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**An Archaeology of Trade in Eastern England,
c.650-900 CE**

John David Naylor

**A Thesis submitted in fulfilment of the requirement for the
degree of Doctor of Philosophy**



14 APR 2003

University of Durham

Department of Archaeology

2002

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Abstract

The project was an examination of trade through the regional survey and analysis of archaeological data from middle Saxon England. Much previous work had focused towards long-distance trade articulated through urban ports, and the thesis aimed to provide new methods for the study of the early medieval economy by placing these urban settlements within a regional setting. It examined trade within regions as a whole, rather than concentrating only on the archaeologically most visible, i.e. long-distance trade.

A comparative, study area approach was adopted for analysis, with two regions (Kent and Yorkshire) chosen. Methodology was based on both detailed analysis of artefact distributions throughout the middle Saxon period, and comparative examination of individual site assemblages. As a result, networks of trade, and the movement of goods could be assessed, and individual sites placed within this context. Specific artefact groups were chosen which highlighted different aspects of trade (coinage, pottery, stone artefacts, and metalwork), and other materials, both archaeological and historical, were utilised wherever possible. Both study areas were also discussed in the context of middle Saxon eastern England, in order to provide a broader interpretation of early medieval trade.

These analyses showed that the early medieval economy was more complex than has been previously proposed, with distinct regional variations apparent. A number of sites were interpreted as inland markets, their positions suggestive of an overall political control of trade, and most coin rich sites were located close enough to the coast to easily gain direct access to long-distance coastal trade. The church may have been heavily involved. Much trade appears to have been centred around the movement of utilitarian goods, including stone, foodstuffs, salt and slaves, and royal interest in the regulation of trade focused on the large revenues available through tolls.

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List of Abbreviations

<i>CR</i>	Annual coin register, published in the <i>British Numismatic Journal</i>
<i>EMC</i>	Early Medieval Corpus, online database of finds of coinage available at http://www.fitzmuseum.cam.ac.uk/coins
<i>CBA</i>	Council for British Archaeology
<i>SFB</i>	Sunken Featured Building
<i>SMR</i>	Sites and Monuments Record

Declaration

This thesis results entirely from my own work and has not been previously offered in candidature for any other degree or diploma. Material from the published or unpublished work of others, which is referred to in this thesis, is credited to the author of the text.

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Chapter 1

Introduction

1.1 Introduction

The study of the early medieval economy in the last twenty years has been dominated by the work of Richard Hodges. His seminal *Dark Age Economics* (1982), in which he applied processual archaeological and anthropological theory to produce a systemic model for the trade around the North Sea littoral, has proved both contentious and highly influential. Based around the evolution of towns, this work focused on the seventh to ninth century emporia, their relation to international trade, and the rise of competitive markets by the tenth century. His thesis has consequently provided an urban-centred examination of trade, and the lack of a regional component has caused criticism from other scholars, e.g. Arnold (1983), Astill (1985). The need for greater appreciation of trade in rural regions away from the emporia- local as well as long-distance- was seen from an early stage, but little has been undertaken with the exception of numismatic study, e.g. Metcalf (1988a).

The aim of this thesis is to provide a regional component to the study of the early medieval economy, and from this, to produce a re-assessment trade during the period. When work began, no work had been undertaken to assess the archaeology of regional trade; more recently, some work has been published, namely an edited volume of short papers (Anderton 1999), and the doctoral research of Katharina Ulmschneider (1999, 2000a, 2000b). This chapter will introduce the thesis, its aims and objectives, and briefly describe the aims of each chapter.

1.2 Aims and objectives of the thesis

This thesis is a study of the archaeology of trade in middle Saxon eastern England, based around the regional analysis of a range of data intended to reflect different aspects of the Anglo-Saxon economy. In broad terms the thesis aims are twofold. Primarily, it will work towards a new understanding of how trade operated on a regional basis, at all levels, i.e. local to international networks of trade, including both

urban and rural settlement. Secondly, it must critique and challenge traditionally held views of an urban-centred economy based around the long-distance trade in prestige goods as promoted by Richard Hodges' earlier and most influential works.

These central aims were refined into a number of research questions that are explored through the project. These are:

- to what level were rural regions involved in trade?
- how was trade organised in middle Saxon eastern England, and how might any regional differences be explained?
- what was the nature of the involvement of royalty and the church in early medieval trade?

These broad, inter-related questions are fundamental to the study of trade in this period, and will be addressed through the analysis of appropriate archaeological data, and its interpretation. Each will be briefly considered separately by breaking them down into a further series of questions.

The first issue, 'to what level were rural regions involved in trade?', forms the basis of the thesis, addressing the nature and extent of trade in the early medieval period. Under this heading the following questions can be applied: can regional trade in middle Saxon England be studied effectively using widely available archaeological data, such as coins and pottery? Are metal-detected finds, i.e. metalwork and coins, an appropriate resource? What are the relevant methods to apply to the problem, and how will they advance our understanding; how has previous research shaped, and conditioned our understanding of the early medieval economy? Are there major archaeological differences between urban and rural assemblages?

The second question, 'how was trade organised in middle Saxon eastern England, and how can any regional differences be explained?' follows on from the first question. So much work examined the organisation of trade only through urban archaeology, that it may be questioned whether any findings are applicable on a regional basis. Consideration of the structure of rural trading has been reduced to sections of articles (e.g. Astill 1991, Blair 1988). As a result, various additional questions can be asked:

do the results from the first area of enquiry indicate that there was a controlling power in the landscape organising trade, or was there no clear conclusion? Do the results from the case studies support current models, or is there a need to provide new interpretation? Do regional differences reflect variations in the availability of archaeological data, or can they be taken at face value; will other, non-archaeological data sources provide important information?

The final major research question, 'what was the nature of the involvement of royalty and the church in early medieval trade?', is almost a sub-section of the second, but has received enough discrete attention to be considered separately, e.g. Hodges (1982a), Astill (1985), Blair (1988). Different interpretations have given different weight to church, royal administration or neither. Relevant subsidiary questions are: does the analysis give any insight into controlling elite groups in the landscape, with respect to trade? Can a role for royalty or the church be determined through the analyses and other relevant data; if so, are there any regional differences apparent and can they be explained with the evidence currently available?

These questions, as previously stated, form the core of the aims for the thesis. The remainder of the chapter will show how the aims of the project will be realised, discussing the structure of the thesis chapter by chapter.

1.3 Structure of the thesis

The thesis is divided into seven chapters, including this introductory chapter. Each chapter is designed to examine an aspect of early medieval trade and will complement, and follow on, from the previous one, with the exception of the two analysis chapters (chapters four and five) which have the same structure.

Chapter two provides a contextual basis for the rest of the thesis, through discussing the history of the archaeological study of the early medieval economy since the early twentieth century. This will set the present study within the framework of previous research, and provide a firm theoretical base for the analyses. In addition, its critical assessment of this previous work will show where research is most needed, and which

aspects of previous work may be contentious or outdated. From this, an assessment of the evidence is made which sets the agenda for the remainder of the thesis.

Chapter three follows by examining the archaeological data to decide what is most appropriate to use in the analyses, and by determining the methodological approach to be taken in chapters four and five. Within this, the choice of study areas is made, as is an assessment of their potential. The chapter outlines the limits of analysis, and sets out the way in which the chosen archaeological data will be studied.

Chapters four and five form the core of analysis. Each is based around a study area, as chosen in the preceding chapter. After introducing each region, the archaeology of the major sites is critically assessed. This is followed by the analysis and discussion of different artefact groups as set out in chapter three. The organisation and administration of trade is covered in detail in chapter six, which sets the results from the two study areas within the wider context of middle Saxon eastern England. Using other relevant data, including historical evidence, the chapter provides sets out to provide a new understanding of the early medieval economy, the materials and networks of trade, and its overall organisation. By the end of the chapter, a new thesis for trade in middle Saxon eastern England has been produced.

The conclusion, chapter seven, reviews the evidence presented and interpretations made in the thesis. Its main aims are to assess the thesis, and the success of the applied methodologies and approaches to the data. The importance of the work to the study of the early medieval economy is then made. Finally, areas where further work would be especially useful are expressed and discussed.

1.4 Summary

This chapter has introduced the general subject matter for the thesis, and its primary aims have been discussed. Furthermore, it has described the structure of the thesis through the individual chapters, and indicated how they provide an appropriate approach to the study of the early medieval economy. The next chapter will provide a theoretical framework from which to work by examining the history of the archaeology of Anglo-Saxon trade.

Chapter 2

The archaeology of trade: a contextual basis for analysis

2.1 Introduction

This chapter sets the detailed analysis which follows in the context of previous archaeological research on early medieval trade and the economy. It examines the evolution of the field through the twentieth century, methods of study, and theoretical advances. A critical appraisal of previous research provides a theoretical basis for the thesis, whilst acknowledging biases and problems in the data, and in resulting theoretical models.

The review focuses on the archaeology of, and theoretical approaches to economics, trade/exchange, and settlement in the period *c.*650-*c.*900. Discussion will be mostly restricted to British archaeology, although, where appropriate, mainland European examples are used. Results from recent urban excavations are incorporated. A discussion of biases in the interpretations, and possible ways in which the situation can be remedied is included. A concluding discussion forms the theoretical basis from which further analysis can be made. All dates are CE (Current/Christian Era).

2.2 Theoretical background to the study of trade, exchange, and urbanism, *c.*650-900

The study of urbanism, trade and exchange during the early medieval period has fascinated historians and archaeologists throughout the twentieth century, when scholars such as the Belgian historian Henri Pirenne began to explore the transition from classical to medieval. This section explores the theoretical background to the study of trade and exchange in early medieval Europe around the North Sea littoral, although with special reference to England.

2.2.1 Trade and exchange around the North Sea littoral, c. 600-900

2.2.1.1 Pre-c. 1955

This period was dominated by the Belgian historian Henri Pirenne who, in a series of publications, formed what is known as the 'Pirenne Thesis' (e.g. Pirenne 1925, 1933, 1939). This has since been critically evaluated, and discussed on many occasions (e.g. Delogu 1998, Lyon 1974), but the influence of this thesis on both archaeologists and historians has been massive.

Pirenne's overall thesis was based around the transition from classical to medieval, the impact of Islam, and role of the Carolingians in early medieval Europe. This approach was particularly innovative and influential, concentrating as it did upon socio-economic factors rather than the political setting. Pirenne believed that the Merovingian Franks, dominant from the fifth to eighth centuries, maintained the Roman networks of trade around the Mediterranean and across the Alps under the auspices of a professional, urban merchant class. However, seventh century Islamic conquests divorced the eastern Mediterranean from the west, resulting in the decline of east-west trade, urban networks, and caused a power shift from Merovingia to Carolingia, centred on the area around the Seine and Rhine. This shifted the political focus northwards: here, he argued, there were no longer urban centres, markets, or professional merchants, and very little foreign trade. Carolingia was inward-looking, its economy of subsistence rather than of commerce, and only in the tenth century did urbanism and international trade return under the guidance of the Vikings (Pirenne 1925; 1939).

Pirenne's work has been censured for reasons including its sometimes dubious source criticism; its inconsistent chronology; and its ignorance of aspects of the numismatic data (Baynes 1955 (originally published 1929); Dennett 1948; Lopez 1943; Moss 1937). This model has been largely discredited since it was shown that goods and precious metals were still imported into western Europe from the Arab world.

Two other 1930s publications were useful to scholars of urban history, in part because of their focus toward England. Stephenson (1933) and Tait (1936) both emphasised the importance of trade to urbanism, although they proposed different models.

Stephenson (1933) did not believe urbanism of any kind returned to England until the Viking Period, when old Roman centres were re-occupied, and the burghal system developed. Conversely, Tait (1936) interpreted the seventh century re-occupation of Roman centres as evidence of urbanism, argued for markets within them, and noted the existence of ports. He also discussed the burhs as a network of sites which were ready-made for trading. Unfortunately neither work, although stimulating, created the same longevity of debate as the 'Pirenne Thesis'.

Contemporary with these historically based discussions were the first systematic excavations of early medieval urban centres in northern Europe. Both Jankuhn's excavations at Haithabu (northern Germany) during the 1930s and Holwerda's campaigns in Dorestad (Netherlands) in the early 1920s provided evidence of large centres of the eighth to tenth/ eleventh centuries, with contacts around the North Sea, the Baltic and elsewhere (Jankuhn 1939, 104; Holwerda 1930).

In England, a Saxon settlement was identified in Southampton from work undertaken since the nineteenth century. Crawford (1942, 39-40) was the first to discuss the settlement as the documented Anglo-Saxon settlement *Hamwic*, and showed that 'the bulk of the finds belonged to the period before the Norman Conquest' (ibid., 46), although he never discussed foreign trade. Excavations through the 1940s produced structural remains, and finds including imported pottery, glass, lava quernstones, and coinage (Maitland Muller 1949; Maitland Muller 1951). Such excavations supported the criticism of Pirenne's ideas, showing that widespread international trade must have been occurring by at least the eighth century.

It was not until the aftermath of the Second World War that urban archaeology in Britain became a serious proposition. This period provided the opportunity to excavate the centres of bomb-damaged cities, including Canterbury and London (Schofield and Vince 1994). These excavations were generally aimed towards the Roman or later medieval levels, e.g. Frere and Stow (1983); Frere *et al.* (1987); Grimes (1956), but Anglo-Saxon levels were found in places, and investigated. At Canterbury, excavations revealed evidence of a mid-late Saxon presence, mostly

pottery sherds found residually in later contexts, but also two later ninth century occupation layers (Frere and Stow 1983, 21; Dunning 1987).

Summary/ Discussion

By *c.*1955 the historical framework linking urbanism and trade in the early medieval world had been set, primarily through the work of historians, e.g. Pirenne (1939); Tait (1936), but also through that of archaeologists excavating urban sites around Europe, e.g. Crawford (1942); Jankuhn (1939). These excavations challenged the perceived historical agenda, contradicting ideas of a cessation of long-distance trade around the North Sea. However, up to this point their importance does not appear to have been generally realised.

The longevity of the Pirenne Thesis is nothing short of incredible, given the criticism it has received. It is still the subject of examination today, e.g. Delogu (1998). In the light of such criticism, contrary archaeological evidence and a general consensus that 'Pirenne's...models are variations on a theme of Arab causality which are plainly wrong' (Hodges 2000, 21), why is it that the 'Pirenne thesis' has proved so enduring, and contentious, e.g. Delogu (1998); Hodges (2000)? This must, in part, be a result of historians not utilising the archaeological data, preferring to use the same documents as Pirenne, e.g. Davis (1957), and Lyon (1969), but also the approach which Pirenne took is extremely important: his broad sweep brought forth questions regarding long-distance and regional/ inter-regional trade, mercantile activities, urban decline and re-birth, the connection between society and economy, and the emergence of medieval Europe. As Hodges (2000, 17-22) discusses, many of these themes cannot be dealt with from written sources alone, but only with the benefit of additional information from the interpretation of archaeological evidence.

2.2.1.2 *c.*1955- *c.*1970

Following on from the pioneering work of Pirenne and others, the second half of the 1950s and the 1960s saw further discussion and increasing use of the archaeological data gradually accumulating around northern Europe. This further challenged the historical consensus.

In an important paper Jellema (1955) presented the evidence for a long-distance trade network around the North Sea littoral and the lands along the Rhine during the Merovingian and Carolingian periods, in which the Frisians were a dominant force. By *c.*700, and the conquest of Dorestad by the Franks, trade along the Rhine was developed, and the economy of Anglo-Saxon England became increasingly important (*ibid.*, 18-23). The period from then until *c.*850, he argued, saw the height of Frisian involvement in trade with their merchants acting as middlemen for the Carolingians (*ibid.*, 24-31). Change was due to increasing Viking attacks of the ninth century, resulting in the rise of inland towns such as Hamburg and Bremen, and the decline of coastal sites (*ibid.*, 34-5). Jellema's analysis of numismatic data was extremely perceptive. Many scholars had considered the transition from gold to silver to indicate increasing impoverishment of northern Europe compared to Byzantium, but he argued that growth in Frisian and Anglo-Saxon trade fuelled the change, as silver was of lower value and, therefore, was more useful as a mechanism of exchange (*ibid.*, 23). Jellema's model was extremely important and made use of archaeological evidence over a wide area.

Another paper discussed the North Sea trade network through pottery analysis. Dunning (1956) considered Dorestad and Quentovic (northern France) to be the dominant Continental ports and London, Hamwic and Canterbury their English counterparts, and noted the importance of wine and slavery to long-distance trade (*ibid.*, 128-219). Seeing the height of this trade as post-ninth century, Dunning nonetheless convincingly showed the orientation of middle-late Saxon international trade towards the Rhine mouth and Dorestad.

The importance of these two papers must be stressed: they confirmed the usefulness of archaeological data to questions involving trade and exchange during a period in which the historical documentation is relatively quiet, and showed that the North Sea littoral enjoyed widespread and increasing contacts from the fifth to mid-late ninth century. The connection between large ports and trade was highlighted as a major factor, leaving smaller markets unexplored, due to the general lack of evidence.

Traditional documentary-based analyses were slightly different, e.g. Davis (1957); Lyon (1969). Western Europe was still perceived as impoverished, lacking the wealth to import goods from Byzantium (Davis 1957), and Viking activity was seen as destroying North Sea trade routes, restricting much ninth century trade to locally based markets (*ibid.*, 179-180). Whitelock (1952, 115-125) discussed trade in England, mostly from contemporary charter evidence, pointing to the importance of trade in salt and metals. Although not considering trade of any type to have been particularly important, her work was vital in showing the existence of regional transportation of goods, something which archaeology had not achieved (Whitelock 1952, 116). A major problem was that the level of textual evidence available for fifth to ninth century trade had not changed since Pirenne's time, e.g. Lyon (1969, 107), but an inactive Carolingian economy was still the general conclusion. Additionally, documentary evidence highlighted long-distance trade from the Mediterranean into Europe with only scant mention of that around the North Sea littoral.

Contemporary advances in economic anthropology would have a profound effect on the archaeological examination of trade in succeeding decades. Early studies by Malinowski (1922) and Mauss (1925) were important in arguing that primitive economies could not be successfully examined using modern economic theories, a perspective later labelled substantivism. However, it was the 1950s before the substantivist argument was elucidated (Polanyi 1957; 1963). Polanyi (1957, 250-256) argued for three types of economic process in kin-based societies. Reciprocity is the exchange of gifts of equal worth between those of equal social level. Redistribution assumes the centralisation of society, so that materials could be brought into the centre, e.g. royal centre, and redistributed, and exchange referred to barter.

Polanyi also discussed the locations of long-distance trade (Polanyi 1963; 1978, posthumously published). He argued that ports were 'a neutrality device, a derivative of silent trade' (Polanyi 1963, 30) where trade was protected and administered. Including examples from around the ancient and early medieval world, he cited Dorestad and Haithabu as examples (*ibid.*, 34). These ideas have been criticised for their lack of definition, but his emphasis on regularities in the way in which trade was undertaken in non-capitalist societies was a valuable contribution (Hodges 1978, 100).

Polanyi's contribution to economic anthropology was two-fold. First, his theoretical work brought together substantivist models of the economy, and placed them into a physical context, ports-of-trade, where transactions could be administered, controlled and manipulated by those in power. Second, his work was one of *the* starting points for the modern theoretical study of the early medieval economy, e.g. Hodges (1982a); Renfrew (1975).

Unfortunately, throughout the 1950s and 1960s (indeed, into the 1970s), such anthropological approaches had little impact on mainstream historical and archaeological research in the early medieval period. Philip Grierson, however, did take note (Grierson 1959). Through advances in the identification of trading contacts from research into numismatics, questions began to be posed about how coinage was used, and exchange undertaken. Grierson (1959) applied the anthropological theory of gift-exchange (Mauss 1925) to argue that much early medieval trade did not involve commercial transactions. Alternative means of exchange were cited as theft, political payments (tribute, ransoming), the payment of mercenaries, and exchange of gifts (Grierson 1959, 130-139). The latter has proved most influential within early medieval studies. As he argued:

‘in earlier times it was a major form of social activity, serving a function analogous to that of commerce in securing the distribution of goods and services. Such gifts would not be one-sided, for social custom required that every gift had to be compensated...by a counter-gift, or by equivalent services...This mutual exchange...resembles commerce, but its objects and ethos are entirely different. Its object is not that of material and tangible ‘profit’...The ‘profit’ consists in placing other people morally in one’s debt’ (ibid., 137).

Grierson's (1959) view was that coinage had not been used as currency, but was a fiscal device, for example as used in gift-exchange, or for fines and taxes. This helped to spark a long running debate about the nature of Anglo-Saxon coinage and how it was used, in many ways reflecting the substantivist/ formalist argument. The two main numismatic protagonists were Grierson and David Metcalf. Grierson (1963; 1967) believed that, even by the tenth century, coinage only circulated in towns and ports used by select groups (i.e. royalty and aristocracy) and was not used in any form

of money economy, in which he saw the low numbers of finds anywhere but in south-east England as proof. To counter these arguments, Metcalf (1965) attempted to show through estimations of the number of dies used that the number of coins minted in Anglo-Saxon England was extremely high, with millions of sceattas in circulation and tens of millions of Offan pennies. With so many coins circulating, they had to be used for commercial transactions and not just fiscal uses or wealth storage. A problem was the assumption that the dies were used until worn out but there was no proof of this (Grierson 1967), and as such the levels of coinage in circulation could only be considered a rough estimate. However, through the use of distributions, Metcalf (1967) continued to argue for a high level of coin use in trade. Supporting Metcalf's view was Dolley's (1970) re-interpretation of the organisation of minting in Wessex prior to the 880s- he argued from the examination of moneyer's names on late eighth/early ninth century coins that these were not local people, and that the location of the mint was more likely to be in Hamwic which had already been attributed with sceatta production.

A true debate had now been sparked about the nature of Anglo-Saxon coinage, albeit one which was played out from two entrenched positions. Certainly the number of coins found was not high, but the growing number of eighth century English and Continental sceattas at Hamwic provided important indications of extensive trade contacts (Addyman and Hill 1968, 76-81), and as such lent support to the notion of at least some commercial use for coinage. However, much archaeological work remained descriptive; dating and the accumulation of evidence were paramount. Little work examined 'how' or 'why' trade was undertaken or regions re-urbanised e.g. Addyman and Hill (1968); Biddle (1964).

Excavations in the 1950s and 1960s proved fundamental for later theoretical work e.g. Hodges (1977b). For example, Addyman and Hill (1968; 1969) synthesised the data, and ideas regarding the nature of settlement at Hamwic. They argued that the site was based on a planned grid system, and that properties were delineated by boundaries (Addyman and Hill 1968, 82). The population did not appear wealthy but the diverse range of craft-working evidence, and imported material suggested that much of

Hamwic's population may have been involved in either industrial activity or trading (Addyman and Hill 1969).

Excavations in Ipswich were providing similar conclusions (West 1963). Extensive assemblages of local and imported pottery, middle Saxon coinage, lava quernstones, and craft-working evidence were found. The additional excavation of Ipswich Ware and Thetford Ware kilns attested to intense industrial activity, and West (1963, 234) referred to the site as a trading station.

Continental excavations on early medieval urban sites were also taking place presenting similar evidence and interpretations to their English counterparts. At Dorestad, on the River Lek in central Holland, remains of large post-built structures, numerous wells, and ditches were found (Van Es 1969, 194-197), alongside a large number of finds, including a penny of Offa, industrial debris and raw materials, stone artefacts (hones and lava querns) and over 4500 sherds of eighth/ninth century pottery, including large volumes of imported German ceramics (*ibid.*, 197-202). Interpreting the evidence as reflecting 'the exceptionally important part which the town played in international trade' (*ibid.*, 206), Van Es was helping to cement the idea of a network of ports around the North Sea littoral.

Summary for c.1955-c.1970

The period c.1955-c.1970 was extremely important for the archaeological study of early medieval trade and exchange. The increasing application of scientific excavation techniques presented more detailed stratigraphic information, and the massive increase in urban excavations after the Second World War prior to redevelopment provided large sets of data from widespread geographical locations, indicating a network of large coastal and riverine sites involved in international trade. This evidence seemed to go against traditional documentary interpretations. Combined with advances in anthropology regarding the mechanisms and nature of exchange, and the locations of trade, the perceived link between urbanism and trade gained a solid foundation from both the material remains, and the way in which researchers thought about ancient trade. Given the subsequent development of the field, it may be that Polanyi (1963) provided the single most important aspect with his

idea that coastal ports (emporium) were 'neutrality devices', used to regulate and monopolise trade. This took emporia outside the remit of general society, and access to long-distance trade could be seen as restricted only to those in power. Later, the numismatic debate regarding how coinage functioned in the period was extremely important with the work of Philip Grierson and David Metcalf paramount. Both debates continued throughout the 1970s.

2.2.1.3 c.1970-c.1985

Analysis of the archaeology of Anglo-Saxon trade and exchange in the early 1970s continued in much the same vein as the preceding decade. The differences between the old Roman centres and those on *de novo* sites, such as Hamwic and Ipswich was noted, and the morphology of emporia, and their trading relations discussed, e.g. Addyman (1973); Biddle (1973). Excavations were providing additional data, and some finds were illustrating the extent of the long-distance trade, such as the seventh century Indian Buddha figure found at Helgö, in central Sweden (Holmqvist 1975, 121). Holmqvist briefly discussed Helgö, arguing it had a dual purpose of local and foreign trading and craft-working, providing 'the population with goods which were otherwise difficult to obtain' (Holmqvist 1975, 131).

The second half of the 1970s saw a number of important publications, mostly addressing the theme of urbanism, or re-urbanisation, in early medieval Europe. In his seminal essay, Biddle (1976), summarised the evidence and general state of the archaeology of Anglo-Saxon urbanism. His coverage of the middle Saxon period included the rise of the emporia from the seventh century, and put forward the idea of old Roman centres and emporia being intimately related. He also suggested that each kingdom may have had a single emporium, such as Hamwic for Wessex, or York for Northumbria (*ibid.*, 114-115). The involvement of the Church in trade and exchange was noted, based on charters relating to the remission of tolls on vessels from certain monasteries entering London. Overall, re-urbanisation was traced to the increase in international trade, and he argued that 'these bare half-dozen settlements [the English emporia] represent the real beginnings of the Anglo-Saxon town' (*ibid.*, 118).

The volume *European Towns: their archaeology and early history* (Barley 1977) was also of significance. This was a European-wide venture encompassing material from much of northern Europe and parts of central Europe. A number of papers were pertinent to the study of early medieval trade, with many papers citing this as a primary factor in re-urbanisation, e.g. Ambrosiani (1977); Herrmann (1977); Lobbedey (1977). Emphasis on the non-agrarian nature of the early urban sites was a feature of many of the papers, interpreted as representing growing specialisation. Ambrosiani (1977, 109-112) discussed possible mechanisms behind the foundation of such settlements in Sweden, with a centralisation of administration and power as likely causes. At Birka, he showed that the site was on a boundary between administrative areas, and in an ideal position for maritime traffic. He argued it may have been 'intended as a free port for foreigners who did not come under the law...but who needed good trading opportunities' (ibid., 112).

The paper by Jankuhn (1977) concentrated more explicitly on trade, within a framework of re-urbanisation, from non-agrarian seventh century trading settlements to the first towns in the ninth. Much of his interpretation was traditional, and he was sceptical that archaeology could be useful to examine political and administrative organisation, but some perceptive comments were made regarding the archaeological analysis of trade (ibid., 358-368). He argued that there was a bias towards long-distance trade because of its visibility, with local trading as good as ignored, resulting in a skewed representation of ancient economies (ibid., 358). Such problems still exist, and will be discussed below. Overall, though, the ideas regarding the networks of trade, and the nature of exchange had barely developed since Jellema (1955), and Grierson (1959).

The formalist/substantivist debate in numismatics regarding the function of coinage had continued from the 1960s, with the formalist approach of Metcalf (1974; 1977) becoming more influential. His argument for a widespread monetary economy throughout England by the mid-eighth century was based around a steadily increasing number of finds (Metcalf 1974), and the assertion that coins reaching different areas from their mints did so through inter-regional trade (Metcalf 1977). Kentish coins in Mercia were cited as supporting evidence, for example. Grierson (1975, 3-6)

highlighted that trade could be still be undertaken without coinage, and probably was, but archaeologists certainly appeared more comfortable with Metcalf's position (Laing and Laing 1979, 160-165, Addyman 1973).

Study of the early medieval economy, and the re-birth of urbanism is characterised by the work of Richard Hodges, e.g. Hodges (1977b; 1978; 1981; 1982a; 1982b); Hodges and Whitehouse (1983). This has set the agenda in the field, and has proved massively influential, despite criticism. Much of his early work and ideas (Hodges 1977a; 1977b; 1981) stemmed from his doctoral research undertaken on pottery from Hamwic. In these he discussed trade routes, the idea of emporia as ports-of-trade, and the role of trade in revitalising northern European urbanism much as had been attempted previously. However, his aim was 'to understand the mechanisms that are necessarily inherent [in trade]' (Hodges 1977b, 208), and his methodological approach was centred on the application of processual archaeological theory and anthropological models. This must be briefly examined first.

The late 1960s and 1970s were characterised by a massive shift in emphasis in archaeological studies, toward a more anthropological and scientific methodology, generally referred to at the time as the 'New Archaeology', and later as processualism. Societies were increasingly analysed as 'systems' or by emphasising the underlying 'process' (Johnson 1999, 22-27). Although primarily affecting prehistoric research through the first half of the 1970s, its ideas, and the work undertaken on problems in prehistory, began to be felt in medieval archaeology from the mid 1970s.

It is important to review briefly the most influential work in the study of prehistoric trade, for similar ideas were made use of in early medieval studies. Aspects of Polanyi's work, especially Polanyi (1957), were further explored. Earle (1977), for instance, argued that the redistribution of materials could work on several levels and was 'an essential mechanism used to finance the political and private activities of an elite population' (ibid., 227). Renfrew (1975; 1977) argued that different types of distribution away from the source of a material (e.g. from a central place) through a large number of exchanges, or through prestige goods exchange, would all produce distinctive signatures when plotted, which could be used to interpret the type of

exchange taking place. Additionally, Smith, (1976, 315-320) produced regional models to represent different systems of distribution, including the solar-central place, considered regional administrative centres where goods/ produce from the surrounding region could be collected, and the dendritic central place, identified as a monopolistic market in a peripheral location, deliberately situated for long-distance trade. This proved highly influential for Hodges (1982a).

In an early paper Hodges (1977b), using the ideas of Polanyi (1957; 1963), and Renfrew (1975) about long-distance trade, argued the importance of prestige goods and reciprocal exchange processes in the maintenance of middle Saxon power structures. This, he argued, may have led to increasing long-distance exchange and the need to restrict this to certain sites on 'neutral' territory (Hodges 1977b). Although many of these ideas were not new, setting them within a defined theoretical and methodological framework was an advance.

In his publication of the imported pottery from Hamwic, Hodges (1981) proposed that the wide distribution of wares across the site indicated that trade was the settlement's primary purpose, and that it showed the presence of traders mostly from northern France. However, it was not until the publications *Dark Age Economics* (1982), and *Mohammed, Charlemagne and the Origins of Europe* (1983), written with David Whitehouse, that his theories were fully expounded. It is important that the relevant aspects are dealt with here in some detail.

The central theme of both books revolved around the relationship between towns and trade from the fifth to the tenth centuries. *Dark Age Economics* provided the thrust of Hodges' theories, and it was this which proved to be most influential. His aim was to show that long-distance trade in pre-ninth century northern Europe, especially around the North Sea littoral, was not market-based, but was politically oriented towards the procurement of high-status prestige goods by royalty (i.e. luxury items not available easily at home). The king could then use such goods to build alliances through reciprocal exchanges. This trade was undertaken at boundaries, initially at periodic fairs or beach markets through the fifth to seventh centuries, but later confined to designated ports-of-trade, or emporia, such as Hamwic, Quentovic, and Dorestad

(ibid., 50-52). Hodges (ibid., 39-46) argued that the reason for this change was that throughout the seventh century the volume of long-distance traffic was increasing steadily. This was due to relative stability in the Merovingian kingdom, which created an increasingly hierarchical society, and a subsequent requirement for goods and labour. In order to satisfy this need, Merovingian kings turned to the North Sea littoral: the Merovingians supplied the luxury goods, and the other regions, including the emergent Anglo-Saxon kingdoms, supplied raw materials and slaves. However, in order to maintain a monopoly over trade in prestige goods and, consequently their power, royalty (Frankish or otherwise) had to tightly control it. This continued until the later eighth/ early ninth century when a combination of Viking incursions and the fragmentation of the Carolingian empire resulted in declining long-distance trade, a greater reliance on domestic resources, and the beginnings of an urban network of local markets by the end of the ninth century.

This represents the two most important aspects of Hodges model which are relevant here: first, trade was undertaken by royalty for political, rather than economic reasons; and second, this trade was restricted to certain coastal trading ports by the end of the seventh century.

Hodges' argument that trade was undertaken for political rather than economic reasons (reciprocal exchange processes) was well received, being as it was based on generally accepted substantivist anthropological theory, e.g. Mauss (1925), and Polanyi (1957), and in general it provoked little criticism, e.g. Wickham (1983). Such work had already been utilised by scholars such as Duby (1973, 48-57), although the latter did advocate at least a partially commercialised system by the ninth century (ibid., 106).

The idea that international trade was restricted to certain places, the emporia, has become a central tenet to the study of the early medieval economy. Hodges believed that emporia were nodes in a network of trade encompassing the North Sea littoral and the Baltic. Influenced by the models regarding ports-of-trade and gateway communities (Polanyi 1963 and Hirth 1978), combined with regional models of the

spatial distribution of markets and central places (Smith 1976), Hodges proposed an evolutionary typology for emporia, moving through types A-C (Hodges 1982a, 50-52).

This typology rested upon the ideas outlined above regarding the mechanisms and nature of early medieval exchange, and spatial models for ports-of-trade. If, as Hodges believed, long-distance trade was used politically, and was under the direct control of kings who used prestige goods in reciprocal exchanges, then it was in their best interests to ensure that their monopoly was not broken. In the sixth/ seventh centuries trade could be controlled through small beach markets, the type A emporia. However, by the later seventh/ early eighth century, traffic involved in long-distance trade had increased to such an extent that these measures were insufficient to cope with levels of trade. Hodges argued that such a situation could be problematic and allow others access to long-distance trade, resulting in an undermining of the leader's power. The solution to this was for royalty to restrict that access by founding larger settlements where all foreign trade could be channelled and supervised by representatives of the king: the type B emporium. When this trading system declined in the ninth century, the emporia declined with it because levels of imports were lower, and the demands for prestige goods were changing. At this time, Hodges proposed, emporia could either be abandoned, or re-focus their activity towards the regional economy, and become central administrative places: type C emporia (*ibid.*, 50-52).

Criticism for Hodges' typology was widespread, which in many ways is surprising given the acceptance it has gained from many in the intervening period, e.g. Newman (1999). Arnold (1983) stated that the identification of an emporium depended far too much on the presence of imported pottery at coastal locations, arguing that place of entry could easily be confused with place of consumption. Other problems included the notion that in Hodges' model emporia were placed on boundaries when, as Arnold (1983) points out, these boundaries were left undefined. Indeed, the locations of such sites as York or Dorestad are some way inland on rivers.

Another of Hodges' tenets was the very high degree of control which kings exerted over trade, and thus the need to found emporia in order to maintain control. This idea

came under attack from Astill (1985, 224) who argued that there is no evidence that this was true. Although Hodges had argued that coinage was an instrument of royal control, Astill (1985) pointed out that coins showed non-political motifs throughout the formative phase of 'Type B' emporia. Hodges' ideas regarding coinage were firmly placed within the substantivist school of economics, and need to be explored further. His work on the function and use of middle Saxon coinage (Hodges 1982a, 105) followed on from that of Grierson (see above) and the economic anthropologist George Dalton (1977). The thrust of his argument (Hodges 1982a, 108-116) was that the coinage did not become multi-purpose until the introduction of broad flan pennies under Offa, which he equated with Dalton's 'early cash'. This was a 'product of early states...used for the payment of taxes or fines as well as in ordinary market exchange' (Hodges 1982a, 108). Prior to the Offan pennies, the gold issues of the seventh century and the subsequent silver sceattas were 'primitive currency', a medium of long-distance exchange which could equally include items such as salt. This was a model in which the distribution of sceattas in south-east England appeared to fit (ibid.). The sceattas extended the role of the gold coinage as a smaller denomination currency aimed at the stimulation and control of trade, a reform he placed with the Merovingian ruler Pepin II, whom he also argued founded Dorestad, and was subsequently imitated by Kentish and Frisian rulers.

However, Astill (1985, 224-225) suggested that Hodges' insistence that coinage reforms by kings had stimulated the economy may have been misleading, as other archaeological evidence did not show the corresponding changes in intensity of activity, but rather, continued steady occupation and use of emporia. Hodges' (1982a, 108-116) interpretation of the function of coinage, though, has received less attention. Wickham (1983, 139) thought 'the insights Hodges brings to the analysis of the differing roles of apparently identical features (trade, merchants, coins, markets) play in different sorts of society...are very valuable', but in many respects the ideas that Hodges proposed about the changing nature of coinage were not new, just defined in a more explicitly theoretical way.

The examination of exchange within regions in Hodges (1982a) and Hodges and Whitehouse (1983) was less well defined. The only sustained treatment was in

Hodges (1982a, 130-145), mostly relating to the provisioning of emporia, and the mechanisms of extracting surplus from rural estates. He believed that regional exchange was constrained by the same political ties as long-distance trade, being 'organised either by the secular or ecclesiastical leaders of the community' (ibid., 148-149), but that there was no evidence for a market based economy, except possibly in Carolingia, where documents referred to periodic regional fairs. Hodges and Whitehouse (1983, 105-106) argued that the Church had great landed wealth in the form of the monasteries and that these, and aristocratic estates, became centres of consumption and distribution in the countryside. They asserted that this could only be achieved by rural specialisation in agriculture, and also industry. Around northern Europe the archaeological evidence of increasing nucleation and of farm units in enclosures from the sixth century was cited, and seen as possibly representing attempts at re-organisation in order to produce greater amounts of surplus (Hodges 1982a, 136-141; Hodges and Whitehouse 1983, 105). The evidence at this time was relatively sketchy, as Hodges (1982a, 130) readily admitted, and little interpretation could be made. He (ibid., 150) also argued that concentrations of coin finds did not equate to periodic fairs or markets, as suggested by some numismatists (e.g. Metcalf 1977), but were more likely to represent moot courts, or legal assemblies, because the coinage was not a true currency (see above).

