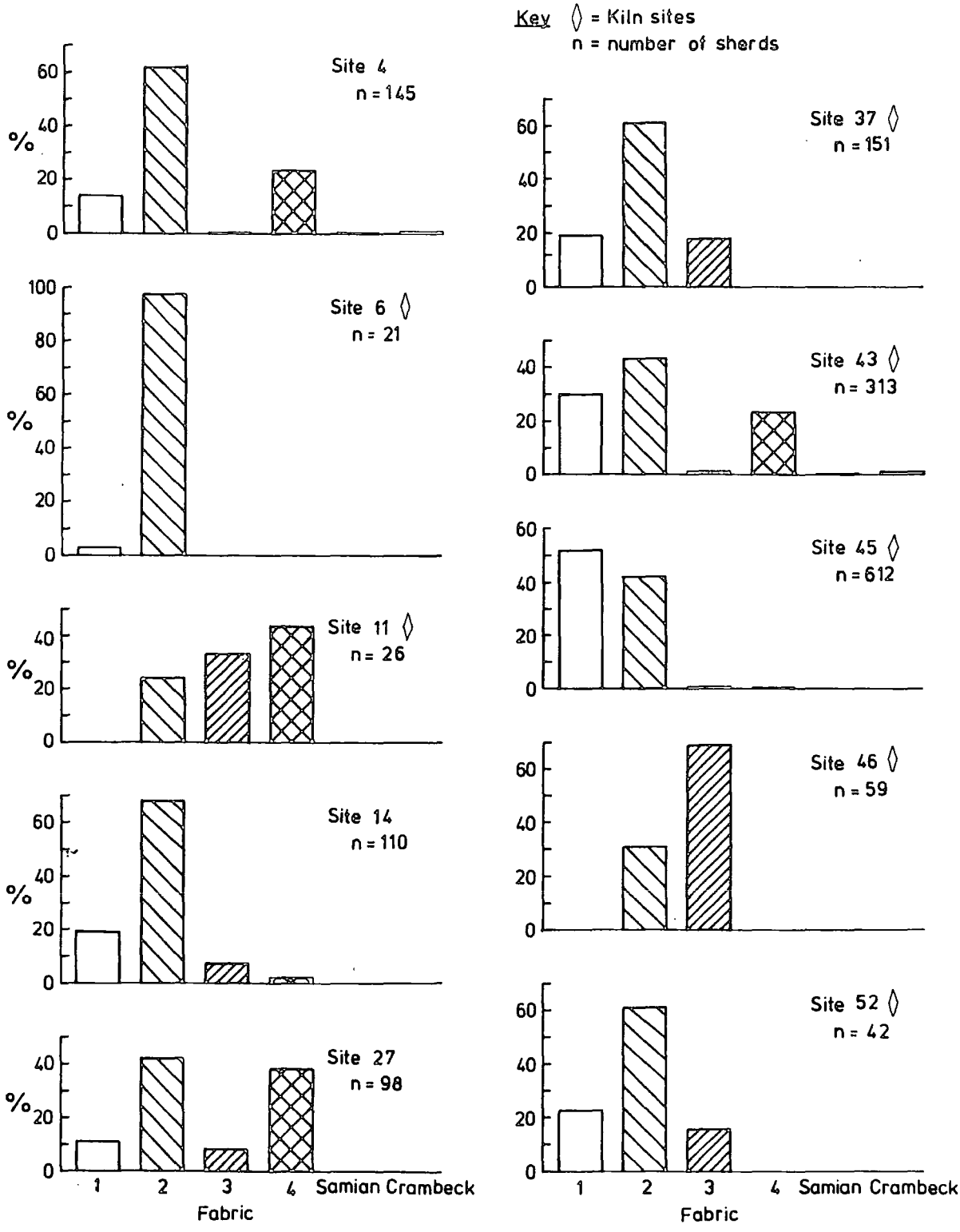


Figure 4.1 cont.

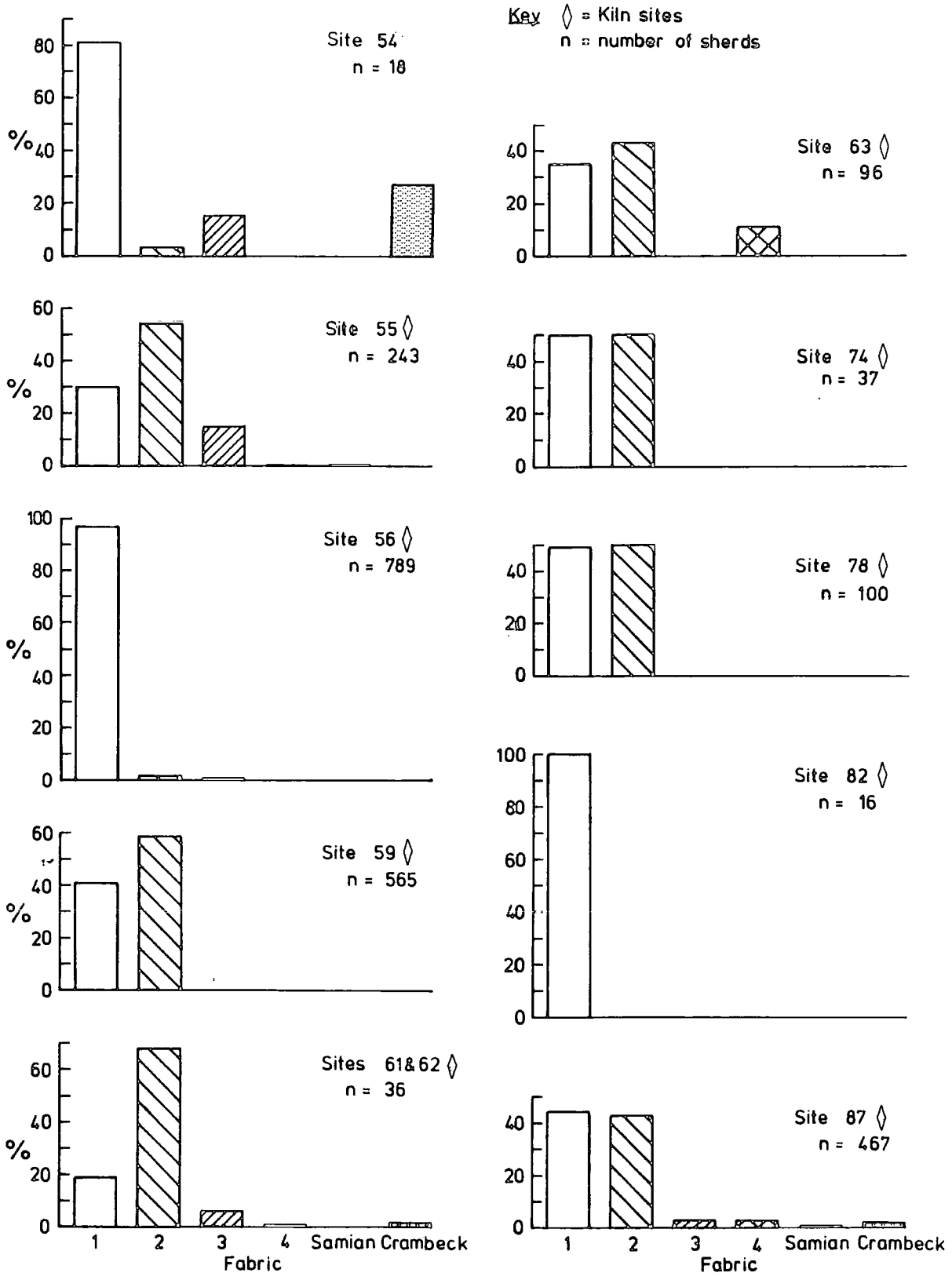
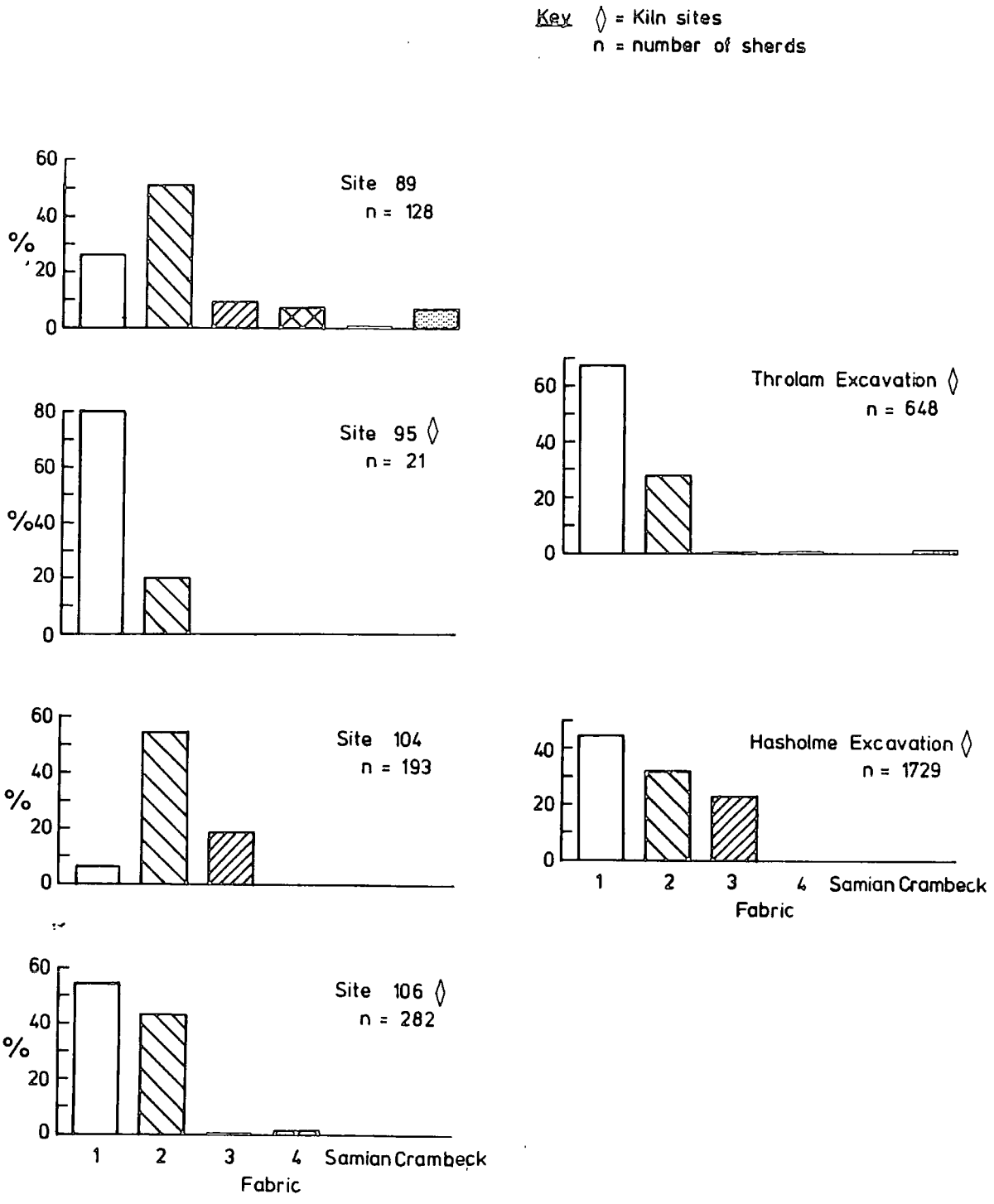


Figure 4.1 cont.



4.3 The forms of the pottery in the Holme landscape block.

A typology of forms was devised, based on the form categories in Millett (1979). The published pottery drawings from the Hasholme excavations (Hicks and Wilson, 1975, 61 - 66) and those carried out by Corder (1930, 23 -39) at Throlam were arranged into functional groupings; jars, bowls, flagons and dishes. Some material from the 1983 and 1984 Bursea House excavations (Millett and Halkon, 1984; 1985) was also included. The full list of forms may be found in Appendix 8.4. Since the full range of pot types from the industry had already been published, it was decided to use published illustrations to generate a typology rather than expend time on producing new drawings.

Due to the fragmentation of field walked material it was not felt appropriate to give the dimensions of each rim sherd found. The forms of the sherds gathered within the Holme landscape block are listed in Appendix 8.5 and Figure 4.2. shows the functional breakdown of forms compared with fabrics of sites of fifteen or more sherds. It was felt that this was the minimum number of sherds necessary to draw any conclusion, but meant that material from only 26 of the 106 sites was used. Ideally, for any statistical analysis sites with 30 or more sherds should have been examined to obtain 'normal distribution', but this excluded pottery from a further 5 sites.

Figure 4.2 Forms and fabrics of the Holme on Spalding Moor pottery for sites with more than fifteen sherds.

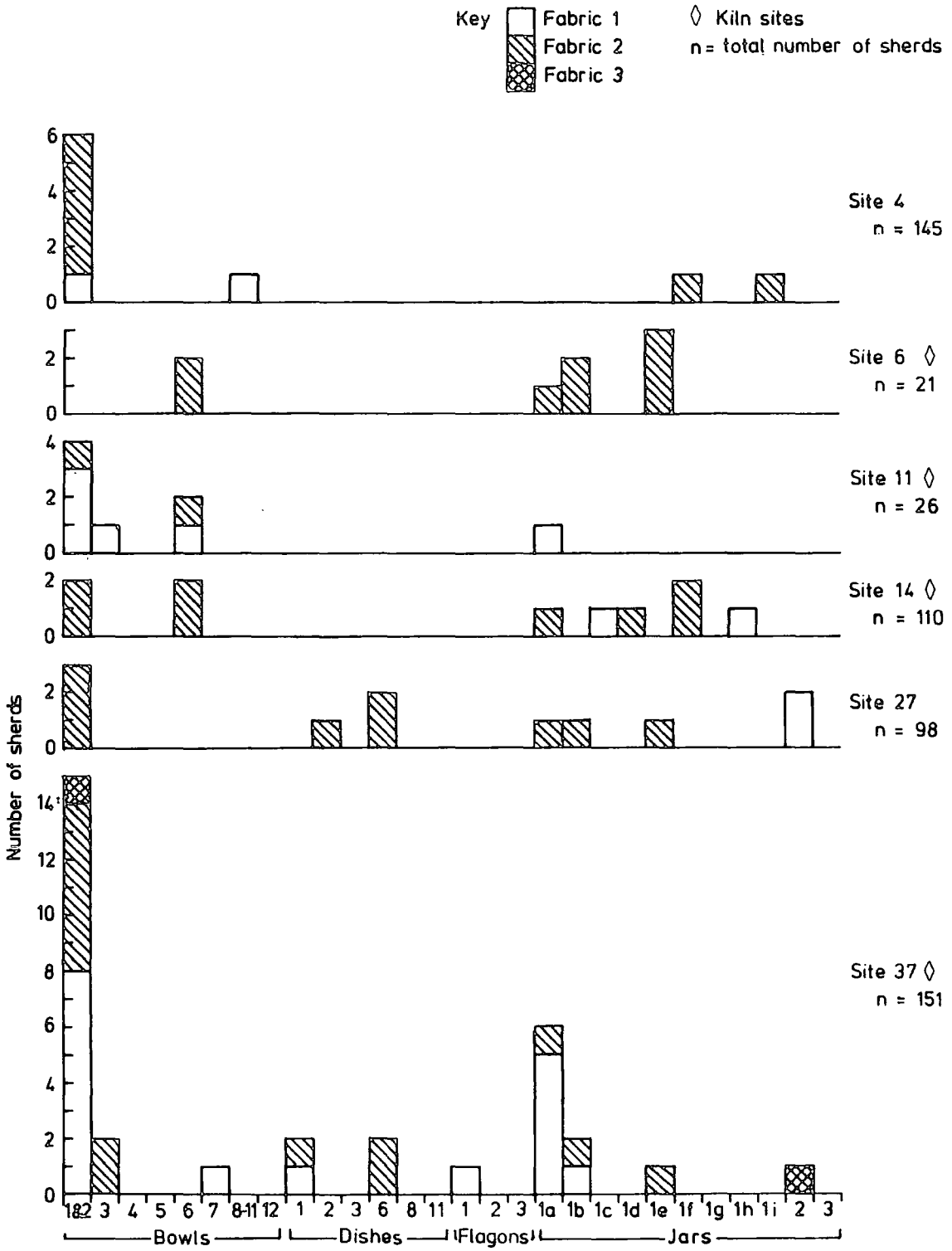


Figure 4.2 cont.

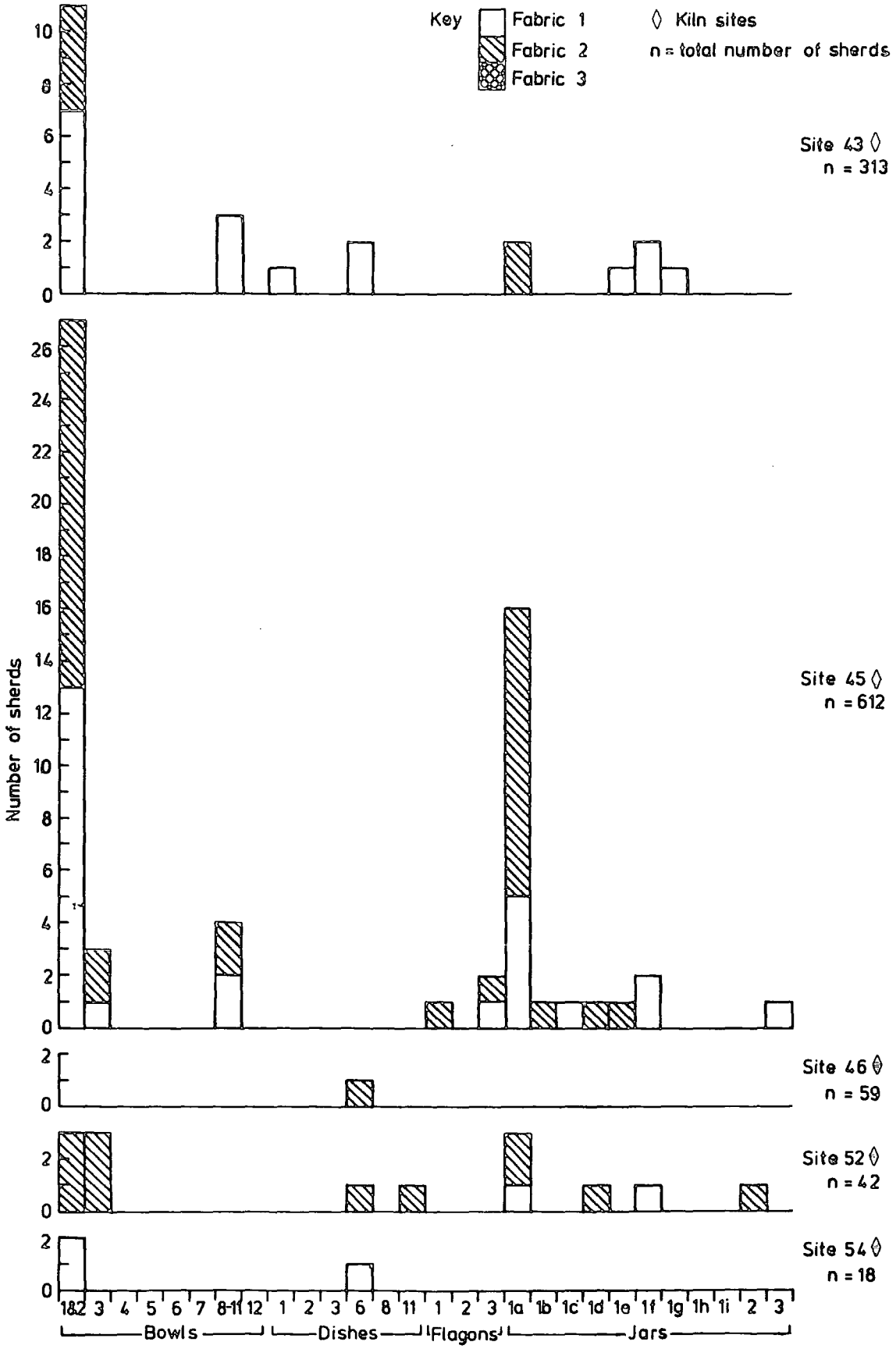
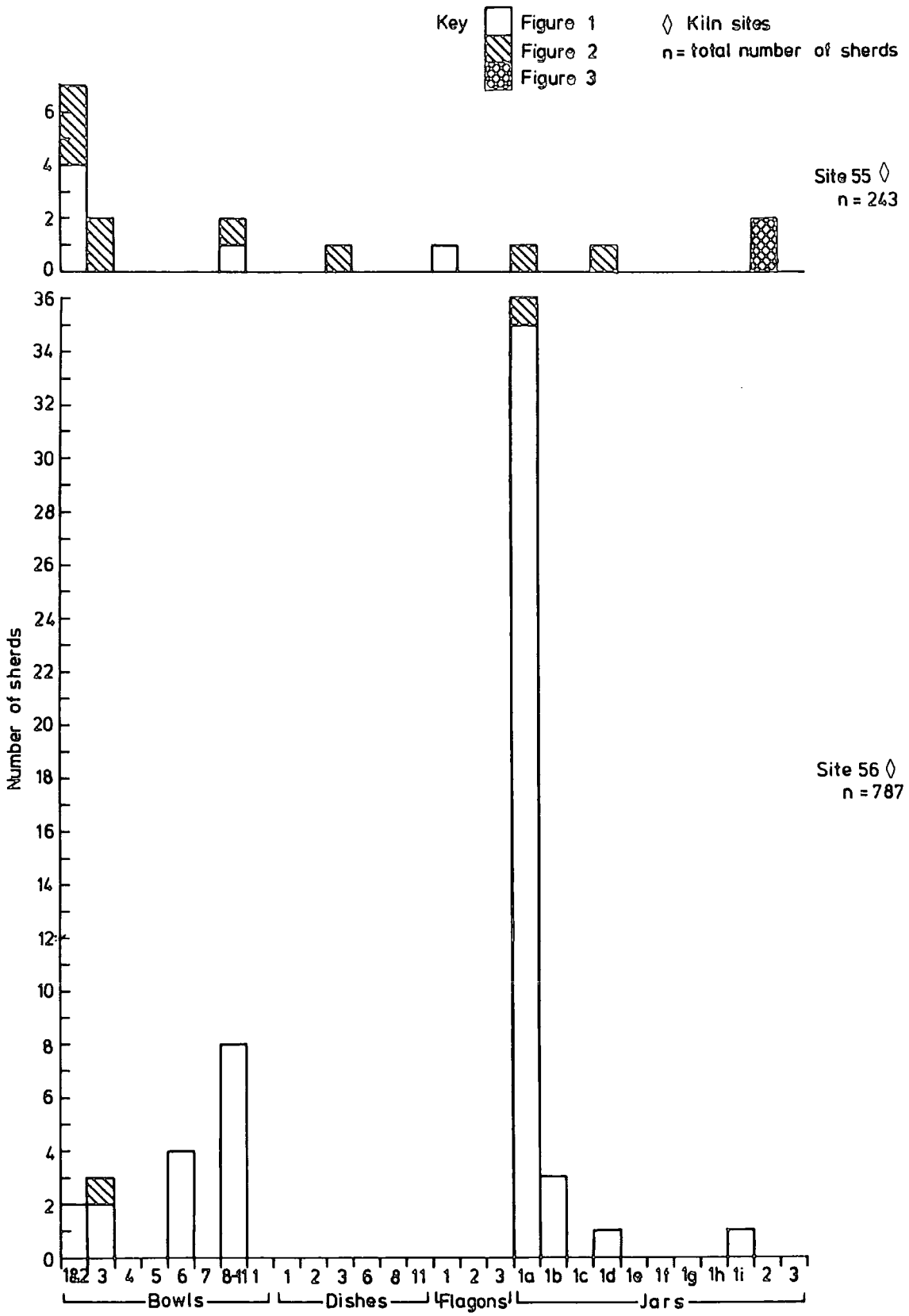