Astill (1984, 53-55) had argued that the lack of regional economic study of rural settlement archaeology was unhelpful, and masked the mechanisms of change from a re-distributive to market economy in the ninth century. He noted the results of faunal analysis, showing the dependence of emporia on inland regions, and argued the importance of understanding the organisation of internal networks of trade, which may have been based around royal and ecclesiastical centres where surplus could be gathered. It was these sites which he thought may 'provide a link between the two very different economic systems [i.e. the reciprocal and market based systems]...Such centres would have existed...at the places where surplus would need to have been gathered under both systems' (ibid., 54). In his later critique of Hodges (1982a) and Hodges and Whitehouse (1983), Astill (1985, 228-229), argued that Hodges did not give the required emphasis to the inland regions, citing documentary evidence of inland markets on Continental Europe, often on boundaries (both geographical and

political), such as Quentovic (then still archaeologically unlocated), Amiens or Maastricht. He suggested that such sites could possibly be considered a second tier of markets, located on crossings of roads with waterways, linking inland areas with the coast, and thus international exchange. Arnold (1983, 83) noted in his review of Hodges (1982a) that without examining internal networks of exchange, no adequate analysis of emporia could be carried out, leaving the emporia 'in some form of vacuum from the rest of society' (ibid.). Similarly, Jankuhn (1982, 20, 41) argued that long-distance exchange could not function without a link to local markets, but that overland trade had simply not been examined.

The only regional economic analysis undertaken at the time remained that of coinage distributions, with the volume *Sceattas in England and on the Continent* (Hill and Metcalf 1984) proving especially important. This provided both standard numismatic analysis, e.g. Stewart (1984), and some works of great significance with regard to monetary history. Metcalf (1984a) argued through distribution analysis that by c.750 the economy in much of England was already monetised, even at 'ordinary levels of society' (ibid., 27), with the movement of coins between regions indicating that the economies of the Anglo-Saxon kingdoms were geared towards trade. Early Primary phase sceattas were seen as reflecting cross-Channel trade, with distribution concentrated on the south-east, whilst the widespread Secondary phase sceattas showed the introduction of a monetary economy to other areas of England (ibid., 28-34). Each region of England was discussed, showing widespread distribution of coinage outside the emporia, even though only small numbers of single coin finds were known. In the same volume, Booth (1984) argued for a 'stable and flourishing money economy' (ibid., 80) in Northumbria during the mid eighth century, while Op Den Velde, *et al* (1984) presented the evidence of widespread sceatta finds in the Low Countries, and the list of finds from England (Rigold and Metcalf 1984) showed that a large number of finds had been made outside of emporia, and outside of eastern Kent. Obviously this went against some of the most important factors in Hodges (1982a) model, continuing a more formalist approach to the use of coinage in the early medieval period. In many ways the data fitted more comfortably than Hodges' anthropologically derived ideas, especially as the numbers of inland, non-urban finds was steadily increasing, indicating that middle Saxon coinage prior to Offa showed

many of the characteristics that Hodges (1989a, 111-116) considered to be present only after the mid-eighth century. It appeared unlikely that sceattas could be considered only as a medium of international exchange.

Summary/ Conclusion for c.1970-c.1985

Overall, the period c.1970 to c.1985 probably saw the greatest shift in the analysis of the archaeology of trade in the last fifty years. At the beginning of this section, the archaeological evidence had suggested a network of international trade based at sites located around the coasts of northern Europe. However, questions as to why this trade may have increased during the seventh century, what the emporia were actually *doing*, or what the mechanisms of exchange were, had not been asked.

The theoretical overhaul provided by processualism was extremely important. Research began to focus on the 'how's' and 'why's': as Renfrew (1982, 2) noted 'the focus of our interest is *change* in society and economy, and in its *explanation*' (original emphasis). The late 1970s and early 1980s were dominated by the models of Richard Hodges, which set the agenda, even though his work was not particularly well received by reviewers. This may possibly have been because, although much criticised, *Dark Age Economics* was the only sustained treatment of early medieval economy and society to have been produced for decades. Reviewers may have pointed to its shortcomings, but very little was actually produced with the aim of providing alternative models. In his critique Astill (1985) suggested areas where research would be vital, and the work of numismatists was already showing a gap between Hodges' theories and the available evidence. Low numbers of coins and a general lack of regional excavation data were a major stumbling block for a robust rebuttal of the Hodges' model. Excavated evidence of long-distance trade was far greater, and the visibility of imported materials made it inherently easier to study networks of long-distance trade than regional, where homogeneity of material culture could be problematic.

Overall, by c.1985, Hodges' ideas had almost become assumed truth. Other scholars used the basic tenets of *Dark Age Economics*, especially those regarding emporia, as

the starting point for their work. Such problems in the archaeological analysis of trade continued throughout the 1980s and into the 1990s.

2.2.1.4 c.1985-present

During the late 1980s, Hodges' ideas remained the only sustained theoretical work regarding early medieval economy and society. However, archaeological evidence was mounting against aspects of Hodges (1982a), namely that involving the nature of the emporia. In the volume edited by Hodges and Hoble (1988), a number of papers questioned the role of emporia simply as entry points for prestige goods (Brisbane 1988; Wade 1988). These proposed that a role as regional production and distribution centres was primary- Wade (1988) highlighted the massive Ipswich Ware industry in Ipswich, and Brisbane (1988, 104-106) suggested that, as a whole, the craftworking evidence from Hamwic represented more than production at the domestic level. Exchange located away from emporia, and the relationship between the emporia and their hinterlands was still unknown, however, and, as Brisbane (1988, 106-107) suggested, such information was vital to produce a fuller understanding of early medieval trade and urbanism.

In the light of such evidence, Hodges (1988) and Hodges (1989a) now presented a modified thesis, specifically utilising Smith (1976), and also the model of peer-polity interaction (Renfrew 1986). It should be noted that Hodges (1988) was a general theoretical work providing a basis for Hodges (1989a). The underlying premise of a prestige goods economy remained, articulated through the emporia under the overriding influence and control of a political elite (Hodges 1988, 34-48). However, the role of the Church in the changes which he believed led to a market economy by the tenth century was accentuated. Through the Church, emphasis shifted during the seventh century from moveable to landed wealth, which not only provided territory and power, but also great productive value. This is where Hodges traced the beginnings of coin use, hierarchical settlement pattern, and the early emporia (Hodges 1989a, 56-58).

Regional production and distribution of goods under direct royal control were now seen as a primary function, with entry points for prestige goods taking a lesser role

(ibid., 70-85). Hodges still imagined the emporia to have been founded and controlled through the decisions of individual kings. Contemporary with this, he argued, rural settlement moved away from traditional settlement locations to areas with heavier, more productive soils, and better resources. This was due to increasing demands for tribute from both ecclesiastical and royal establishments which compelled communities to evaluate the long-term potential of their lands (ibid., 63), although little supporting archaeological evidence was forthcoming.

In the late eighth century, Hodges believed that Anglo-Saxon kings re-organised agriculture and production with the aim of producing surplus in response to the decline in long-distance trade (ibid., 136-143). This was undertaken, he suggested, in emulation of Charlemagne who had manipulated the Church, in order to motivate the inland regions of the Carolingian empire and raise enough taxes to control such a large area (ibid., 117-119).

Although more sophisticated than *Dark Age Economics*, and less broad in its overall scope, Hodges (1989a) still drew criticism. Saunders (1991) accused Hodges of again laying undue emphasis on kings for change in society and economy, and of telescoping data to fit particular reigns. This was then compounded by his 'ahistorical assumptions about human nature, viz the innate competitive nature of individuals' (ibid., 143), which would lead to economic growth. This notion of rural intensification to produce surplus was based on animal bone remains and also proved contentious. Saunders (1991, 144) cited Bourdillon (1988) who had argued that little specialisation was apparent from the remains at Hamwic. This contradicted her own earlier, unpublished work which was used in Hodges (1989a). The study of faunal remains is, however, potentially important for the study of regional economics, and will be discussed further below.

In contrast to Hodges' models of rapid social and economic change at the behest of kings, Martin Carver proposed a longer term, and slower evolutionary trend (Carver 1987, Carver 1993b). Citing evidence from around the North Sea littoral and the Baltic, he argued that beach markets and international trade had existed throughout previous centuries, and that large emporia represented only the concentration of trade

at one point rather than a marked increase in volume (Carver 1993a, 53). Furthermore, he saw no reason to suppose they were simply channels for prestige goods, but rather that they provided wealth for rulers through taxes. This was an important study, as it allowed for small periodic beach markets as well as large emporia to exist within the same system, and showed that the lack of an urban emporium did not in any way preclude a region from engaging in international trade.

In many ways, this work appeared more appropriate to much of the evidence, both archaeological and historical. In Kent, for example, Tatton-Brown (1988, 214-221) showed mostly from charter evidence that the majority of the king's income from the ports-of-trade at Fordwich and Sandwich in the seventh and eighth centuries came from tolls, rather than the importation of goods. This was furthered in an important paper by Kelly (1992), in which she discussed the remission of tolls on vessels from some ecclesiastical communities on trade in London, implying that gaining exemption from the tolls levied by the king was sought after.

Alongside these advances, ideas regarding the organisation, and economy of the countryside were changing. Astill (1991, 101-102) developed his earlier model (Astill 1984), proposing that the economy in eighth/ ninth century England was based around a hierarchical two-tier settlement system: 'centres of authority' (ecclesiastical or royal/ aristocratic sites) collected surplus from their surrounding lands, which was then utilised to supply emporia, and fuel international trade. Regional survey and metal detector finds were providing useful data- in Suffolk, Newman (1992, 35) discussed the site at Barham, where fieldwalking and metal detecting had produced large assemblages of middle Saxon metalwork, coinage, and pottery, which was interpreted through the idea of regional centres. Newman (1992) argued from this evidence that the site was most likely a settlement which acted periodically as a market, and a meeting place.

More specific but along similar lines, Hinton (1990, 34-35) argued that the seventh century shifts in settlement were due to the deliberate decisions of landowners to move the population on their lands, with the notion of producing greater amounts of surplus. He pointed to landowners such as the Church who required more intensive

production to help supply them with the produce needed not only to feed a religious community, but also to take part in trade for other goods it may not have had on its own lands, including wine, precious metals/ stones (to decorate churches), and building materials (ibid., 40-41). Blair (1988, 35) also asserted that ecclesiastical communities, specifically minsters, were important catalysts for economic growth in the eighth and ninth centuries. Through their focal role in religious activity (e.g. church councils, shrines of saints etc.), he argued that these sites would attract a range of people from both high and low status background, and a situation conducive to trade, which led to many minster sites developing in the later ninth century to become the locations of burh towns (ibid., 47-48).

The remission of tolls on ships, mentioned above (Kelly 1992), is important here, as it highlights that ecclesiastical communities were both large-scale consumers and heavily involved in trading activities. A very important aspect of this study was the examination of charter evidence. Kelly (1992, 14-15) suggested that communities such as Minster-in-Thamet (Kent) owned their own trading vessels and not only sought certain goods from emporia but also sold produce from their own lands through them. This idea was invaluable as it helped to link emporia, and the trade generated through them, to the settlement in their hinterlands, and supported Carver's (1993b) assertion that royalty could gain more wealth from controlling tolls than they could from restricting trade to only luxury goods.

The idea that high status centres accumulated surplus with which to trade and provision trading centres was highly important, and its development was aided by the results of analysis of the faunal remains excavated from the emporia. Results from Hamwic, Ipswich, London, and York have shown that the general subsistence base of each emporium was narrow, consisting mostly of cattle with lesser amounts of sheep and pig. Another feature was the absence of neonates, indicating that animals were not raised at emporia, but were brought in from the surrounding regions.

The range in age at death from Fishergate (York) was interpreted as representing a community supplied with both young and old animals which were surplus stock (O'Connor 1991, 248-251). It was argued that such a pattern is likely to have come

from external provisioning rather than direct trade with producers (*ibid.*). At Ipswich Crabtree (1996a, 64) also found a predominance of cattle and low species diversity, including very little in the way of meat from non-domesticated species. Agreeing with O'Connor (1991), she argued that Ipswich would have been provisioned and not involved in direct trade to get its meat.

However, data from Peabody (London) was interpreted differently. Data was similar to the other emporia, but West (1989, 166-167) interpreted this as indicating that 'like their fellow Saxon Londoners, the Peabody site Saxons appear from faunal evidence to have been fairly prosperous' (*ibid.*, 167), and that they were consumers in a market economy rather than from a controlled supply as seen in York. This was obviously at odds with the views from other sites, and had been based on quite similar data. However, the model based on provisioning has been more influential, as it was more consistently in tune with other work of the time e.g. Astill (1991); Carver (1993b).

One problem, though, was the fact that these studies were all based upon data from the emporia, and lacked a general regional component. However, aspects of this were also tackled by Pam Crabtree (1994; 1996a; 1996b) in which she compared early and middle Saxon assemblages from East Anglia, arguing that the middle Saxon period saw increasing specialisation of animal husbandry from a subsistence economy to one with a greater attempt to produce surplus, most commonly of wool. This was important as her work directly supported the theoretical themes outlined above of changes in settlement patterns, and agricultural practice.

Other work examining regional economics was limited to the examination of coinage distributions much as had been undertaken previously (see section 2.2.1.3). Such analyses continued to show the widespread use of coinage across eastern England, especially in the first half of the eighth century, implying a monetary economy in place by this time (Metcalf 1988a, 231). The study of Lincolnshire's coinage (Blackburn 1993) is a good example, in that widespread coin use was found across a county which had no known emporium, with a number of sites producing more than one coin.

Therefore, by the mid-1990s, the examination of early medieval trade had produced a change in ideas from the preceding decade. The longer-term view espoused by Carver (1993b) appeared to be more appropriate than Hodges (1989a), with respect to the more recent archaeological evidence which had been produced, e.g. Brisbane (1988). The greater theoretical emphasis being placed on regional exchange was extremely important, but, at this point, no sustained treatments had been attempted, with only short papers examining either monetary history or animal husbandry published.

Through the mid-late 1990s, research regarding the early medieval economy continued in a similar vein to the preceding decade, although relatively little theoretical work was produced in comparison. A number of papers, e.g. Astill (1994); Scull (1997), summarised debates and available evidence, providing useful critiques of the current models for urban development and trade. Astill (1994, 46) continued the debate regarding the importance of Minsters to the early medieval economy, suggesting that their permanent occupation and wide range of functions would integrate them into the rural economy to a greater extent than royal centres which were likely to have been only periodically occupied for tax collection. Scull (1997), however, summarised archaeological understanding of the emporia in the light of recent excavations and publications from Hamwic, London, Ipswich and York. Of especial interest was the (unpublished) evidence from London and Ipswich indicating that the edges of the settlement were of a rural nature, probably involved in farming, arable and animal husbandry, as had been seen at Dorestad (*ibid.*, 282). Unfortunately, this was not discussed further, as it could have major implications for theories regarding provisioning. He also argued against the idea that emporia were centres of large-scale production, excepting Ipswich Ware production in Ipswich, preferring to envisage them as predominantly trading ports (*ibid.*, 284). He suggested that none of the emporia showed a range of craft production not available inland, and he doubted 'whether craft production, on the scale for which there is evidence, could have directly sustained any significant element of the population' (*ibid.*). However, this did not tackle the problem of what a population of thousands may really have been doing.

In contrast to Scull (1997), Hodges (1996) was continuing to promote the emporia as regional centres for production and trade. He argued that probable levels of long-distance trade may not have sustained a large population, which could only have been retained if relatively high levels of production, and distribution to the region also took place. Certainly a multi-function centre appeared to sit more easily with the available archaeological evidence, but Hodges' idea of total royal control was still problematic.

Overall, much of the work through the mid 1990s slowly developed the theories of the previous five years. More recently, with the publications of a number of sites, including urban sites such as Fishergate (York; Kemp 1996) and the Six Dials (Southampton; Andrews 1997), and rural settlements including Riby Crossroads (Lincolnshire; Steedman 1994), a great increase in the reporting of metal detected finds, and results from fieldwalking surveys, a number of scholars have attempted to further our knowledge of the rural economy, and the relationship between emporia and their regions.

A recently published volume (Anderton 1999) aimed to show the potential for study of middle Saxon regional economies, and emporia and their hinterlands, in order to explicitly challenge the thesis produced by Hodges (1982a). Blinkhorn (1999) and Newman (1999) provided the most ambitious studies, arguing for a middle Saxon regional economy of some complexity. Blinkhorn (1999), through his work on Ipswich Ware, envisaged an intensification of internal trade networks in the second quarter of the eighth century, through the need to provide emporia with raw materials, food, and produce. Such intensification instigated specialisation in the countryside, either in animal husbandry, arable crops, or craft activity, e.g. the smelting of metals. Newman (1999) examined 'productive sites' in Suffolk, his analysis giving strength to the model that they were important regional centres, and likely market sites. However, as Vince (2000) discussed in his review, much of the work does not provide new models, but rather an extension of Hodges work. For example, Newman (1999, 37-39) even interprets the productive sites in the hinterland of Ipswich using Hodges' (1982a, 50-52) type a-c typology for emporia.

Other recent work has been based around the interpretation of excavated and metal detected sites which are productive in terms of metalwork and coinage. These were labelled 'productive sites' by numismatists, simply in reference to the assemblages recovered, and have been important in forming a new model of the Anglo-Saxon economy, especially at a regional level e.g. Bosner (1997), Leahy (2000), Ulmschneider (2000a, 85-92). The interpretation of coinage in these publications is very much based upon the work of David Metcalf (see above) with the tacit assumption that coinage was an indicator of international, inter-regional and regional trade.

Bosner (1997, 39) has noted the general distribution of such sites to be predominantly across the eastern counties of England, especially along the coast. This, however, is not unexpected given that it is these regions of England that are seen as areas of greater monetary activity, with greater overall coin loss witnessed throughout the seventh to ninth centuries, e.g. Metcalf (1987; 1998). Closer topographical examinations have highlighted the incidence of these sites in significant geographical locations often on transportation routes (Roman roads, rivers, ancient routeways, the coast) and at, or near junctions between them. Ulmschneider (1999; 2000b) found this pattern in both the Isle of Wight and Lincolnshire, as did Newman (1999, 39) in East Anglia. Ulmschneider (2000a, 85) has gone as far as suggesting that 'some of these [productive sites] represent high-status ecclesiastical or perhaps royal places, while others may have served primarily as points of trade', and the general consensus considers them to have been the sites of markets or fairs, and their potential role as regional centres is often highlighted, e.g. Newman (1999, 37); Bosner (1997, 39). This work by numismatists has been extremely important over the last 20 years in promoting an alternative thesis to Hodges (1982a), and has shown that trade in the countryside was occurring. With the productive sites they may have found the locations of that trade.

The model of the 'productive site' as the location of a market has been recently challenged by Julian Richards, however (Richards 1999a; 1999c). Through his work on the metal detected site at Cottam (East Yorkshire), and the excavations at Wharram Percy he has argued that 'there is nothing special about 'productive sites', other than

the way in which they have been discovered' (Richards 1999c, 79). By calculating the density of finds (i.e. the number of finds across the area examined), he has suggested that area for area, productive sites do not show artefact density as high as emporia, using Fishergate (York) as an example. This is very interesting, and implies that trade was limited, especially so in rural areas, but is conditioned by the Hodges-influenced idea of Fishergate as a monopolistic port-of-trade, which is by no means certain (Scull 1997, 280). It does, though, go no way to explaining why there are sites in the countryside with extremely large coinage assemblages, and, importantly, it does not take account of methods of recovery, which in terms of excavation could include *volume*, and not just area, of investigation.

The most sustained examination of the 'productive site' site has been produced by Katharina Ulmschneider (1999; 2000a; 2000b), and it is worth examining her work in more detail here. All three publications are based on her doctoral thesis, and espouse the same general thesis. This argues that the productive site, whether metal-detected or excavated, has some kind of broadly economic or administrative function, and can be considered different to other rural settlements, and the artefacts found indicated some degree of wealth (Ulmschneider 2000b). She argued that their locations were ideal for such activities, and may have been primary reason for occupation/ activity at that spot (*ibid.*, 65-70). Using Flixborough as an example of a highly productive site, she argued that they were most likely multi-function sites which exploited and controlled their local resources, including industrial activity, and that any surplus produce could then be traded. This trade was evidenced through the finds of foreign/ non-local pottery and coinage at the site (*ibid.* 66). Sites producing lower levels of evidence were given the tags 'medium' or lesser' productive sites, but were still envisaged as settlements with an economic focus, as crossing points, or settlements on boundary where produce, foodstuffs, and goods such as salt or fish could be traded. Additionally, it was argued through place-name, historical and/or archaeological evidence that at least some of these sites were likely to have been ecclesiastical foundations based on ideas of continuity into the Late Saxon period, (e.g. Burgh Castle (Norfolk). She cites the site excavated at Riby Crossroads (Lincolnshire) as an example which showed evidence of industrial activity, and long-distance contacts.

The exploitation of local resources and location at such a site, she claimed, 'can be assumed' (ibid., 67) through the archaeological evidence.

Although an attractive model, there are a number of problems inherent in this interpretation. Although Ulmschneider (2000b, 65) noted that 'productive sites' are not an homogeneous group, she nevertheless assumes that the presence of coinage equals trade at these sites, rather than simply a coin-using population. The excavations at Cottam (Richards 1999b) are also extremely important in the discussion of the nature and function of productive sites. These uncovered evidence of two phases of occupation within a fenced enclosure, which unlike Flixborough or Riby Crossroads showed low subsistence levels, and, from the artefact assemblages, relatively little access to trade (Richards 1999b, 89-91; see also 4.1.2.4). Such evidence does not suggest a wealthy site, and it would not seem indicative of a regional centre.

This shows one of the major problems with the thesis produced by Ulmschneider. By describing all sites with finds of coinage and/ or non-ferrous metalwork as 'productive' even if then divided between highly productive, medium and lesser, the term begins to encompass so many different types of site that it becomes meaningless, and over-generalised. That is not to say that some sites were not regionally important, as a number undoubtedly were, including such sites as Flixborough (Lincolnshire), and Brandon (Suffolk), as Ulmschneider's (2000a, 85-88) work shows. However, classing these alongside Cottam or Riby Cross Roads, but not Wharram Percy (Yorkshire) is misleading. Therefore, the term 'productive site' will only be used in this thesis with care, referring directly to the method of recovery rather than on any theoretical basis.

Summary/ discussion for 1985-present

The last 15 years have seen a general shift away from the ideas inherent in Hodges (1982b), although that is not to say that many interpretations are not still heavily entrenched in his ideology, e.g. O'Connor (1991); Kemp (1996), or influenced by them, e.g. Blinkhorn (1999). The work of scholars such as Blair (1988) and Astill (1991) has been vital in promoting research examining regional trade, and trying to

place emporia within a regional framework. This is extremely important, as it represents a concerted attempt to move toward a inclusive model whereby the interpretations of different levels of the economy (local, regional, international) can be discussed, and their interdependence assessed.

In the last few years, increasing levels of data, much of it produced through the activities of metal-detector enthusiasts, as well the publications of a number of rural sites, such as Riby Cross Roads (Steedman 1994), have provided the scope for greater consideration of regional trade. Of particular importance here is the work of Katharina Ulmschneider (1999, 2000a, 2000b) which is currently probably the most sustained treatment of this data, interpreted in a framework of the formalist approaches of numismatists such as David Metcalf. Alongside other studies such as Newman (1999), and Blinkhorn (1999), the viability of examining regional economies has been demonstrated.

2.3 Discussion

This chapter has traced the development of the archaeological analysis of trade through the twentieth century, showing that for much of the period study was biased toward urban sites, and international trade owing to the types and amounts of evidence available. Regional approaches have only been adopted in the last decade or so, mainly through the analysis of metal detected stray finds of coinage and metalwork, and pottery from fieldwalking.

It is important to give here a brief synopsis of how the nature of the early medieval economy is perceived. One of the fundamental issues in this was the function of middle Saxon coinage as either a true medium of exchange from an early date, which can be used to interpret fluctuations in the economy as a whole (e.g. Metcalf 1974), or as a special purpose currency under the control of kings for use in international trade, and the payment of tax or fines (e.g. Hodges 1982a). With the growing levels of coin finds in rural areas, especially 'productive sites', coins have been readily interpreted along the lines Metcalf envisages (e.g. Ulmschneider 2000a), and there are strong reasons for questioning Hodges (1982a) models. This idea of coinage as money, and the existence of a monetary economy in middle Saxon England from the late seventh/

early eighth century is accepted here, and rural finds are interpreted within such a framework. Other forms of exchange may have been current, Hodges' (1982a, 108) 'primitive currency', for example, which can include salt and bullion as well as coins, but the limited function of coinage inherent in Hodges' models must be rejected.

Overall, it is difficult to envisage emporia as monopolistic ports-of-trade. Undoubtedly, these were significant places but there is no reason to suggest that long-distance trade did not take place at other locations (e.g. Carver 1993a), or that this trade was tightly controlled by royalty or any other group (ecclesiastical or secular). The involvement of royalty was more likely to have been in the exploitation of trade through tolls, and trade could be undertaken by anyone with the means to do so (e.g. Scull 1997).

Rural aspects of the early medieval economy remain a point for debate, in part because larger quantities of data from metal-detecting, excavation, and field-survey, have only recently become available. Much of this discussion is based around the importance of the Church in rural society, as large land-holders, and the focus for religious activity and populous settled communities. As Blair (1988) asserted, this would lead the settlements of potential economic significance to attract a range of people and would be ideal locations for fairs and markets, (e.g. St. Denis in France). Additionally, Astill (1991; 1994) has developed the possibility of a settlement hierarchy based around the collection of surplus at 'centres of authority' which was used to fuel the emporia. Such models are undeniably useful, but as was discussed above, it is difficult to relate such ideas directly to the evidence. The central role of the Church has become a major interpretative tool in the study of 'productive sites', and many such sites are now considered to be minsters (e.g. Ulmschneider 2000a; Leahy 2000), although attention has been drawn to the problems inherent in the assignation of an ecclesiastical function (Loveluck 1998). By interpreting 'productive sites' in the context of high status excavated sites, especially those thought to be monastic, a self-fulfilling thesis is being created of 'productive site' as economically significant locations, and one which is inherently biased against secular authority (royal and aristocratic). Therefore, although it is accepted that the Church was of great importance, and surplus production may have been collected to fuel international

trade, the current interpretation of 'productive sites' and their ecclesiastical attribution can only be considered with caution. Assessing this will form a major part of the following chapters.

The above discussion has laid out a synopsis of the way in which I believe the early medieval economy may have functioned, and will form the theoretical framework for the analysis chapters. The chapters will test these ideas. Assessing the levels of data available from across eastern England is also important prior to study, to the choice of regions which will be examined in more detail, and to the materials which will form the basis for analysis. These are discussed in Chapter 3.

Chapter 3

Methodological background: archaeological evidence and the materials of study

3.1 Introduction

The purpose of this chapter is to introduce the materials of study in the light of the theoretical limits discussed in chapter 2, and discuss how the analysis will be carried out. The chapter will be divided into a number of inter-related sections. First, the choice of study areas will be discussed (section 3.2), followed by an examination of the archaeological materials to be used and analytical methods adopted, with special attention paid to the use of metal detected finds in archaeological analysis (section 3.3).

3.2 The study areas

Two areas (Fig. 3.1) will form the case study analyses (chapters 4 and 5), on which a comparative discussion will be based (chapter 6). Geographically the first of these encompasses the region from the Humber estuary to the northern edge of the North Yorkshire Moors, and the North Sea coast to the edge of the Pennines (Area 1), while the second is composed of the modern county of Kent (Area 2). The choice of these was based on a combination of considerations which will be discussed separately.

The choice of the Yorkshire region for Area 1 was preferred from the outset. Levels of publication were good: these included rural settlements, e.g. Wharram Percy (Milne and Richards 1992), Low Caythorpe (Abramson 1996), Cottam (Richards 1999b), and Beverley (Armstrong *et al* 1991), and urban sites, e.g. York (Phillips and Heywood 1995; Kemp 1996; Tweddle *et al* 1999). This included the excavated site at Fishergate (York), interpreted as an emporium. Additionally, preliminary analyses showed that large assemblages of coinage and metalwork were known from the region, and much was offered in the way of unpublished material, e.g. Kirkdale (Rahtz, forthcoming), and Thwing (Manby, forthcoming).

A primary consideration for Area 2 was to focus on areas in eastern England with good quality data, but where the middle Saxon archaeology had received relatively little in-depth attention in recent years. This immediately excluded Lincolnshire which had been the subject of a doctoral thesis, later published as (Ulmschneider 1999, 2000a; 2000b), and London and the Thames Valley which were also under study.

Preliminary analysis of the available data from the other parts of eastern England was then undertaken to determine which of the remaining areas was most suitable. The region north of the River Tees in northern England exhibits little published data, excepting two high status sites in Northumberland at Yeavering and Thirlings (Hope-Taylor 1977; O'Brien and Miket 1991). and the probable monastic sites at Hartlepool, and Tynemouth (Daniels 1988; Jobey 1967). Those at Jarrow/ Monkwearmouth, (Cramp 1969), are of undeniable importance but published in interim form only. In East Anglia, large amounts of work have been undertaken, including excavation and fieldwalking, and reporting of metal-detected coins appeared to be high, judging from the annual published lists in the *British Numismatic Journal*. However, only Norfolk provided adequate levels of data, which will be discussed below. In Suffolk, although there have been extensive excavations in Ipswich, there is only one fully published site (West 1963) and a small number of interim reports (Wade 1980a; 1988), plus summaries of excavations in the *Proceedings of the Suffolk Institute for Archaeology and History*. Additionally, there are few excavated and published middle Saxon rural settlements. Similarly, Essex showed very little excavated, published evidence, although the important site at Wicken Bonhunt is published in a summary form (Wade 1980b), there is another important middle Saxon site at Barking Abbey, and a 'productive site' at Tilbury (Newman 1999, 38).

This left Norfolk and Kent. The preliminary data assessment indicated adequate levels of information from both. The preference was for Kent to form the second study area. The reasons for this were two-fold. Firstly, the preliminary analysis of the data showed a range of published evidence. This included excavated rural settlements, such as St. Martin's Hill (Canterbury) (Rady 1987a); urban sites in Canterbury, e.g. Blockley *et al* (1995); and large assemblages of coinage, as published

in the *British Numismatic Journal*, Rigold and Metcalf (1984), or on-line in the Early Medieval Coin Corpus at the Fitzwilliam Museum, Cambridge. Kent was also ideal from a theoretical perspective. In chapter 2, the link perceived by many scholars between urbanism and long-distance trade was highlighted, and the two study regions could provide highly comparable areas for assessing the impact of urban centres on rural Anglo-Saxon England. At the same time there is some reason to suppose that aspects of the nature of this urbanism in Area 1 and Area 2, and the way in which access to trade was organised may have been different. In Area 1, the excavated settlement at Fishergate (York) has been interpreted as akin to a Hodges type B emporium, similar to Hamwic or Ipswich, possibly covering an area of up to 65ha (Kemp 1996, 75-76). Conversely, in Area 2, the ecclesiastical centre at Canterbury is thought to have been supplied with foreign goods from a number of small emporia in eastern Kent (Hodges 1989a, 92-94). Therefore, possible differential access to trade, and organisation of trade, can be investigated comparatively. Also, neither area had received any attention regarding regional exchange, and levels of data would suggest that such an examination is now possible.

Preliminary study of the archaeological evidence from Norfolk had also been favourable, with a number of published sites known from the county, e.g. North Elmham, (Wade-Martins 1980), Middle Harling (Rogerson 1995), and Burgh Castle (Johnson 1983), as well as good access to unpublished material through the Norfolk SMR. The decision to proceed with the Kentish rather than Norfolk material was based on several factors. The most important have been described immediately above, but also of concern was that much of the archaeological data from Norfolk was already under study for the Ipswich Ware Project (Blinkhorn, forthcoming). Though now delayed, publication of this work was anticipated toward the end of the thesis, and may have proved problematic to the presentation of results in this project.

Area 1 and Area 2 will form the core of the project, with the data used to examine trade in each region. However, it was clear after the preliminary examination of the available evidence that Area 2 would not be able to provide the same range or levels of data of Area 1. This was, unfortunately, unavoidable and was due to the number of published excavations rather than a general lack of Anglo-Saxon evidence. As a

result, it was decided that Area 1 and Area 2 could not be treated equally, instead becoming primary (Area 1), and secondary (Area 2) regions. This would maintain the comparative element of the project, which was important as it was not the original intention to have a single study area project, whilst acknowledging that levels of data were different.

The preliminary examinations of the data also made it clear that not all types of finds would be appropriate for the study of middle Saxon trade. The following section will discuss the materials to be used.

3.3 Materials of study- selection, methods and analysis

The examination of different groups of materials forms the bulk of the analysis in each study area (chapters 4 and 5). This section will discuss which materials are most appropriate to the study of trade (local to international) in middle Saxon England: first, the choice of artefacts is discussed, including a brief examination of significant rejected groups (3.3.1). This will be followed by a discussion of the methods of analysis (3.3.2), and, finally, recovery methods and interpretation (3.3.3) which will cover aspects such as the use of metal-detected finds.

3.3.1 Selection of artefacts

It was important that the artefact types chosen for analysis were appropriate, and to that end it was necessary first to define certain attributes required of those artefact groups. Firstly, artefacts needed to show some regional visibility because without this the examination of the movement of materials, e.g. by trade, would be impossible. Such regional visibility could take any form, from geological provenance, e.g. for stone objects or inclusions in pottery fabrics, to distinctive stylistic variations, e.g. on coinage. Secondly, the range of artefacts examined should, when examined as a whole, represent different levels of the economy, from the local/ regional movement of goods to international trade in order that potential interactions and connections between these levels could be assessed. Lastly, the general groups of materials needed to be relatively abundant across both Area 1 and Area 2, in order that distribution patterns could be examined with confidence.

With these criteria in mind, preliminary examination of each area indicated that a number of groups of material would be ideal, but owing to the time limits of a thesis, only those which would potentially supply the most useful results could be used. These materials (coinage, pottery, stone artefacts, and metalwork) obviously exhibit different qualities for the study of middle Saxon trade, and each will be discussed separately below.

3.3.1.1 Coinage

Coinage is an obvious choice: it has been traditionally used to examine the early medieval economy and trade, and is widely regarded as a reliable index to trade, i.e. they were not traded items themselves, but it is generally accepted that they were associated with trade during this period, and the occurrence of coinage has been used to trace both the geographical patterns of trade, and economic fluctuations, e.g. Metcalf (1988a). Additionally, large assemblages are known from both Area 1 and Area 2, with 612 and 390 stray finds respectively, which allow extensive analyses to be undertaken.

The history and evolution of Anglo-Saxon coinage from the gold/ pale gold issues of the seventh century, through the varied sceatta series of the early eighth, to the broad flan pennies and Northumbrian stycas of the late eighth and ninth centuries has been extensively studied elsewhere, e.g. Grierson and Blackburn (1986); Blackburn (1986); Blackburn and Dumville (1998); Hill and Metcalf (1984), and will not be repeated here. However, monetary history specific to Area 1 and Area 2 will be examined briefly prior to analysis in chapters 4 and 5.

Coinage has been used extensively to reconstruct the economy of middle Saxon England, typically using distribution analysis to trace the chronological development in the pattern of trade, e.g. Metcalf (1984a), Blackburn (1993), which will be discussed further below (section 3.3.2). The estimation of the number of dies used for a particular issue, which can be used in turn to estimate the maximum number of coins in circulation can also be used to assess the economy, e.g. Metcalf (1965), Grierson (1967), as have analyses of the weight/ fineness of metal used in the coins, e.g. Metcalf and Northover (1989). The latter can be especially important, and it was

argued, although not conclusively, that patterns of debasement of coinage from countries around the North Sea littoral from the mid-eighth to mid-ninth century followed each other, suggesting that 'commercial fortunes...were linked together, and that debasement was in some sense exported by the dominant or more prosperous partner' (Metcalf and Northover 1989, 120). Although there is no scope within the project to undertake such detailed numismatic analyses, the results from these studies can be utilised where appropriate.

Other techniques include the examination of patterns of coin loss from individual sites against a calculated regional mean (section 3.3.2.2). This has been successfully applied to Iron Age and Roman assemblages (Haselgrove 1993; Reece 1987, 71-97) but has yet to be used for Anglo-Saxon issues.

Whilst coinage is an ideal artefact type regarding the study of patterns of trade, caveats must be made. The deposition of coinage need not be associated with economic activity. Coins have been found in a small number of burials, datable to the study period (Geake 1997, 32), which can possibly be equated with ritual behaviour. Hoards cannot be considered economic deposits for the purpose of this study, as they are not accidental losses, but deliberate depositions whether of a ritual or practical nature. Although in some cases these are easy enough to exclude, methods of recovery can be problematic, especially the use of metal-detected finds. However, as the arguments are equally applicable to metalwork, discussion will take place in section 3.3.3.

3.3.1.2 Pottery

The reconstruction of patterns of early medieval trade through the analysis of imported ceramics has a long history, e.g. Jellema (1955), Dunning (1956). Such wares, whether from Continental Europe or other regions of Britain, were relatively easily examined due to their regional visibility both geologically and in comparison to most domestically produced local Anglo-Saxon wares, e.g. Hodges (1981). The incidence of imported pottery around England had fuelled debate regarding long-distance trade around the North Sea littoral, including Hodges (1982a), and has

proved to be an important factor in ideas regarding the possible hierarchical nature of settlement during the period (Astill 1991; Blair 1988). However, difficulties of interpreting place of entry, as opposed to place of consumption have been discussed (Arnold 1983) (see section 2.2.1.3). Also, Brown (1997, 108-112) discussed the pottery from Hamwic, showing that there was no evidence that certain groups, e.g. traders, used only imported materials. Instead, he argued that pottery in middle Saxon Hamwic was probably put to a limited range of domestic uses, resulting in demand for only a limited range of forms. Imported material simply increased this range of forms at the port, but only a few forms, such as pitchers may have been wanted any further afield.

Locally produced pottery on the other hand has received less detailed attention, e.g. Hodges (1981), including in Areas 1 and 2, mostly owing to a lack of knowledge regarding clay sources, but as pottery has been found on virtually every excavated middle Saxon domestic site in both study areas, analysis of its distribution is warranted. This will be based around the use of different tempering types and inclusions in the pottery rather than on potential sources of clay, and through this it may be possible to identify regional trends which could be related to trade.

Within Areas 1 and 2 the overwhelming majority of finds have come from excavated sites. Fieldwalking finds are almost entirely absent, with the exception of a single site in Area 1 in the Hull Valley available through the Humber Sites and Monuments Records, even though the major Humber Wetlands Project covered large sections of southern and central Area 1 (Van de Noort and Ellis 1995; 1999; 2000). With regard to recovery methods, this does provide easily comparable assemblages, but there are still a number of caveats in the analysis of pottery assemblages which should be noted.

Dating of middle Saxon pottery can be a major problem, with many wares appearing to be long-lived types exhibiting widespread continuity from early Saxon types (Hodges 1981, 54). Indeed, work on the West Heslerton assemblages has shown that some of the ceramics originally considered Bronze Age were middle Saxon (Powlesland 1999,63), and Ulmschneider (2000a, 16) has noted that many middle Saxon finds from Lincolnshire were originally thought to be Iron Age. Therefore, in

many cases a date closer than middle Saxon is either difficult to assign or dating can only be provided by association to objects of known date. Additionally, as noted above, levels of domestic production are still relatively unknown. This results in a situation where it is extremely uncertain whether the occurrence of widespread regional types, such as some of the quartz-tempered wares in Area 1 (section 4.3) are due to trade, or to homogeneous domestic production across the region. Compounding this problem is the possibility that a proportion of middle Saxon sites may have been virtually aceramic (Hodges 1981, 53-54), as has been recently highlighted for the settlement at Cottam in Area 1 where very little pottery was found (Richards 1999b). Therefore, certain types of settlement may not be as visible as others, especially impoverished ones which may bias research toward richer, higher status sites.

With such strong caveats, it may appear that pottery finds are too problematic to analyse. However, levels of evidence are relatively high in both study areas, and are available from both rural and urban locations which allows for comparative analysis of different settlement types. This is important, as the differences between them are often cited (Brown 1997). Nevertheless, concerted in-depth regional examination using all of the available evidence has not been undertaken, and such work may provide indications as to the use and function of different types of pottery in middle Saxon England. Also, the examination of local middle Saxon pottery from its regional distribution has not been examined in-depth, and not recently, e.g. Hodges (1981, 52-55). Therefore, the examination of pottery is considered an important factor in the assessment of regional middle Saxon trade.

3.3.1.3 Stone Objects

Stone objects form a group of artefacts which are often under-utilised in the study of trade in Anglo-Saxon England. Imported Mayen lava querns have received most attention, e.g. Parkhouse (1997), probably due to their occurrence on many middle Saxon sites across eastern England, and the resulting information it imparts regarding international trade, and the re-distribution of goods once they entered the country.

However, the geological provenance of the stone used is generally noted in excavation reports, e.g. Clark (1992), Rogers (1993), which provides data with a regionally visible component. This is very important, as it can give direct evidence for the trade, or at least movement of utilitarian objects within a region. Additionally, stone objects have been found on many of the excavated sites in Area 1, and a number in Area 2, which allows a good basis for comparative discussion.

3.3.1.4 Metals and metalwork

The approach towards metals and metalwork must be slightly different to that for the other materials- by necessity it will only be included in Area 1. The availability of the data proved problematic in Area 2. There was little material, except from a very few published, and some unpublished, excavated sites in Canterbury, e.g. Blockley *et al* (1995), Houliston (1998). Otherwise, only the unpublished site at Sandtun (Gardiner *et al*, forthcoming), and a small amount available through the Portable Antiquities Scheme provided data for regional comparison. Conversely, Area 1 has relatively high levels of published data which come from a variety of sites around the region, e.g. Rogers (1993), Leahy (2000), Milne and Richards (1992), Stamper and Croft (2000), Peers and Radford (1943), and Richards (1999b), and also some unpublished data from excavations, e.g. Thwing (Manby, forthcoming), and metal-detected sites reported to the Portable Antiquities Scheme.

Such a situation excludes the possibility of direct comparative analysis, but the inclusion of metals and metalwork from a single study area can be justified. Methods of recovery are important here- the assemblages of metal-detected artefacts from middle-Saxon sites in eastern England have given rise to the idea of 'productive sites' (section 2.2.1.4) where large numbers of both metalwork and coinage have been recovered. As a result, metalwork and coinage are often considered together in relation to the interpretation of 'productive sites', e.g. Leahy (2000), Ulmschneider (2000a, 85-88) (see section 2.2.1.4 for full discussion of this). Therefore, examination of metalwork in Area 1 was considered important. Additionally, in east Yorkshire, Loveluck (1996) successfully examined metalwork from early Saxon burial assemblages, concluding that certain groups in the region may have controlled access to metals. It was envisaged that this could be furthered in the middle Saxon period

through the examination of excavated settlement assemblages, and data from metal-detecting activity.

Analysis (section 3.3.2 below) will be carried out by both metal type and artefact type, in order that the selection of artefact groups does not mask the importance of particular metal types to the middle Saxon economy, and vice versa.

3.3.1.5 Significant rejected groups

Owing to the time limits of a thesis, some groups of materials had to be rejected from the study. These are briefly discussed, in order that the reasons for their exclusion can be made clear, and justified. In all cases, the main reason for rejection is that the materials which were chosen for study provide better evidence for different levels of the economy and for various types of trade.

Glass objects have been found on a number of rural and urban sites, both coastal and inland, although they are not particularly abundant in either study area. In Area 1, there were a number of finds of fragments from palm cups and funnel beakers at Fishergate, as well as some indication of glassworking, but elsewhere in the region there was very little, including a single fragment from Wharram Percy (Hunter and Jackson 1993; Price 2000). With such small levels of evidence apparent, it appeared sensible to exclude glass from analysis.

Environmental evidence could also have conceivably been included. The analysis of environmental evidence to explore aspects of the regional economy has been used to argue for the nature of provisioning of the emporia e.g. Bourdillon (1988); O'Connor (1991), and to discuss specialisation in the countryside Blinkhorn (1999), Crabtree (1994) (see section 2.2.1.4 for discussion). Blinkhorn's and Crabtree's studies have argued for a general shift from a mostly self-sufficient economy towards greater variation from site to site during the seventh to eighth centuries, including increasing specialisation, probably in the form of large-scale wool production. Blinkhorn (1999, 20) interpreted this as a response to the needs of producing surplus with which to support the emporia, and resulted in increasing internal trade as specialised rural settlements traded for goods and materials they did not, or no longer, produced

themselves. If high enough levels of evidence had been available in both study areas it would have been potentially productive to have discussed the early and middle Saxon environmental assemblages from each region. However, Area 2 provided virtually no environmental data, with detailed reports available for only Sandtun (Gardiner *et al*, forthcoming), and notes for only a few others. Area 1 proved more promising, with four sites providing early Saxon data, and six middle Saxon. However, in no cases could the early to middle Saxon transition be examined on a single site, and so only a general regional trend could be expected. Therefore, the environmental data will not be analysed as the results produced could only be considered provisional and lacking definitive conclusions. The data will, however, be examined, where appropriate, in the final discussion (chapter 6).

3.3.1.6 Documentary sources

It is important briefly to discuss the documentary record in relation to this project. Economic data from Anglo-Saxon documents is relatively sparse, but takes a number of forms. Those referred to mostly by archaeologists relate to *feorm* (food rent) paid to the king (e.g. Hodges 1982a, 136-141; Blinkhorn 1999, 11-16). These are cited in various documents such as early law codes from Wessex, and the *Anglo-Saxon Chronicle* (Blinkhorn 1999, 12), although unfortunately not from either study area.

Charter evidence can also contain useful economic data. Kelly (1992) has closely examined a number from Kentish monasteries granting remission of tolls on ships at several ports in south-east England. Other charters show grants of land, almost exclusively to the Church, citing extent of the estates, or their location at ports such as London which can obviously be used in discussion of those groups actively participating in early medieval trade e.g. Blackmore 1997. The remaining sources, including Bede's *Ecclesiastical History of the English People*, and hagiology, may refer to economic aspects of Anglo-Saxon England. For instance, Bede refers to the port of London, and the sale of slaves, and there are references to Frisian traders in York (Hodges 1989a, 69; Rollason 1998, 129-133).

Although such evidence is of great use, it is patchy both chronologically and geographically. The evidence from Area 2 is better than from Area 1 given the

survival of a greater number of ecclesiastical documents (Kelly 1992; Russo 1998) but there is not the possibility of in-depth study given the limitations of the thesis. Therefore, where possible, documentary evidence will be employed when discussing the economy of Anglo-Saxon England including Area 1 and Area 2. It will be of most use in Chapter 6 when producing an overall model for the economy of the period.

3.3.1.7 Summary/ conclusion

Section 3.3.1 has provided the arguments for the choices of artefact to be studied in chapters 4 and 5, based around their collective usefulness in examining different levels of trade. Realistic choices have had to be made, and as a result some artefact types will only be used within the general discussion of each study area, where appropriate. The potential problems associated with metal-detected finds, and their usefulness to the archaeological study of trade, remain to be discussed, however. This is because such problems are relevant to both metalwork and to coinage, and will be dealt with together below (section 3.3.2)

3.3.2 Recovery methods: the problems of metal-detected finds

Finds produced through metal-detection provide increasingly important amounts of data, with more finds now being reported especially since the introduction of the Portable Antiquities Scheme. However, use of such finds is often perceived as problematic owing to their non-archaeological methods of recovery, as well as the uncontrolled nature of the activity which has damaged many sites in the past, e.g. Ulmschneider (2000a, 12-14). It is important that they are discussed here in order that these problems can become apparent, and caveats made about their interpretation.

As for much of eastern and southern England, e.g. Bosner (1997), Ulmschneider (2000a, 14), metal-detected finds now form the core of the coin evidence, and a substantial proportion of the metalwork assemblages in both Area 1 and Area 2. Information on the former is now readily available through the annual 'Coin Register' published in the *British Numismatic Journal*, and the 'Early Medieval Corpus' available on-line through the Fitzwilliam Museum, Cambridge¹, as well as published lists, e.g. Bosner (1997). Although there can be worries regarding deliberately

falsified findspots, to mask detection on scheduled monuments for example, it is generally accepted that reliable information has been given (Ulmschneider 2000a, 14), especially in these published lists. However, the degree of accuracy is problematic. The findspot is often described by parish, or four-digit grid reference in order that the exact location of the site remains secret, although where a site is deemed to be worked out or if archaeological investigation has been undertaken, e.g. South Newbald or Cottam in Area 1, exact findspots are known. In some cases site location given is deliberately vague, such as the site 'near Canterbury' in Area 2, in order to protect the site from illegal or unscrupulous metal-detection. Therefore, in the analysis of the distributions of coin finds and metalwork in the two study areas it must be remembered that the findspots are, in most cases, only in the nearby vicinity of that shown.

The archaeological interpretation of metal-detected finds must also be examined. As Ulmschneider (2000a, 14) argues, the assumption has to be made that the loss of these coins can be equated to trade, rather than hoarding or some form of ritual deposition, i.e. from burials. The latter are relatively rare in the archaeological record (Geake 1997, 32), but hoards may be more difficult to assess. Hoarding is known throughout the study period, and is especially prevalent from the ninth century (Grierson and Blackburn 1986, 298), and this can only be assessed on a site by site basis, taking into account the distribution of finds on the site, and the internal composition of that assemblage. Therefore, a proportion, probably small, of finds may not, in fact, represent casual losses, but this risk must be accepted, owing to the numbers of metal-detected finds made. Dobinson and Denison (1995) have clearly shown this by examining the proportion of Anglo-Saxon metalwork finds over the period 1988-1993, with the result that 69% were metal-detected, only 4% definitely not metal-detected, and 27% were of unknown recovery. Additionally, a part of their study assessed the viability of using metal-detected coin finds for academic investigation. Using Iron Age coin finds as an example, they argued that our understanding of the circulation of coinage in this period had greatly increased in the last decade, mostly through the numbers of Iron Age coin finds being made through metal-detecting activities. Another important site in this respect is Cottam in Area 1 (discussed in detail in section 4.1.2). Here, extensive, systematic metal-detection over several years

¹ The 'Early Medieval Corpus' is found at: <http://www.fitzmuseum.cam.ac.uk/coins>

produced a large eighth to tenth century metalwork and coinage assemblage which was plotted over a map of crop marks at the site and was used as a basis for archaeological investigations (Haldenby 1990; 1992; 1994; Richards 1999b). Such work has shown the viability of using metal-detected finds, and of their potential importance for new studies of settlement and economy.

Conclusion

Metal-detected finds have become a vitally important resource for the study of the early medieval economy, and they cannot be ignored. Certain inherent problems should be taken into account when interpretation is made, however, including the accuracy of the published locations. However, with care, metal-detected finds can be employed successfully, e.g. Metcalf (1998), Ulmschneider (2000a).

3.3.3 Methods of analysis

3.3.3.1 Distribution analysis

The examination of the different artefact groups through their regional distributions forms the basis of the analysis, and will be used in each case. It is a traditional method of regional analysis for archaeological finds/ sites, and has been used extensively in the Anglo-Saxon period, e.g. coinage (Metcalf 1984a; Blackburn 1993), pottery (Hodges 1981, 42, 56; Blinkhorn 1999, 5-8), stone objects (Parkhouse 1997) and metalwork (Loveluck 1996).

For both Area 1 and Area 2, the artefact distributions will be examined on a base map showing major rivers, Roman roads, and known trackways (e.g. the North Downs Way).

3.3.3.2 Other analyses

There are several other techniques employed in the following analyses which require further discussion. Some are general points, others more specific to individual artefact types.

3.3.3.2.1 Access to international trade

The idea that all, or most international trade was channelled through ports-of-trade, e.g. Hodges (1989b) has been challenged over recent years, e.g. Carver (1993b, 51-61), with the case for wider access to international trade being proposed. Whilst this has been embraced by many scholars, e.g. Ulmschneider (2000a), there has been little concerted effort to use the archaeological data to show any more than general patterns. Therefore, a defined theoretical approach designed to examine this has been applied to the appropriate data. This involved calculating the theoretical distance which could be travelled in a day to market, in order for a return journey to be undertaken. Such a limit would allow for the distributions of artefacts to be assessed with reference to coastal trade networks, and the potential levels of access to them.

In his important study of the later medieval economy, Britnell (1993, 82-83) addressed the problems of transporting bulky produce, such as foods, to market in the twelfth and thirteenth centuries. These, he argued, could only be transported over relatively short distances because of the high costs involved. For example, in a legal treatise of the 1250s, the limit was set at six and two-thirds miles (10.7km) as any further would not allow the seller to travel to market and return within a day (*ibid.*). Other examples include the transport of wheat and barley over ten miles (*c.*16km) from Kennet (Cambridgeshire) to Bury St. Edmunds (Suffolk) in the 1270s. Britnell (1993, 83) also noted that distances much further than this are rare due to prohibitive costs, and the need for overnight accommodation. Additionally, Wilkinson (1994, 502), in his investigation of the state in early Bronze Age Mesopotamia, calculated that travel of 10-15km at *c.*4km per hour would be the average limit for a day's return journey (five hours total travel time). From this, the distance of approximately 15km would seem to be an appropriate, and useful, working limit for a return journey over land to market by non-mechanised transport within a day. It will be applied here, albeit recognising that differing terrain will allow for variation in this limit.

3.3.3.2.2 The regional circulation of coinage

Developments over the past fifteen years in the archaeological analysis of Iron Age and Roman finds of coinage have advanced understanding regarding the patterns of the circulation of coinage during these periods (Haselgrove 1993; Reece 1987).

Reece (1987, 71-80) argued that discussion of the monetary history of any site, based on its assemblage of coin finds, could only be undertaken successfully if those coins were compared to an overall general background pattern of coin circulation for the appropriate surrounding region. For example, if the assemblage of coins from a site showed peaks in the number of finds in two periods and few from another, it might be concluded that the two periods with abundant coin finds were times of greater activity at that site. However, the pattern of coin loss, i.e. the abundance of finds, may be the same across that region, and thus it can be argued that this reflects the circulation of coinage rather than activity. Only for deviations from this regional average can specific conclusions be drawn (Burnett 1991, 50-51).

The methodology employed here will follow Reece (1987), with some aspects of Haselgrove (1993) also applied. The coinage was first divided into groups according to their date of issue. This was achieved by simply plotting the dates of coins, whether as calculated from hoard evidence as for most sceattas (Blackburn 1984; Metcalf 1993), or through the dates of kings or archbishops provided by documentary evidence, and dividing the issues into the most appropriate groups. This is shown in Appendix 1. One major problem with such an approach is that long-lived issues may prove difficult to accommodate. By producing groups of differing lengths, many of these problems were eradicated, and this did not affect analysis as all coins were based around the same date groups. However, a number of issues were still difficult to assign to any particular group which had been calculated, namely sceattas of series H (type 49), X, and R, pennies of Cenwulf of Mercia (796-821), and Osbert of Northumbria (849?-867?). In these cases, it was decided that they would be included within the group to which the longest part of their likely issue dates belonged, with the caveat that their inclusion was problematic.

The criteria for the individual sites which would be compared to the calculated regional mean was set at a minimum total of ten coins. Any fewer than ten would have produced relatively meaningless results spread over nine date groups, and even though assemblages of substantially more than ten would have been preferred, it was

acknowledged that there are relatively few sites with many more than ten middle Saxon coins.

3.3.3.2.3 Other analyses

Other analyses were also undertaken which were not based directly on geographical distributions (3.3.2.1). These used variations on the methodology adopted for the circulation of coinage (3.3.2.2.2), and are used, where appropriate, for pottery and metalwork. In both cases the dating evidence is generally not sufficiently detailed that analysis by date groups could be undertaken, but similar analysis is possible for pottery and for metalwork.

The additional analysis for pottery was based around variation in fabric types, and this could be used to assess regional variation in the use of pottery in the study period. The lack of defined chronological development for most types in Area 1 means that this can only be used in a general way for each assemblage, but quantification is sufficiently good that most assemblages can be examined. Area 2 is slightly different: quantification is mostly poor, due to lack of full publication with the result that regional variation in fabric type is difficult to assess with confidence beyond the simplest distribution analysis. Better definition is available for chronological development of pottery types in Area 2, based on work undertaken for the assemblages produced in Canterbury (Macpherson-Grant 1986a). Therefore, the variations in fabric types through time may be addressed, simply for the region as a whole, but with more detail in Canterbury where quantification is available through the published reports e.g. Macpherson-Grant (1986b; 1995b; 1995d).

Additional methods of analysis can also be applied to the metalwork from Area 1. These are two-fold, based on the number of objects by metal type and artefact type. In section 3.3.1.4, it was shown that good levels of data exist in Area 1, and these are generally well quantified. Therefore, by expressing each type of data in percentages the different assemblages across Area 1 can be compared confidently. The analysis by artefact type is partially based on work by Leahy (2000, 71-80) which examined productive sites in East Yorkshire. He compared assemblages of pins, strap-ends, hooked tags, mounts, coins and tweezers from South Newbald, Thwing, Whitby,

Cottam and 'near York'. Leahy (2000, 77) had chosen these because he argued that they were the most common metalwork finds from each site. They will be used here (section 4.3.3.2), with the addition of brooches, buckles, rings, and knives which have also proved comparatively abundant, and excepting coinage, discussed in detail elsewhere.

3.4 Summary/ Conclusion

Chapter 3 has set out much of the background to the project regarding the choice of study areas and materials, and the methodologies. Some changes of emphasis have had to be made regarding the study areas. Originally, it was intended that these would be of equal weight, but owing to available levels of evidence, Area 1 has become the primary area of study with Area 2 secondary. This acknowledges the nature of the data, but it also retains the comparative element to the project which was deemed important if the thesis was not to become a localised study.

A number of artefact types were chosen for detailed study: coinage, pottery, stone artefacts in both Area 1 and Area 2, plus metalwork in Area 1. This choice was based on their abundance, regional visibility and usefulness in the reconstruction of the middle Saxon economy. The methodologies to be employed in chapters 4 and 5 were also critically discussed.

The following chapters, 4 and 5 will provide the detailed analysis outlined in this chapter, taking into account the discussions and caveats made above.

Chapter 4

Area 1: Yorkshire

4.1 Introduction

Area 1 encompasses the region from the Humber estuary in the south to the northern edge of the North Yorkshire Moors, and from the east coast towards the Pennines in the west, taking the longitudinal line SE00-NZ00 as the western edge (Fig. 4.1). As explained in section 3.2, the choice of study areas is based on a number of criteria.

The chapter is divided into a number of sections. First, a general introduction to the physical geography, geology, and critical evaluation of the middle Saxon archaeology is given (section 4.1). This is followed by analysis of the artefactual and environmental data (sections 4.2-4.5), as outlined in chapter 3, prior to a final discussion (section 4.6) summarising the findings made². In-depth discussion of the conclusions, especially relating to underlying social aspects of the economy will be reserved until chapter 6, in order that evidence from Study Area 2, and other parts of eastern England can first be considered.

By examining a range of evidence, various levels of the economy will be covered from locally based exchange to international trade, and interactions between them made clear. Within this, the use of coinage and extent of monetisation in middle Saxon times is important. The vast increase in numismatic data for Anglo-Saxon England has mostly not been assimilated, especially north of the Humber, nor has it been accompanied by advances in our theoretical understanding of coinage in this period. Finally, the chapter aims to trace the effects of any economic changes on middle Saxon society.

4.1.1 Introduction to Area 1: geology and topography

The diversity of geology and topography in Area 1 (Fig. 4.2) requires a brief examination, as this has resulted in sub-regions of differential suitability for settlement. This section will describe the geology, topography and other relevant

information of each sub-region in turn which can be used to gain an informed understanding of the physical environment.

4.1.1.1 Sub-region 1: The Vale of York

The Vale of York (Fig. 4.2) covers much of central and western Area 1, constituting a wide lowland plain from the Humber to Northallerton, where the North Yorkshire Moors meet the Pennines (Kent and Gaunt 1980, 4). The main river, the Ouse, flows south from northern Area 1 to the Humber, and meanders across the Vale of York. The River Derwent runs along the eastern side of the Vale from the Vale of Pickering, also into the Humber. The Vale, covered by fertile alluvium from extensive flooding (ibid.), was prone to waterlogging, and its heavy soils which were not ideal for arable farming, but the long grazing season resulted in a pastoral economy becoming dominant (Higham 1987, 37, 42). The heavy soil also resulted in the preference for cattle over sheep (O'Connor 1991, 240).

4.1.1.2 Sub-region 2: The Yorkshire Wolds

The Yorkshire Wolds (Fig 4.2) form a right-angle in eastern Yorkshire, separating the Vale of York from the Holderness Plain in the south and extending eastwards to the coast (Kent and Gaunt 1980, 6). Soils are mostly free-draining over limestone, with relatively low rainfall, and provide advantageous conditions for both arable and pastoral farming, especially sheep (Higham 1987, 36, 38). Higham (1987, 43) states that 'during periods of climatic regression, the Yorkshire Wolds should be seen as the natural material, cultural and demographic focus of North England, and...a natural contender for the status of a 'core' area' (ibid.).

The boundaries of the Wolds are steep slopes on the northern side into the Vale of Pickering, and a shallow slope onto the Holderness Plain (Kent and Gaunt 1980, 6).

4.1.1.3 Sub-region 3: The Holderness Plain

The Holderness Plain (Fig. 4.2), covers south-eastern Area 1. It is mostly low-lying (3-10m OD) and can be described as a wetland environment, including salt marsh and meres (Kent and Gaunt 1980, 6; Van de Noort and Ellis 1995, 1).

² Aspects of this analysis have been written for publication in (Naylor 2001), (Naylor, forthcoming).

Major archaeological and palaeoenvironmental survey has taken place over the last decade (Van de Noort and Ellis 1995; 2000), covering much of the Plain. The soils can be poor and heavy in places, with bad drainage, and in the Hull Valley there is evidence from the early medieval period (*c.*420-*c.*1220) that that shrub and woodland increased (Ellis 1995, 12-15; Lillie and Gearey 2000, 26). This indicates that conditions may not have been good for agricultural practices.

A major problem is coastal erosion, currently averaging between 1 and 2m per year, which may have resulted in a loss of 4km since the Roman period (Ellis 1995, 15). This is important as evidence for coastal communities in this part of Area 1 is no longer available, as the map of lost villages in East Yorkshire by Muir (2000, 194) clearly shows.

4.1.1.4 Sub-region 4: The Vale of Pickering

The Vale of Pickering (Fig. 4.2), is located between the Yorkshire Wolds to the south, the Howardian/ Hambleton Hills to the west, and the North Yorkshire Moors to the north. The vale is mostly covered by fluvial and lacustrine (lake) deposits, and drainage is via the Rivers Rye and Derwent, which flow through the Howardian Hills and the Wolds to the Humber (Kent and Gaunt 1980, 7). Kent and Gaunt (1980, 7) also note its agricultural potential, but no discussion of historical land-use has been made.

4.1.1.5 Sub-region 5: The Howardian Hills and Hambleton Hills

The Howardian Hills, and Hambleton Hills (Fig. 4.2), border the Vale of York to the west, and Vale of Pickering and North Yorkshire Moors respectively to the east, rising to *c.*170m OD. They are a source of workable sandstones, which were utilised in Anglo-Saxon times (section 4.5), and provide well drained soils ideal for agriculture (Higham 1987, 38).

4.1.1.6 Sub-region 6: The North Yorkshire Moors

The North Yorkshire Moors (Fig. 4.2) form the north-east of Area 1, rising to over 450m OD (Kent and Gaunt 1980, 7). It is mostly composed of sandstones and shales,

much like the Howardian/ Hambleton Hills, but soil is poor, with higher rainfall and lower number of growing and grazing days per year than elsewhere in Area 1, making the Moors less suitable for settlement and agriculture than the Wolds (*ibid.*; Higham 1987, 42). The Moors are bounded by the Hambleton Hills to the west, steep scarps to the north, and an escarpment to the south, into the Vale of Pickering (Kent and Gaunt 1980, 7).

4.1.1.7 Sub-region 7: The eastern Pennines

The westernmost limit of Area 1 (SE00-NZ00) encompasses the boundary between the lower slopes of the eastern Pennines (Fig. 4.2) and the Vale of York. A major source of stone, the Pennines provided rock, including Millstone Grit and Coal Measures sandstone, for tools (Clark and Gaunt 2000). The Pennines reach c.600m OD, and are agriculturally poor (Edwards and Trotter 1954, 1; Higham 1987), but Area 1 only encompasses the very lowest areas at most, and these can be considered fairly similar to the Vale of York here.

4.1.2 Area 1: the archaeology of the main sites

A total of 111 sites in Area 1 have produced archaeological, and/or artefactual evidence of the middle Saxon period, 47 from the city of York, most of which have only provided ambiguous dating and few finds. Forty-four of the 111 are represented by only, or mostly, casual finds, and these have generally been uncovered by metal detectorists. The other 67 have been excavated to some extent. However, of these 67 excavated sites, all but nine were small-scale excavations which are either unpublished, or produced very little middle Saxon material. The remaining nine have been fully published, or reports made available, and these provide much of the archaeological data, excepting coinage, which will be analysed in the following sections. Therefore, these will be critically discussed, along with the fully published metal-detected site at South Newbald, prior to analysis, in order that any problems with their data and/ or interpretation can be highlighted. Descriptions of other sites are given in Appendix 2.

4.1.2.1 46-54 Fishergate, York (SE 60655115)

46-54 Fishergate is situated on the eastern bank of the Foss, at its confluence with the Ouse, c.600m south-east of the walled Roman legionary fortress. Excavations by the York Archaeological Trust during 1985/ 1986 prior to redevelopment covered c.2500m², with the primary aim of discovering remains of the medieval priory of St. Andrew (Kemp 1996, 5-7). There was expectation of underlying middle Saxon deposits as a number of ninth and tenth-century objects had been discovered in the Fishergate area during the previous century (*ibid.*, 4-5). The excavations uncovered stratified Roman to post-medieval deposits, including extensive middle Saxon remains. No early Saxon or late ninth/ early tenth-century levels were found. The middle Saxon levels are the most extensive found in York, and will be discussed here in detail. Much of the data, including the settlement remains and the finds are fully published (Kemp 1996; Mainman 1993; O'Connor 1991; Rogers 1993), and I was given access to the unpublished numismatic data (Pirie, forthcoming).

Three late seventh to mid-ninth century phases were determined, assigned periods 3a-3c. These phases were mostly based on their stratigraphic relationship, either above (period 3c) or below (period 3a), a charcoal and animal bone layer (period 3b). Any middle Saxon features showing no direct affinity to these were labeled 3z (Kemp 1996, 15-17). Precise dating evidence was limited, and often appears to have been achieved by stratigraphic association, similarities of fill composition, and alignments of features (*ibid.*). However, a number of coins and other narrowly datable artefacts formed the basis of a broad dating scheme: period 3a, late seventh/ early eighth century to early ninth century; period 3b, late eighth/ early ninth century; and period 3c early to mid ninth century. The end of middle Saxon occupation (mid ninth century) was determined from the absence of York ware pottery, which is a characteristic of late ninth/ tenth century deposits in York (*ibid.*).

Discussion of variations between periods is important for a critical evaluation of the evidence. Period 3a was a phase of intense occupation. Features included a slightly curved ditch, running north-south, a number of structures, and a large number of pits (*ibid.*). Environmental evidence indicated that the ditch may have been cut at least a year before initial occupation, and acted as a boundary, as most activity appears to

have taken place to the west of the ditch (*ibid.*, 21-22, 67). Structures are in various alignments to it. Four were assigned to 3a, including three post-built halls, one (Structure 1) which had a subsidiary building, possibly an SFB (*ibid.*, 27-35). The limits of the excavation area meant that no complete plan could be produced for any of the post-built structures, but there is evidence for internal partitions in structures 1 and 2. All three may have had similar dimensions, each with a width of *c.*5.5m. Length was harder to estimate, but structure 1 must have been 14-19m long, structure 2 at least 13m, and structure 3 11m (*ibid.*). The possible SFB was a rectangular pit *c.*0.5m deep, and 3.25m by 1.6m in size, although the western and northern sides no longer survive. Its attribution as an SFB was based on shape, the presence of stake-holes around the edge of the feature, and large amounts of daub in its fill (*ibid.*, 31-32). Period 3a pits in were divided into two types: two linear groups were interpreted as boundary markers, albeit south of the structures, and six clusters (pit groups 1 to 6). The pits varied in size and shape. Most were filled with domestic waste, and one (pit group 1) contained some structural features which, through comparison with Hamwic, were interpreted as either a latrine (in its final use at least), or a covered storage pit (*ibid.*, 37-49).

Period 3a deposits were mostly sealed by the animal bone and charcoal layer forming period 3b. Little slumping was seen into the earlier features indicating that 3a features may have been left open for some time before the accumulation, or spreading, of 3b. Evidence regarding the potential amount of time elapsed between the hiatus in activity and the spreading of the charcoal/ bone layer was inconclusive, representing anywhere up to half a century or more (*ibid.*, 54). The 3b deposit was relatively homogeneous, consisting of numerous large lumps of charcoal (*c.*40%), unburnt animal bone (*c.*30%), soil (*c.*20%) and daub, pebble, and cobbles (*c.*10%), and a number of finds in good condition (*ibid.*, 55-56). This suggested to Kemp (1996, 57-59) that 3b was a product of dumping, possibly of ground-level middens, across the site, and not slow accumulation. A burning event was unlikely as very little animal bone was burnt, and Kemp (1996, 59) argued that the charcoal may have been included as some form of capping (hygiene?) over the earlier settlement. The interpretation would appear to be sound, and Kemp's conclusion that 3b represented an abandonment of the settlement

with all structures demolished, and pits/ ditches in-filled before the spreading of middens across the excavated area is sensible.

The final stratified middle Saxon phase, period 3c, comprises features described as 'broadly datable to the Anglian period' (*ibid.*, 59), and which also cut 3b. No structures were found, although a possible structural slot was noted, and features consisted of pits and another boundary ditch. This latter feature followed the same curving north-south axis as the 3a ditch, although Kemp (1996, 59-60) argues that both may follow a common natural feature, such as the river bank as the earlier one should have been invisible under the dumped material of 3b by that point. Fourteen pits in pit groups were found, and as previously, included general domestic waste (*ibid.*, 60-62).

Finally, period 3z should be briefly discussed. These were features in areas where 3b was absent, mostly through later truncation of the middle Saxon contexts, and included two possible structures, a number of pit groups, and a road, with associated drainage ditch (*ibid.*, 17, 25-26). The road, found in the evaluation trenching at the southern end of the site, was cobbled, c.6m wide, and the associated ditch was situated on its western side. The ditch continued in the main excavation area 17m to the north, but only a small patch of cobbles was discovered (*ibid.*, 25-26).

Interpretation of the excavations at Fishergate is not straightforward. There were major differences in assemblage make-up between 3a and 3c, and the abandonment phase, 3b, was somewhat puzzling. Additionally, 3z could not be archaeologically placed in the sequence. However, artefactual evidence provided a few conclusions: 3a represented activity on a greater scale than 3c, and of a potentially different nature; assemblages from period 3b were likely to be re-deposited material from 3a; and the composition of 3z deposits shows a close similarity with 3a, indicating that 3z may be broadly considered to represent earlier occupation (*ibid.*). Close analysis of the individual artefact assemblages has been especially useful. The pottery assemblage is one of the largest found in middle-Saxon Northumbria, and provides evidence of long-distance contacts with northern France, the Rhineland, and other regions of Britain, including east Anglia, and Lincolnshire (Mainman 1993). International

connections were mostly confined to period 3a indicating that 3c 'represents a shrinking of activity' (ibid., 611), and that some of the imported material in 3c may be residual material from 3b or 3a. Other finds, and craft-working evidence, confirmed the decline in occupation intensity in 3c, although a broad range of craft-work was still undertaken in the latest phase (Rogers 1993, 1439-1443). O'Connor (1991) found little differences between the bone assemblages for each phase, and analysed period 3 as a single entity. His conclusions indicated limited access to livestock, and he argued that the settlement was not self-sufficient and had its meat supply provisioned in much the same way that emporia such as Ipswich or Hamwic may have been (ibid., 276-284).

The general conclusion was that Fishergate may have been part of an emporium (Kemp 1996, 64-84). While considering that other settlement types are also possible, Kemp (1996) argues that an emporium is likely on the basis of the artefactual information, especially the high proportion of imported ceramics, which resembles that found at Hamwic, Ipswich, and London. The overall dates of occupation, late seventh to mid-ninth centuries would also concur with the evidence from elsewhere (ibid., 66), but the hiatus and relatively low level re-occupation does not compare well. The potential size of the settlement, estimated with additional information from other areas of York, was suggested as anywhere between 25 and 65 hectares (Kemp 1996, 75-77). This would put it in a similar range to Ipswich or Hamwic, but evidence elsewhere is scant. Certainly, there is little to suggest that the settlement need even be as large as c.10ha as finds have only been found in relatively small area around Fishergate, and do not cover the estimated length of c.1km that Kemp (1996, 75) assumes for the settlement. Its size must, therefore, be considered as impossible to estimate. The interpretation of the Fishergate settlement is in many respects still open to debate, and must be one of the aims of this chapter.

4.1.2.2 Other sites in York

Other parts of York, both intra- and extra-mural, have produced evidence for early and middle-Saxon activity. Much of this is very limited, providing little more than a few finds, dark earth, or ephemeral features. This section will only examine the main excavations. All other data can be found in Appendix 2. Additionally, all Anglian

data has been recently surveyed, critically evaluated, and synthesised (Tweddle *et al* 1999), and this is briefly summarised below.

Archaeological investigations have been undertaken in York for over two centuries. Prior to the 1850s this was mostly confined to the acquisition of antiquities for private collectors (Moulden 1999, 221-226). Archaeological work in the twentieth century has taken advantage, where possible, of re-development in the city. This has resulted in a bias regarding available evidence towards those areas which have been re-developed, namely, 'a broad belt on either side of the Ouse, in the Walmgate area and in the suburbs' (*ibid.*, 220).

Much of the excavation has provided relatively few in-situ remains from the seventh to ninth centuries. Tweddle *et al* (1999, 189) identifies 22 secular sites, including Fishergate. Seven have produced structural evidence. Fishergate provides the only closely datable structures, with those at Marygate, Museum Gardens, the Bedern, and Clementhorpe stratified between securely dated Roman and Anglo-Scandinavian deposits, indicating an Anglian date (Tweddle *et al* 1999, 192-193).

1-9 Micklegate produced post-holes and stake-holes, probably forming part of a timber building, as well as approximately 70 post-Roman pits. Finds included pottery, such as one sherd each of northern French black burnished ware, and Rhenish Tating ware (Moulden *et al* 1999, 267; Tweddle *et al* 1999, 193). A middle Saxon date is possible, and both imported pottery types are seventh to ninth century types.

The other secular sites generally produced only pits, or Anglian dark earth (Tweddle *et al* 1999, 195-198). Fourteen sites have produced such evidence, though most provided very little. Only the excavations at 22 Piccadilly, 118-126 Walmgate, and the Barbican Baths, Paragon Street show good quality evidence. At 22 Piccadilly, excavations produced early/ mid ninth century Anglian pottery, associated with a wicker fence-line, and at 118-126 Walmgate a scatter of post-holes cut underlying Roman levels, but these may have been post-Anglian. The work at the Barbican Baths in 1973 uncovered a collapsed wattle and daub wall, sealed by layers of rubbish with

finds of the eighth century, including an Anglo-Saxon enamelled brooch, a sceatta, and copper-alloy pins (Moulden *et al* 1999, 252-253; Tweddle *et al* 1999, 198).

Two excavated areas have greater levels of publication, and must be examined in more detail: these are 16-22 Coppergate, and York Minster.