Figure 4.2 cont.



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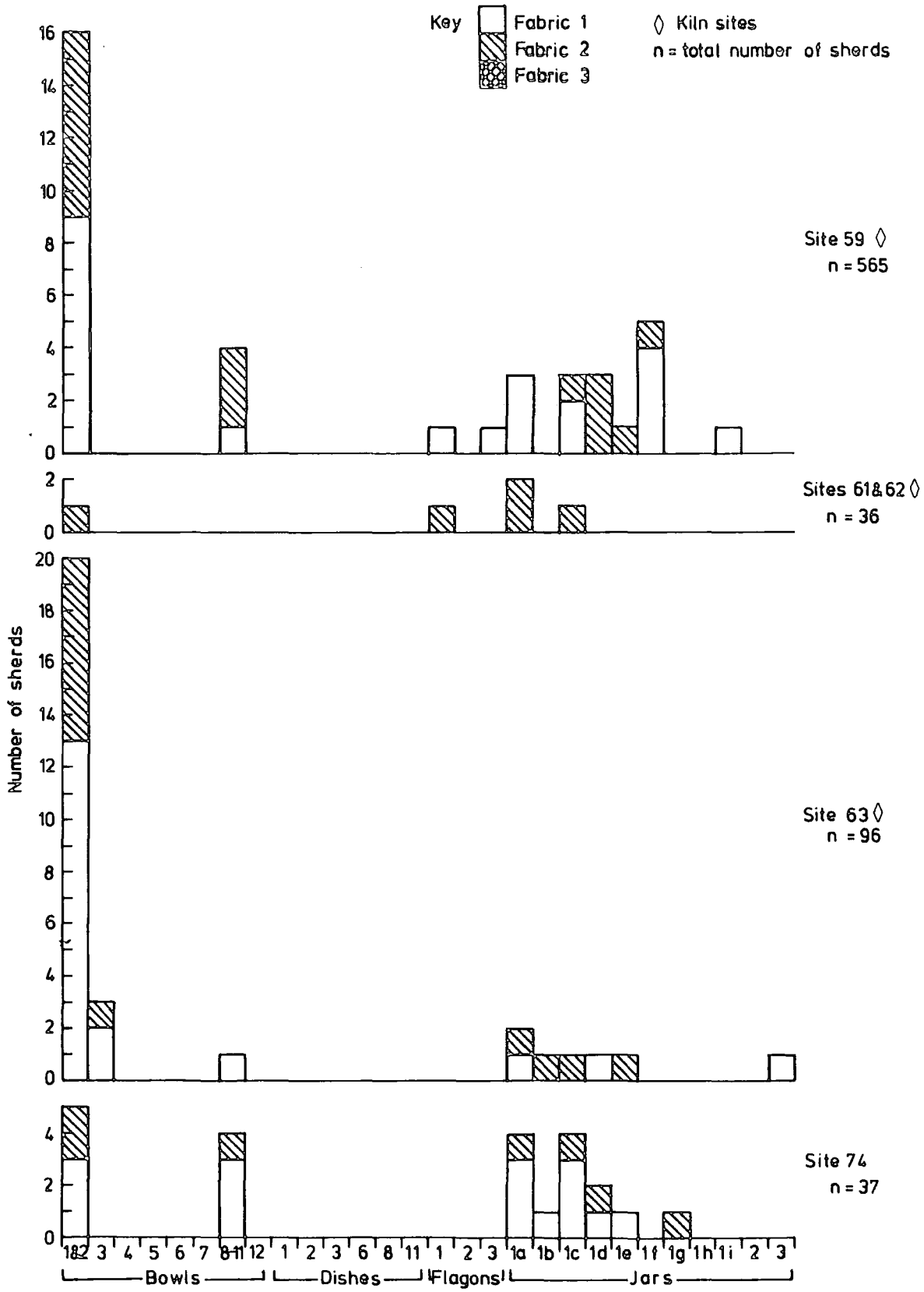


Figure 4.2 cont.

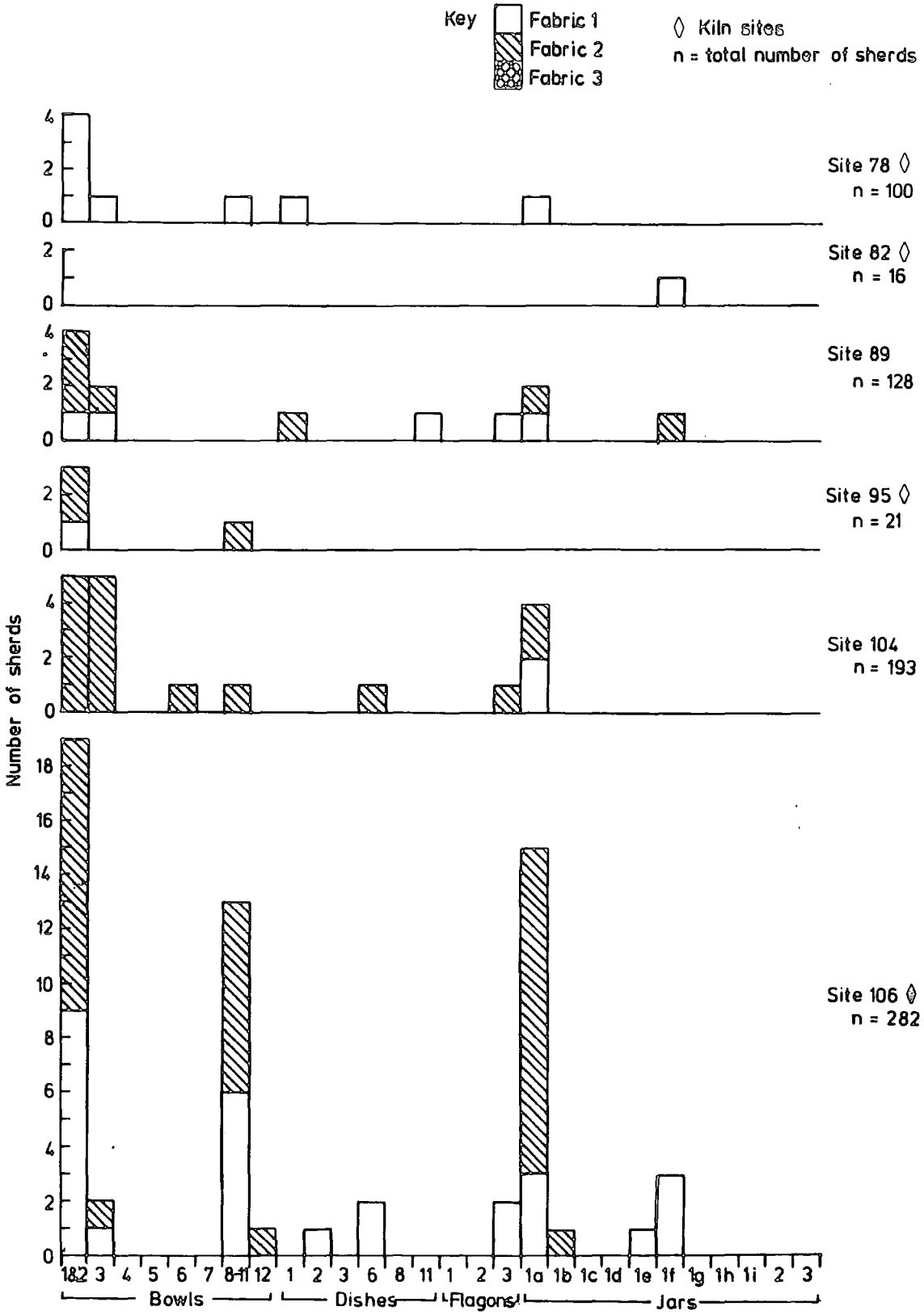


Figure 4.2 cont.

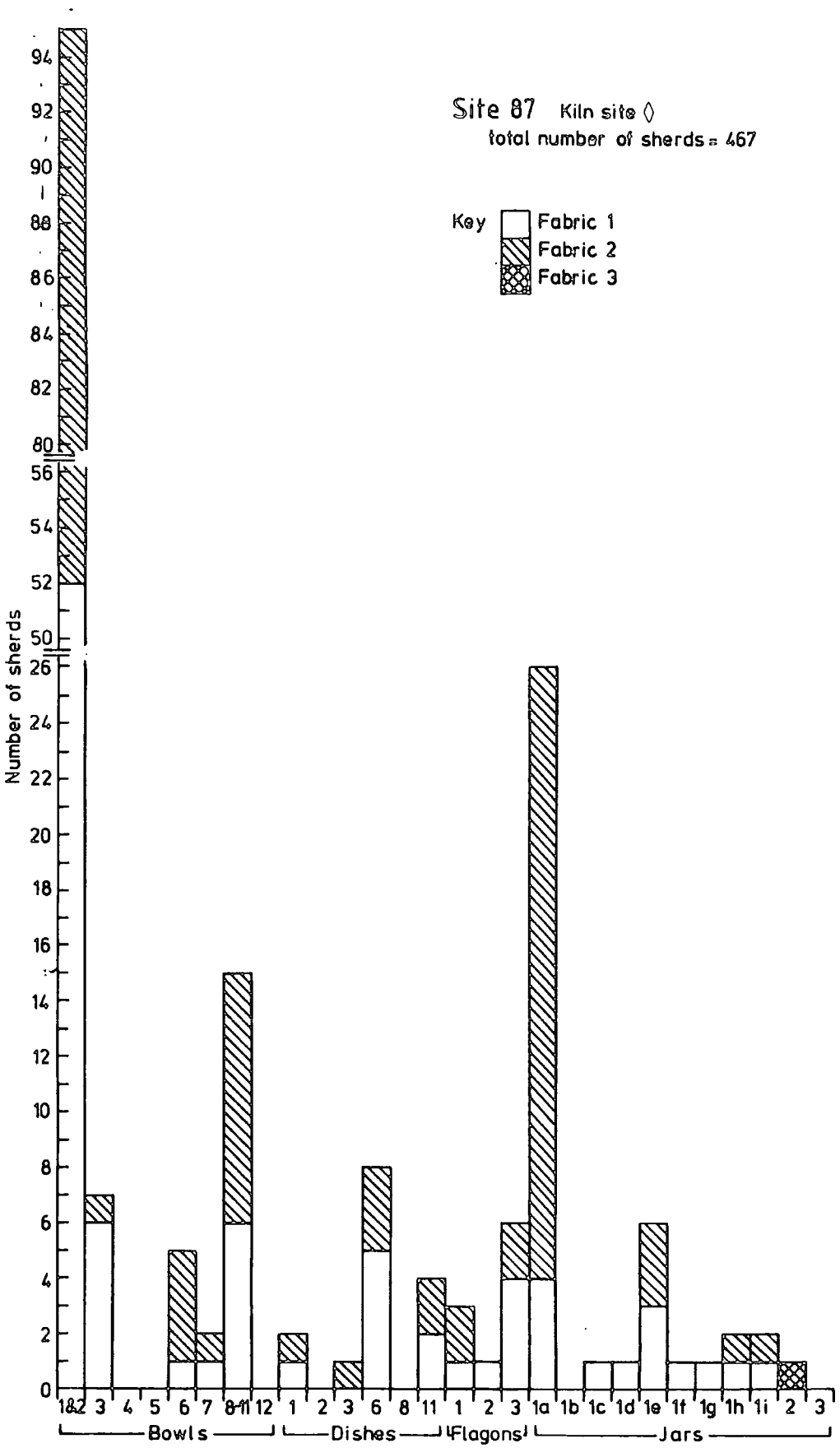


Figure 4.2 cont.

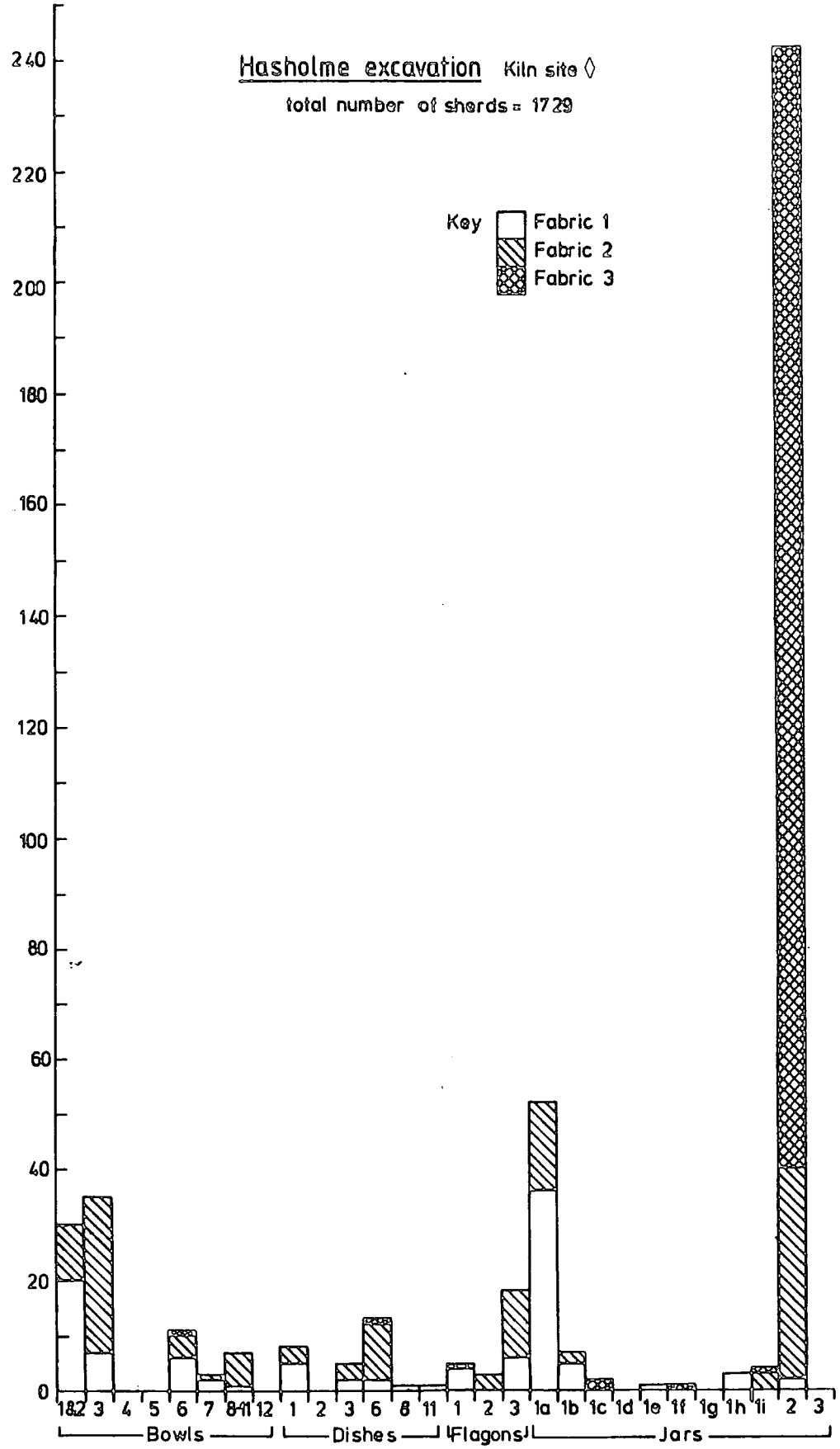
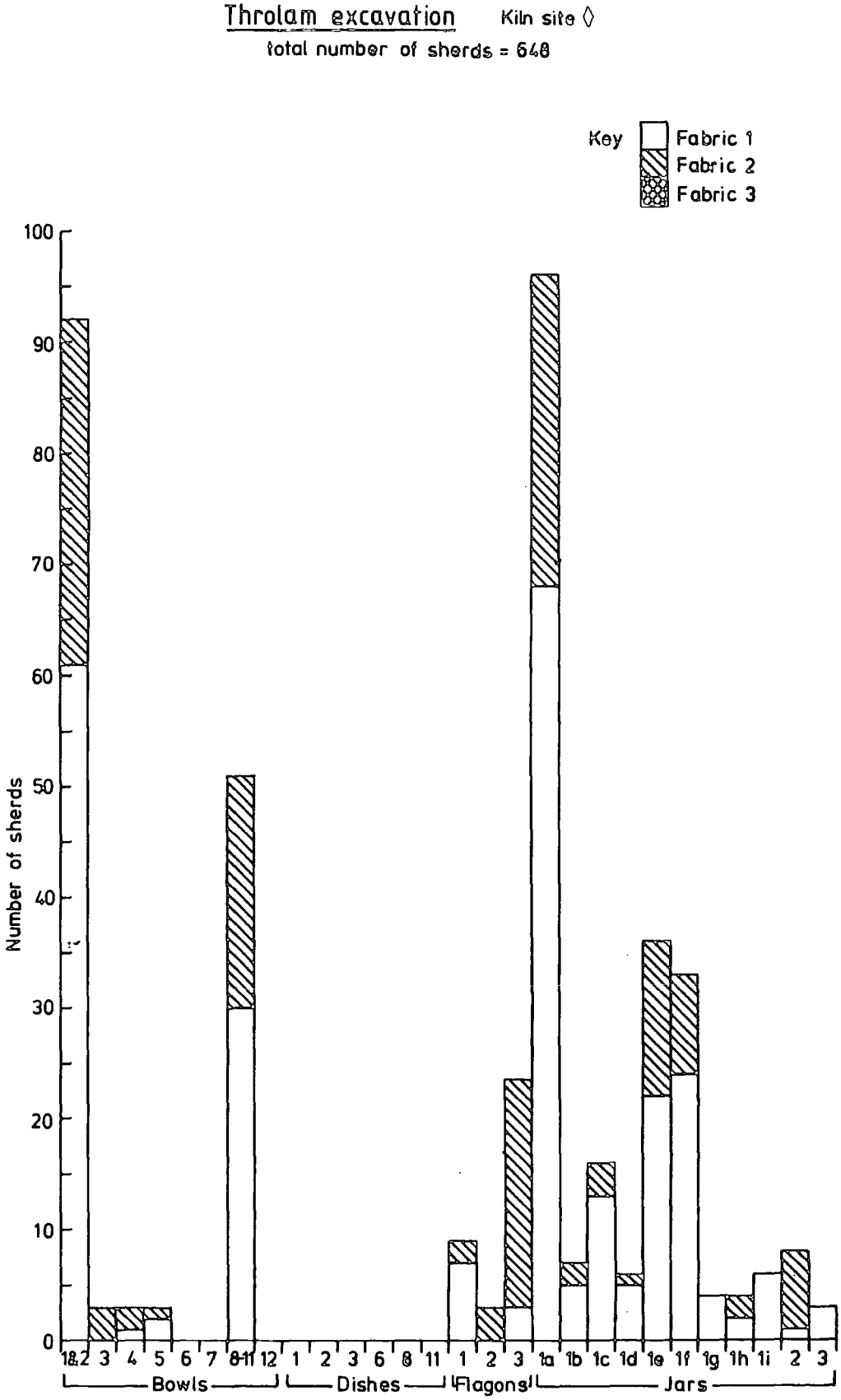


Figure 4.2 cont.