16-22 Coppergate (SE604516)

16-22 Coppergate is located between the Rivers Ouse and Foss, *c.*220m south-east of the fortress. Excavations took place from 1976 to 1981, followed by watching briefs on the adjacent areas between 1981 and 1983 (Hall 2000, 2455). The excavations covered *c.*1000m², but pre-tenth century deposits were only examined in two strips within that area: *c.*20m x *c.*7.5m across the north-western edge, fronting onto Coppergate, and *c.*12m x *c.*35m on the southern part of the site. Publication has concentrated on the finds and faunal assemblages with only summary detail regarding the excavations themselves (Mainman 1990; Mainman and Rogers 2000; O'Connor 1989).

Two phases related to Anglian levels, periods 2 and 3. Period 2, broadly dated to the fifth to mid-ninth century, was represented by a layer of silt/ clay loam, containing no structural evidence or Anglian finds (Hall 2000, 2457). It was dated through its stratigraphic position between securely dated Roman and Anglo-Scandinavian contexts, as are many similar deposits around the city (*ibid.*).

Period 3 corresponded to first definite post-Roman re-use of the site. Roman tiles used in a hearth/oven/kiln base was the earliest recorded feature, possibly used in glassworking, with an archaeomagnetic date of 860 ± 20 , suggesting mid to late-ninth century re-occupation, although whether prior to the Viking take-over of York is not known (Hall 2000, 2457). The pottery from period 3 would indicate 'a direct typological and thus chronological succession with that from...Fishergate' (Hall 2000, 2457), and indicates a post-850 date (*ibid.*). The pre-tenth century pottery assemblage, including that found residually, included typical middle Saxon wares, including a little Ipswich Ware, which was not produced after *c.*850 (Mainman 1990, 392-394), implying that there was certainly activity prior to the date. Also, nine

Northumbrian stycas were found, dating no later than c.850. The latest period 3 features consisted of a number of aligned post-holes, possibly part of a building, although this was uncertain.

Hall (2000, 2457) suggests that this points towards only sporadic occupation on the site as late as the mid/ late ninth century. Given the relatively small number of features, such an interpretation is very reasonable. Whether Coppergate can be considered a direct successor to Fishergate from the mid-ninth century is debatable on this evidence.

York Minster (SE603521)

Excavations at York Minster took place between 1966 and 1973 under and around the Minster alongside restoration of the building (Phillips 1995a). Most deposits were of Roman or Anglo-Scandinavian/ medieval date, but a number of contexts, features, and structures were dated to the intervening Anglian period (Phillips 1995b). However, an alternative interpretation (Carver 1995) disputes this (see below), and it is vital that the excavations and finds are discussed here in some detail in order that the exclusion of York Minster from the analysis can be justified.

The excavations were located above the Roman *principia/ basilica* and adjoining barrack. It is in the context of this earlier phase, that the Anglian material must be considered, as much of it concerns the re-use of Roman structures. At the *principia* Phillips (1995b, 640), identified two post-Roman phases (4A, and 4B), showing differing levels of activity around the buildings. Bizarrely, however, Phase 4B is not described at any point. It may represent the destruction/ collapse of the *basilica* but this is not stated. In Phase 4A, the *basilica* was stripped of its flooring, and a charcoal and animal bone-rich layer accumulated above it. This included a small amount of York ware, taken to imply that accumulation continued into the eighth/ ninth century. Phillips (1995b, 65) argued that the re-flooring of the structure implied 'preparation for periodic special occasions, for which the old Roman *basilica*, hardly suitable for permanent residence, would have been ideal' (ibid.).

In the rear range of the *principia*, Phase 4A produced occupation of a different kind. Here, metalworking activity was found, which Phillips (1995b, 66) suggested finished in the ninth-century due to York ware being found on the floor levels. There were two chronological groups of hearths, one overlying the other, using non-ferrous metals, bronze and lead specifically, and a few post-holes were excavated around the hearths.

Post-Roman activity was also noted in the barracks. In Barrack 2, north-west of the *principia*, post-Roman levels began as natural build-up (phase 5A), but this was sealed by a floor (phase 5B, 5C), possibly within half a century as fifth/ sixth century pottery was found in the underlying material. The structure of the Roman building subsequently declined, and partially collapsed (Phillips 1995b, 120-121). Later re-occupation, possibly in the sixth century from ceramic evidence, took place in the north-east of the building. Walls were rebuilt, the doorway to the courtyard blocked, and this may have resulted in the division of the north-west and south-east parts of Barrack 2 (*ibid.*, 121-122). Building 2X (phase 5C), re-used Roman materials, including two column, and was erected in the north-western side of the building, but little could be interpreted due to medieval disturbance (*ibid.*, 122-125).

In the south-western range of Barrack 2, a malt/ corn drying kiln was found (phase 5D), and dated by thermoluminescence to 728-1026 (*ibid.*, 127). This was followed by random pitting (Phillips 1995b, 125). These features were overlain by dark soil, which contained evidence of a floor level and a second hearth dated by thermoluminescence to 710-900 (phases 6A-6E). Additionally, 21 post-Roman pot sherds were found, along with a Merovingian ring bezel, and Roman/ post-Roman coinage, including a mid-eighth century sceatta, two ninth-century stycas, a Wessex penny, a Carolingian denier, and two Anglo-Scandinavian combs (Phillips 1995b, 127-128; Pirie 1995b, 527-529).

Little occupation evidence was apparent elsewhere, with the exception of two possible buildings in the *contubernia*, one Anglian, the other *c.* 850 or later (Phillips 1995b, 133-135). Virtually no dating evidence was found, with the exception of the occasional sherd of York ware (*ibid.*).

The post-Roman chronology around York Minster was extremely difficult to unravel. At no point is it explicitly stated how comparative chronologies for the different excavated sites were produced. However, reference is made to the relative positions of certain, similar layers, e.g. dark earth on different sites.

The difficulty of interpretation was discussed in the final section by Martin Carver, who proposed three possibilities for the Anglian occupation (Carver 1995, 187-191; 194-195). First, that there was no post-Roman activity until the eighth century, with a late Roman date for the animal bone layers in the *basilica*; second, there was late/sub-Roman activity in the fifth century, when the animal bones were deposited and the buildings/ occupation in Barrack 2 and the *principia* takes place; the site was then abandoned until the ninth century; or third, the interpretation favoured by Phillips (1995b), that there was continuous occupation from the fifth to ninth centuries, when the *principia basilica* still stood and was used as a market, and industrial complex, with buildings 2X and 2Y constructed in the seventh century (Carver 1995, 194-195).

Carver (1995, 188-191) argues that the second proposal is most likely from the archaeological evidence. A crux of Phillips' (1995b) argument for continuity is the position of York ware beneath the collapsed *basilica* roof, implying a late date for the collapse. However, Carver (1995, 189) shows that these sherds could easily be intrusive probably through extensive Anglo-Scandinavian grave cutting, and notes that radiocarbon dates for the animal bone in the *basilica* showed a range in the late fourth and fifth century, but not later. The presence of seventh and eighth century grave covers in later contexts is further evidence of the disuse of the *principia/basilica* during the Anglian period.

Carver (1995, 190-191) also suggested a later date for much of the post-Roman sequence in Barrack 2. The soil build-up containing most of the Anglian artefacts (phases 6A-6E) was stratified above the collapse deposits. From the evidence of sherd-links long-term build-up was disturbed by Anglo-Scandinavian digging. The dated hearths could equally be Anglo-Scandinavian from the thermoluminescence dates (*ibid.*). Carver (1995, 191) prefers an Anglo-Scandinavian date for Building 2X based on the Anglo-Scandinavian finds stratigraphically below the building, although

this may come from later robbing. This re-interpretation would 'empty a declining and decrepit fortress of any Angles but gardeners and farmers' (ibid.).

The interpretations of the York Minster excavations show the problems inherent in the post-Roman data, with very little reliable dating for anywhere in the fifth to ninth century. All three proposals are possible, as would be combinations of them. For instance, Carver's model for the *principia/ basilica*, and Building 2X is convincing, but the hearths in Barrack 2 could still be Anglian. The interpretation preferred here is Carver's second proposal (Carver 1995, 195). With the exception of definite middle Saxon artefacts, such as the coins, the finds from the York Minster excavations must be considered to be either earlier or later than the period of study. Reference will be made to them, and the excavations, where appropriate but they will not be used within the general following analysis.

4.1.2.3 Lurk Lane, Beverley (TA 03793919)

Excavations took place at Lurk Lane, Beverley between 1979 and 1982, in advance of re-development. The site was c.20m from the south side of the Minster church, and features associated with the medieval monastery were expected. In fact, a sequence of continuous occupation dating from the eighth through to the nineteenth century was revealed (Armstrong *et al* 1991, 1-5).

The earliest phase was probably prehistoric, and it was not until phases 2-4 that 'evidence...for land management on a large scale' was uncovered (Armstrong and Evans 1991, 7). Phase 2, provided minimal evidence: a single ditch, (1427), radiocarbon dated to 680-885 (calibrated) from a wood sample, was excavated, but no associated artefacts were discovered. Armstrong and Evans (1991, 8) suggests an early eighth century date, although this appears to be entirely based upon an entry in Bede (book 5, chapter 7) where he describes the burial of John of Hexham at his monastery at *Inderauuda/ In-Derawuda* in 721, traditionally identified as Beverley. In reality it is impossible to assign any date other than the range produced from the radiocarbon analysis.

Phase 3 consisted of another ditch (1290) cutting (1427), and two unidentifiable sherds of pottery (ibid., 8; Watkins 1991, 62). Dating was based on the documentary/radiocarbon dates for phase 1, and the stratigraphic relationship with ditch 1427, and overlying features. Armstrong and Evans (1991, 8) assigned a later eighth century date, but any dating narrower than the radiocarbon range would seem unreasonable.

Phase 4 represented greater activity, with other middle Saxon activity recorded in addition to ditch cutting. Armstrong and Evans (1991, 9-15) divided the phase into 4A and 4B. These did not necessarily equate to definite chronological divisions, but it is likely that they did. Phase 4A was the new ditch (1242) and associated occupation evidence, while phase 4B represented the secondary deposits in ditch 1242. The ditch was aligned slightly differently to previously and within it, a possible fish weir was found. North of the ditch was a bank, a cobbled surface and a possible structure, which may have been a smithy (ibid., 10-13). The most important find from 4A was a small purse hoard containing 23 stycas, found in a small hole dug into the top of the bank, which was probably deposited c.851 (Pirie 1991, 164-166). The Phase 4A finds assemblage included relatively large quantities of faunal remains, metalworking evidence, metalwork, stone artefacts, York Ware and Ipswich Ware pottery and coinage (Armstrong and Evans 1991, 9). Phase 4B, the secondary deposits in the ditch, appear to represent a period of disuse, indicating that the ditches became overgrown. Both phases were broadly dated to the ninth century, 4B on stratigraphic position (ibid., 13-15).

The interpretation of the Lurk Lane excavations is somewhat contentious. This has been based on the connection made between references in Bede to the monastery of *Inderauudai* 'in the wood of the men of Deira' (Evans 1991, 243), and Beverley. Environmental evidence indicated nearby woodland during the middle Saxon period (McKenna 1991, 212), but this is likely to be true of many places. The radiocarbon date for phase 2 covers the early eighth century, and there is a possible hiatus in activity during the late ninth century, when the monastery suffered Viking attack, and the site is adjacent to the late medieval Minster (Evans 1991, 243-244). However, although potentially correlating well with the archaeology, the monastic interpretation is very problematic. The dating of phase 2 is necessarily broad, and there are no finds

from the Anglo-Saxon levels which would overtly indicate a monastery instead of any other form of rural settlement. Evans (1991, 246) interprets the ditches as a *vallum monasterii* on the grounds that they were larger than a field boundary and were paralleled at other monastic sites. However, Loveluck (1998, 158-159) has recently pointed out that a range of settlements had boundary ditches, and in many cases the archaeology of monastic sites could be interpreted in a number of ways. Therefore, the attribution of the archaeology at Lurk Lane to the monastery of *Inderauudai* would appear to be insecure, and a secular rural settlement, possibly of high status, given the finds assemblage, would seem equally likely.

4.1.2.4 Cottam (SE 975667)

Cottam, situated high on the Wolds c.20km from the coast, underwent several years of intensive metal detecting (Haldenby 1990; 1992; 1994) prior to fieldwalking in 1989 and 1993 (Didsbury 1990; Vyner 1999) and excavation in 1993 and 1995 (Richards 1994; 1999b). The 1993 excavations were over crop-mark areas, and covered two areas of 10 x 20m, whereas the 1995 excavation, further to the north was larger, at 20 x 50m (*ibid.*, 25).

The metal detected evidence includes a wide range of iron, and copper-alloy artefacts, including strapends, pins and knives, totalling over 140 objects (Richards 1999b, 8-9). Their distribution corresponded well to a crop-mark enclosure, Cottam B³, and it was here that the excavations were undertaken. The 1993 excavations (COT 93.1 and COT 93.3) produced evidence of two middle Saxon phases (IIA and IIB), dating broadly to the eighth and ninth centuries (Richards 1999b, 28). In phase IIA, truncated remains of two post-hole timber buildings, one in each trench, and a shallow ditch with internal post-holes, in COT 93.1, were excavated. The position of Building 1 (COT 93.1) at the northern end of the excavation area, meant that the size of the structure was hard to assess, but Richards (1999b, 30-31) showed that the building may have been c.5 x c.12m. Building 2 (COT 93.3) was equally unfortunate, found in the far south-east corner of the trench, and the post-hole alignment was followed c.3.5m south of the original trench edge, but the end of the building was not found. No dimensions could, therefore, be ascertained. None of the structural post-holes

contained dating evidence, but their general association with the spread of eighth/ninth century material, and the absence of pre-Saxon evidence indicates a likely middle Saxon date (Richards 1999b, 31). Two gullies (1108 and 1078) made up the shallow ditch, which contained lava quern fragments, and an Anglo-Saxon knife (ibid.). In the base of the main gully (1108), several post-holes were found which may have represented a property boundary related to Building 1 (Richards 1999b, 31). Other post-holes and several pits were found around each trench. There was little datable material, and these were placed in phase II on the basis of the similarity of fill with known phase II contexts.

Phase IIB followed the demolition of the buildings and removal of the fence. A post-in-trench building (Building 3), and a corn dryer were found. A large north-south ditch cut Building 1, the upper fills containing a range of middle Saxon material, including ninth-century metalwork (ibid., 36). There were also a few pits, one containing a human skull, possibly an execution victim, and a number of ninth-century finds, including coinage (ibid.).

The 1995 excavations c.100m to the north of the enclosure investigated in 1993 produced no remains earlier than the tenth/ eleventh century. Discussing the excavations, and other evidence, Richards (1999b, 86-99) argued that Cottam was most probably a small farming settlement, possibly controlled by the *villa regalis* at Driffield. This is based on the lack of imported objects at the sites, excepting Mayen lava querns, possibly meaning that the population were unable to procure non-local goods which Richards (1999b, 91) considers were only available through the emporium at Fishergate. Therefore, the settlement was of a lowly status, and likely to have been under estate control. Richards (1999b, 90) does, however, admit the difficulty of confidently discussing the nature of the site. The amount of metalwork and coinage is high and the site is described as a 'productive site', e.g. Bosner (1997), which are often discussed in terms of local markets, or important regional centres, e.g. Newman. Elsewhere, though, Richards (1999a; 1999c; 2000b) has argued that examination of the density of finds (i.e. number of finds divided by the area

³ Cottam A, a ladder settlement, is just over 1km to the south-east (Richards 1999b, 3)

examined) shows that sites such as Cottam are similar to other contemporary rural settlements, but it is just their methods of recovery that are different.

4.1.2.5 Paddock Hill, Thwing (TA030707)

Excavations at Thwing were undertaken annually between 1973 and 1987, with the intention of examining the Bronze Age ringwork, although subsequently an extensive middle-Saxon cemetery and occupation evidence were discovered (Manby, forthcoming). A number of short interim reports have been produced, and there is as yet no definitive publication, although I was granted limited access to the pre-publication manuscripts (Manby 1985; 1988; 1994; forthcoming). The site is located on the central Wolds, in a focal position (Manby 1988, 17). The ringwork was c.120m wide and, barring some small-scale Romano-British activity, was not intensively re-used from the late Bronze Age until the middle Saxon period (ibid.).

The excavations revealed five possible middle to late Saxon phases covering the eighth to tenth century (Manby, forthcoming), but unfortunately, given the limited access to the pre-publication manuscript, only the most general examination of phasing information was possible.

The cemetery, within the ringwork, was in use until the early/ mid ninth-century. The 130 closely spaced, and inter-cutting burials including men, women and children. A quarter were coffined, and very few furnished. At its western limit, two large post-holes, and a foundation trench building were found. Manby (forthcoming) interpreted the former as holes for free-standing crosses and the latter as a mortuary chapel. Their positions are not shown on any plan and, excepting their proximity to the cemetery, such conclusions are conjectural. It is equally possible that they simply represent an entrance structure.

The outer rampart was probably topped by a wooden palisade throughout the occupation period, and the south eastern entrance to the earthwork was used as a gateway. This area was metallated, and post-holes were found (ibid.). Inside the earthwork, timber structures were constructed on the northern and eastern sides. These included a large post-hole building 11m x 22m, evidence of a hearth, a large

SFB with clay floor and oven, and a structure north of the entrance which contained an oven base (*ibid.*).

North of the earthwork, excavation of a crop-mark feature provided evidence of an enclosure, with a palisade fence, characterised by two main phases: a ditch 50m x 35m was dug, which was then extended *c.*25m eastwards, producing western and eastern enclosures. On the western side, a post-hole building was found, albeit partially outside of the excavation area (no dimensions were available), and a foundation-trench structure (9.5m x 6m) was excavated in a central position on the eastern side. One of the ditches contained domestic debris and ninth/ tenth century pottery. A third phase was found on the eastern side. The extension of the main enclosure abutted a semi-circular structure extending over the Bronze Age rampart, which was in a third, D-shaped, enclosure ditch. This third structure appears to have foundation trenches, one terminating in a large post-hole. Its levelling was coin-dated to the mid-eighth century (*ibid.*).

On the south-western side of the earthwork were two further Anglo-Saxon enclosure ditches (*ibid.*). These were constructed in a single phase, but the enclosed area was not excavated, and it is impossible to predict if structural remains exist there. A midden deposit filling part of the inner ditch produced much domestic debris, including animal bone, marine fauna, metalwork, pottery (including Continental wares), lava quernstone fragments, and eighth and ninth century coinage (Manby, forthcoming).

Manby (forthcoming) interprets the site as a high status administrative, possibly royal, centre, with access to long-distance networks of trade. The largest hall was massive, and its size was comparable with a number of structures found on other potentially high status early/ middle Saxon settlements, including C12 at Cowdery's Down, building 7 at Flixborough, and building C at Foxley (Millett and James 1983, 200; Loveluck 1998, 153-154; Hinchcliffe 1986, 243-245). These structures may be the focal points of the respective settlements, and all of the sites are considered to be regionally important (James *et al* 1984, 185-186). Such comparisons are favourable to the current interpretation, and the additional evidence of other buildings within

enclosures strengthens this. The elevated location of the Thwing earthwork, overlooking the Great Wold Valley may have provided the site with major strategic significance, which would have been especially important if the site had an overall administrative role (*ibid.*). Alternatively, the significance of location could be symbolic. Lucy (1998, 79-101) has examined early Saxon cemetery location in East Yorkshire, and showed that later inhumation cemeteries are mostly likely to be found high up on the Wolds. Therefore, the settlement and cemetery complex may be interpreted in a number of ways, and its function is a matter of debate, although a high status component does seem likely. The importance of the site, however, is obvious, especially given the evidence of long-distance contacts.

4.1.2.6 South Newbald (SE8935)

South Newbald is located on the western edge of the Wolds, *c.*100m east of the Roman road which runs north from the Humber *c.*10km to the south, and branches 800m south of the detected area (Leahy 2000, 51-53). Metal-detecting since *c.*1983 over *c.*30,000m², has produced 126 coins, dated *c.*740-*c.*855, and large amounts of eighth/ ninth century metalwork, mostly strap-ends and pins (Booth and Blowers 1988; Booth 1997a, 26-28; Booth 2000, 92-93; Leahy 2000, 56-70). The finds represent the second largest assemblage of metalwork from Yorkshire behind Whitby (Leahy 2000, 51, 71).

Other finds at South Newbald and its vicinity attest to the prime location of the site. Two Roman villas are known, one in an adjacent field, the other 600m to the north, and two early Saxon cemeteries are close by Leahy (2000, 54). In the metal-detected field, 18 skeletons were found during the nineteenth century, and Leahy (2000, 54) suggests that they may not be early Saxon as no material of this date was found during the recent investigations. This intense local activity has, probably justifiably, been taken as evidence of the area's importance during the Roman and Anglo-Saxon period, and that South Newbald may have held some kind of central function (*ibid.*).

Leahy (2000, 77-80) has suggested that the site represents something other than a 'normal' settlement. This view is partly based on the lack of domestic material, e.g. pottery, or animal bone, but this fails to account for the fact that the site has only been

metal-detected, and not investigated archaeologically. He also cites the large numbers of coins and metalwork, the evidence of burials at the site, its proximity to a major road junction and water supply, and documentary evidence for an Anglo-Scandinavian royal estate in Newbald (*ibid.*, 77). Leahy proposed four possible functions for South Newbald: monastery, market/ fair, administrative centre, or palace/ aristocratic site (*ibid.*, 78-80), but appears to favour the first. The assemblage is, he argues, similar to Whitby, and in East Yorkshire there is a perceived gap in the distribution of Saxon Minster churches. The size of the later medieval church at South Newbald has led (Morris 1989, 283) to speculate whether there was an earlier Minster. Its location would also be ideal for some kind of fair or market, but Leahy (2000, 77-80) argued that this could occur at an ecclesiastical/ administrative settlement centre, as seems likely for Whitby Abbey. The idea of a palace/ aristocratic site is given little credence because 'historically attested palace sites have produced few finds' (*ibid.*, 80), although in the same sentence he admits that excavations at the probable high status settlement at Flixborough did. The problems of attempting to identify certain settlement types, especially monasteries, is well known. With such biased data, interpretation as to site type will be unsafe. Leahy (2000, 80) does recognise this concluding that at present interpretation can go little further than suggesting South Newbald as a possible market, around an administrative centre.

4.1.2.7 West Heslerton

Excavations at West Heslerton, undertaken 1986-1995, produced the most extensive evidence of Anglo-Saxon settlement activity in northern England (Powlesland 2000, 19). The site is located at the foot of the Yorkshire Wolds in the Vale of Pickering, and dates from the late Roman period through to the ninth century, although the early Saxon settlement would appear to be the most extensive, covering *c.*20 hectares (Powlesland 1998). At present, the only publication of the excavations is a series of short articles, and an assessment report (Powlesland 1997; 1998; 1999; 2000). As a result, no contextual information is accessible for critical examination, so the introduction to the site will be, by necessity, descriptive. Attempts to gain access to the unpublished data were unsuccessful.

The early Saxon settlement was massive, producing evidence of 130 SFBs, and 90 post-hole buildings (Powlesland 1999, 59). From this, plus finds, environmental and craftworking assemblages, Powlesland (1997, 112) has argued that the settlement may have been planned, providing areas for craft/ industry, housing, agricultural processing, and a multi-function area. The site plans showing the distribution of different structural types certainly seems to attest to some form of planning.

Middle Saxon occupation saw the site contract to cover little more than the late Roman core area (Powlesland 2000, 25). Late Roman enclosures were re-used, and new boundaries planned, probably for agricultural processing. Indications of fenced areas within the enclosures may represent property boundaries (Powlesland 1999, 64). At least three middle Saxon foundation trench buildings are known, and Powlesland (1999, 62) has suggested that a number of other structures (post-hole construction and SFB) probably belong to this phase. The contraction in the middle Saxon phase is difficult to assess, and may have been for extra security, although the enclosures were not defensive. Floral and faunal analysis has also suggested that this phase shows changes in the settlement's agricultural practices, and also the inhabitant's diet (*ibid.*, 64). Powlesland (1999) has argued that the enclosures were probably for stock control, and the evidence of agrarian change may indicate a specialisation of the settlement as has been seen at a number of settlements around eastern England, e.g. Crabtree (1996a).

A wide range of pottery has been found, including granitic tempered Charnwood ware, from Leicestershire (Vince 1998, 4.10), metalwork, worked bone and stone, glass, and imported materials, including lava querns, glazed pottery (middle Saxon), and a cowrie shell from the Red Sea (Vince 1998; Haughton 1998, 4.15; Powlesland 1998, 6.5.4). However, much of the material, and especially the pottery, can as yet only be defined as Anglian, although the majority is thought to be early Saxon (Powlesland 1998).

Interpretation of the site, prior to 1995, focused on comparison with other excavated early Saxon settlements, and the perceived shifting of sites around the countryside, such as Mucking (Essex), and West Stow (Suffolk) (Powlesland 2000, 19). However,

in 1995 late Roman occupation was discovered at the southern end of the settlement; this appears to form some kind of religious area centred in a ritual landscape around a spring (Powlesland 1998, 6.3). Structural evidence has been provisionally interpreted as shrines, although on what grounds is not stated. It is argued that this landscape may provide the background for the emergence of the early Saxon settlement with the continuity of sacred space (*ibid.*, 6.6). Saxon remains in this area include much of the middle Saxon material, and also a structure located at the southern edge of the settlement in the base of the valley (Powlesland 1998, 6.6). There was evidence of fences from this latter building leading up the sides of the valley, and Powlesland (1998) suggested that these may be a 'very deliberate separator between the settlement to the north and the ritual valley to the south' (*ibid.*). As a result, Powlesland (1999, 55-56) now sees a ritual component to the site's location and function. As yet nothing more is available, and it is difficult to criticise on this level of data.

4.1.2.8 Wharram Percy (SE8564)

The deserted medieval village of Wharram Percy is located near the north-west scarp of the Yorkshire Wolds, c.10km south-east of Malton (Hurst 1984, 77), near to the Roman road running south-east from Norton and Malton (Margary 1967, 423). Long-term excavations ran from 1953 to 1990 on sites of various sizes around the village. For that reason, this review of the evidence will focus on individual sites, or associated groups of sites with evidence for middle Saxon activity, rather than Wharram as a whole. Anglo-Saxon remains have been found across the northern half of the settlement at sites 39, 60 (a sixth century SFB), 94/95, and at the South Manor (sites 44, 84, 90, 85, 59, 81, 93, and 76).

Site 39

Excavations at site 39, a 10.5 x 1.5m trench, began in 1975, and were extended in 1976, in order to examine and date the northern boundary bank of the village (Milne 1992b, 5). Beneath the bank a two-post SFB was uncovered, terraced into the hillside. Measuring 3.8 x 2.4m, it contained evidence of a middle Saxon date. The pit fill was homogeneous showing no stratification, containing abundant finds, uniformly distributed throughout (*ibid.*). The structure was probably dismantled prior to the accumulation of the fill. Its homogeneous nature, alongside a lack of erosion in the

pit, was interpreted as indicative of deliberate levelling and backfilling prior to late Saxon activity (Milne 1992b, 8, 80-82). The implication was that the pit fill was derived from nearby ground-level middens (*ibid.*).

The period of midden accumulation, and its date of redeposition was problematic. Many finds were datable to the seventh or eighth century, but a sceat (737-c.758) and the presence of Tating ware pottery implied that backfilling could not have started until c.750 (Milne 1992a, 80). It was thought that the midden built up over a short period, as the sherd-links and good condition of the pottery implied the deposit was 'part of a contemporary group' (*ibid.*, 80-82). From this it was envisaged that the midden was re-deposited c.780 (Milne 1992a).

Sites 94 and 95 (A and B)

Wharram Percy sites 94 and 95A/95B were excavated in 1989-1990 (Milne and Richards 1992). Site 94, a 10 x 3m trench, was opened, to examine the intersection of two enclosures, both of which were probably prehistoric. The abandonment phase of the ladder settlement ditch (phase 4) contained mostly Anglo-Saxon artefacts, including a fragment of a metalworking mould, and was probably derived from a nearby midden (Richards 1992c, 13, 24). The 1990 season focused towards locating metalworking debris. Richards (1992c, 13) argued that the mould could indicate nearby activity as these friable objects were not likely to be transported far from their place of origin. Simple survey with a metal-detector showed a concentration a few metres to the west of site 94, and two small trenches (sites 95A and 95B), 4 x 4m were placed over this area.

Site 95A, 1m west of site 94, provided the majority of the evidence. The enclosure ditch was re-cut in phase 3 to provide the foundations for an SFB. The feature extended out of both sides of the trench, but was c.3-3.6m wide, by 4-7m long (Richards 1992c, 16-18). It had a large post-hole at each end, a hearth and large post-hole in the floor, although the function of the latter was not discerned. Phase 4 represented abandonment of the SFB: the posts were removed, and the hole backfilled (*ibid.*, 23). This fill contained Anglo-Saxon finds, including pottery, animal bone, stone artefacts, metalwork, and metalworking debris (*ibid.*), forming 'a succession of

thick mixed silty loams interleaved with charcoal and ash...dumped in the hollow to bring the fill to bedrock level' (ibid., 24).

Site 95B, two metres west of 95A, revealed continuation of the ditch found in Site 94. The backfilling of the ditch was probably either Roman or Anglo-Saxon deposition, but contained only Roman pottery, although (Richards 1992c), 17-20) argued that this material may have been dumped into the ditch when the SFB was dug just a few metres away. An infant burial and disarticulated sheep were found nearby, radiocarbon dated to in the first half of the eighth century (Richards 1992b, 84). Phase 4 deposits were similar to those found on sites 94 and 95A, rich in Anglo-Saxon finds, and these were interpreted as a re-deposited midden (Richards 1992c, 24).

Interpretation of sites 94 and 95 was based around the metalworking evidence, and Richards (1992b, 82-83) argued that this was probably the primary use of the SFB. The dates of activity were difficult to ascertain with confidence. The earliest Anglo-Saxon find was a sixth-century brooch, and some seventh-century decorated pottery. Slowikowski (1992, 29) has argued that it could equally have belonged to the eighth century on parallels from southern England. The metalworking moulds, however, were definitely eighth to early ninth century dating the metalworking phase, although the occupation build-up may have been continuing for some time, and without the moulds the assemblage would probably have been assigned an early Saxon date (Richards 1992b, 83-84).

The South Manor

Excavations on the South Manor ran from 1977-1978 and 1981-1990, over an area of c.550m². The 1977-1978 excavations produced abundant Anglo-Saxon pottery, prompting two major research questions: the first involved the nature of evidence regarding continuity of occupation from Roman to medieval, and the second sought an assessment of the nature, date and extent of Anglo-Saxon settlement (Stamper *et al* 2000, 17-18).

Middle Saxon remains (phases 2-3) included boundaries, structures and finds. Two phases of east-west ditch were excavated, with the later *c.* 1.5m north of the first (*ibid.*, 28). Phasing was based on the stratigraphic relationship to slag found in the same area: this sealed the earlier ditch, but was confined by the later one, perhaps indicating that the ditch provided a boundary for the nearby smithy. Anglo-Saxon pottery provided most finds from both ditches. Stamper *et al* (2000, 28) suggested that the ditches probably formed a boundary. To the south of the later ditch, a probable smithing area was excavated, including patches of burnt clay, slag and ash (possibly parts of the smithy floor) and associated features.

A single Anglo-Saxon post-hole building was also uncovered, but a number of post-hole alignments and slots may represent other buildings (*ibid.*, 29). This structure was located in the western half of the excavations, with apparent entrances centrally placed along each long side, and measured *c.* 9 x 5m, comparable with the excavated post-hole buildings at West Heslerton (Stamper *et al* 2000, 29-31). A small pit and surrounding post-holes were found outside the south-east corner of the building, which may represent a cess pit or grain storage pit (Stamper *et al* 2000, 31-32).

A large number of Anglo-Saxon finds were made across the sites, including local/regional pottery, imported northern French and Ipswich wares, lava querns, and some non-local foodstuffs (Clark 2000, 205; Slowikowski 2000, 60-70; Watts 2000, 111-113). Two sword pommels, and a hilt guard, were found on the western side of the sites, away from the smithing debris, but Richards (2000a, 196) suggests that they may imply the smithy dealt with weaponry as well as domestic equipment, although this can in no way be proven.

The excavations are interpreted as representing a relatively high status settlement (Richards 2000a, 196). The settlement was probably economically varied, although most food was domestically produced, and animal husbandry lacked specialisation (*ibid.*, 198-199). However, the foreign imports attest to wider contacts, at least with ports in the region, even if no further afield. Richards (2000a, 199-200) sensibly points to a high status interpretation for the South Manor, and states that it may have been an enclosed farm, although 'the possibility remains that it was part of a monastic

estate' (ibid., 200), presumably from the imported pottery finds, and associated Anglo-Saxon remains from other parts of Wharram Percy, such as the sculptural fragments. Linking sites to potential monastic function is difficult and contentious, and the finds taken as monastic indicators need not be exclusively ecclesiastical, so Richards (2000a) is right to only present this an unproven possibility. On current evidence, it would seem wiser to interpret the site as a settlement, or farmstead, with a probable high status component.

4.1.2.9 Whitby Abbey, Whitby (NZ90301120)

Large-scale, although poorly recorded, excavations were undertaken to the north of the later medieval abbey church 1920-1925. Additionally, the records made were partially destroyed during the Second World War (Cramp 1976b, 224). The excavations were finally published in 1943 by Peers and Radford (1943). These identified the possible plans of seven buildings with stone foundations. Four were interpreted as cells, one as a refectory/ storehouse/ guesthouse, another as a smithy, and the other with no interpretation (ibid., 30-31). A wide range of finds were discovered: a large amount of sculptured stone (crosses, and slabs mostly); metalwork, including a hanging bowl, strap-ends (described erroneously as metal tags in the report, for use as book markers), book mounts, personal items (such as rings and brooches), pins, and styli; bone objects, including combs and pins; glass objects, including vessels and beads, although no window glass was found; a variety of pottery, both local and imported; coinage; and a small amount of textile (ibid., 33-88).

More recent excavations have also been undertaken: Rahtz (1967) test-pitted over an area north of the medieval abbey during the late 1950s. These mostly uncovered later medieval remains, but did provide small amounts of Anglo-Saxon evidence, in the form of probable occupation layers and some pottery finds (ibid., 608, 612-618). Two small evaluation trenches were opened in 1989 immediately to the west of the abbey and the 1920s excavations, ahead of re-development (Johnson 1993). A single Saxon deposit was excavated, interpreted as 'a shallow midden or merely a patch of littered space within the Saxon monastery (ibid., 87). Excavations have resumed at the site since the mid-1990s when, in 1993-1995 an enclosure ditch, burials, structures and finds dated to the Saxon period were found (*English Heritage* 1999d), and the

cemetery has since undergone extensive investigation. Little information has yet become available from these excavations, with the exception of very short summaries available online (*English Heritage* 1999a; 1999b; 1999c).

The excavations in the 1920s currently remain the main source of archaeological information regarding the site: re-examination of these, the finds made, and the original report have taken place since its publication (Cramp 1976a; Cramp 1976b, 225-229; Cramp 1993; Hurst 1976; Rahtz 1976). Cramp (1976a) re-examined the finds register, showing that many finds from the excavations prior to November 1924 cannot be plotted onto the plan, and that after this date it is only possible to suggest that nearest to the later medieval abbey, Anglo-Saxon burials were found, and to the north of these, evidence for domestic activity. Hurst (1976, 303-305) re-interpreted some of the wheel-thrown pottery: this had originally been considered imported, but in conjunction with the excavations from Jarrow, it became clear it was a local tradition, which was termed 'Whitby-type ware'. Imported pottery had still been found in small quantities, probably from the Rhineland (*ibid.*, 311).

Whitby Abbey has been equated with the double monastery known to Bede as *Streanæshalch*, burial place of royal Northumbrians, and site of the famous synod in 664 between the Roman and Celtic churches (Cramp 1976b, 223; Stenton 1971, 123). The two are now assumed to be synonymous, although Rollason (1999, 135-136) has argued that *Streanæshalch* may, in fact be Strensall, c.6.5km north of York. This may be important from an historical perspective, as *Streanæshalch* was such an important centre. Regarding the excavated site at Whitby, it does have an effect: the archaeology shows that there was middle Saxon activity on the site without question, but does it indicate a monastery? The problems associated with a monastic interpretation of Beverley were shown above (section 4.1.2.3), and much of the artefactual evidence, the coins, pottery, and metalwork, could equally indicate high status secular occupation. However, the sculptural fragments of stone crosses, and the numerous graves do point toward some form of ritual centre, and so an ecclesiastical foundation would appear likely. Once the current work is complete, and post-excavation underway, the nature of the site may become more clear, but for the

purpose of the thesis, it is considered that the site at Whitby was probably monastic, and may have been *Streanæshalch*, although this cannot be proven.

4.1.2.10 Caythorpe Gas Pipeline (TA122679-TA092653)

Excavations, fieldwalking and geophysical survey were undertaken in 1992 near to the village of Rudston, at sites along the 4.5km route of a proposed gas pipeline (Abramson 1996). These investigations produced extensive evidence of occupation, including Anglo-Saxon remains (*ibid.*, 3).

The Anglo-Saxon evidence covered part of the lower slopes and valley bottom of the Great Wold Valley, *c.*200m north of the river at TA123678, and *c.*500m south of the river at TA118669 (*ibid.*, 3-4, 26-29). North of the river, seemingly in an area of mostly Roman features, a north-south slot, *c.*10m by *c.*100m, was excavated. However, on its western edge, *c.*20m from the northern end, an SFB was discovered which appeared to continue beyond the trench edge (*ibid.*, 26), but the width could be measured at 3.2m. Few finds were made here, although a possible eavesdrip contained fragments of human bone, and a nearby pit produced a girdle hanger and Anglian pottery (*ibid.*).

The southern excavations uncovered remains of a single post-hole building, *c.*7.5m x 4m in size, and three ditches, one of which was late medieval, and cut the structure (*ibid.*). Two post-holes outside the north wall may possibly be related to an outer wall (*ibid.*). This could also simply be a small extension as seen at Wharram Percy South Manor, thought to be a privy (Stamper *et al* 2000, 29). A knife blade from a post-hole was dated *c.*450-*c.*700, and animal bone was radiocarbon dated to a calibrated date of 690-980 (Abramson 1996, 26-27). The two other linear features may be contemporary with the post-hole building, as they were aligned with it, and could form part of an enclosure. Abramson (1996, 33-34) argued that the post-hole building was probably abandoned nearer to the earliest part of the radiocarbon range, very late seventh century, on the grounds that most finds were typologically early Saxon, and that at West Heslerton, middle Saxon buildings were of post-in-trench type (*ibid.*). He also discussed the possibility that the settlement at Caythorpe may have been zoned like West Heslerton, although he admits there is not enough evidence to support or

dispute this. However, post-hole buildings are not uncommon on middle Saxon sites in Area 1, including Wharram Percy South Manor, and Fishergate (Kemp 1996; Stamper and Croft 2000). Certainly, there is a likely change in building techniques towards foundation trench during the middle Saxon period, but close dating is not available, and West Heslerton is not yet properly phased (Powlesland 1999, 62-63). Additionally, the material from Wharram Percy sites 94 and 95 Milne and Richards (1992) has shown that assemblages which were assumed to be early Saxon may be later. Therefore, although an earlier date is probable, it would not necessarily follow that the structure was abandoned and dismantled by the end of the seventh century. Much of the data is ambiguous enough that the structure may have been occupied into the eighth century.

4.1.2.11 Summary/ Conclusion

Section 4.1.2 has outlined and discussed the data from the major sites in Area 1 which provide the bulk of the archaeological data used. The interpretations of these sites have been critically discussed, and potential alternatives proposed where appropriate, such as for Lurk Lane, Beverley (section 4.1.2.3) where the conclusion that the evidence represented an early phase of the monastery was disputed. An important discussion was that regarding York Minster (section 4.1.2.2). At the site, three contrasting interpretations had previously been proposed Phillips (1995a), and Carver (1995), and here the latter, that there was no middle Saxon activity at the site, was accepted. As a result, the York Minster data will not be used below in sections 4.2-4.5, unless independent dating can be made, as for certain pottery styles and coinage. With the above discussions in mind, analysis will be undertaken below.

4.2 Coinage

4.2.1 Introduction

Coin finds have been used extensively in the past to gain an understanding of the Anglo-Saxon economy, e.g. Blackburn (1993); Metcalf (1988a). Over three hundred coin finds have been made on 45 sites in Area 1 (Fig. 4.3, Tables 5.1-5.5, and Appendix 3), many in the last fifteen years by metal detectorists. No detailed topographical study has been undertaken since Metcalf (1988a). This section will

examine these coin finds in two ways: first, the general distribution will be discussed, and second, the circulation of coinage will be assessed. All coins are single finds, unless otherwise stated.

4.2.2 Previous work

The monetary history of middle Saxon Northumbria has been examined for many years, especially since the early 1980s, with the advent of widespread metal detecting, and subsequent reporting of finds, producing an increasingly large database of finds.

Metcalf (1987, 365) has considered the initial impetus for coinages in Northumbria to be the increasing amounts of long-distance/ inter-regional trade taking place within the region, especially identifying the Humber estuary and York as important 'gateways' for non-local coinage during the late seventh/ early eighth centuries. Here, he argued the site at North Ferriby to be crucial, acting as an early market, before later being moved to York, probably to the emporium at Fishergate. At the time, most of the region's Primary sceattas, including the local issues of king Aldfrith c.685-704 and a large proportion of Intermediate phase sceattas came from this site, and findspots in York.

The early to middle eighth century was seen as a period without local minting in Northumbria, until the reforms by King Eadberht, sometime after 737, but Metcalf (1993, 341-367) has recently convincingly argued that the Secondary phase series J sceattas should be attributed to a York mint rather than further south, filling the perceived gap. The reforms of Eadberht, though, have always been seen as greatly important, with the evidence suggesting a strict control over the currency, and the lack of foreign coins from this period indicating that such issues were required to be reminted (Metcalf 1987, 367). Booth (1984, 74) through examination of die duplication in the finds, suggested Eadberht's coinage was large, possibly numbering as many as three million coins in total. The number in circulation at any one time would be less, due to periodic recall of the coinage and their subsequent remintings. From this point onwards, the Northumbrian kings appear to have had a relatively strong hold on the currency with few non-local coins found. The Northumbrian issues

became steadily debased from the late eighth century (Grierson and Blackburn 1986, 297). The ninth century stycas continued the cycle of debasement, until by *c.* 840, they were copper-alloy coins with barely a trace of silver, if any at all (*ibid.*, 298-299).

Surprisingly, relatively little assessment has been made of the geographical distribution of coinage in middle Saxon Northumbria. Metcalf (1984a; 1987) showed a concentration along the Humber estuary, and into the Vale of York, with a few finds also known from coastal areas, e.g. Whitby. Based on these distributions, he also argued that there was a solitary mint in Northumbria at York throughout the period. The most recent work on the Northumbrian coinages has discussed the productive sites' of east Yorkshire, with special reference to South Newbald (Leahy 2000). Leahy mostly used the coinage in a dating capacity, although did note that the numbers at Whitby and South Newbald may be economically significant, perhaps as markets or tax collection points (*ibid.*, 74-77).

4.2.3 General distribution

This section will examine the general distribution of single coin finds made in Area 1. Coinage is divided into rough chronological groupings, and its general distribution described through time. The chronology for the sceattas is based on work by Metcalf (1993). This will be followed by discussion of that distribution with regard to the regional economy, and to previous interpretations of the coinage. All data is from single finds, unless otherwise stated.

4.2.3.1 Early gold issues (Tremissis/ Thrymsas) to pale gold issues (*c.* 600-*c.* 675/680)

The distribution of early gold coinage can be seen in Fig. 4.4. During this period, only seven finds are known, three, 'the York Group' most likely from York. These were found in the mid-nineteenth century in York, although their exact provenance is problematic. Tweddle *et al* (1999, 226-229) discussed the circumstances of discovery and argued that at least two were probably from Parliament Street, as they were found at a cemetery where large amounts of earth was moved from that place. The coins themselves are identical to each other, and may have come from the same die (Tweddle *et al* 1999, 229). The remaining gold thrymsas include three identical or

similar to the 'York Group' and another undescribed example. None have any provenance other than 'Yorkshire'.

4.2.3.2 Primary and early Intermediate phase sceattas (c.680-c.710)

The distribution of Primary, and early Intermediate phase (series D, and series E, types D, E, G, and VICO) sceattas is shown in Fig. 4.5. Forty-five finds have been made on 20 sites across Area 1, plus an additional coin with a provenance of 'East Riding'. Most of the finds can be dated to the period c.695-710, although the coins of series A and BX/ BI were probably in circulation by c.675/680, and Aldfrith of Northumbria (684-705) also minted (Metcalf 1993). The composition of the finds assemblage (Table 5.1; Appendix 3) is dominated by the Continental Intermediate phase sceattas of series D (12 coins, 26.1%), and early series E (13 coins, 28.3%), followed by those of Aldfrith (five coins, 10.9%). The southern English Primary phase coins account for the remaining 30.4% (14 coins), with series C most prolific (five coins, 13.0%).

The distribution of these coins shows some variation. Primary phase sceattas were relatively limited, with finds in York/ Fishergate and on routes to the city from the North Sea: North Ferriby on the Humber, Ryther and Bolton Percy on the River Wharfe, Bielby on the Roman road from the Humber, and Heslington on the outskirts of York. There were also finds at Whitby Abbey on the North Yorkshire coast, Easingwold, c.16km north of York, and near Malton site 1. The Continental Intermediate phase issues, however, showed a slightly more widespread distribution. Most finds were, as for the Primary phase, near Roman roads and rivers, mainly on the routes from the south of England to York, with a few additional coastal finds at Whitby, and a small cluster on the Yorkshire Wolds, east of York. These latter discoveries have been made near Roman roads at the productive sites of Cottam (early series E), Thwing (one series D, and one series F), and Kilham (all series E, two early issues, one later). However, the sceattas from Thwing were discovered with later Northumbrian issues in a midden and may have been deposited several decades after their issue (Loveluck 1996, 44).

Discussion

The distribution of early eighth century coins in Area 1 is comparable with eastern parts of southern England, especially adjacent areas such as Lindsey where finds of Continental Intermediate phase issues predominate (Blackburn 1993, 80). These coinages, minted in the Rhine mouth regions of the Low Countries (Metcalf 1993, 176-177), probably entered the region as a result of long-distance contacts, possibly through merchants moving up the east coast of England stopping to pay tolls or attend market. Their occurrence on the roads and rivers to York would support this, and the similar pattern found for the Primary phase would indicate that some of the findspots may be trading or tolling stops for traffic entering Northumbria. However, issues of locally minted coins were scarce, represented only by the few finds of Aldfrith (685-704) sceattas. With this in mind, the possibility that at least some of the finds equate with re-use by local people, rather than a direct index of long-distance contacts, must be considered.

The finds on, and near, the Yorkshire Wolds are interesting. Most are Continental Intermediate sceattas, with Primary phase issues only found at Thwing, and near Malton site 1 (including an Aldfrith sceat). This emphasises the high number of foreign coins which appear to be entering the country in this period, especially when compared with numbers of contemporary English coinage. It may be indicative that settlements in this area were using coins, which previous work has suggested was largely based around long-distance trade at this time.

It is also important to briefly discuss the finds from North Ferriby. Eleven finds of Primary and Intermediate date have been made, including single examples of later series E, and series X sceattas, broadly dated *c.*700/10-740 (Metcalf 1993, 226; Blackburn 1984, 171). These have been interpreted as representing a periodic trading place during the early years of the eighth century, which, shortly after, moved to York, presumably now identified at the Fishergate excavations (Higham 1993, 169). However, the additional data described above presents other possibilities. The finds from Fishergate of one Primary phase, and seven Intermediate sceattas indicates that activity at the site was mostly concurrent with North Ferriby rather than post-dating it, and the regional pattern of finds along the rivers and roads to York suggest that North

Ferriby was probably only one of a number of trading/ tolling sites along the routes to York (Fig. 4.5). Of the other sites on the rivers and roads to York during the period *c.*680-*c.*710, those with more than one find are located at, or close to junctions- either of rivers (Ryther), roads (Bielby), or routeways (the Wolds Way), and rivers (North Ferriby). With so few finds this must obviously remain speculative, but the pattern warrants mention. It may indicate that such positions were utilised, perhaps periodically, for trade or tolls, although to argue this convincingly further evidence is required.

4.3.3.3 Later Intermediate and non-regal Secondary phase sceattas (*c.*710-*c.*740)

The distribution of sceatta finds of the later Continental Intermediate phase (series E, excluding types D, E, G, and VICO, series G, and series X), and Secondary phase sceattas, excluding the locally issued regal coinages of series Y is shown in Fig.4.6. Fifty-three finds have been made across 11 sites, plus seven coins from sites provenanced as 'North Yorkshire' or 'East Riding'. The finds assemblage is shown in Table 4.2, and Appendix 3. The proliferation of sceatta types is well attested in southern England (Metcalf 1988a, 236), and a Northumbrian attribution for the series J coins has been suggested by Metcalf (1993, 341). Series J are the most abundant coin issue of this period of time, representing 31.7% (19 coins), with later series E sceattas also prominent, (20.0%, 12 coins). Other issues are less prolific. Series G and X make up 10.0% (six coins) and 6.7% (four coins) respectively, and the East Anglian series Q, possibly minted at/ near Ely (Newman 1999, 43-44) has also produced five finds (8.3%). Other issues are rarer, with only one to three finds made of each (Table 4.2), but, following Metcalf (1993), these appear to be mostly Kentish and London types.

Eight of the 11 sites have produced more than a single find, the most productive being Fishergate (11 coins), near Malton site 1 (eight coins), Whitby (ten coins), and York (six coins).

The distribution of finds (Fig. 4.6) shows a concentration of finds in the East Riding, plus findspots on the Humber estuary around the traditional crossing point from South Ferriby (Lincolnshire) to North Ferriby (Humberside), near the River Hull, in York/

Fishergate, and at Whitby Abbey. The finds from the East Riding account for 43.3% (26 coins) from five sites (plus those with an 'East Riding provenance'), and include the productive sites Cottam, Kilham, and near Malton 1 and 2. The coins encompass a general range of southern English and Continental issues seen across Area 1, although only a single East Anglian coin (series Q) has been found, at Kilham, with the remainder being from Whitby and York.

Discussion

The distribution is different to that seen previously, being much more limited in the Vale of York, with very few finds on the rivers and roads from the south/ North Sea to York. The period *c.*710-*c.*740 which coincides with the first activity (Period 3a) at Fishergate (Kemp 1996) is potentially very important, as it is known that the larger English emporia were all late seventh/ early eighth century foundations. The possible reasons for these foundations have been discussed (section 2.2.1); many revolve around the need to control trade, probably in order to ensure that the appropriate tolls were paid by merchants, e.g. Hinton (1996, 100). It is possible that the pattern seen in Area 1 indicates that during the early eighth century, a number of small trading places, Bielby, Ryther, and slightly later North Ferriby, were abandoned in favour of a single emporium in York. Such an idea is important, and will be discussed further below (section 4.2.5).

The pattern on the Yorkshire Wolds is different, although more restricted from that seen *c.*680-710. There are an additional four finds from the 'East Riding', with no closer provenance, including two later Intermediate sceattas (series E and X), and two Secondary phase sceattas (series U and J). No local issues have been found at Kilham as yet, but five later Continental Intermediate and southern English Secondary sceattas were, attesting to the potential importance of the site.

Also of note, are the sites 'near' Malton 1 and 2. The location are currently secret, but have produced eight and five finds respectively dating *c.*710-*c.*740. Interpretation can as yet only be speculative, but it may be that they were sited to control routes from the Vale of Pickering into the Vale of York, and collect tolls from those moving between the two.

Finally, an assessment of the attribution of a Northumbrian mint for series J can be made. Series J coins are found in all but the most southerly parts of Area 1, and represent nearly a third of the total assemblage for the period. Obviously, data for the other regions of England has not been included here, but evidence from within the study area would indicate that Metcalf (1993, 341-359) has a strong argument for its Northumbrian origin.

4.2.3.4 Later eighth century issues (c.740-c.796)

The distribution of later eighth century finds is shown in Fig. 4.7. A total of 153 finds (Table 4.3; Appendix 3), including one of Charlemagne (768-814), have been made across 26 sites. No unprovenanced finds are known. In Northumbria, the later eighth century saw the introduction of the regal series Y sceatta, beginning with Eadberht (737-758), and continuing until the end of Ælfwald I's reign c.788 (Metcalf 1993, 576). Toward the end of the reign of Ælfwald I, and through Æthelred I's second reign (790-796), a new style of coin was introduced which also named the moneyer, similar to the southern English penny (*ibid.*, 594).

The lack of issues minted elsewhere is startling, representing only 1.3% of the total (2 coins). These coins are a denier of Charlemagne, and a series H, type 49 sceatta, although the latter may be an imitation (Rigold and Metcalf 1984, 265). There are also examples of Offan pennies, one issued jointly with Archbishop Jaenberht of Canterbury, from Aiskew, but these are considered to form a small hoard (Booth 1997b, 36). All other coins are issues of Northumbrian kings, mostly those of Eadberht (64.7%, 99 coins), divided between issues of Eadberht alone (50.3%, 77 coins), and those produced jointly with Ecgberht, Archbishop of York, c.732-766 (14.4%, 22 coins). Fewer coins are known for Eadberht's successors (Table 4.3), accounting for 34.0% of the total.

As previously, the distribution is roughly centred around the south-east of Area 1, in North Humberside and the East Riding. The focus is still on transportation routes, but there are more findspots than before. There are five findspots close to the Roman road from the Humber to York, including the major productive site at South Newbald

where activity appears to begin during this period (Booth 2000, 92). There are also two small concentrations in the East Riding, the first around Norton, approximately where near Malton 1 and 2 are likely to be located. Second, in the east, along the two Roman roads heading to/ from the coast, four sites (Cottam, Drifffield, Kilham and Thwing) have produced late eighth century coinage. Other finds have been made across Area 1, including the northern part of the region at Bedale, Hutton Rudby, and Richmond.

Discussion

The distribution of finds dating *c.* 740-*c.* 796 (Fig. 4.7) is wider than previously. Finds have been made across the study area, and the routes from southern England/ North Sea, and areas on the eastern side of the Yorkshire Wolds are dominant.

This trend towards the dominance of local coinages during the Secondary Phase is typical of much of contemporary southern England with circulation of specific types in specific regions, e.g. series H in Wessex and series R in East Anglia, e.g. Grierson and Blackburn (1986, 169). Concurrently, the volume of non-local coinage found diminishes, possibly due to local elites controlling currency more tightly than previously (Metcalf 1984a, 33). In Area 1, this process probably took place a little later than elsewhere, not becoming apparent until the reforms of Eadberht in the 740s.

The widespread distribution of coinage is also matched by a number of numismatically rich sites. A number of sites have consistently produced finds from the later seventh century: at Cottam, Kilham, near Malton sites 1 and 2, York/ Fishergate, and Whitby. During the late eighth century, another site can be added, at South Newbald. It is useful here to examine these in more detail.

At Fishergate, the coin finds (and archaeology) indicate the later eighth century to be different from the earlier period. Primary, Intermediate and non-local Secondary phase sceattas are concentrated at Fishergate, but only two coins of King Eadberht were found there (Pirie, forthcoming), in contrast to the thirteen around the rest of York (Pirie 1986, 51-52; Rigold and Metcalf 1984, 267; Pirie 1995b, 527-530). Only five examples of later eighth century coinages have been found anywhere in York, and

two of these were at Fishergate. Additionally, the period witnesses decline, and there is a possible hiatus in activity at Fishergate (section 4.1.1.1). If examined in conjunction with the regional data, there may be cause to argue for a refocusing of activity. For example, at South Newbald more late eighth century stray finds have been found than in any other part of the region. Also, the earliest Newbald finds, the series Y sceattas of Eadberht (737-c.758), are just contemporaneous with the latest finds from North Ferriby, the series X Secondary sceat (Booth 1997a, 26-27). This may imply a deliberate movement of trading/ tolling sites inland, and it may be that, at this time, the regional exchange network became very important. Further discussion will be made in section 4.3 regarding the later eighth century coinage once analysis is complete.

4.2.3.5 Early to mid-ninth century issues (c.796-c.840)

The distribution of early ninth century issues in Area 1, and the composition of the finds assemblage is shown in Fig. 4.8, and Table 4.4/ Appendix 3 respectively. Ninety seven finds have been made from 15 sites, with no finds known of imprecise provenance.

The years 796-808 are represented by only five single finds, probably all of which belong to the final three or four years. Four of these are of Ælfwald II (?806-?808): one from York and three from South Newbald. There is also a single find of Eardwulf of Northumbria (?796-?806 and ?808-?810), made at Burton Fleming in East Yorkshire, and it is likely that little minting occurred in Northumbria during this time (Booth 2000, 87, 93; Pirie 1995a, 26; Tweddle *et al* 1999, 209). The remaining decades are completely dominated by the stycas of Eanred of Northumbria (c.810-c.840), accounting for 89.7% (87 coins) of all finds in this period. Contemporary with these issues are the stycas issued by Eanbald II, Archbishop of York (796-830s?), representing 3.2% (3 coins). There are also two non-local coins, a single find each of Wulfred, Archbishop of Canterbury (805-832), from South Newbald, and a denier of Louis the Pious, king of the Franks (814-840), found at Kilham.

The distribution of the finds is restricted when compared to the earlier periods. There is a concentration of finds in a small area (c.20 x 20km) in East Yorkshire, near to the

east coast, encompassing six of the 14 findspots, but only 20% of all early to mid ninth century finds (19 coins). The general correlation with Roman roads in the inland area continued, with the exception of Whitby Abbey on the coast, and Sherburn-in-Elmet on the southern boundary of Area 1.

Nine sites have produced more than one find, with the most productive being South Newbald (19 coins), Whitby Abbey (29 coins), and York (14 coins). The other six have mostly produced only two coins, but seven coins were found at both Cottam and Thwing.

Discussion

The distribution of finds from the early ninth century appears somewhat restricted, although geographical coverage is similar to before, and the cluster on the eastern Wolds also remains. However, monetised exchange was probably seriously affected by the apparent hiatus in minting for the decade around the turn of the ninth century. The few findspots of late eighth century coins in the north and west of Area 1 are no longer present.

The traditional idea of Eardwulf's first reign (*c.*796-*c.*806) is that minting ceased due to economic collapse, probably brought about by Viking raids of the 790s, a decline on North Sea trade, or political uncertainty (Booth 2000, 86-87; Blackburn and Gillis 1996, 99). However, since the discovery of two coins of Eardwulf (one outside Area 1) the argument that minting continued throughout the period has arisen (Pirie 1995a). Pirie (1995a, 26) has suggested that the die cutting of the Eardwulf coin from Burton Fleming is very similar to that found on coins of Æthelred I, indicating a date in the first reign. However, the second coin is stylistically far closer to the later coins of Ælfwald II (?806-?808), possibly implying a later minting date (Blackburn and Gillis 1996). Overall, these could easily relate to coins very early and very late in his reigns, which may still imply a period without minting. Added to this, the fact that none of the very productive sites in Area 1 have produced coins of Eardwulf indicates that there was potentially little fresh minting in his reign.

The general distribution, however, attests to the importance of South Newbald, York and Whitby, each with many more finds than other sites. The former is the only site outside York to have a coin of Ælfwald II, and also has a southern English penny. The only other coin minted elsewhere was a Carolingian denier found at Kilham. This suggests that the tight control over imported coinage continued, even during the period *c.* 796-*c.* 810, although if there were serious economic problems during this time many fewer coins may have come into the region.

The dominance of Eanred's issues, whilst spectacular, is not surprising. If minting did cease for around a decade, then a tight control over foreign coins combined with Eanred's long reign would result in virtually all coinage of that period belonging to a single issuer. It may indicate a return to general monetised exchange, and possibly long-distance exchange.

4.2.3.6 Mid to later ninth century issues (*c.* 840-*c.* 900)

The distribution of later ninth century finds in Area 1 is shown in Fig 4.9, and the composition of the finds assemblage in Table 4.5, and Appendix 3. A total of 248 finds have been made from 21 provenanced sites, plus a further three coins from sites provenanced as '10 miles south of York', and 'East Riding'.

The 175 coins of Æthelred II (*c.* 840-*c.* 848) are dominant in this period, accounting for 69.7% of the total. This is followed by those of Wigmund, Archbishop of York (*c.* 837-854) with 15.5% (39 coins), and Osbert (848-867), 7.6% (19 coins). Other issues are less prolific, but there are ten coins minted outside Northumbria. These are: three coins of Charles the Bald (840-877), two of Burgred of Mercia (852-874), one of Æthelwulf of Wessex (839-858), and two of Æthelbert of Wessex (860-865). There are two examples of Viking coins, one from East Anglia, of the St. Edmund Memorial issues (*c.* 895-*c.* 905), and a 'cunetti', produced in Northumbria from the late 890s-*c.* 905.

Thirteen sites have produced more than a single coin, with the most productive being Cottam (21 coins), near Malton site 2 (26 coins), South Newbald (46 coins), Whitby Abbey (63 coins), and York (47 coins). Other sites were mostly restricted to two or

three finds, although more were found at Fishergate (eight coins), and near Malton site 1 (nine coins).

The distribution of finds is barely more widespread than the previous period, although more findspots are known. The predominance of finds in eastern Yorkshire on the Wolds, and on the routes to York is still present, and only the finds in the north-western half of Area 1 at Coxwold and Hutton Rudby represent coin loss in a different area. It is interesting to note that the find at Coxwold is one of very few coins minted outside Northumbria, being a Carolingian denier of Charles the Bald (840-877). The concentration on the Yorkshire Wolds, across nine sites, and one from 'the East Riding', accounts for 28.2% (70 coins) of the total, and includes a penny of Æthelbert of Wessex (from Cottam), and a denier of Charles the Bald (from Kilham).

Discussion

The cessation of minting after the Viking take-over of York lasted until the very end of the period of study, *c.* 900 (Grierson and Blackburn 1986, 320-323). As a result, all but two finds are dated prior to *c.* 870, including non-local issues, and virtually nothing can be inferred from the numismatic data regarding the final 30 years, *c.* 870-*c.* 900. Therefore, this discussion will have to be based around the pre-Viking coinages.

The issues of Æthelred II's two reigns (840-844? and 844?-848?) were dominant, and are the most numerous single find throughout the period of study. However, this should not be seen as indication of a mid-ninth century economic boom, as the value of each coin would have been low. Unlike his predecessors, whose coinage often had reasonable silver contents, Æthelred II's initial issues were of only *c.* 5% silver, and by the end of his second reign, it had dropped to zero, resulting in coins made of brass (Grierson and Blackburn 1986, 300).

The distribution remained much as before, with widespread monetisation across eastern and southern regions of Area 1, as well as two sites, including Whitby Abbey, to the north of the North Yorkshire Moors. It is also during this period that a number of the productive sites were seemingly abandoned, including South Newbald, near Malton 1 and 2, and Whitby.

The finds from York attest to its growing importance and, if the archaeological evidence can be trusted, its growing population (Tweddle *et al* 1999). Finds from the city during this period number 47 (18.8% of the total), and the assemblage is made up from the widest range of types seen in Area 1, including Mercian and Wessex pennies and a Carolingian denier of Charles the Bald.

4.3.4 The circulation of coinage in Area 1

The circulation of coinage in Area 1 was examined using the methodology and date groupings (one to nine) as discussed in section 3.3.3.2.2. Fig. 4.12a-n shows the resulting graphs produced. Each will be discussed separately in turn, and also with reference to each other.

4.3.4.1 The regional circulation of coinage

Fig. 4.12a shows the proportions of coinage in each date group for Area 1, against which individual sites can be compared. The proportions were calculated using all datable single finds, a total of 611, including those of imprecise provenance. The general pattern of Fig 4.12a shows two series of growth and decline. The first series encompasses groups 1 and 5, (c.650-c.810). So few gold coins (group 1) are known from Area 1, that the effective introduction of coinage can be considered to be post-680 with the initial Primary sceattas, and the early Continental Intermediate sceatta issues (group 2). Levels of coin loss in group 3 (c.710-740) appear similar to group 2, but a large increase is seen in group 4 (c. 740-790), to a quarter of all coins found. This pattern is not surprising given that it coincides with the coinage reforms of Eadberht (737-758), which saw the introduction of the regal coinages of series Y, and probably tighter control of the coinage.

By group 5 (c.790-c.810), coin loss across Area 1 had plummeted, with a drop of 24% of the overall proportion from group 4, although the change may not have been as sudden as the graph suggests. As described in section 4.3.3.4, the period is dominated by the coins of Eadberht, and so decline may not have set in until c.760, after Eadberht's abdication in 758 to the early 790s, rather than an abrupt near cessation of minting, although the post-Eadberht decrease is still large. This need not be

unexpected: first, there is no reason why each king would necessarily have recalled the coinage of his predecessor, and so a coinage could remain in circulation for some time after its minting had ceased. Second, the mid-late eighth century is seen as a period of change, with the debased secondary phase sceattas ending 'in a ruinous situation, probably in the third quarter of the century' (Metcalf 1988a, 236). The later eighth century silver pennies of Offa probably began on a scale smaller than the sceattas they replaced (Metcalf 1988a, 237), and Hinton (1986, 17-22) has shown that there was a lower rate of loss of broad flan pennies than sceattas, possibly for no other reason than they were larger. The overall picture from southern England implies that coin loss in the second half of the eighth century is low, and a decline in northern England should also be expected.

The second series spans groups 6 to 9, *c.*810-*c.*900, and shows steady increase from group 5 (ends *c.*810) to Group 7 (*c.*840-*c.*855), though the change in levels of coin loss between groups 6 and 7 is dramatic. Group 8, *c.*855-*c.*870 witnesses a dramatic drop in the number of coins found, from 37.7% to just 4.1% of the overall assemblage. The majority, 19 of 25 finds, were issues of the Northumbrian king Osbert (*c.*849-867). Decline continues in group 9 (*c.*870-*c.*900), after the Viking take-over of Northumbria, with only two coins, both datable to the last years of the ninth century or the first decade of the tenth century.

However, the differences between the two groups may be somewhat illusory and the underlying trends in the coinage must be taken into account here. Minting in Northumbria restarted sometime during the reign of Eanred (*c.*810-841), with a fineness of about 40% silver, but the coins became increasingly debased until, by *c.*840, they were only 8-10% silver (Grierson 1991, 46). This debasement continued unabated under Aethelred II (*c.*841-849), until there was no silver content i.e. they were made of brass (*ibid.*). Therefore, the relative values of the coins may be quite different and although there may be more coins in circulation in group 7 than in group 6, the coins themselves will probably have been less valuable.

It should be noted that large numbers of finds came from two sites: 114 datable coins from South Newbald, and 135 datable coins from Whitby. In order to test the effect

of such assemblages on the regional average, graphs excluding the finds from South Newbald, Whitby, and also both sites were produced (Figs. 4.12b-d). The omissions of these assemblages do not drastically alter the shape of the graphs produced, or the proportions found in each group by more than a few percentage points at most. Consequently, there can be confidence that Fig. 4.12a gives a fair reflection of overall coinage loss in Area 1, is not unduly affected by any single site within that area, and can be used as an average against which individual site assemblages can be compared.

4.3.4.2 The distribution of the most productive sites, and findspots of foreign coinage

Fig. 4.10 shows the distribution of the ten sites which have produced more than ten datable finds. These sites are Cottam, Fishergate, Kilham, near Malton site 1, near Malton site 2, North Ferriby, South Newbald, Thwing, Whitby and York. There is a clear concentration towards the coast, or Humber estuary, with the exception of three sites: near Malton sites 1 and 2, and York. The latter, as the seat of the archbishopric of northern England, and with its connections to royalty would be likely to attract visitors from far afield, and has much archaeological evidence of foreign contacts from the excavations at Fishergate. The Malton sites are undisclosed locations, but Malton itself is inland on the River Derwent, and sits on the Roman road from York to the coast at Bridlington, over 35km from the east coast, and c.25km from York. Five of the remaining six sites are within 15km of the coast/ Humber estuary, although Cottam is only slightly further afield at c.17km from the east coast. The distance of c.15km is taken here as the calculated limit for a days' return travel away from the home settlement by non-mechanised means (see section 3.3.3.2.1).

If the distribution of coins minted outside Area 1, both in Continental Europe and elsewhere in England, are also plotted (Fig. 4.11) it can be seen that a similar pattern is achieved. Finds of these have been made on 20 sites in Area 1, including all of the sites with greater than ten finds, and with only two exceptions, the remainder are restricted to sites within c.15km of the coast, riverine locations, and sites on the main road from the Humber estuary to York.

Discussion

The numismatic evidence shows that the majority of the sites with the largest coinage assemblages are positioned under *c.* 15km from the coast in Area 1. The application of this figure has proven interesting as it does imply that these sites would be well located to gain direct access to networks of sea-borne long-distance trade, as a return journey to, or from, the coast could be undertaken within a day. The additional presence of foreign coins at these sites, and generally within the *c.* 15km band along the coast, would possibly support the idea that contact with international trade would not have been restricted to the emporia. It should be noted that most of the foreign coins are Continental Intermediate phase sceattas, and later foreign coins are a rarity, most likely due to a concerted re-minting of non-local coins (Metcalf 1988a, 237).

It could be argued that the distribution of both productive sites and non-local coins may be a reflection of the areas which have been most extensively studied, either archaeologically, or by metal detectorists. However, two factors must be considered: first, fewer coins are known from extensively excavated sites further than 15km inland (or from York), such as Wharram Percy, than those within the 15km boundary, e.g. Thwing and Cottam. Second, it must be remembered that the Yorkshire Wolds is considered environmentally to be a core area of settlement, and may be the most densely populated area in Area 1 (Higham 1987, 43).

As discussed above (4.3.3), South Newbald, and possibly Kilham, could be good candidates for inland, regional markets in York's hinterland, and so the coin finds need not only be interpreted as evidence of people travelling *to* the coast to trade at a small market/ emporium, but also *from* the coast into these sites to trade, possibly for local raw materials.

4.3.4.3 Comparison of sites to the calculated regional mean in Area 1

Fig. 4.12e-n shows the patterns of coin loss through time for individual sites in Area 1. There are distinct variations between sites, although the patterns at Kilham, near Malton site 1, Whitby, Fishergate (groups 6 to 9), and South Newbald (group 4 onwards) all resemble the overall regional distribution. Haselgrove (1993, 54) discussing British Iron Age coin assemblages, argues that this is evidence that there is

'such a thing as a 'normal' pattern of coin loss', but notes that variations from this pattern require a reasonable explanation. Each site will be examined separately, and, where appropriate, brief discussion will be made.

Cottam

At Cottam (Fig. 4.12e), ninth century coinage predominates, with only a very small amount of eighth century issues found. This corresponds well with the metalwork assemblage, in which the datable artefacts are mostly ninth century (Leahy 2000, 74-76). The pattern of coin loss through the ninth century is relatively consistent with the calculated regional mean (Fig. 4.12a), showing increase from groups 6 to 7, followed by major decline. However, group 7 is far higher than group 6. Most of the coins which have been found at Cottam are locally issued, including the eighth century finds, although a single Continental Intermediate phase sceatta, and a penny of Æthelbert of Wessex (860-866) are also known, the latter one of only two finds in Area 1. With such a high incidence of coin loss in this period compared to earlier or later it is also possible that at least some of the Cottam finds may be part of a dispersed hoard, and the composition of the assemblage at Cottam is comparable with that from the purse hoard at Beverley (Pirie 1991). However, without a detailed distribution map of the site to show findspots, this must remain speculative.

The low numbers of eighth century finds, compared to the ninth century, may indicate a lower intensity of activity in the earlier period, although this is difficult to prove. The archaeological evidence was not closely dated (section 4.1.2.4), as few finds were made, and much had to be made of the metal detected coinage and metalwork in this respect (Richards 1999b).

Fishergate (York)

The 32 coin finds from Fishergate (Fig. 4.12f), show a generally higher rate of coin loss during the eighth century than the ninth century. In comparison to the regional pattern, Fishergate differs in a number of respects. First, group 3 dominates, and the small proportion of group 4 finds is abnormal. Second, the ninth century pattern, although following the same sequence of growth and decline, does so at a lower proportion to the regional average. The coins from Fishergate include a high



proportion of Continental Intermediate phase sceattas of series D, E, and G (7 of 32 coins), other southern English sceattas, and local issues. One of the ninth century finds was a coin of Æthelbert of Wessex (858-866).

This evidence brings some interesting possibilities: in his discussion of the site, Kemp (1996, 64-84) does not examine changes within each phase. However, when the coin finds are examined proportionally, the data would indicate that activity in period 3a was declining by *c.*740, and there are only two post-Eadberht finds datable to this phase: a single example of the series Y sceatta issued by king Alcred and Archbishop Ecgbert, *c.*765-766, and a single find of Aethelred I (790-796) (Pirie, forthcoming). Therefore, the abandonment phase, period 3b, dated by Kemp (1996, 10, 54-59) only to the late eighth/ early ninth century, can possibly be seen as having its roots at least to the years around *c.*750. The later eighth century can certainly be considered a period of decline, if not a definite hiatus of activity, and the ninth century finds are also indicative of comparably lower intensity activity. Whether this implies a lessening of long-distance trade, and re-focusing towards regional trade, as suggested above (4.2.3.4) and also by Kemp (1996, 63), is not proven. However, from at least *c.*750, the settlement would certainly not seem to be the thriving site that Richards (2000a, 199) suggests for when discussing the population of Wharram Percy South Manor, and their access to foreign goods.

Kilham

Levels of coin loss at the metal detected site near Kilham (Fig. 4.12g) correspond relatively well to the regional averages, although, as at Fishergate, there are a greater number of coins from group 3 than from group 4. The small sample of 17 coins must be kept in mind, but it is one of relatively few sites to show mostly consistent coin use throughout the middle Saxon period. Considering this small number of finds, the composition of the coinage assemblage is remarkable: it contains the only single find in Area 1 of a styca of Archbishop Wulfhere of York (*c.*854-*c.*900), and two of only five single finds of Carolingian deniers, one of Charles the Bald (843-877), the other of Louis the Pious (814-840). There were also examples of Continental sceattas (series E and X).

Near Malton 1

The metal-detected site near Malton 1 (Fig. 4.12h) corresponds well to the regional average, with the exception of groups 3 and 4. There is a substantially higher rate of coin loss *c.*710-*c.*740, than *c.*740-*c.*790, but groups 5 to 7 follow the regional trend. No coins post-840 are known. The assemblage includes an example of the rare late seventh century 'Aldfrith' coins, four southern English sceattas, and six Continental Intermediate phase series E. All post-750 coin finds are local regal issues.

Near Malton 1 is one of only a few sites in Area 1 which show steady coin loss, close to the regional average throughout the study period. Prior to *c.*750, the numismatic evidence would certainly indicate Rhenish contacts, given the number of series E sceattas, and also some contact with southern England.

Near Malton 2

The second site near Malton (Fig. 4.12i), shows only two discrete peaks in coin loss, despite the high number (49) of datable coin finds. These occur at groups 3 to 4, and group 7. The composition of the finds is virtually all local issues, with the exception of two Continental sceattas, and a series L Secondary sceatta. The difference between this assemblage and the one at near Malton site 1 is striking and interesting, and will be discussed below.

The assemblage from near Malton 2 is relatively difficult to assess. If the coin finds were all of group 7 or group 8 date, it may be possible to envisage either very short-term use of the site, or even a dispersed hoard, but the presence of 16 group 3 and 4 coins may rule this out. As no details of recovery are currently available, interpretation can probably go little further than stating that near Malton 2 shows intermittent coin use. Whether the site simply had a coin-using population, or was intended to act as alongside near Malton 1 cannot be discerned on current evidence.

North Ferriby

The pattern of coin loss at North Ferriby (Fig. 4.12j) illustrates the probable short-lived nature of the site, with a large peak in group 2, followed by decline to group 3, and no other finds subsequent to these. The pattern bears no resemblance to the

calculated regional average. The composition of the coinage assemblage is interesting: only two of 11 coins were of local derivation, both being of Aldfrith of Northumbria (684-705), whilst six were Continental Intermediate phase, and two Primary phase examples minted in Kent were present.