4.4 Dating the fabrics of pottery within the Holme landscape block.

There was a lack of dating evidence other than pottery on the sites found during fieldwalking, as Roman coins were only found in three locations (see Appendix 8.1, sites 41, 102, 38) and only in one case associated with other materials. Fortunately three dateable external pottery fabrics were present among the sherds (see section 4.2), as well as the already dated local 'Dales type' (fabric 3). The aim was to see if the external fabrics could be used in dating local fabrics and therefore provide a chronology for the sites where no external fabrics were found. This would be especially useful as body sherds were more frequent than the more easily dated rim sherds.

To ascertain whether it was possible to provide relative dating for the sites, the pottery from those with more than fifteen sherds were examined according to fabric (for sites with less see Appendix 8.3). Non-local fabrics could be placed into a broad chronological framework:-

Samian - 1st to 3rd century. (Hartley, 1969, 235 - 51).

Crambeck parchment ware - Mid to late 4th century. (Evans, 1985, 324)

Huntcliff ware - Late fourth century. (Evans, 1985, 369).

Fabric 3, identified as a local product in the Hasholme Hall excavation (Hicks and Wilson, 1975) has been dated from the mid third to mid fourth century (Evans, 1985, 242) on the basis of the Trentholme Drive excavation at York (Gillam, in Wenham, L.P., 1968, Figure 23, No. 1 - 7). A chronology of sites according to dated fabrics is shown in Figure 4.3. The sites can be categorised into eight types.

Fabric 3 is the most ubiquitous of the dateable fabrics being present on 21 of the 24 sites with ready-dated fabrics and 19 of the 25 sites with more than 15 sherds, suggesting a major period of settlement and industry in the mid 3rd to mid 4th centuries. This would

fit with the dating of the Bursea House pottery industry. (Evans, 1985, 242, 275).

Five sites appear to have been occupied either continually or sporadically until the late fourth century,others ending in the mid fourth.

As sites 6, 46, 59, 74, 78 and 95 have no externally dateable fabrics, it was necessary to complete the picture of settlement and industry by the comparison of non-local and local fabrics 1 and 2.

4.5 The dating of fabrics 1 and 2 from non-local pottery and fabric 3. (see Appendix 8.3.).

Of the sites with Samian, four had a higher proportion of fabric 2 to fabric 1. One other site with Samian (apart from the Throlam kiln site which has one sherd of doubtful provenance (Corder, 1931, 23)) has an equal proportion of fabric 2 to fabric 1. Similarly of the 25 sites with more than 15 sherds of pottery, 14 of the 19 sites with fabric 3 have a greater proportion of fabric 2 to 1. This suggests that fabric 2 is earlier than fabric 1. However, a similar analysis comparing the proportion of fabrics 1 to 2 with the later Huntcliff and Crambeck wares did not show that these were associated with a higher proportion of fabric 1 to 2.

The forms of the fabrics were then examined to see whether the dating of two local fabrics could be further clarified.

Figure 4.3. A chronology of sites according to dated fabrics.

* = Kiln Site

Site Number	A.D. 100 Early	Mid	Late	200 Early	Mid	Late	300 Early	Mid	Late	400	Total Sites
43*, 87* 4, 89 (1 sherd 3) Throlam (1 sherd Samian)	Samian				Fabric 3			Crambeck			5
								Huntcliff			
55* Hasholme* exc^{n}	Samian				Fabric 3						2
11*, 46* 37*, 52* 56	N.B. 104 'Dalesware'				Fabric 3						6
13, 54 70*					Fabric 3			Crambeck			3
45* 86, 14					Fabric 3			Huntcliff			3
61, 27* 106*					Fabric 3			Crambeck			3
								Huntcliff			
63*								Crambeck			1
								Huntcliff			
50									Huntcliff		1
											24

4.6 Dating forms from external fabrics.

Using Samian, Crambeck, Huntcliff and local 'Dales type' fabrics, a comparison of sites was made to identify the relationship between the forms of vessels in Holme greyware fabrics 1 and 2 and the dated fabrics. Each of the five sites with Samian pottery had more wide mouthed bowls (B1 and B2) than jars (J1). Evans argues that wide mouthed bowls are a third century product at Bursea (Evans, 1985, 242). However, each of these sites also has flanged bowls and flagons, regarded as later forms (Evans, 1985). It should also be noted that these sites also have the later Crambeck and Huntcliff fabrics and the flanged bowls and flagons could therefore have been introduced the same time as these. Four of these sites have dishes in greyware.

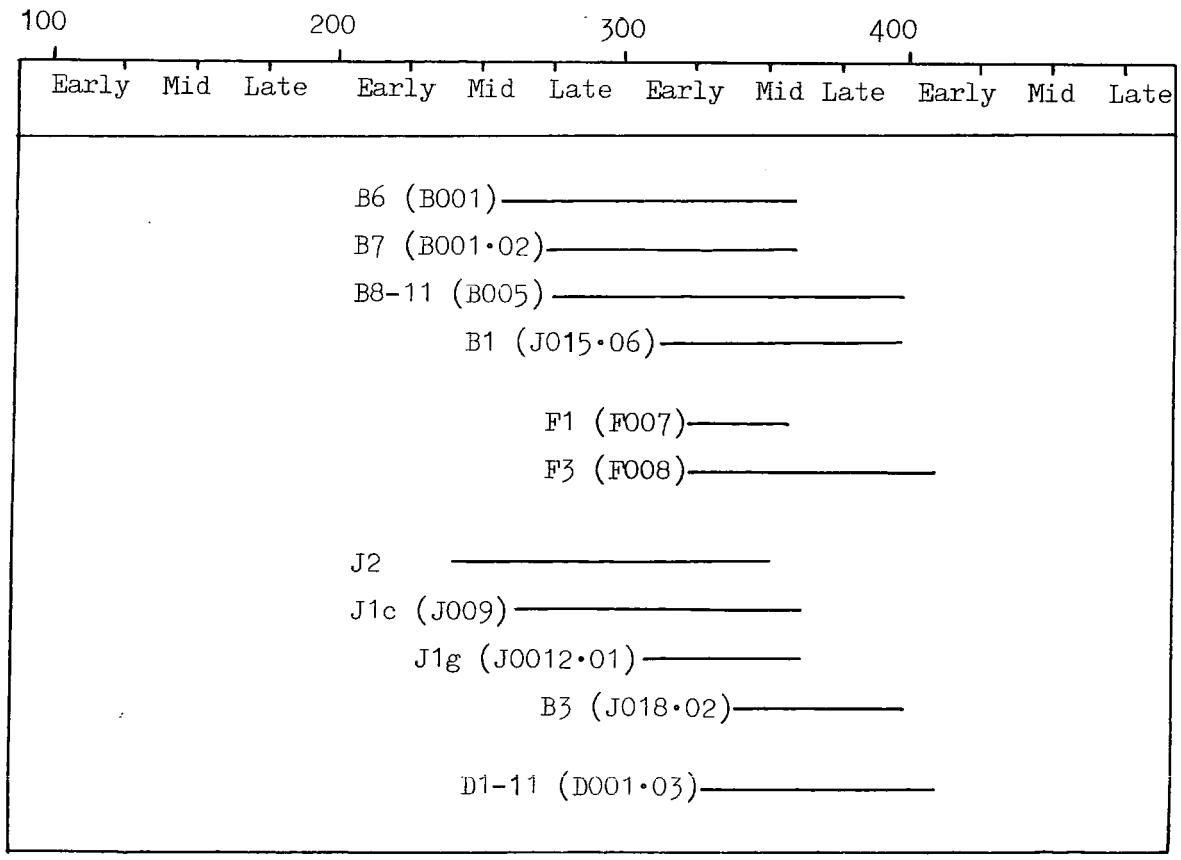
Using fabric 3, 'Dales type' (for discussion of dating see section 4.4), it was seen that no site with only fabric 3 present as a dated fabric had flagons or flanged bowls. Using the latest non-local, it was seen that of the 9 sites with Huntcliff, three had no flanged bowls or flagons and only 2 of the 10 sites with Crambeck parchment ware did not have flanged bowls or flagons.

4.6.1 The dating of the forms of the Holme pottery from excavated sites.

Evans has identified the presence of Holme forms on excavated sites at Brough-on-Humber in the third century (Evans, 1985,588) and at Brough-on-Humber, Malton, Beadlam, Castleford, Langton, Rudston and York in the fourth (Evans, 1985, 598 - 9). From this it has been possible to compare the forms of the pottery from the Throlam, Hasholme and Bursea typology (see Appendix 8.4) with those of Evans (Evans, 1985, 598 - 9) to produce a basic chronology of forms. This is shown in Figure 4.4. The general 'dating spread' compares favourably with the

Figure 4.4 The dating of forms of Holme on Spalding Moor pottery after Evans (1985).

2nd figure e.g. (B001) - Evans Typology (1985)



chronology of dated fabrics in Figure 4.3.

4.7. The comparison of Holme forms and fabrics to provide further dating.

As six of the sites producing more than 15 sherds (see Figure 4.1) had no external fabrics to provide dating evidence, it was necessary to draw together the information in sections 4.6.1 and 4.6.2 to date the Holme forms in fabrics 1 and 2 in order to provide a chronology of sites. To do this, each form was examined in terms of the proportion of fabric 1 to 2 and the number of sites producing more than 15 sherds of pottery.

4.7.1 Flanged Bowls (B8 - 11). (See Appendix 8.6.1 (i)).

Flanged bowls have been identified as starting in the late fourth century (see Figure 4.4). If fabric 1 is later than fabric 2 (see section 4.4) it would be expected that there should be more flanged bowls in fabric 1 than fabric 2. This was found to be the case on 61·5% of the sites.

4.7.2 Wide mouthed bowls (B1 - B2). (See Appendix 8.6.1 (ii)(iii)).

Of the wide mouthed bowls in these categories, type B1 (Evans' type J015) there are more in fabric 1 than fabric 2 on 69% of the sites, but type B2 has more fabric 2 than 1 on 53·8% of sites. If fabric 1 is later, it would therefore fit well with the date given by Evans for this form (see Figure 4.4). The evidence for B2 is less conclusive but suggests an earlier date.

4.7.3 Carinated bowls (B3). (See Appendix 8.6.1 (iv)).

Carinated bowls (Evans' type J018) have been dated to the fourth century. Rigby (in Stead, 1980) has suggested that a carinated bowl should be dated to the third century from groups of pottery at Rudston. Evans suggests however, that these are mis-attributed Norton products (Evans, 1985, 304). The proportion of carinated bowls in

fabric 2 is higher than fabric 1 on 66% of sites. Evidence from Hasholme (Hicks and Wilson, 1975) and Bursea (Millett and Halkon forthcoming) where carinated bowls in fabric 2 have been found would suggest that these are in fact a third century product.

4.7.4 Straight sided bowls (B6) (Evans B001). (See Appendix 8.6.1 (v)).

Evans has identified this form as belonging to the third century (Evans, 1985, 242) based on evidence from Bursea House. As this form appears in greater quantities in fabric 2 than fabric 1 on 75% of sites, the proportion of fabric agrees with the suggested dating.

4.7.5 Jars. (See Appendix 8.6.2 (vi)).

The most common forms of jar were J1a and b and it was found that there were equal numbers of sites with vessels in fabric 1 and fabric 2. For type J1c (Evans type J009) it was found that the form was present on 66·6% of the sites on which it occurred in fabric 1 and on the kiln site at Hasholme some sherds were also present in fabric 3.

On 71% of sites jar J1d was in fabric 1 rather than 2 and on 66% of sites jar type J1e was present in fabric 1. On all six of the sites with form there were more sherds in fabric 1 than 2 which fits in well with Evans' proposed date (see Figure 4.4). Although no certain conclusion can be drawn from the fabric proportions of forms J1a and b, it does appear that the other forms of jars in the category J1 are in fabric 1 rather than 2. This fits in well with Evans' date for the Throlam kilns, a major production centre for these (Evans, 1985, 298) and is illustrated in Figure 4.3.

For jars in form J2, the majority were in fabric 3 which is to be expected as this is the characteristic form for such 'Dales type' vessels. The same fabric is used at Bursea House for S-bend jars

(Evans, 1985, 242) and examples have been found at several locations around the main Bursea kiln site (Halkon, 1983). Both forms and fabrics fit into the third century.

4.7.6 Flagons. (See Appendix 8.6.3. (vii)).

Of the six sites with flagons in form F1 (Evans F007), all but two had more sherds in fabric 1 than 2 and for the other common flagon type F3 (Evans F008) the fabrics were equal on two sites and greater in fabric 2 on three sites.

4.8 Summary of the comparison of forms and fabrics in Holme greywares.

On the sites with flanged bowls the majority were producing vessels in fabric 1. For flagons as a whole, over half had more sherds in fabric 1 than 2. As both of these forms belong to the late third to fourth centuries and appear more in fabric 1 than 2, this could provide relative dating for the respective fabrics. It is difficult, however, to draw any firm conclusions about the dating of the forms and fabrics of jars, although those in form J2 and fabric 3 (Dalesware type) can be dated from the mid third to mid fourth centuries.

4.9 Chronology of sites based on the pottery evidence.

Using the conclusions so far reached for the chronology of the Holme pottery, it is possible to distinguish certain criteria characteristic of the third and fourth centuries. There is a period of overlap, which includes Dalesware types, beginning in the mid third and continuing to the mid fourth centuries, and some flanged bowls and flagons occuring in the late third century.

1. Characteristics of the second/third century.

Samian	(S)
Bowls greater than jars	(B>J)
Fabric 2 greater than 1	(2>1)
Dales types	(3)

2. Characteristics of the fourth century.

Flanged bowls	(FB)
Flagons	(F)
Fabric 1 greater than 2	(1>2)
Crambeck parchment ware	(Cr)
Huntcliff ware	(H)

These criteria were then applied to the sites with more than 15 sherds of pottery, as illustrated in Table 4.2.

It was found that these sites could be placed in three categories.

1. Sites with a 2nd to early 4th century emphasis:-
   11*, 37*, 46*, 52*, 104, Hasholme kiln site.
2. Sites with either sporadic or continual occupation throughout the Roman period:-
   4, 14*, 27, 43*, 55*, 87*, 89.
3. Sites with a later emphasis:-
   45, 54, 56*, 59*, 63*, 95*, 106, Throlam kiln site.

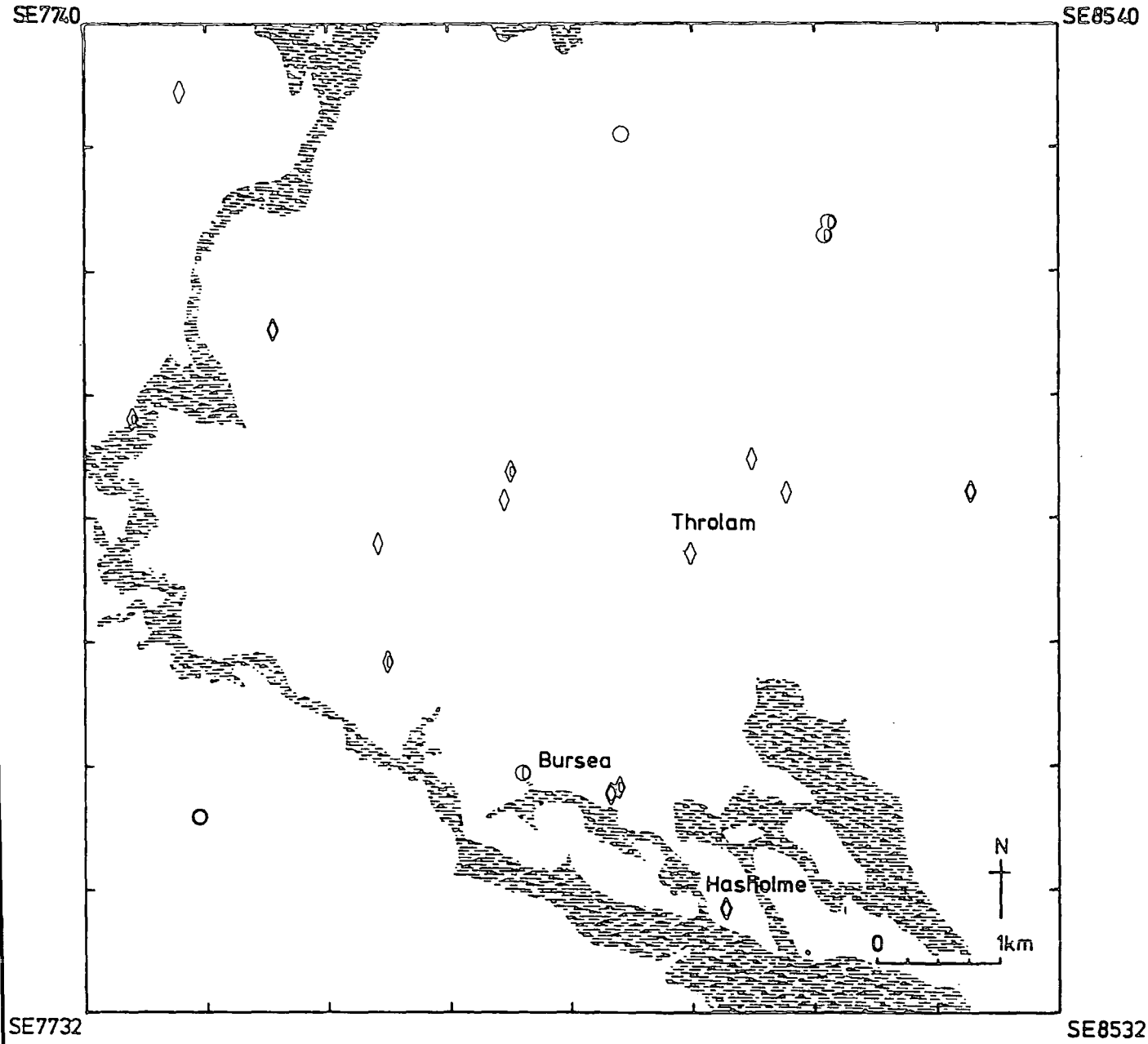
The distribution of these sites is shown in Figure 4.5.

Table 4.2. Chronological groupings for sites with more than fifteen sherds.

	Early								Later
Site No.	S	2>1	B>J	3	FB	F	1>2	Cr	H
4	✓	✓	✓	✓	✓			✓	✓
6*		✓							
11*		✓	✓	✓					
14*		✓		✓					✓
27		✓			✓			✓	✓
37*		✓		✓	✓	✓			
43*	✓	✓	✓	✓	✓			✓	✓
45*				✓	✓	✓	✓	✓	✓
46*		✓		✓					
52*		✓		✓					
54				✓			✓	✓	
55*	✓	✓	✓	✓					✓
56*				✓	✓	✓	✓		
59*					✓	✓			
61	✓		✓					✓	
63*			✓		✓		✓		✓
74*					✓				
78*									
82*							✓		
87*	✓	✓	✓	✓	✓	✓		✓	✓
89	✓	✓	✓	✓				✓	✓
95*							✓		
104			✓	✓					
106*					✓	✓	✓	✓	✓
Turolam*					✓	✓	✓	✓	✓
Hasholme*	✓	✓		✓	✓	✓			

* = Kiln site

Figure 4.5 Chronology of kiln and settlement sites from pottery evidence



Key

lozenge shapes = Kiln sites

circles = Settlement sites

◊ ○ sites with 2 A.D. to early 4 emphasis

◊ ◐ sites with continual or periodic occupation from 2 to late 4

◊ ◎ sites with a late emphasis (late 4 onwards)

Alluvial soils

CHAPTER 5.