The evidence from North Ferriby supports its general interpretation (see 4.2.2) as a short-lived, small scale toll stop/ trading station on the Humber estuary in use during the later seventh and first half of the eighth century which had ceased to function by *c.*750 (Higham 1993, 169).

South Newbald

South Newbald (Fig. 4.12k) follows the regional pattern of coin loss from group 4 onwards although with higher overall percentages, owing to the lack of earlier coins. Virtually all of the coins present are local issues, with the exception of a denier of Charlemagne (768-814), and a penny of Archbishop Wulfred of Canterbury (805-832). In comparison to the calculated regional mean, group 4, the period of initial coin using activity, is dominant. Also, it should be noted that although groups 6 to 8 follow the regional pattern, they are comparatively lower.

South Newbald has already been postulated as the site of a market (section 4.3.3), and the fact that patterns of coin loss closely follow the regional mean from group 4 onwards may support this, and certainly show a steady, unexceptional loss pattern. Initial high levels of coin loss may attest to its location being more favourable to trading during the later eighth century, or to the seeming hiatus in activity at Fishergate, *c.*30km to the north-west.

Thwing

The numismatic evidence from the excavations at Thwing shows only intermittent coin use, with examples only from groups 2, 4, 6 and 7 (Fig. 4.12l). The earlier coins (group 2), found in a midden with coins of Eadberht, may have been deposited at a later date (Loveluck 1996, 44). The high level of coin loss in group 6, and low level in group 7, is the opposite of the regional pattern, although it is possible that this may reflect the low numbers of finds (17) from the site. The assemblage is mostly local

issues, the most numerous being seven coins of Eanred of Northumbria (*c.* 802-*c.* 840), and single examples of Primary and Continental Intermediate sceattas.

The pattern of coin loss from Thwing indicates that the site was the site of a coin using population over a long period, but that this coin use may have been intermittent. The general assemblage of finds does show a settlement with international contacts, but this need not mean that Thwing contained a market component of any kind. The nature of the coin finds may be more suited to a population whose monetary activity took place elsewhere, perhaps at Kilham, which has produced patterns of coin loss more akin to a site at which regular monetised activity took place.

Whitby

At Whitby (Fig. 4.12m), the 1920s excavations produced evidence of middle Saxon occupation, including overseas contacts. The large assemblage corresponds well in comparison to the regional pattern representing steady coin loss, albeit with group 4 a little under-represented, and group 7 somewhat higher. A wide range of coinage was found, including examples of most local issues from Aldfrith (684-705) through to Osbert (?849-867) and high numbers of coins of Eanred (802-?840) and Æthelred II (?840-?848), Continental Intermediate phase coins, and a number of regional types, including a series H sceat from Wessex, although Rigold and Metcalf (1984, 265) argue that this may be an imitation. There were no examples of ninth century foreign coinage.

The range of earlier coins indicates that much of the coin use at Whitby was focused towards long-distance contacts in the eighth century. The ninth century finds all appear to be of Northumbrian origin, as is true for much of the region. Overall, the circulation of coinage at Whitby is likely to have been similar to the regional average, implying constant, steady coin use at the settlement, which may reflect relatively constant trading.

York (excluding Fishergate)

In York (Fig. 4.12n), excavation and casual finds of coinage have been made since the nineteenth century. The middle Saxon finds roughly correspond to the regional

pattern, showing two periods of growth and decline, and include the only provenanced finds of gold thrymsas from Area 1. Coin loss appears to have been higher during the ninth century, from where two-thirds of finds can be placed. Many of these, 47%, are from group 7 (840-855), which itself is dominated by the issues of Æthelred II (?840-?848), making up 86% of the group. Finds from the eighth century follow the regional pattern, although the overall proportions for the city are lower. The composition of the coinage assemblage is interesting. There are four finds of thrymsas and comparatively few sceattas, including only a single Continental Intermediate phase coin, although there are an additional eight sceatta finds which are unidentified. Later coins are predominantly local, and virtually every issue from Eadberht (738-c.758) to Osbert (c.858-867) is represented. Additionally, a denier of Charles the Bald (843-877), and two pennies, one each of Æthelwulf of Wessex (839-858), and Burgred of Mercia (852-874) were found.

Tweddle *et al* (1999, 208-212) has suggested that the overall archaeological evidence from Anglian York indicates an increasing amount of activity throughout the eighth century, which continued into the ninth century with a larger amount of the fortress and colonia showing some form of activity. The evidence from the coinage would go some way to supporting this, although very little can currently be said about York in the period with confidence.

4.2.4.4 Discussion of the circulation of coinage of Area 1

The analysis of the circulation of coinage in Area 1 shows that comparing individual sites to a calculated regional mean is productive. This section has highlighted a number of points: the majority of the most productive sites are located within c.15km of the coast, and most foreign coins can also be plotted within this zone; a regional pattern of coin loss is apparent, and not simply a reflection of the most productive sites; and a number of sites are highly comparable to this mean.

It has been argued in this section that those sites showing consistent coin loss, close to the regional mean, may have seen activity involving trade, or tolls. Such *continuous* coin loss is seen at only a few sites: York/ Fishergate, Kilham, near Malton 1, South Newbald, and Whitby. The other four productive sites in Area 1 show little, or only

very partial correlation with the calculated regional average, and North Ferriby has produced no finds later than *c.*750. Furthermore, it can be argued that those sites showing a continuous, average coin loss were more likely to be the sites where monetised exchange regularly took place, than sites whose coin loss was irregular, although it must be recognised that this does not rule out such exchange at the other sites, e.g. North Ferriby.

The idea that some of these sites were markets is important. Similar conclusions have been drawn elsewhere regarding productive sites, e.g. Booth (1997a); Ulmschneider (2000b), but this has centred on their function as centres of regional exchange. However, here their geographical proximity not only to land/ river routes, but also coastlines has been shown, suggesting that an international component is entirely possible, even likely, given the distribution of foreign coinage within the *c.*15km limit.

Therefore, if these few sites (York/ Fishergate, Kilham, near Malton 1, South Newbald, and Whitby) can be considered, albeit tentatively, as potential market sites, could this have ramifications for our understanding of the economy of Area 1 in the early medieval period? Fig. 4.13 shows the distribution of the five locations, with Malton plotted for the undisclosed site. Around each of these sites has been drawn a circle of 15km radius, the theoretical 'catchment' area of each site, if the calculated limit for a day's return travel by non-mechanised means is used. Excepting Whitby, the sites are spaced in such a way that the Yorkshire Wolds, and southern parts of the Vale of York would all be within the limit for travel to market. Remarkably, these four 'catchment' areas barely overlap, and could be seen as a method of controlling monetised trade across Area 1 in some form of regional market network. However, it may be unwise, on current evidence, to suggest that this represents a market system similar to that seen in England during the later medieval period because there are still a number of other numismatically rich sites within this area.

Finally, the general location of the most numismatically rich sites in Area 1, *c.*5-15km, from the coast, must be discussed. The possibility that at least some of these sites were positioned to take advantage of long-distance trade moving along the east

coast would seem clear, but additionally their locations on land and transportation routes may be indicative that the exact locations were intended to integrate the long-distance trade networks with regional ones. This could have allowed easy exchange of foreign goods for surplus, or other goods, perhaps even slaves. The only major sites outside of this *c.* 15km zone are near Malton sites 1 and 2. It is unfortunate that their location is unknown, as any ideas regarding their geography can only be mere speculation, but it is possible that they may have been positioned to regulate trade/collect tolls, in the gap between the Hambleton Hills and Howardian Hills which joins the Vale of Pickering to the Vale of York.

4.2.5 Discussion of Coinage in Area 1

The different analyses of coinage must now be discussed as a whole. The large number of finds allows us to trace the monetary history of Area 1 from *c.* 650-*c.* 900 with far more confidence than previously, e.g. Metcalf (1984a). Transportation routes (roads, rivers, sea) were important throughout the period, although the road and river network from southern England to York appears to have been especially important during the late seventh and early eighth century. The mid-eighth century reforms of the coinage by Eadberht brought about tight control over the currency as was already the case in southern England. From this point onwards, comparatively few finds of coinage minted outside of Northumbria are known. Such issues almost certainly represent direct contact, probably through trade. The general perception of a low level of minting, either as a result of decreasing long-distance trade, or a shortage of silver, appears to be fair, and patterns of coin loss show far fewer finds during the later eighth, and early ninth century. The early to mid ninth century sees a great increase in coin finds. However, the comparative lack of value of the ninth century stycas does not necessarily mean an increase in activity.

A number of important conclusions have been drawn from the numismatic evidence, which are all discussed above. However, the main outcomes should be briefly reiterated. It is likely that North Ferriby was in use at the same time as Fishergate, as opposed to pre-dating it as has been argued (Higham 1993, 169; Metcalf 1987, 365). Also, Fishergate is generally perceived as an emporium of similar type to Ipswich or Hamwic, but the numismatic data has been used to suggest that the site may have

declined from *c.* 750, and the patterns of coin loss indicate that the early eighth century levels of activity were never again achieved at the site. Alongside this evidence, it has been argued that the productive sites around the region represent a network of sites involved in both regional and long distance trade, and may have been focused toward the integration of the two.

With the above in mind, an overall model for the monetary history of Area 1 can be proposed. Monetisation of some parts of the economy appears to have been underway with the introduction of sceattas, much as it probably was in southern England, e.g. Metcalf (1988a). The most productive sites in southern Area 1 for Primary and early Continental Intermediate sceattas have been shown to be at junctions in the transportation networks (Fig. 4.5). These may well have been places of periodic trading, and early Fishergate was just a part of this. The numismatically rich sites in the east of the region were also positioned in a similar way.

However, by the time that later Continental Intermediate and Secondary phase sceattas were being lost, all of these sites had gone out of use, with the exception of Fishergate, and a few late finds from North Ferriby. At Fishergate, this period (*c.* 710-*c.* 740) coincided with a pattern of coin loss which was rather higher than the regional average. A decrease in coin loss along rivers and roads in southern Northumbria, was apparently accompanied by the dramatic increase at Fishergate, implying that there may have been a conscious effort by controlling powers to reduce the number of places where trade took place, possibly for tighter regulation of that trade, and in order to extract as high a level of toll payment as possible. It may also reflect the growing importance of York through the eighth century (Rollason 1999, 126-128). In part, such a scenario is highly reminiscent of Hodges (1989b, 51-52) classic, if criticised, model of the transition between his type A and type B emporia, where during the late seventh to early eighth century small periodic beach markets were replaced by the planned urban emporia in order to 'maximise this hitherto periodic long-distance trade' (*ibid.*, 52). However, in Area 1, this change is only seen in the Vale of York from the Humber estuary to York. Elsewhere, on the Wolds, and the north-east coast, contemporary productive sites were also continuing, at the sites near Malton, Kilham, and Whitby.

If this was an attempt to monopolise long-distance and/ or monetised trade in the vicinity of York, it appears not have been a success. By *c.* 750, South Newbald was in use, and the number of finds indicate a high level of activity there, contemporary with decline at Fishergate. It may be that any attempt to control long-distance trade through a single site could not work, and it may also have restricted the exploitation of regional exchange by the elite. The productive sites on the Yorkshire Wolds may have successfully integrated networks of regional and long-distance exchange, in order to provide fuller coverage, and to eradicate unauthorised or uncontrolled trade, i.e. non-toll paying activity, in Area 1. Whereas contemporary evidence from Wessex or Suffolk indicates that virtually all international trade went through a large emporium (Hinton 1999, 30; Naylor forthcoming), it is possible that a region such as Area 1 quite simply had too long a coastline for regulation of long-distance trade to take place effectively without a network of markets. The role of the productive sites integrating international and regional trade has been argued above, and it is possible that these may have also been connected to beach markets along the east coast. Unfortunately, due to the extensive coastal erosion along much of the coast of East and North Yorkshire (Muir 2000, 194), no evidence is likely to be forthcoming, with the only evidence of a coastal market coming from Whitby.

The success of the productive site network, the integration of trade, and the full coverage over what is likely to have been the core settlement area continued until the Viking conquest of Northumbria, when all of these sites were abandoned. The cessation of minting until the final years of the study period certainly indicates that a non-monetary economy took over for a few decades, and other means of payment, perhaps in bullion, or by barter became dominant as it was in much of Viking Scandinavia, e.g. Gustin (1998).

4.3 Pottery

4.3.1 Introduction

The examination of economy and society through the analysis of regional distributions of pottery types is well-tried and tested, e.g. Blinkhorn (1997); Fulford (1978). Such

methods are appropriate for this study, and will be employed here. The foremost aims of this section are to determine if any patterns are visible in the distribution of pottery types and pottery styles; if there is evidence for the utilisation of particular raw materials in different parts of Area 1; and if the results can be used to reconstruct networks of local/ regional and international trade in Area 1.

Pottery finds have been made on 16 sites across Area 1 (Fig. 4.14). However, the integration of these assemblages into a comparable dataset is problematic owing to a wide variation in the ways in which the data is discussed in each report. This problem is compounded further by the lack of full publication of several sites, such as Thwing and West Heselton. Although interim reports and summaries are available, these do not quantify the material found.

The division of pottery by type, e.g. quartz-tempered ware and Ipswich ware, also creates problems. Unlike Study Area 2 (Kent) where local pottery types are often described using a single descriptive scheme (Macpherson-Grant 1984), division of pottery by type in Area 1 differs with almost every report. Although it is possible from the description given to compare different assemblages, this cannot be done with all sites, or with complete confidence. For example, at Fishergate (Mainman 1993), quartz-tempered wares were all grouped together for quantification, although differences are noted, whereas at Wharram Percy quartz-tempered pottery is divided between seven groups (Slowikowski 1992; 2000). Therefore, general discussion must be broadly based with respect to fabric type (see also Appendix 4), but, where possible, closer examination will be undertaken.

The quantification of pottery finds is also possible in a number of ways, among them sherd counts, weight, and estimated number of vessels (Orton *et al* 1993, 168-173), and different methods of quantification have been used in different site reports across Area 1. Fortunately, all quantified assemblages excepting Beverley (Watkins 1991), provide at least sherd counts. Therefore, general comparative analysis will have to be undertaken on the basis of sherd counts for each site in Area 1.

Finally, chronologies must be considered. The dating of Anglo-Saxon pottery can be notoriously imprecise, with long-lived types a frequent occurrence. Dating such as 'middle Saxon', or 'fifth to eighth century' are not uncommon, e.g. Phillips and Heywood (1995), and it can be difficult to distinguish Anglo-Saxon pottery from prehistoric wares, e.g. Vince (1998); Coppack (1974). It is often only when found in association, i.e. the same context or site phase, with relatively closely datable artefacts, such as coinage or metalwork, that confident narrowing of chronology can be achieved.

In Area 1, eighth century deposits are only known from Wharram Percy, Fishergate, and other sites in York. The ninth century is represented by Beverley, Fishergate, and a number of other sites in York, e.g. Watkins (1991, 61-62, 71-73); Mainman (1993); Slowikowski (1992, 27-38); Moulden *et al* (1999). Cottam produced pottery roughly dated to the late eighth/ early ninth century, or mid ninth/ tenth century (Austin 1999). All other assemblages are only datable to the middle Saxon period in general. Where possible, and appropriate, reference can be made to periods within the seventh to ninth centuries, but the overall study will have to concentrate on the period as a whole.

4.3.2 Previous work

Little previous work examining Anglo-Saxon pottery in Area 1 has been undertaken, apart from pottery reports for individual excavations. Hurst (1976, 304-307) showed that wheel-thrown pottery was produced in the region (including Whitby-type and Ipswich-type wares), while Hodges (1981, 54) described the area around Whitby as showing a middle Saxon pottery industry (Whitby-type ware), and the remainder as producing 'infrequent domestic (?) potting'. Mainman (1993, 649), in her discussion of the Fishergate assemblage, has noted the differences between urban and rural assemblages, and suggests that, in part, this 'must owe something to geographical and geological factors and the availability of raw materials' (*ibid.*).

4.3.3 Distribution

The analysis of the regional distribution of pottery will be based upon the likely area of production. This will divide the section into local wares (i.e. pottery types probably made in Area 1); wares produced in other regions of Britain; and Continental imports.

The distribution of middle Saxon pottery finds is shown in Fig. 4.14. The material from Kirkdale and West Heslerton is currently undergoing research, but certainly includes pottery datable to the period of study. No quantified data and relatively few other details are yet available, although the West Heslerton assessment does include broad descriptions of Anglo-Saxon fabric types present at the site (Philip Rahtz pers. comm.; Vince 1998). The data from Darlton Parlours, East Leys and Elloughton gives little or no information regarding form or fabric, and that from the excavations at Low Caythorpe does not include fabric description, although the types from the latter are said to closely parallel known local types (Coppack 1974, 39). Therefore, by necessity, much of the analysis is focused towards those sites whose data has been fully published, although where possible material from other sites will be included.

The sites are concentrated towards the eastern part of the region (Fig. 4.14), mostly on the Wolds, although a small amount was also found during excavations at Otley and Darlton Parlours, *c.*35km and *c.*20km west of York respectively, (Le Patourel and Wood 1973; Webster and Cherry 1978, 150-151). The lack of evidence from much of the area west of York is unfortunate. This may possibly reflect the research strategies which have often focused towards the Wolds, considered the prime area of ancient settlement in the region (Higham 1987, 43).

4.3.3.1 Local wares

Pottery likely to have been produced in Area 1 predominates in most assemblages (Appendix 4). A range of fabric types are known, including those tempered with quartz-sand, calcareous material/ limestone, and organics, such as grass or dung. Each type will be addressed separately, and variations discussed, before a comparative discussion of locally produced wares is undertaken.

Quartz-sand tempered wares

Quartz-tempered wares were dominant in rural areas. They have been found on nine sites in Area 1, where fabric type is described, and is distributed across the region from Otley in the west, to sites on the east coast (Fig. 4.15). Fig. 4.16 shows the quartz-tempered wares as proportions of the pottery assemblage on each site.

Certain types appear to be widespread regional types. These include sandy micaceous fabrics, often referred to as Whitby-type ware, or those whose quartz is derived from sandstones. With no known kiln sites, it is impossible to assess whether there was a particular production centre, with distribution from there, or if these wares were mostly produced at the domestic level. Grain size varies from fine through to coarse sands, but unfortunately quantified data regarding proportions of each is too patchy to be used with any confidence. All are seen across Area 1, with no grain size confined to any particular area. Mainman (1993, 567) notes that most finds from Fishergate are medium grade, as they appear to be at Wharram Percy (Slowikowski 1992, 29-31; Slowikowski 2000, 61-70). However, at Thwing, a third of quartz-tempered finds (by sherd) were tempered with fine grain material, and the pottery from Caythorpe is all described as fine to medium (Haughton 1996; Mainman, forthcoming), indicating that finer material may be predominant in the most easterly part of Area 1, although this is by no means certain. Only a narrow range of forms is known (jars, cooking pots or bowls), suggesting basic domestic use. The only additional form was a lamp from Fishergate.

Chronological variation within quartz-tempered wares is very difficult to assess, owing to the generally imprecise dating. At Fishergate Mainman (1993), the vessels included in the catalogue are similar throughout, but it is unfortunate that no overall breakdown within the middle Saxon occupation was provided. Through the comparison of the wares from different sites, and the small degree of variation apparent, it is likely that these were all long-lived types which remained little changed throughout the period. However, around *c.*850, there is change: York Ware appears and the other regional types decline, although the chronology is still somewhat uncertain. York Ware was not found at Fishergate, but is present in large amounts from period 3 at Coppergate suggesting a mid-ninth century date for its introduction (Mainman 1990, 401). Prior to the tenth century, the ware seems very much confined to York, with the exception of a single vessel from Beverley, found in a secure ninth century context (Watkins 1991, 72-73). The few sherds of York ware found at Thwing were dated *c.*850-*c.*950 (Mainman, forthcoming). A small amount was also found at York Minster, dated earlier than other assemblages, to the eighth or ninth century, but

this is disputed, and the assemblage may be later Saxon, the interpretation preferred here (Carver 1995; Holdsworth 1995, 469-471; section 4.1.1.2 above).

Calcareous/ limestone-tempered wares

The distribution of wares tempered with limestone or calcite shows a single cluster on the eastern side of the Wolds (Fig. 4.17). The type has been found in only four locations, including all three excavated Anglo-Saxon sites at Wharram Percy. In each case calcareous material accounts for *c.*10-*c.*20% of the total assemblage (Fig. 4.16). It can be regarded as the second most abundant type on these sites, behind the quartz-tempered wares. Vessel type is only described for the Wharram Percy finds, in all cases considered to be small jars, little different to those of other fabrics.

Whether there was any chronological change is not possible to assess, but it is long-lived, present at early Saxon West Heslerton and Caythorpe, through to the ninth century deposits from Thwing (Haughton 1996; Mainman, forthcoming; Powlesland 1998).

Organic-tempered wares

Organic-tempered wares are known in small amounts from middle Saxon contexts (Fig. 4.18). The distribution is centred on the Yorkshire Wolds, with small amounts also found in York (including Fishergate). At no location is the type dominant, apart from Cottam (although here so little pottery was found that it is perhaps the lack of pottery which is of more interest). The only excavations which have produced large amounts of this fabric were at Wharram Percy South Manor where 138 sherds (10.7% total sherd count) were found. Vessel form was generally not described, but this is partly due to the friable nature of organic-tempered sherds resulting in a lack of reconstructable profiles.

4.3.3.2 Wares from elsewhere in mainland Britain

Pottery produced outside Area 1 is known (Fig. 4.19). There are three different wares: shell-tempered ware, Ipswich Ware, and Charnwood ware. Each will be examined separately.

Shell-tempered ware

Shell-tempered wares (Fig. 4.20) do not appear to be local, and were probably produced in the Lincolnshire/ north Humberside area. They are a significant group at Fishergate, representing a quarter to a third of total sherd count for each phase (Mainman 1993, 580-581). The proportion of total sherd count increases with time from 21.9% (3a) to 35.8% (3c), which 'in the face of declining numbers of foreign imports, suggests their success in York was not dependant on the international trade which brought continental wares to the city' (ibid., 581). Six sherds of Maxey-type ware, probably from Lincolnshire, were found in the late ninth century levels at Coppergate, although this represents less than 0.5% of the period 3 assemblage (Mainman 1990, 394-395). Small, or undescribed amounts have been found on five other probable middle Saxon sites in York (Mainman 1993, 654; Moulden *et al* 1999, 256, 266-267).

Elsewhere in Area 1 very little shell-tempered pottery has been found. A Maxey-type ware sherd was found in a tenth century context at Beverley, in which it was considered residual. The 1995 excavations of the later eighth/ early ninth century levels at Cottam produced three sherds of this type, although this is from a total sherd count of eight (Austin 1999, 53; Watkins 1991, 74). Maxey-type ware was among the six sherds of shell-tempered ware found at Wharram Percy South manor. The remaining sherds are all considered to be from Lincolnshire (Slowikowski 2000, 69).

Ipswich Ware

East Anglian Ipswich ware is mostly known from York. Approximately 100 sherds have been found there, across ten sites, *c.*25% of these from Fishergate (Mainman 1992). Even here, though, it was not dominant, accounting for no more than 6% in any period (Mainman 1993, 568). Within York, all finds except at Fishergate are distributed around the fortress/ *colonia* area (Mainman 1993, 17).

Only two other findspots in Area 1 are known (Fig. 4.21). It has been found in small quantities at Wharram Percy South Manor (five sherds) and Beverley (29 sherds), with the latter producing an almost complete decorated pitcher of high quality (Blinkhorn, in Watkins 1991, 61-62; Blinkhorn, in Slowikowski 2000, 69-70). Vessel

form is interesting, as a high proportion of the finds are of pitchers. This has been noted elsewhere (e.g. *ibid.*), although cooking pots, and a possible bottle have also been found at Fishergate and Coppergate (Mainman 1990, 515; Mainman 1993, 654). Unfortunately the Wharram Percy finds gave no indication of form, although Blinkhorn (in Slowikowski 2000, 69) notes that they were likely to all have come from large vessels.

Charnwood ware

Charnwood ware has been provenanced to northern Leicestershire and is known from early and middle Saxon sites (Williams and Vince 1997, 214). Area 1 is at the north edge of its distribution, where it has been found on just two settlement sites, Wharram Percy and West Heselton (Fig. 4.22). Its presence in middle Saxon levels is only definite at Wharram Percy, as the West Heselton material is unpublished, and phasing is not yet available. However, at Wharram Percy sites 39, 94/95 and the South Manor, it is present in relatively large amounts, representing 11.3%, 4.8%, and 10.4% of the total sherd counts respectively. Vessel form appears to have been limited to jars at the South Manor, and is not described for either of the other two sites.

4.3.3.3 Continental Wares

Finds of Continental pottery have been made on five sites, although within York the evidence comes from six excavations, including Fishergate (Fig. 4.23). With so few sites the distribution is hard to assess, but there is a small concentration of three sites on the central Yorkshire Wolds (Thwing, West Heselton, and Wharram Percy), as well as York and Whitby Abbey.

Large amounts of foreign pottery are only known in York, and these come specifically from Fishergate. Unlike any other site in Area 1 which has undergone large-scale excavation, Continental pottery at Fishergate accounted for 37% of total sherd count of seventh to ninth century wares. However, Mainman (1993, 569-570) has shown a general decrease with time from 38.5% in period 3a to 18.9% in period 3c (Fig. 4.24). The division by ware type reflects this for all imported types except Mayen Ware,

which provided only five sherds in total, and so can be regarded as simply showing that very little was coming into the settlement. Other sites in York have produced little imported material, no more than a few sherds each. They do, though, represent a range of wares: Tating Ware was found on three sites, plus Badorf Ware (relief band amphora), and Black Burnished Ware. The Coppergate spouted pitcher may have been imported but this was not proven, and may have been a late Saxon ware from east Anglia (Mainman 1990, 395).

Elsewhere small amounts have been found during excavation at Thwing, West Heselton, Wharram Percy site 39 and South manor, and Whitby Abbey, never producing more than a few percent of total sherd count (Fig. 4.16). Black/ grey burnished ware from northern France/ Low Countries was most common, as at Fishergate, with much smaller amounts of Tating ware, and Mayen ware also found. A sherd of glazed pottery was found at West Heselton, but any details of other imported wares from the site, if any, are not described (Powlesland 1999, 63).

4.3.4 Discussion

A wide variety of pottery was circulated in Area 1, from locally produced wares to those from Continental Europe. Quartz-tempered wares were very much the dominant local type, with at least some types, such as those tempered with quartz and mica (Whitby-type ware), in use across the region. The lack of provenance is unfortunate, as without this information it is impossible to discuss possible distribution mechanisms, if any, and from where they may have originated. This situation may become somewhat clearer when West Heselton is published, as one of its aims is to source the clays used by local potters, and to produce a regional survey to assess the mechanisms by which pottery arrived on site (Vince 1998).

The small concentration of wares tempered with calcitic material around the eastern Wolds (Fig. 4.17) shows that at least some wares were only distributed locally, or only domestically produced over a small area. However, these were never dominant types, accounting for no more than a fifth of any ceramic assemblage, with the quartz-tempered wares on the sites most abundant. This may point to the general levels of domestic production utilising locally available tempers in Area 1, with other pottery

produced elsewhere accounting for the majority of pottery used, in a similar way to Ipswich Ware in East Anglia.

Finds of pottery produced elsewhere in Britain were shown to be relatively uncommon, although a concentration of finds occurs in York. The few finds of Ipswich ware in Area 1 is a case in point, with most finds within York, and only a few from elsewhere. Scull (1997, 286) has suggested that finds of Ipswich Ware may represent 'direct contacts between major regional trading centres and redistribution through regional networks' (*ibid.*). However, the evidence from the Humber estuary- where the finds from Beverley can be supplemented with those from Flixborough, which has the largest Ipswich ware assemblage outside East Anglia (Loveluck 1998, 154; Watkins 1991, 71-2) would indicate some need to modify Scull's argument. Instead of redistribution through major trading centres, i.e. the large emporia, the evidence implies direct trade with accessible sites, such as Beverley or Flixborough, or possibly the numismatically identified markets around the region (section 4.2.5). It is interesting to note that although there is a limited distribution, most of the finds outside of Fishergate are pitchers, a form not known in the local types. This suggests that pitchers were objects of trade (rather than containers), possibly in association with the consumption of wine, as Vince (1990, 144) has argued for this form in London.

The shell-tempered wares from Lincolnshire are somewhat more confusing. They are extremely abundant at Fishergate, and almost absent elsewhere in Area 1. It is difficult to know what was required from Lincolnshire to account for such a quantity of pottery, but one possibility is salt. In a recent paper James Campbell discussed the commodities which would be required in great bulk in Anglo-Saxon England, including salt for the preservation of meats and fish (Campbell 2000). Within Area 1, there may have been salt marsh environments in southern Holderness during the early medieval period (Dinnin 1995, 42; Van de Noort 2000, 123), but it is unclear whether salt production has ever taken place here, and if so, how much. In Lincolnshire, however, the northern fen edge was exploited for salt from the Iron Age at least, throughout the Roman period, and again by Domesday, e.g. Lane (2001, 154). Earlier Anglo-Saxon evidence of salt production has not been forthcoming from the Lincolnshire fens, but it is known that a large number of Saxon sites were present in

the area of the fen edge through fieldwalking, and the pottery discovered was all shell-tempered Maxey-types (Hayes 1988; Lane 1993, 89). Elsewhere in the fens, on the land between the rivers Great Ouse and Nene, just to the east of the Lincolnshire border, three middle Saxon sites were found, where evidence of possible salt production has been noted (Leah 1992, 55-56). Further north along the coast in Lincolnshire a salt production site dating to the tenth century has been partially excavated (Fenwick 2001). Therefore, although there is little *direct* evidence, it would not appear unreasonable to suggest that Lincolnshire may have provided salt to Area 1, for which the shell-tempered wares are just a visible indicator of contact between the two areas. If this scenario is appropriate, it would appear that most of this traffic centred on Fishergate.

The Charnwood ware is interesting in that it may relate to contact with central England prior to the foundation of Fishergate, as none was discovered there. It provides the very limit of the known distribution, and its primary function has not been discerned. The very limited number of findspots (Wharram Percy, West Heselton, and the cemetery at Sancton) results in a difficulty of interpretation, especially when juxtaposed with the proportion of sherds/ vessels. The fact that about 10% of the assemblages at Wharram Percy and Sancton were of this ware type (Slowikowski 1992; 2000; Williams 1993, 267) (no quantification is available for West Heselton) indicates that a substantial amount must have travelled to the area. Williams and Vince (1997, 219-220) suggested that the ware was traded as a commodity, rather than acting as a container, in much the same way as Ipswich Ware was to do from the early eighth century. This appears fair on current evidence, but its subsequent use, symbolic, domestic, or both, is more difficult.

The imported Continental wares can in many ways be considered as similar to the shelly wares from Lincolnshire, as their distribution is heavily skewed toward Fishergate. Hodges (1989b, 57-8) has argued that most of the imported pottery may have been used exclusively by foreign merchants and that some types, such as relief band amphora, were container vessels for the materials of exchange. However, Brown (1997, 108-112) has convincingly argued that demand for imports was very low, hence their concentration at emporia (see section 3.3.1.2). The deposits at Fishergate

would not be suggestive of certain groups using only imported pottery, as all pit groups and structures produced assemblages containing a mixture of local and imported pottery (Mainman 1993, 597-612), and the small number of finds from the hinterland would support Brown's argument.

Finds outside York may have not have resulted from re-distribution from a central site, such as Fishergate. Whitby most likely had direct international trading contacts through its coastal position, and Thwing is close enough to the coast for daily return travel to a coastal site where pottery could be obtained. Wharram Percy, and West Heslerton, however, are both positioned 20-30km inland and over 30km from York, and so some form of re-distribution from either York or the east coast is likely here..

4.4 Stone Artefacts

4.4.1 Introduction

Stone artefacts have been found on sites in Area 1 (Appendix 5). Analysis of these finds and their distribution may provide indications of their role within the networks of trade taking place, and indications of activities taking place on-site, including grinding and metalworking. The use of objects such as querns, and hones as utilitarian items, gives confidence that they are more likely to be traded materials than prestige items (Parkhouse 1997, 103). The relatively easy sourcing of stone gives information regarding the geographical area from which the stone may have come, e.g. Ellis (1969).

The foremost aims of this section are to establish if any particular areas were utilised above others for raw materials; if any patterns in the distribution of artefact types and/or stone types are visible; and how the evidence can be used to reconstruct networks of trade, and how stone may have been utilised in Area 1.

4.4.2 Previous work in Area 1

Currently there is very little outside the specialist reports in excavation publications for the study area, and in much of this relates to the description of artefact type and probable geological provenance of the artefacts are given most weight, e.g. Clark (1992, 40-47). Parkhouse (1997) has discussed the distribution and exchange of

Mayen lava quernstones across northern Europe, including finds in York. In this, he argues that querns were imported to emporia as blanks, finished at port and then re-distributed to the hinterland. He also notes that lava querns had a wider distribution than pottery (*ibid.*, 104).

4.4.3 Distribution

The examination of the distribution of stone artefacts in Area 1 will be based around the different lithologies: those from Area 1; from elsewhere in mainland Britain; and from Continental Europe. This will allow the assemblages from each region to be studied comparatively, and the impact of each can be assessed.

Finds have been made on ten sites (Appendix 5 and Fig. 4.25). The majority are from eighth and ninth century contexts, with the exception of West Heslerton, for which no phasing is available, Wharram Percy South Manor, and Whitby Abbey, which can only be broadly dated to the middle Saxon period (Peers and Radford 1943; Powlesland 1998; Stamper *et al* 2000). Therefore, any changes occurring through the period of study are potentially difficult to assess, for the seventh and eighth centuries at least, as it may prove difficult to argue that sites of this time are representative of Area 1. Interpretations must keep such caveats in mind.

An additional problem encountered with a small proportion of the data is the scant information regarding the provenance of stone artefacts, as at West Heslerton. The assessment report includes some information stating 'worked and utilised stone include querns, whetstones, spindle whorls and loomweights, and...vast quantity of Niedermendig [Mayen] lava' (Haughton 1998). It is also noted that Scandinavian hones were present (*ibid.*). At Whitby, the problems stem mostly from poor recording (Cramp 1976b, 224). Excepting the jet objects (Peers and Radford 1943, 101-102; White 1984, 39), the stone artefacts are not described to a level where a possible provenance could be suggested. However, the finds were a quern of unknown type (Cramp 1976b, 227), and three hones, one of 'black slate' (Peers and Radford 1943, 68), and two of a 'very fine dense grey stone' (White 1984, 40), although an ironstone lithology from north-east Yorkshire has been suggested for these latter examples

(Foreman 1991b, 105). Therefore, inclusion of the finds from West Heslerton and Whitby is difficult, and can only be undertaken where appropriate.

4.4.3.1 Stone provenanced within Area 1

Many of the stone artefacts found in Area 1 were manufactured from stone available within the region. There are two areas from which the stone came: the east/ north-east of Yorkshire, and the Pennines. Analysis will be based on this division.

East/ north-east Yorkshire

Sandstone, and certain limestones all outcrop around the Howardian and Hambleton Hills, and along the margins of the Vale of Pickering (Fig. 4.26). Querns made from this material are only known from Wharram Percy: the Birdsall Calcareous Grit was used on sites 94/95, and oolitic limestone (Howardian Hills/ northern and western margins of the Vale of Pickering), and Crinoid Grit limestone (Hambledon Hills/ Howardian Hills) were found on the South Manor site (Clark 1992, 43; Watts 2000, 113-115).

Hones with this provenance account for 18.2% (12 hones) of overall hone finds in Area 1. Examples are all made from Mid/ Upper Jurassic sandstones, and include four finds from middle Saxon deposits at Wharram Percy South Manor, and three finds each from Cottam (eighth/ ninth century), and Thwing (eighth to tenth century). Single finds have also been found at Fishergate, from the abandonment phase, and from late ninth/ tenth century contexts at Coppergate (Clark and Gaunt 2000, 104-109; Mainman and Rogers 2000, 2485, 2614; Manby, forthcoming; Richards 1999b, 62-64; Rogers 1993, 1313).

The few other sandstone artefacts include an ingot mould at Fishergate (phase 3z), and a partially worked disc from Wharram Percy South Manor (Clark and Gaunt 2000, 104; Rogers 1993, 1236-1237), the latter from the area immediately around Brandsby on the Howardian Hills (Kent and Gaunt 1980, 58).

Chalk from the Yorkshire Wolds was used for a number of artefacts, weights and spindlewhorls, at Cottam, Coppergate (York), Fishergate, Thwing and Wharram Percy

sites 94/95 and South Manor (Richards 1999b, 61-62; Rogers 1993, 1268, 1321, 1386-1387; Mainman and Rogers 2000, 2350-2351; Manby, forthcoming; Clark 1992, 45; Clark and Gaunt 2000, 102).

The major source of jet in England is the North Yorkshire Moors, and the Whitby area. A lump found at Beverley may derive from glacial boulder clay (Foreman 1991b, 122; Mainman and Rogers 2000, 2067). Jet is common in early Saxon graves, and in late Saxon deposits, especially urban assemblages such as at Flaxengate (Lincoln) (*ibid.*; Mainman and Rogers 2000, 2500). Only small amounts have been found in middle Saxon contexts in Area 1, and from only six sites: Beverley, Coppergate (York), Fishergate, Wharram Percy sites 94/95, Whitby, and York Minster. The excavations at York Minster Barrack 2 provided most finds of potential middle Saxon date: three bracelets and five fragments of plaques were found in post-Roman contexts (Henig 1995, 430). Unfortunately, dating is imprecise, no closer than ninth to eleventh centuries for all finds, making it very possible that much of the evidence could relate to later periods (*ibid.*).

Finds from the other sites are restricted to isolated jewellery fragments, and probably raw material/ blanks for craft-working activity. At Whitby two (possibly three) jewellery crosses were found, at least one bead in middle Saxon middens at the foot of the East Cliff, and a possible amulet was discovered at Beverley (Foreman 1991a, 122; Peers and Radford 1943, 68-70; White 1984, 39). Single examples of unfinished materials, or blanks were found at Beverley, Coppergate (York), Fishergate, and possibly, Whitby (Clark 1992, 45; Mainman and Rogers 2000, 2498; Rogers 1993, 1378; White 1984, 39).

The Pennines

Outcrops of sandstones and siltstones which were quarried are generally either Millstone Grit, or Coal Measures sandstone from the eastern and northern Pennines. The distribution of objects made from stone from the Pennines is shown in Fig. 4.27. Millstone Grit was used for most grinding stones, and finds of a millstone at Beverley, and querns at Coppergate (York), Wharram Percy sites 94/95, and Wharram Percy

South Manor have been made (Clark 1992; Watts 2000; Foreman 1991b, 110; Mainman and Rogers 2000, 2551).

Hones utilised a wider range of lithologies, providing 22.7% of finds (15 examples). The sandstones were most common, 14 of the 15 hones, seven from late ninth/ early tenth century Coppergate (York), three from Beverley, two from Thwing, and single finds from Fishergate, and Wharram Percy sites 94/95. A siltstone hone was also found at Thwing (Clark 1992, 41; Foreman 1991b, 109; Mainman and Rogers 2000, 2485, 2614-2615; Manby, forthcoming; Rogers 1993, 1313). There were a further 15 hones (22.7%) provenanced to either the Pennines or north-east Yorkshire: 14 from eighth to tenth century contexts at Thwing, and one from ninth/early tenth century Coppergate (Manby, forthcoming; Mainman and Rogers 2000, 2485, 2614).

Marcasite, for an unknown function, was found at Fishergate (Rogers 1993, 1316), but is likely to have been worked for jewellery or trinkets. This mineral is associated with lead and zinc ores, and the closest provenance for the latter may be the northern Pennines (Edwards and Trotter 1954, 80).

Other finds of probable provenance in Area 1

No other finds are made from stone definitely provenanced to Area 1. There are four hones (6.1% of the total) dated to the ninth/ early tenth century from Coppergate (York), which are either sandstone from the Pennine region, southern Scotland or Cumbria (Mainman and Rogers 2000, 2614-2615). Also found in Area 1 was a small amount of amber, at West Heslerton, Wharram Percy sites 39, 94/95 and South Manor, and Coppergate (York). These constitute no more than one or two beads (Clark 1992, 41, 45-46; Clark and Gaunt 2000, 101-102; Haughton 1998; Mainman and Rogers 2000, 2000). Some raw waste was found at Coppergate, and a few specks at Wharram Percy site 95 (Clark 1992, 41; Mainman and Rogers 2000, 2000), attesting to the working of the material. The provenance of the material is difficult. Chemical analysis on the Coppergate finds suggests they were made from Baltic amber (Mainman and Rogers 2000, 2473-2474), but this does occur in Area 1, washed up in small amounts along the Yorkshire coast (Hall 1994, 85). Mainman and Rogers (2000, 2474) argue that it is impossible to be able to assess whether this material came

via the Baltic, or from the coast of Yorkshire, although Hall (1994, 85), citing the overall number of finds from Anglo-Scandinavian York, suggests that it is more probable that the amber was imported.

4.4.3.2 Stone from elsewhere in Britain

Relatively few finds of stone artefacts from stone provenanced outside of Area 1 are known. There are two likely sources: South Humberside, and the area encompassing southern Scotland, and the Lake District.

South Humberside

Two ironstone hones (3% of total) were found at Beverley, and most likely came from South Humberside, although a north-east Yorkshire provenance could not be ruled out (Foreman 1991b, 105).

Southern Scotland/ Lake District

Five hones (7.6% of the total) were made of sandstones from southern Scotland/ Cumbria (Fig. 4.28), one each from the early eighth century levels at Fishergate (period 3a), ninth/ early tenth century Coppergate, and eighth century Wharram Percy site 39 (Clark 1992, 40; Mainman and Rogers 2000, 2615; Rogers 1993, 1313). Two finds were also made at Wharram Percy South Manor (Clark and Gaunt 2000, 107). Clark and Gaunt (2000, 107) warn that erratics of these stones are found across eastern Yorkshire, albeit infrequently, and some of the hones and smoothers found at Wharram Percy South Manor may be from these sources. However, the shape of some of the finds are 'more likely to result from a specific tradition of shaping from outcrop sources than from incidental randomly-shaped erratic finds' (ibid.). The possibility that the finds from elsewhere in Area 1 may be produced from erratics is not discussed excepting Wharram Percy site 39, in which the presence of erratics is mentioned (Clark 1992, 46).

Haematite, used for dyes, was found throughout middle Saxon occupation at Fishergate and is most likely to have originated from south-west Cumbria (Gaunt, in Rogers 1993, 1316).

4.4.3.3 Stone imported from Continental Europe

Stone artefacts from Continental Europe (Fig. 4.29) come from two well known regions: lava quarried for querns in the Mayen region of north-western Germany was exported around the North Sea littoral through Dorestad (Parkhouse 1997), and hones made from schist are likely to have a Norwegian provenance (Ellis 1969, 149-150; Moore 1978, 65-68).

Mayen Lava

The most common rock type used in Area 1 for querns appears to be Mayen lava, which is ideal for grinding and milling (Parkhouse 1997, 97). Finds have been made at Cottam, Fishergate, Coppergate (York), Kirkdale, Thwing, West Heslerton, and Wharram Percy (Richards 1999b, 65; Rogers 1993, 1448; Mainman and Rogers 2000, 2547-2552; Rahtz, forthcoming; Manby, forthcoming; Clark 1992, 40-46; Powlesland 1998).

Numerically, the assemblages from Fishergate and Wharram Percy South Manor are dominant, producing 76 and 92 fragments respectively (Watts 2000, 111-113; Rogers 1993, 1448). Cottam, Kirkdale, Thwing, West Heslerton, or Whitby are all unquantified, but Richards (1999b, 65) notes 'multiple fragments' of undisclosed size at Cottam, and (Manby, forthcoming) describes the lava quern fragments at Thwing as very fragmentary and small. A comparison of fragment size is also important, giving a rough evaluation of the minimum number of querns which may be represented. Watts (2000, 112), and Rogers (1993, 1329) have estimated the sizes of the querns at Wharram Percy South Manor and Fishergate at *c.*330-440mm, and *c.*420-440mm respectively, and suggest that these appear average for lava querns of this period. If these estimates are juxtaposed with the sizes of the fragments discovered across Area 1, it appears that the minimum number of quernstones is relatively low.

Additionally, at Wharram Percy South Manor, Watts (2000, 112) showed that some of the lava quernstones were as thin as 6mm, implying a long period of use. Combined with remnant tool lines more consistent with Roman period stones than Anglo-Saxon, (Watts 2000) argues that they may be re-used Roman stones, as have been found at

West Stow (Suffolk) and Linford (Essex). None of the other published sites in Area 1 have such evidence described.

An important aspect of the assemblage at Fishergate is the presence of possible finishing waste in the form of a potential 'core' (Parkhouse 1997, 102). This may indicate that partially dressed stones were imported to York and finished there, although no roughed-out 'blanks' were found as are known from Dorestad and London (*ibid.*, 102). Rogers (1993, 1321-1322) makes the assumption that all querns were finished at Dorestad, and imported ready for use. Such evidence is not yet known elsewhere in Area 1.

Norwegian schist

Schist hones imported from Norway have been found in Area 1 at Thwing (one find), Wharram Percy South Manor (two finds), Coppergate (five finds), and West Heslerton (unquantified), representing 12.1% of the quantifiable total of hones. The earliest occurrences of schist hones are generally associated with late Saxon occupation, and it must be considered whether these finds are intrusive from later contexts. Certainly Clark and Gaunt (2000, 106-107) consider that both finds are potentially intrusive, being present with later material in mid-Saxon contexts, occupation at Thwing is known to continue into the tenth century although no close phasing is yet available, and the earliest stratified activity at Coppergate is likely to have been during the late ninth/ early tenth century (Manby, forthcoming; Hall 2000, 2455-2456). In this light, the finds of Scandinavian hones at West Heslerton (Powlesland 1998) is perhaps a little surprising, since the site was apparently abandoned during the mid to late ninth-century. Whether this attests to a greater longevity of occupation than had hitherto been considered, or earlier importation of schist hones, cannot be assessed from the currently available data.

4.4.4 Discussion

The analysis of stone artefacts has shown that the majority of stone utilised in Area 1 came from the regionally available materials, such as Millstone Grit, or Mid/ Upper Jurassic sandstones. The bias in settlement archaeology towards the Yorkshire Wolds might have exaggerated the importance of stone from that area and adjacent regions

(the Vale of Pickering, and Howardian/ Hambleton Hills). The Pennines were a major source of materials, and these are found across the region.

Stone was imported into Area 1 both from elsewhere in Britain and from Continental Europe, although it is difficult to assess the scale of this movement. This is especially so for stone provenanced to southern Scotland, and the Lake District, due to the presence of naturally occurring erratic material within the study area, which may have been picked up and used, as it is very durable material. As discussed above, Clark and Gaunt (2000, 107) has argued that some finds from Wharram Percy South Manor were more consistent with manufacture from outcrop sources rather than erratics, and the finds of haematite from the same area throughout middle Saxon occupation at Fishergate (Rogers 1993, 1316) do attest to the importation of material from western Britain.

Continental imports are mostly from the Mayen region of northern Germany, and from Norway. Mayen lava querns are a widely recognised trade good, with distribution around the North Sea littoral, and finds made on both urban and rural sites (Parkhouse 1997, 97). Area 1 is very comparable with these general distribution patterns, showing finds in York and on the excavated rural sites. Assessment of the actual level of importation is problematic, mostly owing to methods of quantification, and the fact that Mayen lava is brittle and prone to fragmentation into small pieces (Watts 2000, 111-112). A large number of fragments may not constitute more than one or two querns. This seems to be the case at Thwing (Manby, forthcoming), and Fishergate did not produce much more in total (Rogers 1993, 1448). The other sites, where quantified, produced similar amounts, and this may suggest that lava querns were only a minor commodity, although the evidence is somewhat inconclusive. Supporting evidence may come from Wharram Percy South Manor where some very thin fragments were interpreted as potentially Roman, indicating long-lived re-use of this material (Watts 2000, 112), possibly indicating limited supply of new querns. Alternatively, Wharram Percy may simply not have had access to this trade, but the range of other imported goods, including Continental pottery, suggests otherwise.

Aspects of the finds assemblage from Fishergate must also be discussed: Parkhouse (1997, 102) suggestion that querns were manufactured there, or at least finished from blanks, indicates that Mayen lava would all have been imported from Dorestad, finished, and then traded, either at Fishergate, or the postulated markets elsewhere in Area 1 (section 4.2.4.2). Evidence for the finishing of querns is known from a number of emporia, including London and Ipswich (Parkhouse 1997, 99-102), and so such evidence at Fishergate is not a surprise. The relatively low intensity of this evidence should be addressed, and it appears that there is less evidence from Fishergate than the other English emporia (*ibid.*). This may simply reflect levels of excavation, but it may also be beneficial to consider the location of the excavations in relation to the river. Freshwater (1996) has discussed a potential tenth/ eleventh century workshop in London, and sensibly suggests that these are likely to be located near to the foreshore, in order to cut down the transportation of bulky stone before finishing work was undertaken. If so, the location of the excavations at Fishergate c.60m from the probable course of the Foss during the Roman and Anglo-Saxon period could indicate that the evidence found would have been somewhat peripheral to the main quern finishing activity.

It is difficult to assess chronological change, owing to the generally broad phasing available for most excavated sites. Finds from Fishergate follow the site's overall trend of lessening activity from periods 3a to 3c, but other sites are not so closely phased. The one chronological change which is seen is the introduction of the schist hone from Norway. This is generally regarded as late Saxon. Its presence in late ninth/ early tenth century levels at Coppergate, and its complete absence from middle Saxon deposits at Fishergate, seem to attest to this. As discussed previously (section 4.4.3.3), a number of middle Saxon contexts in Area 1 do contain schist hones, including Wharram Percy South Manor and Thwing, but it is possible that these could be intrusive from later contexts. However, the finds from West Heslerton are intriguing. Occupation is thought to cease around the middle of the ninth century, admittedly on numismatic grounds (Powlesland 1999, 63), but these finds could either extend the life of the settlement, or indicate that schist hones were entering the region prior to the late Saxon period. Without detailed stratigraphic information this is

difficult to assess confidently, but their absence from other sealed middle Saxon contexts in Area 1 would point to the former.

The overall assemblages of stone artefacts from Area 1 show that there may be differing levels of access to the different stone types. The two main sites in York, middle-Saxon Fishergate, and Phase 3 Coppergate, show an extensive range of contacts. This shows that they utilised material from all, or most, sources both local, and further afield which would probably be expected from sites interpreted as trading settlements, e.g. Hall (1994); Kemp (1996). Other sites which have also shown a wide range of contacts, e.g. through pottery, or other exotic finds, attest to a wider range of stone provenance than those with meagre finds assemblages. For example, Thwing and Wharram Percy may both have been important rural sites, Thwing possibly an administrative centre (Manby, forthcoming), while Wharram Percy has a possible ecclesiastical component (Richards 1992a, 93-94). Both have produced imported pottery, and faunal remains from non-local animals, e.g. fish. On these sites, stone artefacts were found with provenances around Area 1, southern Scotland/Cumbria, and Continental Europe. However, at Cottam, only a few kilometres from both sites, the evidence is of a different nature. There is little evidence for imported material, and virtually no pottery of any kind, or faunal remains which were definitely not from the settlement, and Richards (1999b, 91) suggests that 'the artefactual assemblage suggest a low level of trade...In contrast to the contemporary high status settlement at Flixborough, Cottam appears distinctly impoverished' (*ibid.*). At Cottam, there are a number of fragments of Mayen lava quern, but no other stone artefacts from further away than the Howardian/ Hambleton Hills.

Conversely, Beverley may be another case where the riverine location affects the assemblage of stone artefacts. The site is located away from any known Roman roads (Fig. 4.1), and environmental evidence suggests that the area was wetland, and also wooded during Anglo-Saxon times (Lillie and Gearey 2000, 26). The excavations at Lurk Lane, although relatively small scale, only produced evidence of stone types from the Pennines and south Humberside, indicating that rather than importing stone from the nearby Wolds, it was possibly easier to procure materials from slightly farther afield using the rivers.

4.5 Metalwork

4.5.1 Introduction

Analysis of metalwork may provide evidence of the use of metals, its importance as a traded good, and the extent of its transportation. The foremost aims of this section are to discuss if there are any patterns visible in the distributions of different types of metals and metalwork; if there is any evidence for differential access to metals in Area 1, as found in the early Saxon period (Loveluck 1996); and if any conclusions can be made in the reconstruction of networks of trade in metals and/ or metalwork in Area 1.

Finds of metalwork have been made on 16 sites across Area 1 (Fig. 4.30). In most cases the integration of these finds into comparable sets of data is not problematic as the artefact types, e.g. pins, are often described, as is the metal used to produce the piece (Appendix 6). Chronology of the artefacts is based on generally accepted stylistic aspects of the objects e.g. Hinton (1996), and the dates given for datable artefacts around Area 1 broadly agree with each other. There are a number of object types however, for which close dating is more difficult, e.g. nails, and in these cases contextual information is important, and dating can be based on association.

Much of the metalwork recovered from Area 1 is the result of metal-detecting activity. Eight of the sites in Area 1 have only been metal-detected, seven only excavated and just one site, Cottam, has been investigated by both methods.

4.5.2 Previous work

Much of the work undertaken on the metalwork from Area 1 is in the form of descriptive reports from excavations or metal-detecting activities, e.g. Haldenby (1990), Rogers (1993). However, there is a small body of work examining the assemblages from around the region. In an important study, Loveluck (1996) examined the metalwork from early Saxon burial assemblages across east Yorkshire, concluding that inhabitants of the Drifffield area had easy access to iron, and possibly copper-alloy objects. He suggested that this area may have provided a focal point for controlling groups in the region. Also, middle Saxon productive sites have been examined by Richards (1999a) (see also section 2.2.2.4), and Leahy (2000). Leahy

(2000, 71-80) examined the metalwork and coinage assemblages from a number of sites in Yorkshire, and argued that they may have ecclesiastical, and market components (cf. section 4.3.4), although he did not examine trade *per se*. In another recent work, Bailey (1992) identified a regionally distinctive ninth century strap-end type, a number of examples of which have been found in East Yorkshire, and which he argued may have been produced in York, although this is conjectural given that there are only five known findspots.

4.5.3 Distribution

The analysis of the distribution of metalwork will be based upon metal type, and artefact type. Each will be assessed separately. Fig. 4.30 shows the general distribution of the sites from where middle Saxon metalwork has been recovered. The distribution shows that, as previously for coinage, many of the sites are located near to transportation networks, either Roman roads, or rivers, although it should be noted that most of the sites which have produced metalwork have also produced coinage.

4.5.3.1 Distribution by metal type

The distribution of metalwork by metal type is shown in Fig. 4.31. Two details in the pattern are immediately apparent- copper-alloy appears to be the most common metal type in Area 1, and second, the widest range of metal types has been found at those sites where excavation has taken place. In order to examine this more closely, the total number of finds by metal type was plotted (Fig. 4.32a-h). This shows clearly the predominance of iron over any other metal on sites where modern excavation has taken place (Fishergate, Coppergate, Thwing, Wharram Percy, Cottam), excepting Cottam which was also metal-detected. South Newbald is especially noticeable, as all of its 127 metal finds were copper-alloy artefacts. This conspicuous distinction in the results obtained from different recovery techniques is highly problematic, and it is obvious that metal-detected sites cannot, in this instance, be considered reliable sources of data. A useful illustrative example is Cottam which was extensively metal-detected (Haldenby 1990; 1992; 1994) and has also been subject to excavation (Richards 1999b). Fig 4.33 shows the assemblages produced by both methods, and the emphasis toward copper-alloy (metal-detected assemblage) and iron (excavated assemblage) is immediately apparent. It is interesting to note that all of the metal-

detected iron artefacts are knives, and none of the smaller items recovered through excavation, such as nails, hinges, or keys, were found via metal-detection. Comparing this with extensively excavated sites, e.g. Fishergate, Coppergate (York), and Wharram Percy South Manor, shows that iron was most likely the most abundant metal type utilised, and deposited, in Area 1. Conversely, the other published, highly metal-detected site at South Newbald displays only copper-alloy objects. Therefore, although iron was obviously an extremely important commodity, and control over it was probably sought after, as Loveluck (1996) showed for the early Saxon period, trade in iron cannot be safely explored on the available evidence. It is also impossible with this data to attempt to identify groups which may have been able to control sources of iron in Area 1 through the middle Saxon period.

4.5.3.2 Distribution by artefact type

The distribution of metalwork based on artefact type is slightly more problematic than metal, as it must be decided which artefacts to include from the range available. Unfortunately those types which are likely to be made from iron, e.g. nails, must be excluded due to the recovery problems discussed above, which leaves the analysis to concentrate on artefacts where the majority recovered are made from non-ferrous materials, e.g. strap-ends, pins. This has been partially attempted by Leahy (2000, 74-77) who compared assemblages of pins, strap-ends, hooked tags, mounts, coins and tweezers from South Newbald, Thwing, Whitby, Cottam and 'near York'. These artefact types were chosen by Leahy (2000, 77) as he argued that they were the most common metalwork finds from each site. They will be used here, with the addition of brooches, buckles, rings, and knives which have also proved comparatively abundant.

The distribution of metal artefacts is shown in Fig. 4.30, and the composition of the larger assemblages in Fig. 4.34. No artefact types concentrated in any particular part of Area 1. Fig. 4.34 is more interesting. In most of the large assemblages, pins were by far the most abundant, averaging over 50% of metalwork finds included in these calculations, with most other finds at much lower levels, although there is variation in the proportion of strap-ends, and variations in the presence/ absence of knives and mounts. This is difficult to assess, and the problems inherent in the different methods of recovery may have a major part to play here, but it can be argued that the pattern

seen is relatively standard. The only apparent exception to this is Thwing, where the most abundant artefacts of those chosen were knives, accounting for 49.3%, although it must be noted that at those sites in Area 1 where knives have been recovered, they always account for *c.*25% or more, indicating that they may generally have been important parts of an assemblage.

4.5.4 Discussion

The analysis of metalwork in Area 1 has proved relatively disappointing. Given the levels of evidence available it is difficult to infer any details regarding the potential trade in metals in middle Saxon Area 1. From the excavated evidence, however, it appears that iron was most commonly used, and the preponderance of copper-alloy objects found on the productive sites is simply a reflection of recovery methods. Discussion of access to metals is consequently also compromised, but precious metals (gold and silver) were only found at Fishergate, York and Cottam, which may imply restricted access to those metals, as would be expected, but this cannot be definite.

However, the examination of the most abundant artefact types which are generally non-ferrous, was useful. As in section 4.2.5, where it was shown that there was a regional pattern of coin loss in Area 1, Fig. 4.34 showed that the abundance of certain artefact types, e.g. pins, or strap-ends, was not abnormal, and may reflect average deposition. This supports the ideas of Richards (1999c, 79) that 'there is nothing special about 'productive sites', other than the way in which they have been discovered'. It certainly casts doubt on the idea that a site such as Cottam was a major production centre of decorative metalwork (Haldenby 1994, 51) instead pointing to the site probably being an ordinary settlement, as the excavations implied (Richards 1999b). It should be noted here that it is the levels of coin loss at some of the sites which sets them apart, rather than their metalwork assemblages.

4.6 Summary/ Discussion: the archaeology of trade in Area 1

The archaeology of trade in Area 1 has been analysed using a range of evidence, and the purpose here is to briefly bring together the conclusions from sections 4.2-4.5. This will allow for the results to be examined comparatively, from which any further conclusions can be drawn. This section will also assess how successful the

application of the methodology has been for Area 1. Underlying social aspects of the middle Saxon economy will be examined in chapter 6, and assessment of the success, or otherwise, of the applied methodology will be discussed in the final conclusion (chapter 7), in order to limit repetition with Area 2.

The analyses of the different materials in Area 1 were designed to examine trade at local/ regional and long-distance/ international levels, and results will be briefly summarised here. Local/ regional trade has been regarded as difficult to trace owing to problems in provenance to a small area, e.g. Jankuhn (1977). However, some potentially important conclusions were drawn. Sites which showed consistent long-term patterns of coin loss similar to the calculated regional mean, were interpreted as locations for possible markets. Their catchments cover eastern Area 1 to such an extent that all settlements would have been within *c.*15km of such a site. It was speculated that these may also have integrated local/ regional networks of trade with long-distance networks along the coast, especially after the mid-eighth century. Other materials indicated potentially large-scale movement of materials around Area 1, including stone types from the Pennines and Hambleton/ Howardian Hills found *c.*60km from their source, and on a number of different sites. Pottery analysis was less successful, indicating a number of regional types, but it was not possible in any case to show the movement of goods around Area 1, or to indicate trade in pottery.

Longer distance, and international trade was more easily traced, and indicated that Area 1 maintained wide contacts from adjacent areas, e.g. Lincolnshire, through to Continental Europe. The patterns of coinage were of great interest as relatively tight dating can be achieved, e.g. Metcalf (1993). This was interpreted as showing fluctuations in the locations of trade with an attempt to restrict much of the monetised trade in the Vale of York/ Humber estuary area to Fishergate, and then via the productive sites across Area 1. The coinage also showed that Fishergate may have declined as early as *c.*750, and its international contacts are known to have probably been of lower intensity during its latest phase (Mainman 1993, 650). Pottery and stone artefact analysis provided a useful comparative material to coinage, indicating large-scale contact between York and Lincolnshire, possibly for trade in salt, and with

the west coast of northern Britain. The small amounts of Ipswich Ware known from Area 1 attested to probable small-scale contact with East Anglia.

Overall, the archaeological evidence indicated that the economic system in Area 1 may have been more complex than models such as Hodges (1989a) would allow, with a number of sites involved in direct long-distance and/or regional trading. The position of the numismatically rich sites *c.* 5-*c.* 15km from the coast was interpreted as representing centres where long-distance and local/ regional networks of trade were integrated to aid the export of surplus materials.

Chapter 5

Area 2: Kent

5.1 Introduction

Area 2 encompasses the modern county of Kent in south-east England (Fig. 5.1). As explained in chapter 3, the choice of the study area is based on a number of criteria. Analysis will be carried out as for Area 1 (Chapter 4). Following an overview of the study area (5.1), artefactual and environmental data are analysed and discussed (sections 5.2-5.6)⁴. The interpretation, especially those aspects relating to underlying social aspects of the economy will be examined in Chapter 6, alongside the results from Area 1, and other parts of eastern England.

Many of these artefact types have not recently been considered regionally, and such analysis should further our understanding of trade in Area 2. Additionally, the increase in the discovery and reporting of coin finds in the last decade has generally not been assimilated and studied.

5.1.1 Geology/ Geography of the study area

Area 2 exhibits a diverse range of environment, geology and physical geography (Fig. 5.2). This has previously been treated in detail by Everitt (1986), and his division into sub-regions will be followed and summarised here. The region can be conveniently divided into a number of sub-regions, of differential suitability for settlement and economic exploitation. The geology, topography, and other relevant information of each sub-region will be described in turn, in order to gain an informed understanding of the physical environment. Area 2 will be discussed geographically from north to south.

Sub-region 1: the north Kent coast to the North Downs

Sub-region 1 covers a strip approximately 5-10km wide running along the north of Area 2 Everitt (1986, 45-46). It encompasses areas both of marshland, and of fertile soil. The former is found in two places, along the Swale/ Medway area to the

⁴ Aspects of this analysis have been written up for publication in (Naylor forthcoming).

Thames, and Wantsum Channel/ River Stour in eastern Kent (Everitt 1986, 57). The rest of sub-region 1, described by Everitt (1986, 46) as the Foothills, is characterised by naturally fertile soils, and is cut by three rivers, the Darent, Medway, and Stour, all of which are navigable. Sub-region 1 is, in result, an important, wealthy area, which is likely to have been a core area of settlement.

Sub-region 2: the North Downs

The chalk uplands of the North Downs run east-west across the whole length of Area 2, varying in width from c.10-15km, rising to a height of c.250m in places (Everitt 1986, 47; Gallois 1965, 38-39). The Downs are also cut by the Rivers Darent, Medway, and Stour, but are generally infertile, and Everitt (1986, 47) suggests they were heavily wooded in the early and middle Saxon periods. The steep southern escarpment adjoins sub-region 3.

Sub-region 3: Holmesdale

The south slopes of the North Downs is known as Holmesdale (Everitt 1986, 49). No more than a few kilometres wide, it is a fertile area, along which run two prehistoric trackways, the North Downs Ways (Pilgrim's Way), and the Greenway, at the foot of the Downs (ibid.). Situated where the chalk meets clay, it is also characterised by a line of springs, which helps to provide its fertility, and Everitt (1986, 49) argues that it was a prime area of settlement.

Sub-region 4: Chartland

Chartland, between Holmesdale and the Weald, is similar to the North Downs, with poor soils and hills rising to c.245m in the south-east, although an area around Maidstone is more fertile. The stone from here, including Lower Greensand, has been quarried for building stone since the Roman period (ibid., 50).

Sub-region 5: the Weald

The Weald covers 260,000 acres of the central and south western parts of Area 2, much of which historically is woodland (ibid., 52-53). Everitt (1986, 54) argued from charter evidence that it was no doubt used by the seventh/ eighth centuries for summer pasture, but little evidence of permanent occupation is known pre-Conquest. The

likely lack of occupation is also highlighted by a noticeable lack of early Anglo-Saxon cemeteries across the Weald (Lucy 2000, 141-142). Gallois (1965, 86) notes that the Weald has been exploited for its iron-ore deposits since prehistoric times, and Houlston (1998, 6) has noted that in an early seventh century charter St. Augustine's Abbey, Canterbury was given permission to extract ore from this region.

Sub-region 6: Romney Marsh

Romney Marsh is the largest area of marshland in Area 2, and was probably not greatly utilised until quite late. Gardiner (1997, 7) has argued that no drainage occurred until the late Saxon period at the earliest, and Gallois (1965, 82) noted that there was a rise in sea-level in post-Roman times, suggesting that at least some of the modern area of Romney Marsh may have been under water. However, Brooks (1988, 93-96) has discussed charter evidence relating to Romney Marsh, identifying areas which were occupied in the eighth and ninth centuries, often as sheep pasture or for salt production. These areas of land were under the control of estates, often ecclesiastical, in central and northern Kent.

Summary

In summary, Area 2, although relatively small, encompasses at least six major variations in regional geology, physical geography, and environment (Everitt 1986, 43-44). Two of these sub-regions, the north coast of Kent to the Downs, and Holmesdale at the foot of the southern escarpment of the Downs, are by far the most fertile, and likely to have been the core areas for settlement. Other sub-regions were less fertile, and hence less suitable for occupation, although they probably served different functions, e.g. for pasture, or mineral resources. It must be noted that certain parts of Area 2, namely the Wantsum Channel and areas of Romney Marsh were either marsh, or partially submerged.

5.1.2 Area 2: the archaeology of the main sites

A total of 154 sites in Area 2 have produced archaeological, and/ or artefactual evidence of the middle Saxon period, 43 from the city of Canterbury, most of which have only provided ambiguous dating and few finds. One-hundred and three of the 154 are represented by only, or mostly, casual finds, and these have generally been

uncovered by metal detectorists. The other 51 have been excavated to some extent. However, of these 51 excavated sites, 43 are in Canterbury, and only 14 (of which seven are in Canterbury, and four in Minster-in-Sheppey) are larger-scale excavations which have been fully published, or reports made available. These therefore provide much of the archaeological data, excepting coinage, which will be analysed in the following sections, and will be critically discussed, prior to analysis, in order to highlight any problems with their data and/ or interpretation. Descriptions of other sites is made in Appendix 7.

5.1.2.1 Dykeside Farm, West Hythe/ Sandtun (TR 122339)

Dykeside Farm is situated on sand dunes at the north-eastern edge of Romney Marsh, just south of the Royal Military Canal, c.600m north-west of the Saxon Shore fort at Lympne (Gardiner *et al*, forthcoming). A number of excavations have taken place at West Hythe since 1947-8, when Gordon Ward and JPT Birchell investigated over two seasons. These first excavations, never published, produced evidence of two phases of occupation, dated to the middle Saxon and Anglo-Norman periods. Finds included hearths, metalwork (fish-hooks, shears, copper-alloy pins, seaxes), fish and animal bones, and pottery (Clutton-Brock 1976, 376-385; Wilson 1971, 76, 82, 91) including a brown ware pitcher with burnished surface, which although originally identified as a seventh or eighth century Frankish vessel, is more likely to be a later eighth/ early ninth century northern French copy (Hurst 1959, 21).

No further work was then undertaken until 1993, when a joint project by the Canterbury Archaeological Trust and Queen's University Belfast was begun, intending to publish Ward and Birchell's excavations and carry out additional excavations on the site (Gardiner *et al*, forthcoming). No middle Saxon structural remains were found, but a boundary ditch was excavated, and shown to have been recut twice during the middle Saxon period. The assemblage of finds was impressive: imported pottery accounted for 30% of the ceramic assemblage, and a range of activities were undertaken including fishing, and craft-working in textiles and leather (Blackmore forthcoming; Riddler forthcoming).

The documentary evidence is also of importance. The name *Sandtun* was first used in a land grant, dated 732, from Æthelberht II of Kent to the Abbot of Lyminge, which describes the settlement's bounds, and gave the Minster the right to produce salt (Gardiner *et al*, forthcoming). A further charter of 833 mentions salt pans in the area (Ward 1996, 1-3). The excavated site at Dykeside farm has been equated with *Sandtun* because the name survived there until the middle of the eighteenth century.

The interpretation of the site by (Gardiner *et al*, forthcoming) indicated a generally broadly based settlement. The economic functions included salt production, fishing, and seemingly small-scale craft production, as well as coastal trade. Following the work by Brown (1997) on the Hamwic pottery, Gardiner *et al*, (forthcoming) argued that the amounts of imported wares would imply direct contact with Continental ports, rather than redistribution from another place in England. The importance of the excavations lies in the evidence it provides for international trade away from an emporium, and suggesting direct access to such networks of trade was not monopolised by the larger sites (*ibid.*).

5.1.2.2 Minster-in-Sheppey (TQ 9573 centred)

Recent excavations in and around Minster, situated on the Isle of Sheppey on the coast of northern Kent, have provided evidence of occupation from at least the Bronze Age, and includes middle Saxon material from the early seventh through until the middle of the ninth century (Pratt 1993, 17; Pratt 1999, 21). Excavations in the village by the Sheppey Archaeological Society in 1991 produced evidence comprising buildings of post-hole construction, metalwork, coinage, glass, and a large pottery assemblage, including more Ipswich Ware than is known from Canterbury. Pratt (1993, 17) places this work east of the Abbey grounds at Falcon Gardens, and states that it was of a 'small scale'. Unfortunately, further information regarding this excavation is unavailable.

A watching brief at St. George's School (TQ961727) and its adjacent playing field (TQ960727) produced evidence for early/ middle Saxon occupation, including an SFB and post-holes possibly marking the edge of a timber building. The SFB contained charcoal, shells, daub, some slag, and mid-late seventh century pottery, which may

indicate it was in use from early in the seventh century, assuming this was a secondary fill. Pits dating to the seventh/ eighth century, and the eighth to mid-ninth century, and a ditch of late seventh/ early eighth century date were also found. The evidence is, however, only thought to have represented low density settlement, possibly part of an enclosure used to house animals (Pratt 1999, 21). Further excavations at the Pumping Station also produced middle Saxon artefactual evidence (including a range of local pottery and Ipswich ware), and a 'light pebble surface' (Pratt 1995, 26-27).

Textual evidence shows that Minster was the site of an Anglo-Saxon monastery from c.670. It is possible that the material and structural evidence gained from the excavations could be associated with such a monastic foundation, and from the proximity of the later medieval abbey, it is possible that at least some of it was. However, Pratt (1993, 18; 1999, 21) suggests that some of the material, including the pottery and SFB at St. George's School, may pre-date the foundation of the monastery. Therefore, it must be borne in mind that some of the middle Saxon evidence may relate to secular settlement which was in the vicinity, but not associated with the ecclesiastical foundation.

5.1.2.3 Church Whitfield cross-road (TR 313458 centred)

Excavations prior to a road building project uncovered evidence of occupation from prehistoric to early/ mid Saxon periods. The site is situated approximately 250m east of the Anglo-Saxon church and 250m west of the Roman road from Richborough to Dover (Parfitt 1996, 29). Six early/ middle Anglo-Saxon structures were found, including two post-hole timber buildings, measuring 12.25 x c.4.1m and 14.20 x c.4.7m, and four SFBs. Two of these showed evidence of stake holes within the structure, and one had a pit in the base. Possible Anglo-Saxon pits were also found.

Artefactual evidence was sparse. This included about 100 sherds of organically tempered sandy pottery, dated to c.575-c.700, a small amount of ironwork (even though an extensive metal detector survey was undertaken), and an environmental assemblage from the SFBs showing unidentifiable large mammals, fish and shellfish. A few charred grains of barley and wheat were also found. Although there is a relative dearth of artefactual evidence, it should be recognised that this site has

probably provided the best structural information for any site of this date in Kent (ibid.). Also, Parfitt (1996, 31) notes that the lack of later Saxon remains may indicate that 'the focus of later settlement shifted to the area of the eighth century and later parish church some 250m to the north-west'.

5.1.2.4 Canterbury

Canterbury, the Roman city of *Durovernum Cantiacorum*, is situated on a crossing point of the river Stour, and is the focal point of the Roman roads of east Kent (Russo 1998, 100). Through the period of study Canterbury became a steadily more important Christian centre with the intra-mural cathedral church, mentioned by Bede, and the monastery of St. Peter and St. Paul just outside the walls (Brooks 1984, 20). St. Martin's is slightly further out, just under a kilometre from the city walls. Additionally, Canterbury was a major minting place from the seventh century, which declined only after c.850 (Grierson 1991, 26; Pagan 1986, 46-48). Documentary evidence for the city suggests a market and dense occupation from the ninth century at least (Russo 1998, 109).

Before discussing the major excavations, a short note should be made here regarding the dominance of Canterbury in the study area (see Appendix 7). A large number of sites have been excavated here since 1945, with many producing Anglo-Saxon material, and some of these have been published, admittedly to varying extents, in the *Archaeology of Canterbury* monographs, or the *Canterbury Archaeological Trust Annual Reports*. As a result, there is greater information regarding Anglo-Saxon Canterbury than anywhere else in Area 2. This must be taken into account when discussing the data.

5.1.2.4.1 Christ Church College (TR 155579)

A number of excavations, including area excavation, evaluation trenching and watching briefs, have been carried out due to building work at Christ Church College since 1983 (Hicks 1993). The site is immediately north of St. Augustine's Abbey, approximately 150m east of the city walls, and is on land once belonging to the abbey, which was enclosed to form an Outer Court for the Abbey in the late thirteenth/ early fourteenth centuries (Bennett 1986, 79; Bennett 1988, 135).

The earliest excavated Anglo-Saxon evidence is a short section of a U-shaped ditch, found during excavation in 1996. This contained ceramics dating to *c.*575-700/725, animal bone, and evidence of ferrous metalworking, including iron slag and hammer scale. Three other features were also assigned to this phase by association, although it must be added that none contained datable material. Houliston (1998, 13) has suggested that this evidence may be equated with the earliest Anglo-Saxon settlement.

Middle Saxon deposits at Christ Church College are far more extensive, and have been found across the areas investigated over the past 17 years (Anderson 1987; Bennett 1984; Bennett 1986; Bennett 1988; Bennett 1991; Hicks 1993; Hicks and Bennett 1995; Houliston 1998; Houliston 1999; Jarman 1997; Ward 1994). No structural remains have been found, but the arrangement of pits may indicate that structures and property boundaries did exist within the area (Houliston 1999, 2). Over 100 inter-cutting pits have provided the majority of evidence from the site, although some ditch and post-hole features are also known (Houliston 1998, 6; Jarman 1997, 3). Dating of these pits has been mostly inferred from ceramic types and coin finds. Canterbury has a well defined pottery sequence, and the types found at the site appear to be of known Middle Saxon type, including locally produced wares datable to *c.*750-850/75, and some Ipswich Ware (Hicks 1993; Walton Rogers 1999, 36). There is little numismatic evidence, but a series M sceatta (*c.*720-730) was found during excavation in 1996 (Riddler 1998, 142). Additionally, metalwork datable to the Middle Saxon period has been found, e.g. Riddler (1998)

Throughout the excavations, many of the pits have produced considerable quantities of metalworking debris, mostly from iron-working. This includes slag and smithing residues, and it has been suggested that this industry may have been large-scale (Hicks 1993). From the excavations in 1996, the general stratigraphy of the pits was considered to be: 'layers dense in iron slag, hammer scale, fired clay, and carbon, interleaved with deposits rich in more finds typical of domestic occupation, such as animal bone, pottery, pins, buckles, beads, combs, knives, and querns, as well as evidence of small scale craft production' (Houliston 1998, 9).