OTHER ROMANO-BRITISH INDUSTRIES IN THE LANDSCAPE BLOCK

5.1 Iron working and manufacture.

5.1.1 Introduction.

Evidence for the working and manufacture of iron has been known in the Holme area for some time, to the extent that slags and other metallic waste materials are known as 'Nosmun', a local tradition attributing this material to Viking iron working. It occasionally occurs in quantities sufficient to seriously hinder cultivation, several farmers have reported finding pieces so heavy that it took two people to lift them.

Excavation at Hasholme Hall. (Hicks and Wilson, 1975). (see Appendix 8.1, sites 37 and 38)

The first evidence that this iron working and manufacture was Romano-British was found during the excavations at Hasholme Hall 1970/1, (SE 822327). Large quantities of slaggy material, some in large pieces, have been found scattered around this location since the 1950's. During the excavation evidence for smelting was present in the form of a furnace. Unfortunately this furnace was inadequately recorded, but is shown on unpublished excavation plans now held by Hull Museum. The furnace was lined with baked clay which had been reduced and the base of the furnace contained some slag. The furnace, from personal recollection, was of a 'bowl' type which Cleere (1976) would describe as the remains of a shaft furnace.

Evidence of smithing or iron working was found during the Hasholme excavation in the form of an iron anvil discovered near the kilns, which has been identified as being of typical Romano-British type, (Manning, 1975). This anvil (now displayed in the Museum of Transport and Archaeology, Hull) would have been set in a wooden block. It is probable that it was used in the working of blooms (Cleland, 1981, 165).

No other evidence was found furing the 1970/1 excavations, but a geophysical survey undertaken by Mr. J. Pocock of Bradford University showed the presence of several possible furnaces or hearths in the surrounding area (Pocock, 1983) and there was surface slag in the vicinity of these anomalies. Most of the iron had been completely oxidised and the slag was only weakly magnetic.

The field immediately adjacent to the kiln site at SE 824328 (site 116) contained a large concentration of slag and other debris, and should be associated with the kiln site as the field boundary is a modern division. Both sites are within 100 m of the estuarine creek in which the Hasholme Boat sank.

5.1.2 Iron working and manufacturing sites found during fieldwalking.

Iron slag was discovered on a total of 49 sites during the course of fieldwalking. Each site is described in Appendix 8.1 and 8.2. Full characterisation of the types of slag, as recommended by McDonnell (1983, 81) has not yet been undertaken, but it would appear that evidence for iron working and manufacture is present in the form of tap slag, blooms, furnace or hearth bottoms and cinder.

The sites fall into two main categories:-

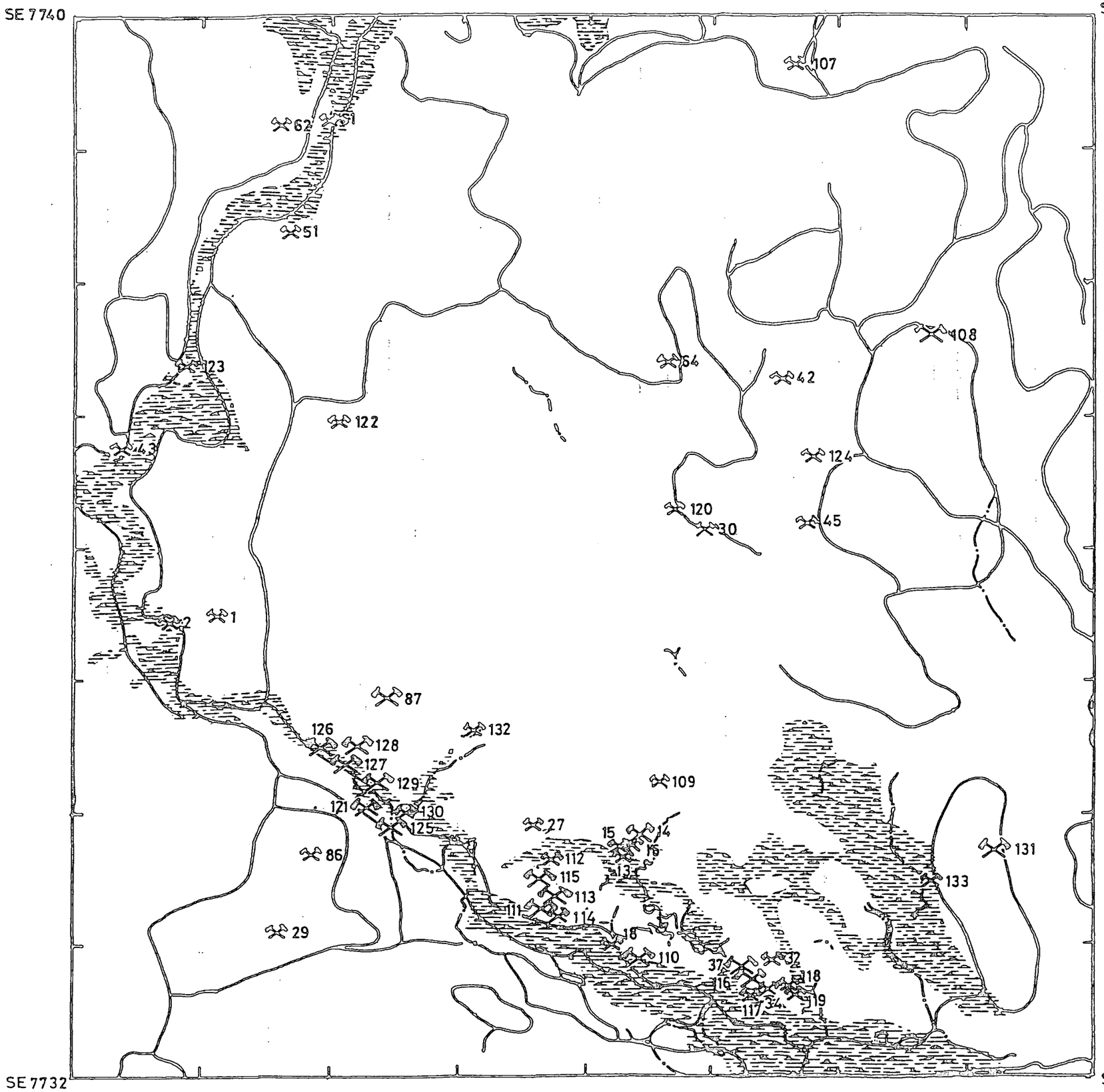
(i) Iron production sites with large amounts of slag in large pieces (probably blooms) c. 3/4 m in diameter and sometimes too heavy to lift.

(ii) Sites with small scatters of slag, often in small pieces c.2 - 5cm in diameter. Although some iron may have been produced on these sites in small quantities to fulfil immediate local needs, the slag here is probably the result of working, rather than large scale manufacture.

5.1.3 The location of sites with iron slag.

The distribution of sites with evidence for iron working and

Figure 5.1 Distribution of iron working and manufacture sites with the water courses of the Holme on Spalding Moor area



manufacture is shown in Figure 5.1. It is noticeable that the majority of specialist iron manufacturing sites were close to the River Foulness and more especially, at Bursea (sites 110, 18, 13, 111, 113, 115) and Welham bridge (sites 121, 127, 128, 129, 130) next to the dendritic creek system described in section 2.3. Seventy-five per cent of all sites with iron slag were within 100 m of a watercourse. At site 126, a large quantity of saucer shaped blooms from a smelting furnace were found right on the edge of the peat, just below an earthern bank. Mr. F. Hawcroft, the farmer at Sikes Farm (site 125) reported that large heaps of 'Nosmun' were a common phenomenon in the immediate locality.

A possible reason for the location of these iron manufacturing sites is that water was used for the transportation of finished products. Cleere (1982, 127) has suggested that this would be the cheapest method of transportation.

5.1.4 The dating of iron working sites from pottery found during fieldwalking.

Romano-British pottery was found on 21 of the 49 sites with evidence for iron working and manufacture. The broad chronology of the Holme pottery (Table 4.2) was used in an attempt to date iron working and manufacturing sites. The results of this can be seen in Table 5.1. It can be seen that 3 of the 4 major iron working and manufacturing sites are also pottery kiln sites. Only 7 of the 21 smelting or smithing sites with R.B. sherds can in fact be placed within the chronological framework outlined in section 4.9 and 15 or the 17 major manufacturing sites (see Appendix 8.2) have no Romano-British pottery at all. In an attempt to solve the problem of dating these sites, it was necessary to seek further evidence from the excavations that have been carried out on iron working and manufacturing sites.

5.1.5 The dating of smelting and smithing sites from excavation.

The evidence for iron working and manufacture at Hasholme Hall

Table 5.1. Iron working sites with Romano-British pottery.

Site number	2nd to early 4th	Sporadic/continual occupation	Later characteristics [1]
1 +			
2			
13			
14 + *		✓	
15			✓
16			
18			
21			
27		✓	
29			
30			
32			
34			
37 + *		✓	
38			
42			
45 + *			✓
51			
61			✓
64			
87 + *		✓	

\+ = major iron working site

* = pottery kiln site

1 - for dating see Table 4.2.

(see section 5.1.1) suggested that this activity had been carried out during the Roman period, and from the typological dating of the anvil, before the 4th century (Manning, 1975, 67). During the cutting of drains at Hasholme Hall (SE 823327) in August 1984, a series of ditches and other archaeological features were cut through. During survey work some large pieces of slag were recorded in the fills of ditches which also appeared on aerial photographs and in geophysical surveying (Millett and Halkon, 1984, 38). Judging from the evidence of the previous excavation (Hicks and Wilson, 1975) and the lack of Romano-British sherds found with the slag during the 1984 survey, it could be that the manufacturing of iron may have taken place some time before the main period of the pottery industry at this location.

At Bursea House (see sites 13, 14, 15, 16, 18, 110) several large concentrations of iron slag, some in the form of furnace bottoms, have been found during cultivation and field walking (Halkon, 1983, 19). The largest of these was on a sandy ridge close to a relict creek of the River Foulness (see Figure 5.1, site no. 110). No sherds of R.B. pottery were found and the slag mainly consisted of 'saucer shaped' furnace bottoms. During fieldwalking in 1982, it was noticed that the slag under the surface of the field had caused the crop to be stunted in an area about 20 m across on the top of the sandy ridge (site 18).

During the excavation of 1984 (Millett and Halkon, 1984) a single bowl type furnace was found in situ dated to the later Roman period (see site 14). As lumps of iron slag had been found in the lower fills of several ditches during the previous years' excavation, one of these securely stratified tap slag, it is likely that smelting was undertaken throughout much of the history of the site (Millett and Halkon, 1983).

Iron slag was also found in some quantity at East Bursea Farm in several locations with or without R.B. sherds (see Appendix 8.1 and 8.2). Some slag was also found during the excavation of a round house (site 22) in the fill of the wall trench (Millett and Halkon, 1986) which may suggest an Iron Age date for iron working.

Moore's Farm, Welhambridge. (SE 79303403) (site 121).

During the spring of 1985, a large heap of iron slag was discovered during fieldwalking still standing to a height of 1 m. The whole heap was excavated (Millett and Halkon, 1986) and comprised of material, probably resulting from the raking out of hearths and slags which were associated with smelting or smithing. No dating evidence was found although some pieces of slag contained sufficient carbon for future carbon 14 dating. The heap overlay a network of ditches and in all 5,338 kg of slag and other iron working debris was recovered.

Bursea Grange. (site 109). (See page 80).

A hutcircle within a square double ditched enclosure has been visible, as a crop mark, at Bursea Grange for some time (NMR SE 8135/5). During August 1986 a sample excavation was carried out and evidence for iron smelting was found in the form of slag. A small fragment of course handmade pottery was found in the enclosure ditch which is likely to be Iron Age in date fitting in well with the form of the settlement. No Romano-British pottery has been found at this location (Millett and Halkon forthcoming).

5.1.6 Conclusions on the dating of the Holme iron working and manufacturing sites.

There is a noticeable lack of Romano-British pottery on the sites with the largest amounts of slag and other evidence for iron production (see section 5.1.4). The evidence from excavated sites shows that smelting and iron working took place from the Iron Age onwards. Given the friability of Iron Age pottery as compared with Romano-British

pottery (Millett, 1985, 33) , it is likely that the smelting sites found during fieldwalking on which no Romano-British pottery was found are Iron Age.

At North Cave (SE 880380), only 3 km to the East of the Holme landscape block, smelting furnaces and a large amount of iron slag have recently been excavated in and around Iron Age round houses (Pers. Comm. J. Dent). The material from North Cave is very similar to that found at the Holme smelting sites (see Appendix 8.2). Like several of the Holme sites with evidence for iron smelting, this site continued into the Roman period.

5.2. Glass manufacture.

Glass bangles were excavated on the kiln sites at Bursea House and Hasholme Hall (Halkon, 1983; Millett and Halkon, 1984; Hicks and Wilson, 1975). Henderson would date the Bursea House example (Halkon, 1983) to the mid first to second century (Henderson, 1983).

During fieldwalking, a fragment of glass slag was discovered at Bursea House (SE 81583379) (Halkon, 1983, 19). More was uncovered in the garden of the house by Mr. A.S. Johnson at SE 81303368. During the excavation of 1983 some blue glass waste, similar to the bangle, was found. Although much of this was unstratified, several pieces were, (Millett and Halkon, 1984). On examination of the material, Henderson has suggested that it represents different phases in glass manufacture (Pers. Comm.). It is possible that the Bursea House bangles were produced on site, although this remains to be tested by analysis.

5.3 Conclusions concerning industrial sites in the Holme landscape block.

From section 5.1.6, it can be seen that iron smelting preceded the pottery industry within the Holme study area, having its origins in the Iron Age. More systematic sampling, examination and classification

is needed in order to gain more information concerning this industry. It has been noted (see section 5.1.3.) that the majority of smelting sites are close to the dendritic creek system which was certainly used for transport in the Iron Age as the discovery of the Hasholme boat shows.

A major problem in the study of the iron industry within the study area is the source of the ores used. It was previously thought that local siderite ores, extracted from the sand layers, or even bog ores were utilised. (Halkon, 1983). Gregory (1982, 356) suggests that the hard iron pan which forms in the upper levels of the greensand on the Norfolk Fen edge was likely to have been smelted in the Roman period. Mr. A. Aspinall (Pers. Comm.) thinks that this is unlikely and that ores from Scunthorpe or South Cave could have been used which were more productive. If this was the case, siting the smelting site near the river system would make good sense. To counter this, it could be that the large amount of non-magnetic slag present on some sites is symptomatic of the exploitation of poor quality local ores extracted from the sand or from peat on the margins of the creek system. (I am indebted to Dr. J. Evans for this suggestion). The coincidence of sites along the creek system would also be explained if this was the case.

In the Roman period potting and iron smelting were carried out on at least 3 sites within the Holme landscape block (see Table 5.1). Swan (1984, 49) writes that there is clear evidence from numerous kiln sites that other industries were associated with potting, iron smithying being the most common adjunct. Wakerley in Northamptonshire (Jackson and Ambrose, 1978) is a good example of an industrial site producing pottery and iron. Here iron working seems to have been carried out first and the potting does not seem to have been as long lived as in Holme on Spalding Moor. In the Holme landscape block both industries

would have been able to exploit joint resources of wood and clay and also share transport. Preliminary analysis of the fuel residues in the stokehole of a pottery kiln at Bursea House (Millett and Halkon, 1984, 47) shows that wood was being coppiced or pollarded. Environmental evidence from the Hasholme Boat (Turner in Millett forthcoming) does show that the margins of the dendritic creek system in which the boat sank were wooded in the Iron Age. It seems unlikely that Cleere's equation that "only 6 major sites in the Eastern Weald would result in the clearance of 300 to 500 square kilometres in a century", is correct (Cleere, 1982, 133). Woodland management would prevent this kind of devastation from occurring.

Although there is as yet insufficient data to make conclusive judgements concerning the nature of glass manufacture within the Holme landscape block at Bursea House (sites 16, 14) there are other sites in the country where the pottery and glass industries took place at the same site. Glass manufacture also occurs on the kiln site at Mancetter (Swan, 1984, 49). In the Holme landscape block the sand needed for glass making is readily available and the expertise for a furnace based industry.

CHAPTER 6.

AERIAL PHOTOGRAPHY WITHIN THE LANDSCAPE BLOCK

6.1 Introduction

A study was made of all the aerial photographic coverage of the landscape block held in the National Monuments Record. Those in the Cambridge University Committee for Air Photography collection were also examined, although these were much fewer in number. The writer was also able to initiate some aerial photography as part of the Holme Project. The bulk of the air photographs were large scale 'obliques'. Some 'verticals' held by the County Planning Department, Beverley, were examined.

The features appearing on the air photographs were mainly cropmarks and included enclosures, fields, hut circles and trackways (see section 6.3).

Aerial photographic coverage, although plentiful, has not been systematic and has mainly concentrated on areas of obvious cropmarks around Bursea (SE 8134), Hasholme (SE 8232), Arglam (SE 7836), Stray Farm (SE 8439) and the known kiln sites at Tollingham and Throlam. The extent of coverage is illustrated in Table 6.1.

Table 6.1. Numbers of aerial photographs per km S.E. grid square.

S.E.	77	78	79	80	81	82	83	84
40		3	1	4	2	25		13
39				6	2	3	22	38
38					15	7	5	10
37		13	1	2	8	13	8	
36	2	29	10		18	8	23	21
35		7	7	9	4	7	4	34
34		1	1	5	35	5		17
33				4	27	3	5	5
					11	27	16	8

There are several gaps especially along the western and south-

western edges of the study area. In the summer of 1986, flights were made by the writer (piloted by Mr. N. Stephenson) with the aim of examining these blank areas. There was a noticeable lack of features showing and this was no doubt the reason for the lack of photographs in the archives. It must be noted that the soil in these two sectors is not conducive to showing crop-marks and these constraints will be discussed in section 6.3 below.

Due to the kindness of Dr. J. Evans, the writer was able to have access to computer rectified plots prepared at Bradford University, of cropmarks in the central area of the landscape block. On the whole these plots were excellent in their accuracy.

Due to the cooperation of local farmers and his familiarity with the area, the writer was able to compare the plots with drainage scheme plans, some of these dating from the Victorian period and field maps dating from the time of the enclosures (1772) to the present. It was found that some of the features plotted at Bradford were in fact drainage systems and ploughed out field boundaries.

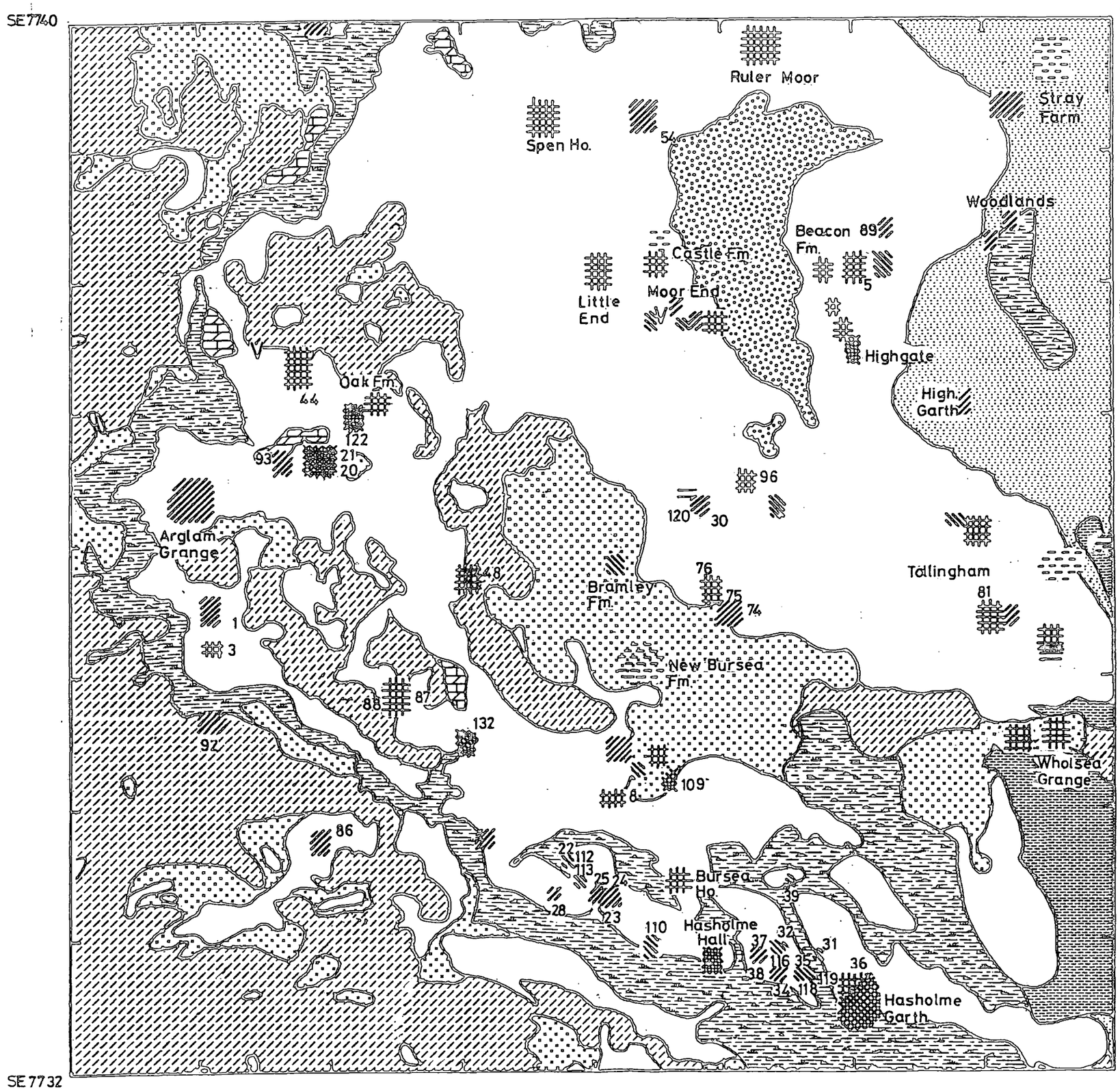
A schematic summary map (see Figure 6.1) was produced, using all existing photographs available in order to compare cropmark features with the soils and sites discovered from fieldwalking. It is hoped that a full detailed plot will be prepared at a later date as part of the Holme Project.

6.2 The classification of cropmark features.

6.2.1 The fields.

A feature of the cropmarks in the Holme landscape noticed by Evans (1985, 96) was the lack of extensive field systems such as those described by Riley (1980, 11 - 20) in South Yorkshire and North Nottinghamshire. There were possible 'Brickwork' pattern fields (Riley, 1980, 13) at:-

Figure 6.1 Distribution of crop mark features on the soils the Holme on Spalding Moor area



Common Farm, Arglam	(SE 787366)
Arglam Farm	(SE 782363)
North of Spen Farm	(SE 806393)
Possible traces at Throlam	(SE 820355)

There were possible 'Nuclear' plan fields (Riley, 1980, 13) at Ruler Moor (SE 824398) and 'Irregular' plan fields, (Riley, 1980, 13) near Tollingham (SE 845357). None of these were as clear as those described by Riley. The lack of field systems may parallel the situation noted in the Fenland by Salway (1981, 620), who ascribes this paucity to pastoral agriculture rather than arable. The possible nature of the agriculture practised within the Holme area during the Iron Age and Romano-British periods will be discussed in section 7.

Plough damage and differing sub surface geology could be influential factors in cropmark visibility. Soil constraints affecting cropmarks will be discussed in section 6.3.

6.2.2 The enclosures and other settlement features.

The bulk of the cropmark features in the study area are enclosures which can be categorised into the following broad groups:-

Group 1 - unenclosed ring ditches (hut circles).

Group 2 - sub-rectangular enclosures - sometimes double ditched.

Group 3 - sub-rectangular enclosures with a double ditch and a prominent central ring ditch.

Group 4 - sub-rectangular enclosures - sometimes with internal divisions and several smaller hut circles.

There are two sites, Holme Hall (SE 784375) and Moor End (SE 815377) which could be villas similar to those described by Ramm (1978, 91).

Most of the features in groups 1 to 4 fit into the rural settlement types of the Iron Age and Roman periods and the chronology of these will be discussed in section 6.4. At first glance, group 3

sites such as Bursea Grange (109) are typologically similar to enclosures with internal hut circles discussed by Haselgrove (1982, 63; 1984, 15) and Riley (1980, 44). On closer inspection the ditches of the enclosure at Bursea Grange are narrower and the enclosure more regular (Riley, 1982, 35). The site at Bursea Grange was excavated in August 1986 (Millett and Halkon forthcoming) and will be discussed in section 6.4. Apart from this, probably the most impressive complex of features lies to the west of Hasholme Garth (SE 830325) and consists of several double ditched enclosures, one of which is 5000 m^2 in area (site 36). Several of these enclosures are connected by short droveway features. At Hasholme Grange (Air photograph NMR SE 8232/3/87, SE 829526 and Cambridge University Z X 51) there is a complex of sub-rectangular ditched enclosures situated on a sand ridge with droveways leading down to the alluvium. It is possible that the land on the edges of the river systems, too wet for cultivation and settlement, may have been used for seasonal grazing of cattle (cf Lambrick and Robinson, 1979, 139 - 40). It is possible that the enclosure was used to confine cattle which were driven onto the new grass which grew following flooding. The 'carr' land (see section 2.2) was used in much the same way into modern times.

At Common Farm, Arglam (site 20) there is a major complex of fields, enclosures, round houses and rectangular buildings. Only 250 m northwest there is a similar 'palimpsest' of features at Oak Farm (site 122). At the same location Riley (1977, 28) describes a large square enclosure of some 30,000 m^2, filled by faint marks of a series of adjoining rectangular enclosures which, he suggests, could be a large occupation site with field boundaries. Nearby, between Holme House (site 44) and the River Foulness, there are a series of clustered sub-rectangular enclosures flanking lanes which are similar to those

described by Riley (1980, 22) at Gateford, Nottinghamsnire and at Langtoft (Wilson et al, 1984) and at Wetwang (Dent, 1983, 5; Figure 5) on the Yorkshire Wolds. Parallels can also be drawn between the ovoid enclosure at Rascal Moor (site 30) and those described by Riley (1980, 46) and Ramm (1978, 12), but the Holme example lacks internal features. This ovoid enclosure appears to antedate a sub-rectangular double ditched enclosure (see section 6.4).

The cropmark features at Throlam (site 74) and Welhambridge (site 87) are different from those described above and consist of overlapping small rectangular enclosures and buildings which coincide with kiln sites. There is some similarity between the features at Throlam and those described by Riley (1980, 32; Figure 5) at Barnby Moor.

6.3 Cropmark sites compared with the soils of the Holme landscape block.

In section 6.1 it was noted that there was a lack of cropmarks showing on the western and southwestern margins of the landscape block (see Table 6.1). It was suggested that the reason for this was the nature of the soil. Riley (1977, 28) comments that nothing was visible in these areas. The distribution of cropmark features compared to soils is illustrated in Figure 6.1 and summarised in Table 6.2.

This clearly shows the lack of cropmarks on the Foggathorpe clay, Sulham/Crimple alluvial and Down Holland peat soil series. Most of the blank areas of the aerial photographic coverage are in these soil types. Fieldwalking showed that site 48 which appears on Figure 6.1 as being on Foggathorpe clay was in fact on a slight sandy rise in the field which would be conducive to showing cropmarks.

Table 6.2. Soil types compared to cropmark features.

	Sands				Clay	Peat and Alluvium		Marl
	Na	HMC	P	EV	Fogg	Scl/DH		Wo
% of soil type in the landscape block (1)	0·5	45	10	6	22·8	9	2	2·8
Features (2)								
Group 1	-	11	2	-	-	-		-
Group 2	-	18	1	5	-	-		-
Group 3	-	6	1	-	-	-		-
Group 4	-	23	3	-	-	-		-
Cropmarks of indeterminate nature	-	2	1	1	1(3)	-		-
Total	0	60	8	6	1	0		0
% of total cropmarks	0	81	11	8	0.02	0		0

(1) For full soil descriptions see Table 2.2.

(2) For descriptions of features see section 6.2.2.

(3) See text.

Riley (1980, 59) has noted very similar results in the area east of Doncaster as follows:-

a) Soil series with many cropmarks:
Newport - loamy sand over sand, naturally well drained.

b) Soil series with few cropmarks:
Ryther - sandy loam over sandy loam to sandy clay loam.

c) Soil series without cropmarks:
Foggathorpe - clay loam or clay over silty clay.
Gilberdyke - peaty sand over sand.
Altcar - peat.

There are, therefore, similarities between the soils in the study area and those listed by Riley. As cropmarks only occur on the sand soils, it is clearly necessary to examine the evidence from fieldwalking to assess the reality of this data. The distribution of sites found

during fieldwalking (Figure 3.2 and Table 3.3) shows that on the Foggathorpe clays there were only 0·04 sites per hectare (6·6% of total sites), on the Worcester soil series 0·009 sites per hectare (3·7% of total sites) and on the Sulham/Crimple alluvium and Down Holland peat, no sites were found. The data from fieldwalking and aerial photography are therefore complementary in showing a preference for the drier sandy soils.

It must be noted that 8% of cropmark sites occurred on Everingham sand, however no pottery was found on this soil type during fieldwalking. Though none of the cropmark sites were fieldwalked the lack of finds elsewhere on this soil type may be attributed to the fact that the Everingham sand is easily windblown (see Table 2.2) and any surface finds obscured. It is also possible that some degree of alluvation (Bell, 1981, 85) may have occurred along the edges of the drainage channels and colluvation (Bell, 1981, 75) between the sand ridges, both of which obscure surface finds and make cropmarks less evident. Some sample excavation is therefore needed to determine the extent of these processes if they occurred.

6.4 The dating of cropmark features within the Holme landscape block.

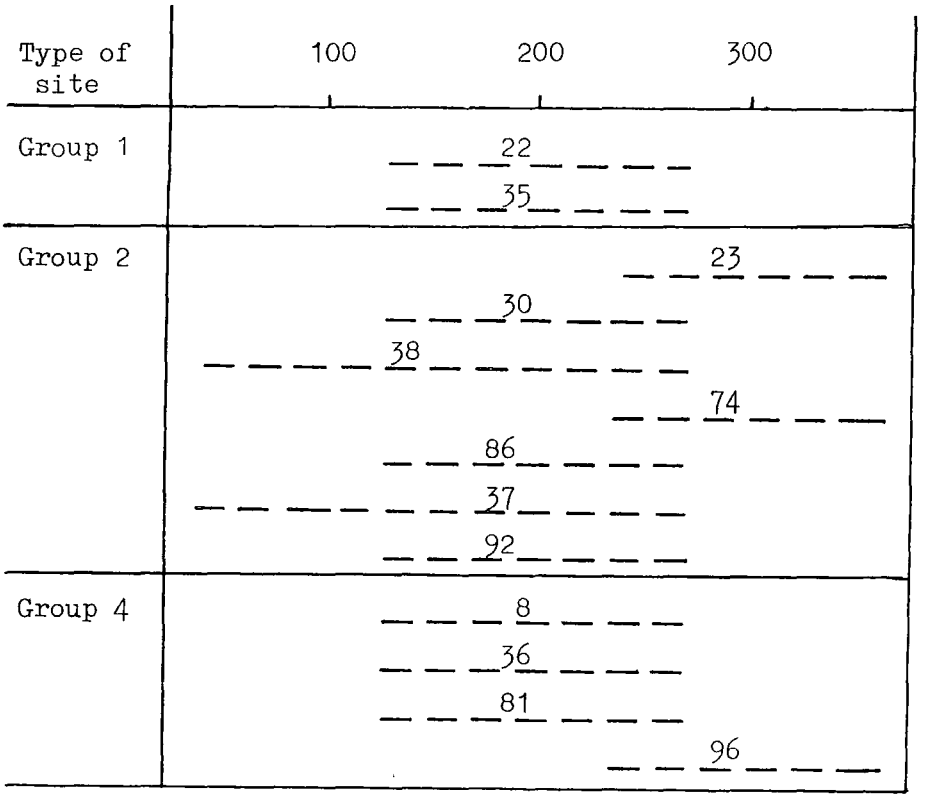
The methods used to establish a broad chronology of the sites revealed as cropmarks included typological comparison with features elsewhere, the evidence from fieldwalking and the results of excavation. As yet only the enclosures at Hasholme Hall, the group 3 site at Bursea Grange and a hut circle at East Bursea Farm have been excavated. The presence of dated material collected from other sites during field-walking provided some guidelines as to the dating of the sites. The relationship between cropmark sites and fieldwalked material is shown in Table 6.3.

Table 6.3. The comparison between cropmark sites and fieldwalked material.

Type of Site	Total	Sites with R.B. pottery	Total	Sites with iron working	Total	Sites without pottery or iron working	Total	Unwalked sites	Total
Group 1	19	1,22,25,31,34, 35,39, site 32, poss. Iron Age sherd	7	32,120,112, 113,118,119.	6	Bursea (SE 814343) Skiff Farm (SE 824363)	2	Woodlands Fm. (SE 83263810 Beacon Farm (SE 832381) Tollingham (SE 83853614) Moor End (SE 814377) (SE 816377)	5
Group 2	27	23,24,28,30, 34,37,38,54, 74,75,86,89, 92,93,1.	15	116,120	2	Woodlands Fm.(SE 83253840) Stray Farm (SE 841394)	2	Bursea Lodge (SE 812345) Woodlands Farm (SE 83253840) Arglam Grange (SE 778363) North of Cherry Wood (SE 788399) Bursea Farm (SE 801338) Moor End (SE 816378) " " (SE 818377) High Garth (SE 839371)	8
Group 3	7	20	1	109,122,132.	3	Hasholme Hall (SE 81853285) Highgate (SE 830376) Hasholme Garth (SE 831326)	3		
Group 4	30	3,5,8,20,21, 36,44,48,76, 81,87,88,93, 96.	14	87.	1	Wholsea (SE 833345) " (SE 846346) " (SE 846355) Tollingham (SE 840360) " (SE 841355) Highgate (SE 828377) Castle Farm (SE 814382) Bursea Grange (SE815344) Bursea House (SE 817335)	9	Spen House (SE 806393) Ruler Moor (SE 823398) Highgate (SE 828372) Little End (SE 810381) Moor End (SE 819377) Beacon Farm (SE 828381) Oak Farm (SE 793371)	7

While it is appreciated that surface pottery collected during fieldwalking may not be directly related to cropmark features and that firmer dating is only provided by the presence of securely stratified material, the presence or absence of pottery found during fieldwalking was used to date activity within the area of cropmark sites. This was done by using the chronology of sites with Romano-British pottery in section 4.9.

Table 6.4. Chronology of cropmark sites with R.B. pottery.



It has been suggested (Ramm, 1978, 12) that the ovoid enclosures such as the feature at Forest Field (Rascal Moor, site 30, aerial photograph NMR SE 8136 880/41) are early Iron Age in date and like some of the other types in the landscape block could be associated with keeping livestock. There are some similarities between these ovoid enclosures and the so-called 'Banjo' enclosures described by Challis and Harding (1975, 137 - 8) although these are mainly a

southern phenomenon. From the evidence of the aerial photograph, the ovoid enclosure at Forest Field predates a sub-rectangular enclosure of group 2 (site 30). During fieldwalking, no Romano-British pottery was found in the area of the ovoid enclosure, but only in the area of the group 2 enclosure. Similar ovoid enclosures are noted by Loughlin and Miller (1979, 42) west of the Market Weighton Canal at SE 845354 and by the writer at SE 849360.

The series of sites in group 3 are also likely to be Iron Age in date, but later than the ovoid features, being typologically similar to those discussed by Haselgrove (1982, 63). The site of this type at Bursea Grange (see section 5.1.5) which was partially excavated in the summer of 1986 yielded little in the way of dating evidence apart from a sherd of crude hand-thrown pottery. The negative evidence of the lack of Romano-British pottery, plentiful on a kiln site less than 100 m away would suggest that the site is Iron Age. Although it has been stressed (Haselgrove, 1985, 16) that

'the relationship between ploughsoil assemblages and surviving earthbound features is a matter for investigation rather than assumption',

the fact that Romano-British pottery has only been collected on 1 of 7 sites (site 20) of this type (see Table 6.3) could provide further corroborative evidence for the dating of group 3 enclosures. The Roman pottery on site 20 could be connected with a later kiln site rather than the group 3 enclosure. Sites 109, 122 and 132 had evidence of iron working on them (see Appendix 8.2). Late Iron Age enclosures of a similar type at Levisham Moor (Hayes and Turnbull, 1983, 2) also had evidence of iron working in them. The group 2 sites may have been established in the later Iron Age period as at

Hasholme Hall (site 37), but unlike the group 3 sites seem to have continued into the Romano-British period (see Tables 6.3 and 6.4).

The largest of the enclosures and other cropmark features around the Hasholme kiln site (aerial photograph CU Z X 53, SE 823 328) was described by Evans (1985, 102) and in a geophysical survey conducted by Mr. J. Pocock (1983, 20 - 2). From the partial excavation carried outin 1970 - 1 (Hicks and Wilson, 1975) and survey and sample excavation of drainage trenches carried out in 1984 (Millett and Halkon, 1985, 38) it appears that the earliest ditches date from the later Iron Age and early Roman period and had been partially filled by the time of the major phase of pottery production. Hasholme kiln 2 had been built on top of a ditch (Hicks and Wilson, 1975, 54 - 55). The site at Hasholme is currently being reassessed in the light of recent discoveries.

A similar sequence was apparent from the excavations carried out at Bursea House (Millett and Halkon, 1984, 45 - 48) where a complex of ditches predated the major phase of the pottery industry. A parallel situation is described by Branigan (1984, 27) who suggests that enclosures at Driffield, Rillington and Garton Slack were levelled and out of use before Roman pottery began to circulate in the area.

The development of the strings of sub-rectangular ditched enclosures flanking trackways (see section 6.2.2) has been dated to the first century A.D. (Riley, 1980, 22), but not all droveway features are as old. At Stray Farm (aerial photograph NMR SE 8439/6/195) a droveway, visible for c. 1 km was found in excavation to post date a later mediaeval bridge. As the 'Stray' was common land for the grazing of livestock, it is likely that the feature was a cattle droveway. (Millett and Halkon forthcoming).

The dating of ring ditches in group 1 is problematic. Dent (1983b, 36) suggests that the earliest of these unenclosed sites are pre 2nd century B.C. Excavation has shown that the round house tradition continued well into the Roman period as at Shiptonthorpe (Millett and Halkon forthcoming), where 3rd century pottery was found in a round house countering suggestions made by Branigan (1984, 30) that timber huts go out of fashion about the time of the Roman conquest. The round house was eventually replaced by a rectangular building.

Most sites within the Holme landscape block show a limited extent of Romanisation similar to those described by Dent (1983b, 43) at Wetwang, who gives the criteria of this as being the presence of simple rectangular buildings and Romano-British pottery.

The rectangular buildings at Throlam (see section 6.2.2) appear to be contemporary with the period of pottery production in the later third and fourth centuries, however modern excavation is needed to confirm this. A possible 'Brickwork' field system (Riley, 1980, 13) appears to be associated with these, which would fit in with Riley's dating.

Jones (1984, 39) has noted the lack of villas in the central and lower parts of the Vale of York, his explanation being the poor drainage and inhospitable nature of the landscape. There are, however, two possible villas within the Holme landscape block at Holme Hall (SE 784375; NMR 7837/1/313) and Moor End (SE 815377; CU - SF 880). Neither of these sites have yet been excavated. Bennett (1984, 36) has noted that elsewhere in East Yorkshire, at Wetwang Slack, Langton, Rudston, Harpham and Welton, villa buildings had appeared on sites formerly occupied by native farmsteads before the end of the second century A.D. At Brantingham (SE 932287) the prosperous villa complex (Loughlin and Miller, 1979, 24) was preceeded by a large and prestigious Iron Age site discovered during quarrying in the summer of 1983 (Pers.

comm. J. Dent). As yet this progression is not obvious within the Holme area, although there are complexes of features which have been typologically dated to the Iron Age near both possible villa sites. From the evidence of fieldwalking (see Table 6.4) it appears that the sites in group 4 remained occupied into the later Roman period, but once again it must be stressed that excavation of these sites is needed before any firmer conclusions can be drawn about their chronology.

CHAPTER 7.

CONCLUSIONS

It has been possible to achieve many of the aims outlined in the Introduction, although as in all archaeological projects of this nature further questions have been generated. By the examination of documentary, environmental and archaeological evidence, a picture of the Romano-British landscape in the study area has been reconstructed. It must be stressed that there is scope for further investigation of the landscape, especially of a palaeobotanical nature.

Study of the geological and soil maps (see sections 2.1 and 2.2) shows that the Holme on Spalding Moor area forms a distinctive unit within the Vale of York with an extremely varied pattern of soils, drainage and microtopography. Evidence from documentary historical sources, soil maps and aerial photography shows that without modern artificial drainage and embankment, much of the area would have been wet, apart from the ridges of Aeolian sand mainly in the Holme Moor and Portington common soil series, which provide the most suitable land for settlement and exploitation since the prehistoric. There is a strong link between drainage, soil type and sites as the bulk of these are on the three driest soil series (see Table 3.3.).

Ready access to the Humber basin was given by a dendritic estuarine creek system. The discovery and excavation of the Iron Age Hasholme boat, which sank in this system with a cargo of meat shows the importance of water communication during this period. This was followed through into the Romano-British period with pottery from the Holme on Spalding Moor kilns being transported to Brough and Faxfleet on the edges of the inlet of the Humber, down the dendritic creek system. The location of the iron working sites (see Figure 5.1) on each side of the River Foulness around Welhambridge also suggests exploitation of water transport, though further work is needed if the

exact nature of the economic system operating is to determined.

Environmental evidence from the deposits around the Hasholme boat shows that the area was wooded with oak, alder and hazel until c. 400 B.C. (Turner in Millett forthcoming) although the distribution of flints and stone axes (see Figure 3.2) suggests some activity along the margins of the drainage channels from the Neolithic and possibly earlier. Woodland exploitation remained important during the later Prehistoric and Romano-British eras probably providing fuel for furnace based industries. Preliminary investigation of carbonised wood in the flue of a kiln at Bursea House shows that coppicing or pollarding was carried out and therefore the woodland was managed. Further work on the waste materials from Moore's Farm, Welhambridge, will provide data on the use of timber as a fuel resource in the iron industry.

The landscape was not totally wooded as the aerial photographic evidence shows the presence of Iron Age enclosures of various types. Preliminary examination of the samples of excavated deposits at Bursea Grange showed the presence of cereals (Millett and Halkon forthcoming) and sampling carried out on another excavation associated with this survey at Bursea House showed that cereals had been cultivated near the kiln site. Traces of some field systems appeared as cropmarks and the presence of enclosures with droveways suggests that livestock was also kept. It could be that industrial activity provided a 'cash crop' due to the comparatively marginal nature of the land as a 'stop gap' during the slack season of the farming year (Jones, 1982). Further analysis of environmental samples is needed in order to test this hypothesis.

Comparison of evidence from aerial photographs, fieldwork and excavation suggests that iron working and manufacture took place in the study area in the later Iron Age, continuing into the later

Roman period. The grouping of such sites around Welhambridge suggests a specialist industrial zone. Further evidence for iron working and manufacture has recently been found just outside the landscape block at Manor Farm, North Cliffe, (SE 868363) (Pers. Comm. Mr. J Leonard) and at North Cave (SE 880380) in Iron Age contexts only 3 km to the east of the study area, (Pers. Comm. Mr. J. Dent).

Evidence within the Holme landscape block and beyond shows that pottery production began in the later second and third centuries, reaching its height in the fourth. It has been possible to define a broad chronology for Romano-British industrial and settlement sites based on fabric and form analysis. The areas nearest the main channel of the River Foulness, close to the estuarine creek system appears to have been exploited first, with the major centre of pottery production moving to the Throlam/Tollingham area in the fourth century. The concentration of sites discovered during fieldwalking and cropmark features implies that settlement was more intensive here. In the third century, the production of Dalesware type pottery and the form of kilns (Swan, 1984) suggest links with North Lincolnshire. It is possible that the estuarine creek system provided a convenient method of communication. Further research on both banks of the Humber is needed to clarify this relationship.

Features revealed as cropmarks and the evidence from fieldwalking coincide in their distribution and show preference for better drained, slightly higher sandy soils. The settlements themselves show little change from the Iron Age through the Roman period, although they follow developments paralleled elsewhere in Northern Britain. Rectilinear enclosures and buildings were added to existing sites, although it is possible that some of these enclosures, for instance those at Throlam, were associated with the pottery industry.

The evidence from aerial photography and fieldwalking shows clustering of sites around the hamlets of Bursea, Hasholme, Arglam, Welhambridge, Tollingham, Thrōlam and Skiff. Due to the lack of evidence it is as yet unknown whether there is any continuity (cf Taylor, 1974, 12) between the Romano-British settlements and those hamlets listed above, although it is almost certain that the pottery industry collapsed prior to the arrival of any Anglian settlement (Brown, 1974, 16 19). The coincidence between 'site' and 'hamlet' may simply be caused by the same settlement constraints being present in both periods; the sand ridges upon which they occur being the most suitable for exploitation. The presence of late Roman pottery does show that the Holme landscape block continued to be occupied and not subjected to any total marine inundation as has been previously suggested, although in such a marginal area, even a minor change in climate and/or sea level could have made a significant difference to settlement potential.

Recent excavation on the possible Romano-British small town site at Shiptonthorpe possibly the Delgovicia listed in the Antonine Itinerary (Rivet and Smith, 1979, 331-2) shows that this nucleated settlement has close connections with its rural hinterland in the Holme on Spalding Moor area, and seems to have been a market centre providing an outlet for its industries. It is hoped that work in forthcoming seasons will provide the answers to questions concerning this relationship as yet unresolved.

Fieldwalking methods proved succesful in determining the extent of Romano-British activity within the landscape of the Holme on Spalding Moor area. It was possible to compare material from sites with a view to building up a chronological picture, although for some sites, further data is needed. There is also a need for more sample excavation of cropmark sites and a continued programme of geophysical surveying.

Environmental work is not yet completed and it is likely that

palaeoenvironmental evidence will provide more detail about the changing landscape. In the summer of 1986 Jordan continued investigating the estuarine creek system in the Hasholme area and it is likely that more information on the drainage system, so important in the area, will be provided.

More detailed work is needed to determine the nature and extent of the prehistoric settlement within the landscape block. Further analysis of slags and other debris from iron working and manufacture is also required. Future projects are needed to relate the Holme area to the nearby complexes of enclosures around North Cliffe, Hotham and North Cave (Loughlin and Miller, 1979) and to Roman East Yorkshire as a whole.

This dissertation has shown the value of bringing together material from diverse sources to create a picture of the development of a landscape and the activity within it.

Appendix 8.1. A gazeteer of sites with Romano-British pottery in the Holme on Spalding Moor landscape block.

Abbreviations.

Acc. No. - Accession number, Kingston-upon-Hull City Museums.

G.R. - National Grid reference.

Soil type - Na = Naburn
HMC = Holme Moor Common Sands
PC = Portington Common
FC = Foggathorpe Clay
WC = Worcester Marl.
(For full descriptions see section 2.2)

D.W. - Distance from watercourse, measured at 90° from the nearest watercourse in 25 m bands (see Figure 3.6).

Method of Discovery.

IF - Informed of site by the farmer of other individual.

M - Information from Hull Museum site index or collections.

GW - Grid walked (see section 3.2).

LW - Line walked (see section 3.2).

EXC - Excavation.

LM - Loughlin and Miller (1979).

S - Walked by author alone.

A.P. = Aerial Photographs.

N.M.R. - National Monuments Record.

D.U. - A.P. taken by Dr. M. Millett and P. Halkon deposited at Durham University.

C.U. - Cambridge University aerial photographic collection.

C.P.D. - County Planning Department, County Hall, Beverley.

Type of Site.

I+ - Major iron working site.

I - Iron working.

* - Kiln site.

S - Probable settlement sites.

S? - Small scatter of sherds; possible settlement site.

Dating - Based on the pottery evidence discussed in section 4.9.

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
1	7-86	Arglam Grange Mr.M. Rhodes	782354	HMC	250	LW LM	7835/ 4/ 579/80 NMR	I+	Scatter of sherds and burnt stone coinciding with 2 groups of ditch systems. Large amounts of iron slag. Spread of material c. 25 m^2	23-1-83
2	" "	" "	778354	HMC	25	LW LM	D.U. 1986	S I	Concentration of sherds, some slag and oyster shell on sand ridge sloping down to peat level. Spread of material c. 30 m^2. Dating from Pottery 2nd - late 4th C. A.D.	23-1-83
3	" "	" "	780352	HMC	100	LW LM		S	Scatter of sherds on sand ridge. Spread of material c. 15 m^2	23-1-83
4	" "	Beacon Farm Mr. H.Towse	831383	HMC	50	GW IF	NMR 8338 880 42/46	S	Concentration of sherds on sandy plateau with a large number of burnt stones, site associated with site 89. Spread of material c.600m^2	10-9-83 6-10-83
5		" "	83053808	HMC	25	IF	NMR	S?	Sherds reported at this grid reference by farmer, coinciding with square ditched enclosure.	10-9-83
6	17-66	Black Plantation Forestry Comm.	792368	HMC	200	M		*	"R.B. Pottery found at Blackwood whilst digging a ditch out."	
7		Bursea Grange Mr.G.Laverack	81503416	PC	250	S M	NMR 8134 879/ 29	S	Scatter of sherds and burnt stone c. 30 m^2. NB. KINCM 1182-1983. Several grey-ware jars from Mortimer Collection found at this farm.	3-3-84

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
8		Bursea Grange Mr.G.Laverack	812341	HMC	300	S	NMR 8133/ 1/ 98	*	Pottery reported by Mr.W.Halkon 1970, some wasters. Scatter of sherds and kiln material coinciding with square enclosures. Spread of material c.20 m^2.	3-3-84
9		" "	813344	HMC	625	S	8134/ 7/ 58	S	Scatter of burnt stone and small sherds of pottery on sand ridge near a square ditched enclosure. Spread of material c. 20 m^2.	3-3-84
10		" "	812342	HMC	500	S		S?	Small scatter of sherds on sand ridge. Spread of material c. 5 m^2	3-3-84
11	6-86	Bursea House Mr.A.S.Johnson	81303372	HMC	25	IF		*	Large quantity of sherds found by farmer during the renovation of a farm building. Kiln material and burnt cobbles recovered at a depth of c. 70 cm. Site now buried under a concrete floor. Dating from Pottery 2nd - early 4th C. A.D. (Halkon, 1983, site B1).	-10-80
12	" "	" "	81293369	HMC	25	IF		S	The greater part of a fabric 4 plus pot sherds of 2 other similar vessels found by farmer when digging a new post hole for pig shed door! (Halkon 1983,site B2, see Figure, p.17)	-10-80

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
13	6-86	Bursea House Mr.A.S.Johnson	81253366	HMC	25	IF		S	A large quantity of R.B. sherds and burnt stone were found whilst a drainage ditch was dug in 1970. The profile of two ditches were seen in the side of the drain and contained some pottery (Halkon,1983,18). Another ditch was found in the drain 17-4-86. When line walked a concentration of sherds and burnt stone found in the N.E. corner of field at highest point. Spread of material c.900 m^2, geophysical survey (Pocock, 1986) (Swan, 1984; Fiche, 5.679).	16-4-81
	-70	" "				M LW				10-10-81 17-4-86
14	6-86	" "	813338	HMC	75	IF	AX 1		Large quantities of sherds, kiln material and burnt stone first noticed 1963. Field walking and geophysical surveying conducted. (Pocock, 1982; Halkon, 1983, site B4). Glass slag fragments, iron slag and a spindle whorl collected. Site excavated by Durham University and ERAS. Dating from Pottery 1st to late 4th C. A.D. (Halkon and Millett, 1983, 1984) (Swan, 1984; Fiche, 5.679-80).	6-11-82
	25-63	" "				GW EXC	25 PA CU	* I+		20-11-82
15	" "	" "	81353375	HMC	100	S IF		*	Several kiln bars, kiln material and sherds collected in raspberry patch. Geophysical survey by Pocock, 1982. Spread of material c. 40 m^2. Excavated 1984 (see site 14). Spread of material c.1600 m^2.	16-4-81 6-11-82
		" "				EXC				

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
16	25-63	Bursea House Mr.A.S.Johnson	81303368	HMC	50	IF S		S I	Large quantities of sherds, iron slag and glass slag in the garden of the house (Halkon, 1983, site B5).	16-4-81
17	6-86	" "	81153302	HMC	25	IF S		S?	Light blue/green glass bangle and the base of a pot decorated with a stamp. Whole profile of dish D1a. (Halkon, 1983, 20; site B8).	9-5-81
18	" "	" "	8120335	HMC	25	S	NMR 879/ 40 885	S I	Scatter of burnt cobbles and sherds on sand ridge, coinciding with rectilinear enclosures on aerial photograph. Site near ancient bank of previous course of the River Foulness (see section 2.3.3) Spread of material c. 400 m^2.	22-5-82
19	" "	" "	813335	HMC	25	S		S?	Scatter of sherds on small sandy rise which may have been on island in the river. Spread of material c. 20 m^2	22-5-82
20		Common Farm Arglam Mr. M. Rhodes	78853660	Na	250	M EXC	DU 1986 NMR 7836/ 4/ 384	*	Romano-British 3rd or 4th century kiln excavated by Mr.E. Greenfield 1942-3. (unpublished) (see Swan, 1984, 150). Sherds also collected by Mr. W. Halkon, 1970. (Swan,1984; Fiche, 5.681).	

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
21		Common Farm Arglam Mr.M. Rhodes	78953670	Na	325	IF	DU 1986 NMR 7836/ 4/ 384 CU 2x57		Greyware dish in Fabric 1, burnished, waster, discovered during drainage in the 1930's in possession of Mr. Edwin Laverack, 12, Runner End, Holme on Spalding Moor.	
22		East Bursea Farm Mr. P. Payne	80853355	HMC	125	LW EXC	NMR 8033 879/ 41	S I	Stone, slag, burnt cobble and sherds of R.B. pottery collected in area of a hut circle on A.P. site on sand plateau. Excavation Durham University, ERAS, 1985. (Millett and Halkon, 1986).	18-9-82
23		" "	81103330	HMC	50	LW	NMR 8133 879 41	S	Burnt stone, oyster shell and sherds associated with site 18, collected in area of square enclosure showing on A.P. Scatter of material c. 50 m^2.	18-9-82
24		" "	80963338	HMC	50	LW	NMR 8033 879/ 42	S	Scatter of sherds on sand ridge coinciding with settlement features on A.P.	18-9-82
25		" "	80853340	HMC	75	LW	NMR 879/ 42	S	Small scatter of sherds and burnt stone over an area of c. 20 m^2 coinciding with possible settlement features on A.P.	18-9-82

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
26		East Bursea Farm Mr. P. Payne	8093330	HMC	50	LW	NMR 879/42	S	Small scatter of sherds and burnt stone over an area of c. 20 m^2 coinciding with settlement features on A.P.	18-9-82
27		" " (Chapel Field)	80603392	HMC	125	GW	DU 1986	S I	High sand plateau with scatter of sherds and iron slag. R.B.material appeared to be in c. 100 m^2 spread on N.E. edge of the plateau away from the main mediaeval chapel site. (Pocock, 1982). Dating from Pottery 2nd to late 4th C. A.D.	9-10-82
28		" "	808332	HMC	75	IF	RAF vert.	*	"Polygonal enclosure with one or more possible hut circles outside" (Loughlin and Miller, 1979, 42). Farmer reported finding kiln material and wasters at this location on a sand ridge. (Pottery in possession of Mr. P.H. Payne.) (Swan, 1984; Fiche, 5.679).	
29	79-1986	Fir Tree Farm Mr.K.Drayton	78613310	HMC	250	S		S I	Scatter of sherds and burnt stone over an area of c. 50 m^2 on sandy ridge. The farmer reported an old story of a trackway running across the field.	1-11-85
30	76-1986	Forest Field, Skiff Farm Mr.E. H. Marsland	81953618	HMC	25	GW	NMR 8136 880/41	S I	A large number of burnt stones and a few sherds of pottery and pieces of slag in area of rectilinear enclosures showing on A.P. geophysical survey conducted by Mr. J. Pocock. Spread of material c. 200 m^2.	14-2-82

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
31	5-1986	Hasholme Grange Mr.J.Williamson	827329	HMC	50	S	NMR 8232 879/38	S	Sherds and burnt cobble coincidental with a ring ditch showing on the A.P. site on sand plateau.	14-2-82
32	"	" "	82453294	HMC	25	S	NMR 8232 879/31	S I	A small scatter of sherds of R.B. pottery and one possible Iron Age sherd in area of complex of enclosures showing on A.P.	26-9-82
33	"	" "	82703300	HMC	50	S	NMR 8232 879/33	S	Areas of burnt stone and a few R.B. sherds in the area of a series of large rectilinear enclosures	26-9-82
34	"	" "	82433271	HMC	25	S	NMR 8232 993/15	S I	Burnt stone and a few R.B. sherds on the slopes of the sandy rise, coinciding with enclosures and other features showing on A.P.	26-9-82
35	"	" "	82563280	HMC	25	S	NMR 8232 879/38	S	Major complex of enclosures, trackways and hut circles showing on A.P. A scatter of burnt stone, sherds and oyster shell were found in the area of these features over an area of c. 200 m^2.	26-9-82
36	"	" "	83013275	HMC	125	S	NMR 8332 879/33 993/15 2/227	S	Large square double ditched enclosures with adjoining trackways, on top of sand ridge, showing on A.P. Sherds and burnt stone were found in area of these features.	25-2-84

(continued)

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
36	5-1986	Hasholme Grange Mr.J.Williamson	83013275	HMC	125	S	DU 2/22 2/23 2/24		(continued)	25-2-84
37(a)	25-63 57-70 13-72	Hasholme Hall (Pot field) Mr.R.Morris Hasholme Excavation	823328	HMC	100	EXC GW	CU ZX 53	* I+	R.B. sherds first recognised by Mr. W. Halkon in 1957. Small trench dug by Mr. Skinner of Market Weighton School, 1963. Excavation of several kilns by ERAS 1970-2 (Hicks and Wilson, 1974). Geophysical surveying carried out by Mr. J. Pocock in conjunction with grid walking by ERAS (Halkon, 1983) (37b). Spread of iron slag, sherds and burnt stone c. 4000 m^2 on sand plateau. (For pottery see App. 8.3, 37b). This coincides with hut circle and enclosure features showing on A.P. and features sampled during drainage works in August 1984. Dating Iron Age to early 4th C. A.D. (Millett and Halkon,1985) (Swan,1984: Fiche,5.678).	17-10-81 24-10-82
38		" "	82253350	HMC	25	LW	CU ZX 53	* I	Scatter of sherds, concentration of iron slag, kiln material and a late Roman coin of House of Constantine (FEL TEMP REP) over an area of c. 150 m^2 on the slope of a sand rise near creek system.	24-10-82

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
39		Hasholme Hall (Pot field) Mr.R.Morris Hasholme Excavation	82453350	HMC	25	LW	NMR 8133/ 1/102	S	Small scatter of R.B. sherds and some burnt stone over an area of c. 30 m^2 on an 'island' of sand to the east of Fox Covert plantation. Traces of a square ditched enclosure show on A.P. Ditch profiles seen during drainage 24-10-82.	
40		Hasholme Hall Mr.R.Morris	82873370	HMC	25	LW	NMR 8233 2/ 323	S	Scatters of burnt stone and a few sherds of pottery on a series of low sandy hills known as 'Hasholme Hills'. Area of scatters c. 30 m^2	24-10-82
41		" "	82453397	PC	125	LW			Barbarous Radiate coin	24-10-82
42	13-1986	Highgate Mr.Oxtoby	826373	WC	250	S IF	NMR 8237 880/ 42	S I	R.B. sherds, oyster shell and burnt stone in a scatter over c. 100 m^2. Mr. Oxtoby reported that finds of pottery used to be more common. The site is on the break in soil between Keuper marl and HMC. There are gypsum beds nearby.	17-9-83
43	7-1986	Holme House Mr.M.Rhodes	774368	PC	25	LW IF EX		* I	Large quantity of sherds, kiln material, burnt stone on low sand ridge branching off from Ragdale Hills, material spread over c. 2000 m^2. Ditch profile containing R.B. pottery cleaned and drawn in western section of Foss Dyke drain. Dating from Pottery 2nd to late 4th C. A.D.	15-1-83

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
44	7-1986	Holme House Mr.M.Rhodes	787372	HMC	25	LW	DU 2/15 2/17 2/21 NMR 7837 314-16	S	Major complex of enclosures, hut circles, trackways and fields show on A.P. Field now direct drilled, however, some sherds and burnt cobble collected in area of enclosures.	4-2-84
45	12-1986	Ladies Parlour (Parlour Farm) Mr.Wilkinson	82753621	HMC	25	GW		*	A very large concentration of R.B. sherds and kiln material c. 300 m^2 on sand 'plateau'. Dating from Pottery later 3rd to later 4th C. A.D.	20-11-83
46	11-1986	Landing Farm Mr.F.Laverack	84293625	HMC	25	S IF		*	Large number of sherds, burnt stone and kiln material scattered over c. 400 m^2. The topsoil was noticeably darker in this area. Dating from Pottery 2nd to early 4th C. A.D.	3-4-85
47	14-1986	Lodge Farm Mr.L.Hawcroft	804362	PC	625	S IF		*	Kiln site directly opposite site 56 known since 1950's. A complete vessel found during drainage at this time. Kiln material, sherds and burnt stone in 400 m^2 concentration.	17-12-83
48	14-1986	" "	80403640	PC	500	S		S	A small scatter of sherds and burnt cobble, over area of c. 100 m^2, probably a settlement site associated with site 47.	17-12-83

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
49	14-1986	Lodge Farm Mr.L.Hawcroft	80053582	HMC	1125	S		S	Scatter of sherds, burnt cobble, oyster shell and bone on slight rise in a clay area. Spread of material c. 40 m^2.	17-12-83
50	"	" "	80173583	FC	1250	S	NMR 8035/ 3 356-7	S	Small concentration of sherds c. 20 m^2 on a slight rise. This inside hut circle and multiple square enclosure feature on A.P.	17-12-83
51		Marl Pits Farm Mr.Huddleston	78653839	HMC	25	M IF		I	The farmer reported finding sherds of R.B. pottery, "A curious waster lid" found north of the farm house. Pieces of iron slag and burnt stone were found on the banks of an old branch of the River Foulness. (Swan, 1984, 5.681).	
52	10-1986	Monk Farm Mr. Langthorn	78553753	FC	25	S	NMR 7837 2 31	*	A concentration of waster sherds and kiln material spread over an area of c. 1000 m^2 in field immediately to the east of medi-aeval moated site. A.P. shows poor crop growth in this area. Dating from Pottery 2nd to early 4th C.A.D.	2-11-85
53	"	" "	78653865	HMC	200	S		S?	A small scatter of R.B. sherds on a sandy ridge c. 20 m^2.	2-11-85
54		Park Farm Mr.W. Ward	81463910	HMC	500	IF S		S	R.B. sherds found during the laying of a gas main. Further pottery was collected when the site was visited. Dating from Pottery later 3rd to later 4th C. A.D.	-8-1984

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
55	KINCM Rack 38	Prospect Farm Mr. H.Williamson	805364	PC	500	IF S EXC		*	Site reported by Mr. G. Morton of Hasholme Carr Farm Autumn 1983, (55a). Large spread of R.B. sherds on a slight sandy rise in the corner of the field over c. 2000 m^2, fieldwalked by author 14-1-84 (55b). In October 1985 drainage carried out by Lightowlers Drainage Company revealed some ditch profiles and a possible stoke pit in the corner of the field. Large quantities of sherds were found in the drainage spoil (55c). Dating from Pottery 2nd to late 4th C. A.D.	14-1-84 (55b) -11-85 (55c)
56	16-1986	Rose Villa Mr.H.Brown	80453617	FC	700	IF GW		*	Mr. Brown reported finding R.B sherds in the corner of the field and also under grass in front of the house. The site was grid walked and large quantities of sherds, kiln material and burnt stone were collected on a slight rise. Spread of material c. 400 m^2, (see site 47). Dating from Pottery later 3rd to later 4th C. A.D.	9-10-83
57		" "	80353620	FC		IF			Mr. Brown reported finding a Roman coin at this location, which is now lost.	

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
58		Runner End Farm (The Homelands) Mr. J. Lawley	80413835	HMC	25	IF		*	Roman pottery was reported at this farm and material collected by pupils from Holme County Primary School and examined by author. Some kiln material and several wasters were included. This site was also a later mediaeval kiln site.	
59	78-86	Sand Hill Farm Mr. E. Smith	79423580	HMC	875	IF GW		*	Roman pottery had been found by the farmer for many years at this location. Kiln material and a large number of sherds was collected in an area 100 m^2 on a slight rise. Dating from Pottery later 3rd to later 4th C. A.D.	26-11-83
60	78-86	" "	79523589	HMC	1125	S		S?	A small scatter of sherds found over a 20 m^2 area on the top of a sandy hill.	26-11-83
61		Seaton New Hall Mr. J. Hall	78923925	Na	25	IF LW		S	A few sherds of pottery found on a sandy hill.	-1-1986
62		" "	78553920	FC	150	LW		*	A concentration of pottery (some wasters) and baked clay about 400 m^2 on edges of clayey and sandy soil.	
63		Seaton Old Hall	77773945	PC	100	IF		*	Mr. J. Hall found a large quantity of R.B. sherds and kiln material during the potato harvest when he owned the farm. This was inspected (continued)	-11-84

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
63		Seaton Old Hall	77773945	PC	100	IF		*	(continued) by the author. When the site was walked, nothing at all was seen on the surface of the field. Dating from Pottery 3rd to later 4th C. A.D.	-11-84
64	12-1986	Skiff Lane Mr.Wilkinson (Parlour Farm)	816375	HMC	75	S	DU 1983	I S	A scatter of large cobbles (some burnt), R.B. sherds, slag and oyster shell c. 100 m^2 in area. This coincided with a series of trackways showing as cropmarks.	1-10-83
65	29-1986	Skiff Farm Mr.E.Marsland	82383670	WC	25	LW IF		S	The farmer reported finding R.B. sherds near an old WW2 bomb store. Some sherds of pottery collected on field edge, but it was impossible to ascertain the full extent of the site.	12-4-84
66	29-1986	" "	82453664	HMC	125	LW	NMR 8236 1-4	S	Scatter of R.B. sherds on a sand ridge, coinciding with enclosures and hut circles showing as crop-marks on the aerial photographs. Spread of material c. 50 m^2.	12-4-84
67	29-1986	" "	82713624	HMC		LW		S?	Small scatter of sherds c. 20 m^2 on a sand ridge.	12-4-84
68	29-1986	" "	828368	HMC	250	LW		S?	Small scatter of sherds c. 20 m^2 on a sand ridge.	12-4-84
69	29-1986	" "	82603715	WC	250	LW		S?	Small scatter of sherds and burnt stone on the break between sandy soil and Keuper marl.	12-4-84

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
70	29-1986	Skiff Farm Mr.E.Marsland	82413646	HMC	250	M		*	Roman pottery, probably from a kiln reported by Mr.C.Saxton of St. William's School, Market Weighton in January, 1969, near this location (see site 95). When field walked only a few sherds were collected. Much of area now under farm tracks and buildings.	12-4-84
71	29-1986	" "	82703635	HMC	100	LW		S	Noticeable soil marks showing up in the field on the same sand ridge as site 45. Some sherds and burnt stone found in this area.	
72	29-1986	" "	82603636	HMC	200	LW		S	Sherds in the west corner of the field on a sandy rise.	
73		Sotheron's Plantation	80873595	PC	875	IF	NMR 8035/1/96	*	Kiln site reported by Mr.G. Morton of Hasholme Carr Farm, who noticed a large number of sherds and some kiln material.	-6-83
74(a)	53-1962	Throlam Farm Mr. P.Thompson	821355	HMC	375	M	NMR 8235 874/12 880/40	*	'Pot Hill'. Site first discovered in 1920's (Corder and Sheppard, 1930). In March 1964, the mound of wasters was still over 1·22 m high. Bronze coin of Magnetius on surface of the mound. In March 1965, the mound only 1 m high. (Hull Museum Site Index; Loughlin and Miller, 1979, 42). Material collected by (continued)	10-12-83

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
74		Throlam Farm Mr.P.Thompson	821355	HMC	375	M	NMR 8235 874/ 12 880/ 40	*	(continued) J.D.Hicks and B. Lavin in Feb.1970. The site was visited by the author, The mound was still very visible, but now less than ·5 m above the rest of the field. A large number of sherds, some large, as well as kiln material could be seen. A large complex of enclosures and buildings showed on A.P. Dating from Pottery later 3rd to later 4th C. A.D. (Swan, 1984; Fiche 5.682-3).	10-12-83 (74b)
75		" "	820356	HMC	375	S	NMR 8235 874/ 12 880/ 40	*	Large scatter of R.B. sherds in an area discrete from site 74. This material spread over c. 500 m^2 co-incided with a series of enclosures and buildings on A.P. (see Loughlin and Miller, 1979).	
76		Bramley Farm	81803577	HMC	300	S		*	Large number of R.B. sherds and burnt cobble on a sandy rise to the north of the field.	
77		Tnrolam Farm Mr.P.Thompson	820357	HMC	300	HM EXC LM	see site 74	*	The site of the kilns excavated by Corder (1930). In 1964 these were still extant as slight rises and pottery scatters. By March 1965, these sites had been incorporated into a piggery. (Loughlin and Miller, 1979, 42; Swan, 1984; Fiche, 5.682-3).	

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
78		Tollingham Farm Mr.J.Loftus	83633580	HMC	125	IF S		*	Large numbers of sherds were found in the mole hills in the pasture adjacent to the farm house. There was also some burnt stones and kiln material	22-2-84
79		" "	83053645	HMC	50	S		S	Area of burnt stone and some R.B. sherds on a sand rise to the north of the marl pit. Spread of material c. 400 m^2.	22-2-84
80		" "	83853550	HMC	150	S	NMR 8353 283/ 106	S	Scatter of sherds of R.B. pottery and burnt cobble on a sandy rise.	22-2-84
81		" "	83993555	HMC	100	S	NMR 8353/ 106 993/7 1042/ 12	S	Burnt stone and R.B. sherds on the site of an enclosure appearing on the A.P.	22-2-84
82		Tollingham (Clay Hill)	83353550	HMC	25	S		*	A large number of R.B. sherds on the top of a sand ridge, 100 m north of Skiff Lane, adjacent to site 78.	22-2-84
83	1002-42/ 7	Tollingham Farm Mr.J.Loftus	830356	HMC	375	M LM		*	Greyware bowls and many others which were destroyed, found 1873-4. Sharply carinated greyware bowl found on the site of the airfield in 1940. (continued)	

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
83	1002-42/7	Tollingham Farm Mr.J.Loftus	830356	HMC	375	M LM		*	(continued) The site was also visited in March 1964 by Mr. G.M. Pidgeon who described a large number of sherds to the west of the large aircraft buildings, (see also Loughlin and Miller, 1979, 42-3) (Swan, 1984; Fiche, 5.683).	
84		" "	832355	HMC	150	LM		*	Remains of R.B. pottery kiln material and many coarse ware wasters found in 1967. (Loughlin and Miller, 1979, 42-3) (Swan,1984; Fiche 5.684).	
85		" "	829355	HMC	450	M		*	Many coarse ware wasters found here in 1967 by J. Bartlett of Hull Museum. (Swan, 1984; Fiche 5.684).	
86		Warham Farm Mr.C.Stead	78953380	HMC	750	LW	C.P.D.	S I	A scatter of sherds and burnt stones on a sand ridge in area of possible enclosure with a track-way. Material spread over c. 100m^2.	-2-86
87 (a)	61/1970	Welhambridge Farm Mr.R.Hawcroft	795348	HMC	500	IF LW M GW		* I+	A large number of sherds, kiln material and burnt stone collected by ERAS.	-70
(b)	3/1986								A large amount of the same material was found covering a spread of c. 2000 m^2 during fieldwalking by Evening Class group accompanied by Mr.C.Dunn of RCHM, York. Dating from Pottery 2nd to late 4th C. AD. (Swan, 1984; Fiche, 5.681).	27-3-83

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
88	61(a) 1970	Welhambridge Farm Mr.R.Hawcroft	794348	HMC	450	M			A complete carinated decorated bowl found by the farmer during drainage.	
89	4-1986	Woodlands Farm H.M. Youth Custody Centre, Everthorpe.	83153839	HMC	100	LW GW	NMR 8338/ 2/ 32,34	S I	Large quantities of sherds, burnt stone and slag over an area of c. 1500 m^2 coinciding with enclosures and hut circles on A.P. The site was situated on a sandy plateau. Previous to fieldwalking, ditches could be seen in enhanced growth of sugar beet crop. Dating from Pottery 2nd to late 4th C. A.D.	23-10-83 -11-84
90		Johnson's Farm	77753462	FC	25	LW		S?	Three small scatters of sherds on the higher areas of clayey field near a wide area of carr land. Each scatter around 30 m^2.	-2-86
91		Mr.G.Falking-ham	77803485	FC	150					
92		(Wressle Castle)	77953460	FC	100					
93		Common Farm Arglam Mr.M.Rhodes	785361	Na	25	IF M	see site 20	*	Sherds of greyware pottery and kiln material reported at this site by Mr. W. Halkon in 1971.	
94		Spen Farm	80573885	HMC	250	S		S?	A small scatter of sherds c. 25 m^2 found on a sandy ridge.	-4-83
95	1/69	Skiff Farm Mr.E.Marsland	82483650	HMC	200	M		*	A kiln site reported by Mr.Saxton of St.William's College, Market Weighton (see site 70).(Swan, 1984; Fiche, 5.684). Dating from Pottery later 3rd to later 4th C. A.D.	

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
96	29/ 1986	Skiff Farm Mr.E.Marsland	822350	HMC	125	LW		S	(See sites 64-71) Several sherds in area of enclosures and hut circles showing as cropmarks on A.P., site situated on a sandy ridge.	
97	29/ 1986	" "	82873675	HMC	150	LW		S?	Sherds of pottery on sandy rise with some burnt stone.	1-10-83
98	29/ 1986	" "	827370	WC	400	LW		I S?	Sherds of R.B. pottery on the edge of Keuper marl as it rises to form Church Hill. Some slag also.	1-10-83
99	29/ 1986	" "	82793648	HMC	50	LW		S?	Some burnt stone and a sherd of R.B. pottery.	1-10-83
100	29/ 1986	" "	828370	HMC	300	LW		S?	Three sherds of pottery on a sandy rise.	1-10-83
101	29/ 1986	" "	82803648	HMC	75	LW		S?	Sherds of R.B. pottery and burnt stone in field immediately to the north of Ladies Parlour kiln site, on a sandy ridge.	1-10-83
102		Wholsea Farm Mr.M.Bramley	84353265	HMC	50	S		S?	Very worn and corroded Roman coin on the edge of a sandy ridge. Since the coin was found the farmer has reported the discovery of sherds of Roman pottery on the farm, although their precise find-spot is unknown.	-11-85

Site No.	Acc. No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	Method of Discovery	A.P. (SE)	Type of Site	Other Details	Date of Discovery
103		Chestnut Farm Mr.G.Oliver	78803356	HMC	150	IF		S?	Greyware pottery found by farmer on sandy ridge. Site could be associated with site 86.	
104		Fir Tree Farm Mr.K.Drayton	77953356	HMC	300	IF EXC		S	The farmer reported the discovery of pottery during land drainage. Members of ERAS undertook clearing and drawing of a ditch profile which showed in the section of the new drain. This was full of pottery and several very decayed pieces of animal bone. Dating from Pottery 2nd to early 4th C. A.D.	-4-86
105		Welham Bridge West Mr.F.H.Brown	788034	HMC	75	S		I+	Large quantities of iron slag and a few sherds of pottery found on a sandy ridge above a large area of peaty carr land.	-11-86
106		Airfield Tollingham/ Throlam		HMC		IF		*	A very large number of sherds, reported by Mrs.J.Wright of County Hall, Beverley, was found in a load of topsoil taken to Hutton Cranswick bowling green. The topsoil was acquired from Holme airfield. Information was passed to the author by Mr.G.Watkin of Humberside Archaeology Unit in March 1986. Dating from Pottery later 3rd to later 4th C. A.D.	

Appendix 8.2. Iron working sites in the landscape block.

For sites with Romano-British pottery and iron working see Appendix 8.1.

1, 2, 13, 14, 15, 16, 18, 27, 29, 30, 32, 34, 37, 42, 43, 45, 51, 61, 62, 64, 86.

Key

+ = Major iron smelting site (see section 5.1.2)

For abbreviations see Appendix 8.1.

Site No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	A.P. (SE)	Other Details
107	Bar Farm Mr.Marsland	82653965	HMC	100		Large furnace bottoms. Material concentrated on a sand ridge (one sherd of R.B. pottery picked up).
108 +	Beacon Farm Mr.H.Towse	838377	EV	25		The farmer reported finding large pieces of iron slag, "...that it took 2 people to lift".
109	Bursea Grange Mr.G.Laverack	817343	PC	50	NMR 8134 642	During fieldwalking (22-5-82) slag, burnt cobbles and some limestone collected in the general area of the large enclosure appearing in A.P. Site excavated August 1986, iron slag and part of a smelting furnace was found inside the hut circle (see Millett and Halkon forthcoming).
110 +	Bursea House Mr.A.Johnson	81403281	HMC	50		On a sand rise near the River Foulness a concentration of large pieces of slag and furnace bottoms about 10m across, was found during fieldwalking (Halkon,1983,19).
111 +	East Bursea Farm Mr.P.Payne	806333	HMC	125		A large concentration of iron slag and bowl shaped furnace bottoms was found during fieldwalking on the lower slopes of a sand ridge close to the River Foulness.
112	" "	80763369	HMC	25		A scatter of material c. 100 m^2 consisting of small pieces of iron slag, cobble and mediaeval pottery, bone and oyster shell. All this was found on a sand ridge near the site of the DMV of Bursea.
113 +	" "	807333	HMC	25		Large pieces of iron slag and burnt cobble near a sand rise found during fieldwalking.
114	" "	808332	HMC	125	RAF vert.	Iron slag in the area of a polygonal enclosure (listed by Loughlin and Miller, 1979, 42) near the River Foulness.

Site No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	A.P. (SE)	Other Details
115 +	East Bursea Farm Mr.P.Payne	806335	HMC	25		Large pieces of slag and bowl shaped furnace bottoms, burnt cobble and limestone fragments were disturbed during the potato harvest.
116 +	Hasholme Grange Mr.J.Williamson	824328	HMC	125		A very large scatter of iron slag including some furnace bottoms spread over c. 200 m^2 (Halkon, 1983, Fig.2,16). It was noticed that the material stopped abruptly on one side due to a possible boundary ditch. A cropmark of a square enclosure could be seen here in the standing crop from the ground in August 1984. The site is close to the creek in which the Hasholme Boat sank.
117 +	" "	82343265	HMC	25		A concentration of iron slag on the slopes of the sand ridge in an area of c. 25 m^2 just above the peat.
118	" "	82653270	HMC	25		A scatter of burnt stone on the same sand ridge as 117 + with some slag.
119	" "	82723269	HMC	25	NMR 8232 879-38	Slag and burnt stone in the area of the ring ditches showing as cropmarks on the A.P.
120	Forest Farm Mr.G.Hawcroft	818363	HMC	25		A scatter of burnt cobble and slag on a slight sand rise.
121 +	Moore's Farm Mr.J.Oliver	79303403	FC	25		Large heap of iron slag 4m x 5 x 1m found during fieldwalking. This site was excavated in 1985 (see section 5.1.5; Millett and Halkon, 1986, 40).
122	Oak Farm Mr.J.Oliver	79103695	HMC	50	NMR 7936/1	A scatter of iron slag and burnt stone in an area of a cropmark complex consisting of hut circles and enclosures. The farmer reported seeing a stunted circle of sugar beet in the summer of 1984.

Site No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	A.P. (SE)	Other Details
123	Lincoln Flats Mr.M.Rhodes	77983735	FC	25		Several bowl shaped furnace bottoms on a sand ridge immediately above the flat expanse of peat near the River Foulness.
124	Skiff Farm Mr.E.H.Marsland	827363	HMC	200		A scatter of slag in 2 sandy soil marks on top of a low ridge.
125 +	Sikes Farm Mr.F.Hawcroft	79503387	FC	25		The farmer reported that large heaps of slag had been common in this area. Several had been removed. Some large bowl shaped furnace bottoms could still be found in fieldwalking.
126 +	Welham Bridge West Mr.F.H.Brown	78953450	HMC	25		Large quantities of iron slag and saucer shaped furnace bottoms c. 250 cm across right on the edges of the peat. Some were actually in the peat at the bottom of an earthen bank. This bank appears on 1855 O.S. maps and is certainly man-made although of indeterminate age
127 +	" "	79403420	HMC	25		A large concentration of iron slag c. 100 m across near an old branch of the River Foulness.
128 +	" "	79253451	HMC	150		A large heap of iron slag and furnace bottoms near the old branch of the River Foulness.
129 +	Welham Bridge Farm Mr. Hawcroft	79403420	HMC	25		A large extent of iron slag on the slopes of a sandy hill sloping towards the river c. 30 m^2.
130	" "	79603400	HMC	25		Large pieces of iron slag on a sand ridge near the River Foulness.

Site No.	Site Name Owner	G.R.(SE)	Soil Type	D.W. (m)	A.P. (SE)	Other Details
131 +	Wholsea Mr.J.Bramley	84203382	PC	150		Large pieces of iron slag and saucer shaped furnace bottom cf site 126, in an area about 100 m^2 on the slopes of a sand hill above a large peat expanse.
132	East Bursea Farm Mr.P.Payne	80103460	HMC	50		Large pieces of iron slag on a sand ridge near the River Foulness.
133	Hasholme Carr Farm	83773346	HMC	25		Mr. Morton, the farmer, reported finding iron slag on a sandy hill near a large area of peat.

Appendix 8.3. A table showing the fabric of sherds on all sites within the Holme landscape block. * = kiln site

For fabric definitions see section 4.2.

Site Number	Total No. Sherds	(g) Total Mass Sherds	Fabric of sherds: 1 No.	1 Mass	2 No.	2 Mass	3 No.	3 Mass	4 No.	4 Mass	Samian No.	Samian Mass	Crambeck Parchment No.	Crambeck Parchment Mass	Other No.	Other Mass
4	145	2246	20	319	91	1388	1	10	29	525	1	10	1	15	1	1 Nene Valley
6*	21	3974	1	137	20	3837										
7	5	65			4	30	1	35								
8*	3	65			1	20	1	5							1	40 Handmade gritty
11*	26	750	5	180	11	250	10	320								
13	10	215	1	20	6	140	2	30					1	25		
14*	110	1675	24	325	79	1150	4	110	2	40					1	50 Handmade gritty
22	5	120	1	40	4	80										
23	2	20					1	10	1	10						
24	1	40	1	40												
27	98	839	11	95	38	352	15	69	33	323			1	10		
29	7	20			7	20										
30	5	32			5	32										
33	7	165	1	60	5	95			1	10						
35	2	30			1	20									1	20 Handmade gritty
36	4	40	1	20	2	10	1	10								
37a*	13	1000·3	4	165·3	9	835	(25.1963, see App.8.1)									
37b	138	2284	29	449	83	1214	24	596	(Fieldwalking, 17.10.81, see App.8.1)						1	5 Nene Valley
Total 37	151	3284·3	33	614·3	92	2049	24	596								
38	2	80									1	30	1	50		
42	2	30			2	30										

Site Number	Total No. Sherds	(g) Total Mass Sherds	Fabric of Sherds 1 No.	1 Mass	2 No.	2 Mass	3 No.	3 Mass	4 No.	4 Mass	Samian No.	Samian Mass	Crambeck Parchment No.	Crambeck Parchment Mass	Other No.	Other Mass	
43*	313	4092	77	1196	138	1748	3	50	88	941	1	10	3	36			
45*	612	10397	269	5412	324	4359	11	86	1	20							
46*	59	640			12	200	47	440									
47*	9	240	3	30	6	210											
50	5	140			3	60			2	80							
52*	42	925	7	210	27	565	8	150									
53	10	140	1	10	9	130											
54	18	590	11	480	1	20	5	90					1	160			
55a*	43	4053	1	27	37	3583	4	433	1	10·4	(Mr.G.Morton, KINCM Rack 38)						
55b	13	280	11	240	2	40	(Fieldwalking, 14.1.84)										
55c	187	3750	55	2150	78	760	50	770	(Exc.of drainage ditch)		1	20			3	50	
Total 55	243	8083	67	2417	117	4383	54	1203	1	10·4	1	20			3	50	Calcite gritted
56*	787	6546	778	6371	5	110	3	60							1	5	Gritted ware
59*	565	7545	221	3070	344	4475											
61-62*	36	488	4	91	23	331	4	27	2	7			1	10	2	22	Gritted ware
63*	96	4164	40	1444	37	1800			13	450			1	80	5	390	
65	1	70	1	70													
66	1	20											1	20			
67	1	50	1	50													
68	6	110	3	40	2	50									1	20	Calcite gritted
see* 70*	1	30	1	30													
95-101 74a	15	8503	6	3868	9	4620	(KINCM 53/1962)										
74b	22	1005	17	895	5	110	(Fieldwalked - 10.12.83)										
Total 74	37	9508	23	4763	14	4730											

Site Number	Total No. Sherds	(g) Total Mass Sherds	Fabric of sherds: 1 No.	1 Mass	2 No.	2 Mass	3 No.	3 Mass	4 No.	4 Mass	Samian No.	Samian Mass	Crambeck Parchment No.	Crambeck Parchment Mass	Other No.	Other Mass
76*	8	95	5	30	3	65										
78*	100	906	37·0	445	63	460										
79	2	100	2	100												
80	10	140	7	110	3	30										
81	4	50			3	20	1	30								
82*	16	140	16	140												
86	12	240			6	120	1	60							3	60 Shell gritted
87a*	41	1095	28	463	5	262	3	90	1	70			2	70	(KINCM 61/1970)	
87b*	426	13714	197	6114	162	6075	20	350	22	380	5	95	7	260	(KINCM 3/1986)	
Total 87	467	14809	225	6577	167	6337	23	440	23	450	5	95	9	330		
89	128	2139	26	562	58	1086	22	190	14	150	1	10	7	141		
90-92	6	90	2	35	4	55										
94	5	50	1	20	4	30										
95*	21	1370	16	1100	5	270										
96	2	50											1	40	1	10 Shell gritted
97	2	40	2	40												
98	2	27	1	7											1	20 Gritted ware
99	1	20					1	20								
100	3	60	1	30	2	30										
101	6	75	2	20	2	25									2	30 cf 4
104*	193	3565	14	225	58	1950	73	680	'Real' Dalesware							43 490 Gritted ware 3 3 200 White fabric

Site Number	Total No. Sherds	(g) Total Mass Sherds	Fabric of sherds													
			1		2		3		4		Samian		Crambeck Parchment		Other	
			No.	Mass	No.	Mass	No.	Mass	No.	Mass	No.	Mass	No.	Mass	No.	Mass
106*	282	10475	163	5715	109	4510	1	60	7	160			1	30		
74 Corder Excavation NB some pottery lost.	648	51024	420	34594	214	15396	3	90	3	120	'fragment' in report		8 NB 1 sherd Greyware 1	824 110		
37 Hicks & Wilson Excavation excluding I/A	1729	88285	559	39588	453	28392	711	20185			10 unweighed					

Appendix 8.4. A typology of Holme on Spalding Moor pottery forms based on the Throlam, Hasholme and Bursea House excavated material.

Code		Throlam (Corder, 1930)	Hasholme (Hicks and Wilson, 1975)
J1a		73, 74.[1]	9, 10.
J1b			6, 7, 8, 11.
J1c		88.	
J1d		75, 76, 87.	
J1e		77, 78, 79, 83, 89, 90.	
J1f		80, 82.	
J1g		72.	
J1h		84. 85.	
J1i		81.	
J2a			38, 39, 40.
J2b			41, 42.
J2c	Bursea ho.	418.1983/272	
J3a		101.	
J3b		102.	
J4a		106.	
J5a	Bursea ho.	418.1983/311	
J5b	Bursea ho.	418.1983/114	
J5c	Bursea ho.	418.1983/2	
B1a		27, 28.	12, 14.
B1b			13.
B1c		20.	
B1d		24, 41.	
B1e		39, 40, 22.	
B1f		30, 36, 37.	
B1g		21, 31.	15.
B1h		23, 38, 35.	
B1i		26, 29.	
B1j		33.	
B1k	Bursea ho.	25 418.1983/+	
B1l	Bursea ho.	418.1983/65	
B2a		50, 51.	24.

1 - These numbers refer to the pot illustration numbers in the excavation reports.

Code		Throlam (Corder, 1930)	Hasholme (Hicks and Wilson, 1975)
B2b		52, 53, 54, 55, 48.	
B2c		34, 44, 47.	
B2d		45, 46.	
B2e		42.	
B2f		43.	
B3a			22, 23.
B3b			25.
B4a		105.	
B4b		103.	
B4c		104.	
B5a		99, 100.	
B6a			27, 28.
B6b	Bursea ho.	418.1983/1	
B6c	Bursea ho.	418.1983/272	
B6d	Bursea ho.	418.1983/+	
B7a			26.
B8a		3.	35, 37
B8b			36.
B9a		1, 5, 6, 7, 8, 2, 15, 16.	
B9b		4, 11, 17, 18.	
B10a		10.	
B11a		12, 13, 109.	
B11b		9.	
B11c		14.	
B12a		32.	
B13a	Bursea ho.	418.1983/245	
B14a	Bursea ho.	418.1983/100	
B14b	Bursea ho.	418.1983/118	
F1a			18, 19, 20.
F1b		96.	
F1c		95.	
F1d		98.	
F1e		97.	
F2a		93, 94.	
F2b		91, 92.	

Code	Throlam (Corder, 1930)	Hasholme (Hicks and Wilson, 1975)
F2c		21.
F3a	70.	
F3b		16.
F3c		17.
F3d	68.	
F3e	60, 63, 64, 65, 66, 69.	
F3f	57, 58, 59, 61.	
F3g	62.	
F3h	67.	
F4a	71,	
D1a		33.
D1b		31.
D2a	110.	
D3a		32.
D6a		29.
D6b		30.
D6c	108.	
D11a		34.
D11b	107.	
L1a	111.	
L2a		43.

Appendix 8.5. Forms and fabrics of the Holme on Spalding Moor pottery.

The table shows the number of sherds of each fabric for which the form could be identified.

The number of sherds so identified are given as a percentage of the total sherds for each site.

B = Bowls D = Dishes F = Flagons J = Jars L = Lids

Site no.	4		6	7	11		13		14		22 23	24	27		30	35	36	37a		37b		
Fabric	1	2	2	2	1	2	1	2	1	2	1	1	1	2	2	2	1	1	2	1	2	3
Form																						
B1a					1				1												1	
b											1											
c					1													1		1		
d																		2		1	1	
e													1			1						
f		1																				
g	1			1		1			1											2	2	
h		2																				
B2a					1								1						1	1		1
b																					1	
e		1											1									
f		1																				
B3a					1										1						1	
b																			1			
B6a			2		1	1																
B7a																		1				
B8a															1							
B9a	1																					
b							2					1										
B11b																		1				
B12a																	1					
D1a																				1	1	
D2a													1									
D6a							2		1												2	
c									1				2									
F1a																		1				
J1a			1		1				1				1					4		1	1	
b			2						1				1					1			1	
d									1													
e			3										1						1			
f		1							2													
h									1													
i		1																				
J2a													2									1
J3b							3															
% sherds identified	6		38	20	31		70		9		25	100	9		40	50	25	71		15		

Site No.	43		45		46	47		52		53	54	55a		55b	55c			56		59		61 62
Fabric	1	2	1	2	2	1	2	1	2	2	1	1	2	2	1	2	3	1	2	1	2	2
Form																						
B1a	2		1						2						4	2				1	1	
b		2																		1		
c				6			1				1			1								
f			1	1																2	3	
g	1	1	4	1		1												1		3	1	
n	1		6								1									1	1	
i			1	1																		
B2a				1					1											1		
b	2			3														1				1
c		1																				
d	1																					
e				1																	1	
B3a			1	2		1			3				1			1		2	1			
B6a																		3				
c										1								1				
B8a	1		1											1				2				
b	1																	3				
B9a			1				1											1		1		
b				1																		
B10a															1							
B11a																		1			3	
b	1			1																		
c																		1				
D1a		1																				
D1b							1															
D3a																1						
D6a	2				1				1													
b											1											
D11a									1													
F1a															1							
b																				1		
c																						1
d				1																		
F3a			1																			
e				1																		
g												1								1		
J1a		2	5	11			1	1	2	1			1	3		1		35	1	3		2
b				1									1					3				
c			1																	2	1	1
d				1					1							1		1			3	
e	1			1			1														1	
f	2		2					1												4	1	
g	1		1																			
i																		1		1		
J2a																	2					
J2b									1													
J3b			1																			
% sherds identified	7		10		3	54		33		20	16	31		38	7			7		7		13

Site No.	63		68	74a		74b	76	78	79	80	82	87a	87b			89		90 92	95		99
Fabric	1	2	2	1	2	1	2	1	1	1	1	1	1	2	3	1	2	1	1	2	3
Form																					
B1a	2	3	1	1				1		1		3	17	15			1			1	
b					1																
c	1													4							
d		2						1					3	3							
e	2	1											1	2			1	1	1		
f	3							1					4								
g	4	1			1	1			1			1	5	8						1	
h						1							4	3							
i													1	2							
j													2								
B2a								1					7	6		1					
b	1												1				1				
c													1								
e													1								
f													1								
B3a	2	1						1					5	1		1	1				
b													1								
B6a													1	4							
B7a													1	1							
B8a														1							
b										1											
B9a	1							1					5	4						1	
B10a							1						1	1							
B11a				1										1							
b				1	1	1								2							
D1a								1													
b													1	1			1				
D3a														1							
D6a										1			1								
b													3	1							
c													1	2							
D11a														2		1					
b													2								
F1a														1							
c													1								
e														1							
F2c														1							
F3c													1			1					
e														2							
g													3								
J1a	1	1			1	3		1				1	3	22		1	1				
b		1		1																	
c		1			1	3							1								
d	1				1	1							1								
e		1		1									3	3							
f											1		1				1				
g					1								1								
h													1	1							
i													1	1							
J2a																			1		1
b															1						
J3b	1																				
% sherds identified	32		10	80		45	13	15	50	30	6	11	43			10		17	23		100

Site No.	104		106		Hasholme Excavtn.			Throlam Excavtn.	
Fabric	1	2	1	2	1	2	3	1	2
Form									
B1a		3	1	3	4	12		20	7
b		1	1			1		1	
c			1		1			4	2
d			2			1		2	
e								3	1
f			1					8	6
g			2		1			7	5
h				1		1		4	3
i								1	1
j								2	
B2a		1	1	2		3		3	1
b					3	2		3	3
c								1	1
d				2		1			
e				1	2				1
f				1				2	
B3a		5	1	1	22	6			3
b					6	1			
B4a								1	2
B5a								2	1
B6a		1			4	6	1		
B7a					1	2			
B8a		1		1	2			7	1
b			2	1				1	
B9a			3	3	1	1		15	17
b				2				4	2
B10a					1				
B11a			1		2			1	
b				1				2	1
B12a				1					
D1a					2	4			
b					1	1			
D2a			1						
D3a					3	2			
D6a		1	2		5	2	1		
b					5				
D8a						1			
D11a						1			

Site No.	104		106		Hasholme Excavtn.			Throlam Excavtn.	
	1	2	1	2	1	2	3	1	2
F1a					1	1		5	1
b								1	1
e						3		1	
F2a									2
F2b									1
c					3				
F3a									2
b					1	1			
c			1		1	6			
d					1	1			2
e			2					3	14
f								1	2
g					3	4			1
h									2
J1a	2	2	3	12	36	16		66	28
b				1	5	2			1
c							2	13	3
d								5	1
e			1		1			22	14
f			3				1	24	9
g								4	
h					3			2	2
i						3	1	6	
J2a					2	38	202		7
b								1	
J3a								2	
b								1	
Fig.86 L2a (1)							1	4	5
% sherds identified	9		22		26			63	

(1) Corder 1930

Appendix 8.6. Comparison of Fabrics and Forms.

The following tables compare the number of sherds of a particular form in fabrics 1 and 2. Only sites with 15 or more sherds were considered. The percentages of fabric 1 give the number of sherds of a particular form in fabric 1, expressed as a percentage of the total number of sherds of this type.

8.6.1 Bowls.

(i) Flanged bowls, B8 - 11. Sites with 15 sherds.

Number of Rim Sherds

Sites	Fabric 1	Fabric 2	% of Fabric 1
37	1	-	100
43	3	-	100
45	2	2	50
56	8	-	100
59	1	3	33
63	1	-	100
55	1	1	50
74	4	2	66
87	6	9	40
104	-	1	0
106	6	8	42
Throlam	30	21	58
Hasholme	14	1	93

(ii) Wide mouthed bowls B1 (J015, Evans, 1985).

Number of Rim Sherds

Sites	Fabric 1	Fabric 2	% of Fabric 1
37	7	4	63·6
43	3	3	50
45	13	9	59
56	1	-	100
59	8	6	66
63	12	7	63
55	4	2	66
74	3	3	50
87	41	37	52
106	8	4	66
Hasholme	6	12	33
Throlam	52	25	67
104	-	4	0

(iii) Bowls of form B2 (B006, Evans, 1985).

Sites	Fabric 1	Fabric 2	% of Fabric 1
37	1	2	33
43	3	1	75
45	-	5	-
56	1	-	100
59	1	1	50
63	1	-	100
55	1	-	100
74	-	-	-
87	11	6	64·7
106	1	6	14
Hasholme	5	6	45
Throlam	7	11	38
104	-	3	-

(iv) Carinated bowls B3 (J018 02, Evans, 1985).

Sites	Fabric 1	Fabric 2	% of Fabric 1
37	-	2	0
56	2	2	50
63	2	1	66
55	-	1	0
87	6	1	85
106	1	1	50
Hasholme	28	7	80
Throlam	-	3	-
104	-	5	-

(v) Straight sided wide mouthed bowls B6.

Sites	Fabric 1	Fabric 2	% of Fabric 1
56	4	-	100
87	1	4	20
Hasholme	4	6	40
104	-	1	0

8.6.2 Jars.

Form	Sites	Number of Rim Sherds		
		Fabric 1	Fabric 2	% of Fabric 1
J1a & b	37	2	2	50
	43	-	2	0
	45	5	7	41
	55	-	6	0
	56	38	1	97
	59	3	-	100
	63	1	2	33
	74	4	1	80
	87	4	23	14·8
	104	2	2	50
	106	3	13	18·7
	Throlam	66	28	70·2
	Hasholme	36	20	64

Jars. (continued)

Form	Sites	Number of Rim Sherds		
		Fabric 1	Fabric 2	% of Fabric 1
J1c	45	1	-	100
	59	2	1	66
	63	-	1	0
	74	1	1	50
	87	1	-	100
	Throlam	13	3	68
	Hasholme	Fabric 3, 2		
J1d	45	-	1	0
	55	-	2	0
	56	1	-	100
	59	-	3	0
	63	-	1	0
	74	1	3	25
	87	1	-	100
	Throlam	5	1	83
J1e	37	-	1	0
	43	1	-	100
	45	-	1	0
	59	1	-	100
	63	-	1	0
	74	1	-	100
	87	3	3	50
	106	1	-	100
	Throlam	22	14	61
	Hasholme	1	-	100
J1f	43	2	-	100
	45	2	-	100
	59	4	1	80
	87	1	-	100
	106	3	-	100
	Throlam	27	19	58·6
	Hasholme	Fabric 3, 1		

Jars. (continued)

Form	Sites	Number or Rim Sherds		
		Fabric 1	Fabric 2	% of Fabric 1
J1g	43	1	-	100
	74	1	-	100
J1h	87	1	1	50
	Throlam	2	2	50
	Hasholme	3	-	0
J1i	56	1	-	100
	59	1	-	100
	87	1	1	50
	Throlam	6	7	46
	Hasholme	-	3	0
	"	Fabric 3, 2		

8.6.3 Flagons.

Form	Sites	Number of Rim Sherds		
		Fabric 1	Fabric 2	% of Fabric 1
F1	37	1	-	100
(F007,	45	-	1	0
Evans,	59	1	-	100
1985)	87	1	2	33
	Hasholme	5	4	55
	Throlam	7	2	77·7
F3	45	1	1	50
	59	1	-	100
	55	1	-	100
	87	2	2	50
	106	2	-	100
	Hasholme	6	1	85
	Throlam	4	23	14

Appendix 8.7.

Fieldwork record sheet

Site name BURSEA HOUSE (B4)	Parish HOLME ON SPALDING MOOR	Grid ref. 81583379 to 81253379	Inventory no. 14
Field name			
Type of site SETTLEMENT SITE/KILN SITE	Period ROMANO-BRITISH		Date of visit 21/3/81

Nature of ground

arable/pasture/scrub/waste/quarry/ development-land/overbuilt/other/

Additional detail

VISIBILITY GOOD

Crop condition PLOUGHED FIELD

Name and address of owner/tenant

Mr. A.S. JOHNSON,
BURSEA HOUSE,
HOLME ON SPALDING MOOR.

Telephone 0696 60236

Special arrangements for access

Directions/means of approach

Reason for visit

FIELD STUDY GROUP

Visiting officer(s)

Site description, notes and comments

R/B pottery, slag and burnt cobbles of which the latter appeared to be deliberately placed, were excavated by Mr. Jomnson during drainage. After walking the field, the scatter of sherds consisting of hard dark grey Hasholme types, Hasholme "Dales ware" types and Handthrown pottery, which could be Iron Age, was restricted to an area 30m x 15m and 53m west of a grassy bank and the road. A large number of sherds and possible kiln debris was discovered in 1963 nearby. (8135 3384).

Air photo Yes/No	Ref. R.C.H.M.	Ground photo Yes/No	Ref.	Drawing Yes/No	Ref.

Publication ref.

Recommendations for further action

Possible excavation, (site excavated August, 1983 and 1984, see Millett and Halkon, 1984, 1985).

SUPPLEMENTARY VISITS

Date	Visited by	Comments
22/5/82	FIELD STUDY GROUP	GRIDDED SURVEY CARRIED OUT IN 5m GRID SQUARES IN CONJUNCTION WITH A GEOPHYSICAL SURVEY BY MR. J.POCOCK. (see HALKON, 1983) SURVEY SHOWED POSSIBLE HEARTHS AND DITCHES.

Humberside Archaeological Unit

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ABBREVIATIONS

C.B.A. - Council for British Archaeology

C.R.O. - County Record Office

K.I.N.C.M. - Kingston upon Hull City Museums