The overall evidence from the site has been interpreted as a settlement most likely primarily involved in iron production (Houliston 1999, 2). The other debris is indicative of domestic settlement, but whether it was of a secular or ecclesiastical nature (e.g. associated with the abbey of St. Peter and St. Paul, later called St. Augustine's Abbey) is not presently possible to ascertain. However, a charter dated to 689 granted the Abbey rights to extract iron ore, most likely from the Weald, and it may be that this was smelted at Christ Church, although Houliston (1999, 2) is quick to point out that the charter antedates the bulk of the archaeological evidence. It should also be noted that the site is not thought to have functioned as any form of emporium (*ibid.*, 2), even though its extra-mural position is similar to the middle Saxon trading centres at York, and London. This would appear to be fair comment, given the small amount of non-local material (Ipswich Ware pottery, and Mayen lava quernstones).

5.1.2.4.2 The Marlowe Car Park and Surroundings (TR1558)

Excavations covering over 3000m² in the Marlowe Car Park and its surroundings in the south-eastern quadrant of intra-mural Canterbury were undertaken from 1948-1960, 1978-1980, and in 1982, all prior to redevelopment (Blockley *et al.*, 1995). The excavations provided extremely important information regarding sub-Roman and Anglo-Saxon occupation of the area. It should be noted that most of the archaeology of this period relates to early Saxon activity, *c.*450-*c.*700, which will only be dealt with summarily here, but phases dated *c.*650-700 and later were found, and will form the central focus of this discussion.

The early Saxon levels produced evidence of occupation from the mid-fifth to the seventh century, with a total of 37 structures, 31 from the Marlowe excavations, six from the 1950s investigations at Simon Langton Yard. All but two of these were SFBs, the remainder being ground level post-built buildings from the early seventh century (Blockley *et al.* 1995, 28; Blagg 1995, 19). Within the early Saxon period, (Blockley *et al.*, 1995, 463) suggested several changes in layout including an intensification of activity in the late sixth/ early seventh century. The early Saxon occupation was not particularly easy to interpret. Blagg (1995, 20) argued that the general lack of halls may indicate an impoverished community, or alternatively, one

dependant on occupation elsewhere in Canterbury. The excavations took place c.50m from the site of the Roman theatre, where it appears a number of Anglo-Saxon streets converged (*ibid.*) Brooks (1984, 25) suggested a continuing role for the theatre space from this, with Blagg (1995, 20) arguing it may have acted as an early Saxon market place. There is evidence for craftworking on the site, but whether this was at an intense enough level for market production is unclear, and the idea is speculative. However, the increasingly important role of Canterbury through the seventh century in connection with the Church must not be ignored here, and may have attracted large numbers of people to the city.

The middle/ late Saxon assemblages were, unfortunately, less abundant with occupation only dated to the period c.650-700, and c.850- 1050. The earlier period was interpreted as a re-organisation of the settlement (Blockley *et al.* 1995, 463). Two ground level post-built timber buildings (S8 and S9) were constructed adjacent to each other, S8 possibly involved in iron-working, with five SFBs also constructed around the areas of excavation and a well (*ibid.*, 298-345). The SFBs were cut by numerous stake-holes, some pits also containing loomweights. Although there was no obvious evidence of function for this period, Blagg (1995, 20) did consider whether this evidence pointed toward a primary function, rather than low level domestic production, in weaving. The following 150 years, c.700-c.850 produced virtually no structural evidence, with the exception of a small, badly disturbed SFB and a pit. It was generally thought that occupation during this period had as good as ceased, although three eighth century sceattas, and Ipswich ware, datable c.720-850 were found. The later ninth century re-occupation was probably peripheral to the main occupation which was thought was now probably mainly on the street frontages (Blockley *et al.*, 1995, 465). However, it appeared that at least one building was constructed in the later ninth century, c.875, with two cellared structures not long after.

The dating of the excavated structures and features was based on the pottery chronology produced, and will be adopted here. Production of the ceramics is thought to have been mostly local, although some of the middle Saxon wares may have a wider provenance across eastern Kent (Macpherson-Grant 1995c). Imported material

was relatively rare, although some Ipswich ware was found in middle Saxon levels, and there was evidence for lava quernstones from c.650. Evidence also pointed toward some smithing on site throughout the Anglo-Saxon occupation, and very small-scale non-ferrous metal-working.

The excavations around the Marlowe car park suggested relatively poor settlement within intra-mural Canterbury from the mid-fifth century. In the mid-seventh century this underwent major re-organisation. Whether this was associated with the growing importance of Canterbury as a Christian centre is uncertain, but the possibility cannot be discounted. There was no indication of any ecclesiastical nature to the site (Blagg 1995, 21). The possibility of a market in the Roman theatre is intriguing, but there is little firm evidence to support it, especially in the earlier period, except for the possible topography of the early Saxon city (Brooks 1984, 25), and it is difficult to see who the market would have serviced, especially in the earlier period when there is generally little evidence for occupation. However, there are the later references to a market in the city during the ninth century, and many important monasteries are known to have had markets outside them during the seventh to ninth centuries at least. Overall, though, the evidence is here considered to simply represent a small centre of population, with few outside contacts until the later seventh and eighth centuries. It may have been peripheral to much of the main occupation focus.

5.1.2.5 Conduit Meadow, St. Martin's Hill, Canterbury (TR 171579)

About 600m east of the city walls, Conduit Meadow is situated immediately south of St. Martin's Church on the line of the Roman road from Canterbury to Richborough, the modern A257. Excavations took place in advance of development on the site during the winter of 1984/85, with five areas opened for investigation, although it should be noted that ground water from a nearby spring was problematic, and restricted some excavation, especially of deeper features (Rady 1987a, 123-127).

The earliest occupation of the site appears to have taken place c.750, with a relatively large amount of pitting, and a single metallised surface. No structural remains were discovered although this may be a result of the later terracing and landscaping which has taken place from the sixteenth century (ibid., 129). Pottery recovered from the

pits is of local type, dated to the mid/ late eighth to mid ninth centuries from associated finds on sites elsewhere in Canterbury, and imported Ipswich ware, the dating of which has been recently re-configured to *c.*720-850 (Blinkhorn 1999, 9; Macpherson-Grant 1987, 178). Other *in-situ* mid-late Saxon items include a ninth century Trehiddle style strap-end, a loomweight, and a bone comb (Graham-Campbell, in Garrard 1987, 184). In addition, animal bone, a number of very corroded bronze objects, and Roman brick and tile was recovered (Rady 1987a, 129-133).

The trackway, metalled with flint and gravel, and aligned south-west/ north-east, was found on the western edge of the excavated area, and was most likely of middle Saxon origin, although there was no direct dating. The date was assigned from its association with the middle Saxon pits, which respect the position of the tracking, and do not encroach on it, or cut it (*ibid.*, 131-132). Therefore, this attribution would seem to be fair. The track may form a part of a route from Canterbury to the proposed trading settlement at Fordwich, though very little archaeological evidence currently exists for the site. Certainly the excavated trackway itself lies on a footpath which does go all the way to Fordwich, *c.*2km to the north-east, but equally it might represent a track that simply joins St. Martin's Church to the Roman road (Sparks and Tatton-Brown 1987, 203). Indeed, in 1988, evaluation trenching on St. Martin's Heights, just to the north of the church across which the footpath passes, failed to find any further metalling, even though it was one of the principal priorities of the project (Houliston 1988, 136-137).

From the relatively small amount of evidence available it is difficult to confidently interpret the excavated evidence, beyond suggesting the likelihood that it represents a part of a domestic settlement near St. Martin's church. However, using data from other archaeological investigations north-east of Canterbury, and documentary evidence Sparks and Tatton-Brown (1987) have suggested that 'the area north-east of the Roman city walls, bordering the River Stour, was a trading *wic*' (*ibid.*, 1987, 200-205). They believe that this may have been made up of a series of small settlements from the eastern city wall, through St. Augustine's Abbey, to St. Martin's Church, and along the track to Fordwich, but admit that archaeological evidence is currently

lacking (*ibid.*). The idea is certainly appealing, and would place Canterbury alongside other settlements such as York and London, with trading centres outside the walls, but presently there is little evidence to support this thesis: none of the excavations have produced Continental material, and only a couple of coins, and there does not seem to be the intensity of activity that would be expected at such a site.

5.2 Coinage

5.2.1 Introduction

The analysis of coin finds in Area 2 will be undertaken as for Area 1 (Section 4.2). At present, 390 finds have been made on 92 named sites, and also on a number of sites with a 'Kent' provenance, many in the last 15-20 years through metal detection (Fig. 5.3). Little topographic study has taken place for the whole period since Metcalf (1988a), but ninth century finds were examined recently (Metcalf 1998), although in both cases, study was only generalised, looking at national distributions. This section will be divided into two parts: first, the general distribution will be discussed, and second, the circulation of coinage assessed. Unless otherwise stated, all coins are single finds, and none are thought to be from burials.

5.2.2 Previous Work

Kent probably has one of the most complex monetary histories of any region in England, due to its early use of coinage, proximity to the Merovingian Franks, near monopoly over minting for a long period, and the dominance of Mercia, followed by Wessex, over the area. Because of this, it has attracted numismatic attention since the eighteenth century, e.g. Metcalf (1988b). The following will summarise previous research regarding the minting, distribution and circulation of coinage in Area 2.

The early to mid seventh century gold coinages found in Kent are mostly of Merovingian origin, although local gold coins (*thrymsas*) were issued, probably minted at Canterbury and London (Metcalf 1988a, 230-232). The distribution of these gold coins was limited to eastern Kent, possibly 'restricted essentially to one or two royal centres in the south-east coastlands' (*ibid.*, 232). Their pale gold successors ('pada' and 'vanimundas' types), of the mid seventh century, were confined to the

Dover/ Canterbury area, with none found elsewhere in Kent, even in the east at Reculver or the Isle of Thanet (Metcalf 1993, 74-75).

Primary phase sceattas are not considered to have been much more widespread (Metcalf 1988a, 266). Series A were most likely Kentish, and, with series B, have been found in burials of the later seventh/ early eighth century, as well as occurring as stray finds around east Kent. Metcalf (1984a, 44) demonstrated that the Continental Intermediate phase coinages did not appear to have the same effect on Kent as elsewhere in England, being under-represented in comparison, although this may be due to a greater control over coinage, and a larger level of re-minting. Metcalf (1993, 297-298) has argued that circulation increased across the country during the Secondary phase, but Kent appeared to retain its importance. A wide range of coins were probably minted in the region: based on their overall distributions, it has been argued that series K, M, N, O and V are probable Kentish issues (Metcalf 1984a, 50).

Previous analysis of the distribution of sceattas in Kent has highlighted what Metcalf (1984b, 203) described as the 'East Kent triangle' of Reculver, Richborough, and Canterbury. These sites are a major source of finds, although the eighteenth century discoveries from Reculver may also have come from further east on the north coast of the Isle of Thanet (Rigold and Metcalf 1984, 258-260). Showing the dominance of these three sites, Metcalf also recorded that there were 'a few, but only a few, sceattas reported from other sites in the triangle' (*ibid.*, 204).

By the third quarter of the eighth century, sceattas had waned, and a new penny with a broader flan was introduced (Grierson and Blackburn 1986, 271). Even though Kentish autonomy had come to an end in 764, with the overlordship of the Mercians, the initial issues were of the Kentish kings Heahberht and Ecgberht II dating to *c.* 765-780 (Metcalf 1988a, 240; Yorke 1990, 31). These were superseded by the first issues by Offa of Mercia, probably in 784 or 785, although the distribution of finds showed them to be limited to Kent and the south-east (Metcalf 1998, 173). Such a minimal circulation was used to argue for coin use predominantly as a function of cross-Channel trade, and for a general recession in England during the second half of the eighth century (*ibid.*).

The minting of coinage was completely dominated by Canterbury, continuing into the ninth century (Pagan 1986, 46-48). Pagan (*ibid.*) argued from the examination of moneyer's names and coinage that small-scale minting took place at Rochester from c.810-c.842, with no more than two concurrent moneyers, compared to a total of seven or eight at Canterbury (five or six for regal issues, two for archiepiscopal issues). He also suggested that the only other large-scale mint in the vicinity, at London, declined during the early ninth century, before re-emerging after the 840s (*ibid.*). Metcalf (1998, 173-183), agreed that Canterbury had overall dominance until c.850, minting around a third of all coins, but also argued that there was a gradual shift in importance to London thereafter. He traced this shift to the increasingly serious Viking threat to Kent, and commented that such a decline was 'symptomatic of the commercial risks of trading into the Wantsum Channel' (*ibid.*, 174). In spite of this, however, Metcalf (*ibid.*, 175-177) noted that a general lack of Carolingian coin finds in Kent suggested an effective re-minting of coins entering England via Kentish ports.

As for much of the country, there is a surprising lack of discussion regarding the general geographical distribution of ninth century coins in Kent. Metcalf (*ibid.*, 182-183), in discussing the monetary economy of England, pointed out that it is best to discuss the coins of this date by their mint place, rather than kingdom of issue, e.g. most Mercian coins were issued through mints in Kent, and not Mercia. He showed that coins from Canterbury accounted for 47% of finds south of the Thames and the London mint only 29%; Rochester was not described (*ibid.*, 187). Changes in distribution through the ninth century were not discussed, but a general eastern Kentish distribution was shown on his distribution maps.

In addition to the southern English pennies, Northumbrian stycas have also been found in Kent albeit isolated to Reculver, Richborough, and Sandwich. Metcalf (*ibid.*, 179) saw these coins entering Kent via coastal traffic into the Wantsum Channel, rather than across land.

In summary, coinage in Area 2 was in circulation throughout the study period, *c.*650-*c.*900, and previous research would indicate heavy use in eastern Kent, in the area dubbed the 'East Kent triangle' (Metcalf 1984b, 203). This attests to Kent's importance, especially through the seventh and eighth century. It is also considered that Canterbury was the most important mint in the country until *c.*850, with Rochester also minting for a time in the ninth century.

5.2.3 General distribution

The general distribution of coin finds within Area 2 will be examined as previously for Area 1 (section 4.2.3). This is based around the geographical distribution of finds, and the circulation of coinage in the region. All coin finds are single finds (see Appendix 8), unless otherwise stated.

5.2.3.1 Tremissis/ Thrymsas (*c.*600-*c.*675/680)

The distribution of coinage from the early gold Merovingian tremissis and English thrymsas through to the pale gold pada and Vanimundas issues is shown in Fig. 5.4. A total of 33 single finds from this period have been made from Area 2. Of these, Merovingian tremisses account for 47.1% (16 coins) of single finds, English thrymsas 32.4% (11 coins) and pale gold coins 17.6% (six coins) (see Table 5.1), of which the latter are all the Kentish pada variety, with none of the London-minted Vanimundas known. The majority of the Merovingian tremisses are no more closely datable than *c.*600-*c.*675, the period in which this type of gold coin circulated (Grierson and Blackburn 1986, 160-163), but an example from Reculver issued by Clovis II (639-657) may be the only find from the first half of the seventh century. A grave find from Ozengell is definitely datable to the last phase of the tremissis, the third quarter of the seventh century. A silver/ gold transition issue of Childeric II, *c.*673-675, was also found in the Ozengell cemetery. The earliest example of the English gold thrymsa from Area 2 is an issue of Eadbald of Kent (616-640) found at Shorne, but the majority (nine of ten datable coins) date from *c.*645-*c.*680.

The distribution of these coins (Fig. 5.4) is mostly coastal, especially around eastern Kent, although a number have been found in proximity to the Roman road from Canterbury to London. The only inland finds are those from Hollingbourne (three

tremisses, a thrymsa, and pale gold pada) and Lenham (an unidentified pale gold issue) which are all situated on, or near, the North Downs Way, the Neolithic ridgeway track running across the North Downs, which became a pilgrim's way in the later medieval period (Taylor 1979, 17, 185).

A large proportion of finds, 45.5%, have been made in the area encompassing the Isle of Thanet, Dover, Canterbury, and Reculver (Fig. 5.4). In this area, five findspots, and eight coins (four tremisses, and three thrymsas) are known from the east coast to the Dover-Richborough Roman road. Most sites have only produced single coins, and those with greater have not produced more than a handful: three coins (two tremisses, and a thrymsa) have been found at Reculver, Hollingbourne (see above), two from Ash (both tremisses), Dover (both thrymsas), Great Mongeham (a tremissis, and a thrymsa), Herne (two pale gold pada), Folkestone (two tremisses) and a site of secret location near Canterbury (a thrymsa and pale gold pada). Finds from Canterbury are conspicuously absent.

Along the Canterbury-London road there are seven findspots (Fig. 5.4) within a kilometre or so of the line of the road, as plotted using Margary (1967, 42-47). Unlike the area to the east around the Isle of Thanet, all are individual finds, and account for 20% of the total.

Discussion

The gold and pale gold coins are generally perceived to have had a very limited monetary role, no doubt used by a very limited range of people (Grierson and Blackburn 1986, 161). The distribution is, however, far in excess of Area 1, and also that given by Metcalf (1993, 34-35) which gives an indication of the large number of coins which have been found and reported by metal-detectorists in the last five to ten years.

The general distribution corresponds relatively well with the prime areas of settlement in the study area, as outlined in section 5.1.1, and the predominant coastal location of many finds is indicative of their associations with overseas contacts. It is important to remember that these coins were all likely to have been relatively small scale issues of

high value, and their use as currency is extremely unlikely, even to the extent that the subsequent silver coins were used (Metcalf (1993, 36-38). The pale gold 'Pada' issues of the third quarter of the seventh century may represent the first attempts to produce a monetised economy, but few single finds are known from Area 2, so this must remain somewhat unclear at present.

The absence of finds from Canterbury is interesting considering its growing ecclesiastical role in the seventh century, and the archaeologically known occupation in the city, most of it from the Marlowe excavations (Blockley *et al*, 1995). A number of Primary phase sceattas were found there in a seemingly less active period, which may indicate that the lack of gold/ pale gold issues from the city shows that the function of these coins was somewhat different to later issues. It may also attest to the possibly impoverished nature of the settlement.

The inland site at Hollingbourne should also be mentioned, as its regional importance is already becoming clear. Early Saxon burials have been found there, and it is known to have been an early estate centre whose importance remained through the seventh century and into the middle Saxon period (Meaney 1964; Everitt 1986, 102). Indeed, Hollingbourne could be termed a 'centre of authority'. Astill (1991, 103) coined this phrase for sites which were likely to have been places where agricultural surplus was collected and distributed, and which may have become economically important regional settlements. Overall, the gold/ pale gold issues have indicated that Area 2 was monetarily in a European orbit, and was probably more so than anywhere else in England.

5.2.3.2 Primary phase and early Intermediate phase sceattas (c.680-c.710)

The distribution of sceatta finds of the Primary, and early Intermediate phase (series D, and series E, types D, E, G and VICO), is shown in Fig 5.5. A total of 97 single coin finds (Table 5.2/ Appendix 8) have been made on 41 sites across Area 2, including three with a provenance of 'Kent'. A further eight finds of series E have been made but it is not known whether they are early or later varieties. Most types date to c.695-710, although series A, BX/ BI, and possibly the issue of Aldfrith of Northumbria (685-704) pre-date this, probably first appearing from c.675-680 for

series A and BX/ BI (Metcalf 1993). The majority of finds are of the Primary phase series A (19.8%, 19 coins), BX/ BI (10.4%, ten coins), and C (11.5%, 11 coins), and the Continental Intermediate phase series D (11.5%, 11 coins), and early issues of E (18.8%, 18 coins). A further 11.5% are sceattas of unidentified type, but dated 680-710 (under the chronology of North 1994), which have been brought to light through the Kent Portable Antiquities Scheme.

The distribution of the coins is similar to the early gold coinages, albeit with increased concentration towards the area encompassing the Isle of Thanet, Dover, Canterbury, and Reculver, and is an extension of the 'East Kent Triangle'. Twenty of the 41 sites are within this area, and 54.2% of the coin finds for the period (52 coins), split 69.2% Primary phase, and 30.8% early Continental Intermediate phase issues (75% of which were early series E). The vast majority (14) of the sites are represented by a single coin find, but two finds were made at Woodnesborough (including the only Kentish find of the rare coins of Aldfrith of Northumbria, 685-704) and Richborough Roman fort, five at Minster-in-Thalet, eight at Canterbury, and 17 at Reculver. Additionally, south of Canterbury on/ near, the Roman road to West Hythe are two more sites; the stretch of the North Downs Way which runs past Canterbury (Fig. 5.5) shows another, and Booth (1997a, 41) has discussed the undisclosed site 'near Canterbury'.

Virtually all inland finds are very close to either Roman roads or the North Downs Way (Fig. 5.5). Nearly half are either on or near the road from Canterbury to London (seven findspots), or the southern section of the North Downs Way from Folkestone to the modern county boundary east of Sevenoaks (six findspots). The remaining findspots are dotted along the coast, such as the three sites on the Thames Estuary, north of Rochester (Cliffe, Cliffe End Woods, and Isle of Grain) or are in-between the Roman road from Canterbury to London, and the North Downs Way (Bredgar, and Horton Kirby). The only exceptions are a find at Hythe on/ near the Roman road running through Folkestone and Ashford (Margary 1967), and an isolated find at Old Romney in the middle of Romney Marsh, approximately 5km from the coast.

Discussion

The distribution of Primary and early Intermediate phase sceattas shows a massive increase on the preceding period, especially in eastern Area 2, although the inland region was also involved.

The large number of finds around the east Kent coast probably indicates increasingly active networks of coastal trade, both with other areas of England, and with Continental Europe, coupled with an increasingly monetised economy. The proportions of Continental Intermediate phase sceattas across Area 2, at c.30%, was high but not as high as elsewhere in Britain, which may imply that the systems in place for collecting and recoinng were more sophisticated and better enforced (Metcalf 1987, 367). The fact that these coins do have a distribution every bit as wide as the local coins does attest to the high numbers likely to have been entering Area 2, and if they entered through long-distance trade, as Metcalf (1993, 176-177) sensibly asserted, then access to that trade must have been widespread.

5.2.3.3 Later Intermediate phase and Secondary phase sceattas (c.710-750)

The distribution of sceatta finds of the later intermediate phase (series E, excluding types D, E, G and VICO, series G and series X), and secondary phase sceattas (excluding the later series Y) are shown in Fig. 5.6. There are 130 single finds (Table 5.3/ Appendix 8) from 36 sites around Area 2, including two finds provenanced as 'East Kent' and 'Kent'. The proliferation of types during this period has been widely noted, e.g. Metcalf (1988a, 236) and during this period in Area 2 there are different sceatta series represented. The most abundant finds are the later issues of Continental series E (16.9%, 22 coins), followed by series K (13.8%, 18 coins) and N (12.3%, 16 coins), series U (6.2%, eight coins), and M (6.9%, nine coins). Series O and unidentified sceattas both account for 6.2% (eight coins), and the London issued series L for only 4.6% (six coins). The most productive way to deal with this multitude of issues is to discuss the coins in relation to their probable mint place, rather than by specific type, unless it is imperative to do so. While the later Continental series E coins are singly the most abundant type, coins possibly minted in Kent (among them series K, M, N, O, U, and V) account for 50.0% of the finds (65 coins), compared to 23.1% (30 coins) from the Continent, 8.5% (11 coins) from East Anglia, 4.6% (six

coins) from Northumbria, and only 4.5% (six coins) from London. However, to illustrate the potential difficulty of identifying mint-place, a further 5.4% of finds of known type (seven coins) are of unknown provenance.

Of the 36 sites, 13 are represented by more than one coin find. The most productive are Canterbury (nine finds), Eastry (six finds), Hollingbourne (12), Reculver (58), and Richborough (six finds). Reculver is obviously dominant, but it must be remembered that an unstated number of the late eighteenth and nineteenth century finds were possibly from the north coast of Thanet, rather than the Minster at Reculver (Rigold and Metcalf 1984, 258). Other sites have mostly produced only two or three coins.

The distribution of finds (Fig. 5.6) once more shows a predominance towards the north and east of the county, with very few further inland than the North Downs Way. Again the eastern end of Area 2, encompassing the Isle of Thanet, Dover, Canterbury, and Reculver, represents an active region, with 92 finds (70.7% of the total) across 14 sites. Eight of these sites are single finds, and only four (Canterbury, Eastry, Reculver and Richborough) have greater than two or three finds, although these are four of the five most productive sites in Area 2, the other being Hollingbourne (12) on the North Downs Way. A further site 'near Canterbury' has five finds from this period (Bosner 1997, 41). As seen, the bulk of the finds are from Reculver, and include a wide range of types, with all Kentish coins represented, as well as East Anglian issues (series Q and R), possible Northumbrian series J, London based series L, and the Continental coins of series E and X. Canterbury, the second most productive site in this region, is interesting in the fact that single finds of Kentish coinage are of series M, N, and O, with no examples of the abundant Kentish series K known. The only other find is of Continental series G. Also of note is the division between sites with finds of late Intermediate issues, and those showing only Secondary phase issues: on Thanet and the northern coast, all sites but Reculver are exclusively Secondary phase, with series K present on all. To the south, in the rough triangle formed by Canterbury, Richborough, and Dover, all but two sites (Barham and Wingham), have at least one late Intermediate phase find, and five of these sites have Continental coins exclusively.

The area west of Canterbury from the London road to the north coast has proportionally far fewer finds than previously. There are six sites in this whole area, two on/ near, the Roman road, and the other four on the coast, producing a total of nine finds (6.8% of the total). Of these two have an Intermediate phase coin, with all the others showing secondary phase issues. These latter coins are from a range of mint places, including East Anglia, London and Kent.

Further inland, along the North Downs Way and the other Roman roads, 24 coins (18.5%) have been found, albeit 12 from Hollingbourne. Most are from the vicinity of the North Downs Way, with seven sites producing coins, but only Hollingbourne and Lenham more than one. Hollingbourne showed finds from a wide area, including East Anglian series R, Northumbrian series J, and Continental intermediate phase coins, as well as a number of Kentish issues. The other sites, unlike the east of Kent, are not predominantly Kentish issues, but include series L, and a number of small-scale issues of undetermined provenance. The few other finds have been made either along Roman roads (including two findspots on the coast just west of Folkestone at West Hythe and Aldington), or between the North Downs Way and Canterbury-London road.

Discussion

One of the most important characteristics of the early to mid eighth century distribution was that more finds have been made, but on fewer sites than previously, with a small number becoming increasingly dominant, namely Canterbury, Hollingbourne, 'near Canterbury', and Reculver. As in Area 1, this may indicate that a number of market centres were appearing by this time. It may represent an attempt to regulate trade to a greater extent but the distribution shows that it was not an overall success, especially outside of eastern Kent.

In the eastern part of Area 2, however, the number of findspots decreased from 20 in the previous period, to 14 in this one, possibly indicating that a certain amount of regulation was occurring. It may also suggest that more coastal traffic may have been centred on the area of the Wantsum Channel, where historically attested trading sites (Sarre, Fordwich, Sandwich) are known, and where charter evidence shows that

monastic houses at Reculver, and Minster-in-Thanel were granted remission on tolls in London, and some of the Kentish ports, e.g. Fordwich and Sandwich (Hodges 1989a, 92-93; Kelly 1992).

If a regulation of trade was attempted, it was being accompanied by an increasingly tight control over the coinage, with fewer non-local issues known, although this is repeated in many places in eastern England in the Secondary phase. The western half of Area 2 is, in contrast, virtually unchanged from the period *c.*680-*c.*710 with almost the same number of findspots. This is interesting as it indicates that away from the main centres of power, e.g. Canterbury, the economy may have been somewhat looser and less controlled, allowing greater direct access to a larger proportion of the population.

5.2.3.4 Later eighth century issues (*c.*750-796)

The distribution of coins datable to *c.*750-*c.*796 in Area 2 is shown in Fig. 5.7. There are 42 finds from 22 sites, plus one find provenanced as 'Kent' (Table 5.4/ Appendix 8). The late eighth century was marked by the abandonment of the sceatta series and the introduction of the broad flan penny, probably at some point during the 770s, at first under the last Kentish kings, and then under Offa of Mercia from the mid 780s (Chick 1997, 48-49).

The earliest coins from this period are not local issues. Two Carolingian deniers of Pippin the Short (752-768) have been found at Richborough and West Hythe, as well as seven Northumbrian coins. Five of these were produced under Eadberht (737-758), two with Archbishop Ecgberht, of York (*c.*732-766), and a further two for Æthelred I, one relating to each of his reigns (774-779; 790-796).

Offan pennies dominate the late eighth century assemblage, although total numbers of coins are markedly lower than in first half of the century. These account for 72.1% of finds (31 coins) from the period *c.*750-*c.*796, or 74.4% (32 coins) if the issue under the name of Offa's wife Cynethryth is included. Of these, the first phase, or light issue, dating *c.*770-*c.*792 (Chick 1997, 57) is most abundant with 34.9% of the Offan

pennies (15 coins); later, heavy issues, *c.*792-796, 18.6% (8 coins); and 18.6% (8 coins) were coins of uncertain attribution.

Further assessment of these coins will follow Metcalf's (1998, 182-183) method of examination by mint place (Fig. 5.8), e.g. Canterbury or Rochester, rather than the issuer, e.g. Offa of Mercia. Chick (1997) has achieved this for Offa by attributing moneyers to the possible mints of London, Canterbury, or East Anglia, or by describing them as uncertain. In Area 2, Canterbury issues are most common, being found in slightly higher numbers than those from London. East Anglian issues are relatively rare, but it should be noted that for over a third (39.4%) of the finds of Offan pennies, it has not been possible to attribute a mint place.

The distribution of late eighth century coins is wide, even though far fewer are known than for the preceding secondary phase sceattas. The majority of finds are from the coasts of the Wantsum Channel, especially Reculver and Richborough (five, and eight coins respectively), plus two single finds on the Isle of Thanet side, in all representing 48.5% of the finds for this period. It is noteworthy that only Northumbrian coins have been found at Reculver, and a Carolingian denier of Pippin the Short was found at Richborough.

As previously, there is concentration within a few kilometres of the east coast, and in the vicinity of the Roman road, between Dover and Sandwich where five findspots, each of single coins, are known. All are Offan pennies, and can be divided between three light and two heavy issues. The coast to the west of Folkestone is again productive, with finds of an early Offan penny, and a denier of Pippin the Short.

Finds are generally relatively dispersed over the remainder of Area 2: there are five sites along the Roman road from Canterbury, through Rochester and on to the county boundary, with four between Canterbury and Rochester, all of which are single finds. It is interesting to note, considering the dominance of the Canterbury mint in this period, that currently only a single find has been made in the city, during the excavations at Christ Church College where a rare type made from lead was discovered (Hicks 1993). A single find has also been made on the north coast in

Minster village on the Isle of Sheppey, of a Northumbrian series Y sceatta of Eadberht (737-758).

Inland finds are few, and all are associated with the North Downs Way. Two finds each have been made at Hollingbourne and Wye, all of which are pennies of Offa. There are also two single finds around the junction of the North Downs Way with the River Darent (one early penny of Ecgberht of Kent, and one heavy issue of Offa).

Discussion

The number of finds of later eighth century coinage is dramatically lower than that seen for the preceding period. This is a typical pattern for much of southern England during the decades after the collapse of the sceatta currency and introduction of the broad flan penny (Metcalf 1987, 236). This decline in the levels of monetisation is also reflected in the lower number of findspots.

The two areas showing concentrations of finds, in east Kent and further west along the Darent Valley possibly indicates that a link between the use of coinage, and waterborne trade was primary in this period, and the widespread monetisation seen previously had receded for a time. However, the previously most productive sites, Reculver, Richborough, and Hollingbourne, remained very important again producing most finds. Richborough was the most productive of these, possibly indicating some form of short lived importance for the site.

The levels of non-local coinage were low, which is not typical of southern England in the late eighth century (Metcalf 1988a, 237). This implies a strong control over the way currency was retained, and concerted re-minting. In many ways this is not unexpected given the importance of Canterbury as the premier mint in southern England (Grierson and Blackburn 1986, 281).

5.2.3.5 Early-mid ninth century (c.796-c.840)

The distribution of coins datable to c.796-c.840 in Area 2 is shown in Fig. 5.9. There are 52 finds from 23 sites, including seven finds whose provenance is described simply as 'Kent' (Table 5.5/ Appendix 8).

The period is dominated by two issues: Coenwulf of Mercia (796-821), over-king of Kent 798-821, and Ecgberht of Wessex (803-839), over-king 825-839. Chronologically these two rulers account for all but seven years of this period, and so it is unsurprising that their issues are also among the most numerous, accounting for 32.7% (17 coins) and 11.5% (6 coins) respectively. During the reign of Coenwulf, his brother Cuthred, sub-king, also minted, 'probably to the exclusion of...Coenwulf' (Grierson and Blackburn 1986, 271), although only one casual find of his coinage has been made in Area 2. The coins issued by the archbishops of Canterbury, either alone or jointly with the king, are also important in the ninth century, with 19.2% (10 coins) being those of Archbishop Wulfred (805-832).

Other rulers of Kent, or archbishops of Canterbury, account for far less. The four coins (7.7%) of Eadberht Praen, independent ruler of Kent *c.*796-798, is highest. Others (Cuthred 798-807, Baldred 823-825, Archbishop Æthelheard 798-805, and Archbishop Ceolnoth 833-848, issued 833-839) are represented by single finds, except Æthelheard with three single finds.

Throughout this period, as previously, non-local issues have been found in Area 2, making up 15.6% of the total. The most numerous of these are the five stycas (9.6% of total) of Eanred of Northumbria (810-840), but the others (Eadwald of East Anglia, 796-800; Wiglaf of Mercia, 827-840; Æthelstan of East Anglia, 825-845) are represented by single finds.

Fig. 5.10 shows the total of single finds by mint. Finds from the Canterbury mint remained by far the most abundant, accounting for 57.7% (30 coins) of the total, followed by East Anglia (17.3%, nine coins), although seven of these are from the issues of Coenwulf of Mercia. London minted coins are relatively rare in this period, especially when compared to the late eighth century, and the new mints at Rochester and in Wessex appear to have made relatively little impact.

The distribution of coinage is again widespread across Area 2, although is mostly concentrated in eastern Kent, and in the Medway area (Fig. 5.9). The majority of

finds were made in east Kent, with finds known from 13 sites, accounting for 59.1% (26 coins) of the total. Interestingly, the five finds of Northumbrian stycas were all made in this area, at Canterbury, 'near Canterbury', Reculver, and Richborough. The finds in the Medway area are varied, encompassing a number of issues.

Summary/ Discussion for the early-mid ninth century

The levels of coin loss in the early-mid ninth century appear to have been consistent with the later eighth century as virtually the same number of finds have been made, across the same number of sites. Of these finds, it was seen that the vast majority belonged to the issues of Coenwulf, and of Ecgberht, although this was to be expected given that their reigns covered the whole of this period.

The presence of non-local coins in early-mid ninth century Area 2 was a slight change from the preceding period, in that a greater number were found although none were from Continental Europe. At the very least it can be interpreted as showing that waterborne contacts with eastern England were maintained throughout the period.

The dominance of the Canterbury mint appears to have increased in this period, even though minting was undertaken at Rochester during the first half of the ninth century (Pagan 1986, 46-47). By analysing the coins by mint, rather than the bewildering range of individual issues, the Kentish origin of many of the coins was indicated. These results were consistent with those undertaken for southern England as a whole by Metcalf (1998). This may attest to the growing size and importance of Canterbury as a centre of ecclesiastical administration, and it has been documented that by the end of the eighth century at least there were markets in the city (Russo 1998, 108-109).

5.2.3.6 Later ninth century (c.840-900)

The distribution of coins datable to c.840-c.900 in Area 2 is shown in Fig. 5.11. There are 20 finds from 11 sites, plus one find provenanced as 'Kent' (Table 5.6/ Appendix 8).

Although there are relatively few finds, those made are dominated by the issues of the kings of Wessex, who had controlled the region since c.825, accounting for 71.4% of

single finds from the period in Area 2 (Fig. 5.12). These can be divided by reign into the coins of Æthelwulf (839-855), also king of south-east England only 855-858, with 14.3% (three coins); Æthelberht (860-865), king of south-east England only 855-860, with 14.3% (three coins); and Alfred (871-899), with 42.9% (nine coins). No single finds are known for either Æthelbald (855-860), or Æthelred I (865-871), nor any relating to archiepiscopal issues.

Most of these coins (86.7%) have been attributed to an area of minting, e.g. Kent, with 10 given a specific mint place. All of the finds of Æthelwulf are Kentish, two from Canterbury, issued 839-843, and 848-851; three of the Æthelberht finds are Kentish, two of which are the open cross type minted in the period *c.* 858-*c.* 863, and the other is a later floriated cross design, most likely minted *c.* 862-*c.* 865 (Bosner 1998, 219). The issues of Alfred show the increasing importance of other mints, at London and Winchester: three finds were minted at Canterbury (one 'cross and lozenge' type, probably issued from *c.* 875-*c.* 885, and two 'two-line' types, issued *c.* 885-*c.* 899), three at London (two 'cross and lozenge' types, *c.* 875-*c.* 885, and a 'London Monogram' type from *c.* 885), and a single find minted in Winchester (a 'two-line' type). Two finds had no specified mint attribution, but one was described as being from the 'lunette' series, placing it early in Alfred's reign, probably *c.* 871-*c.* 875 (Grierson and Blackburn 1986, 309-314).

Six other non-Kentish issues (28.6%) are known: the stycas of Æthelred II of Northumbria (*c.* 841-*c.* 848/9) are most prolific, with three finds (14.3%), whilst other single finds of Æthelred of East Anglia (*c.* 870-*c.* 880), minted in East Anglia, Berhtwulf of Mercia (840-852) and Burgred of Mercia (852-874), both from the London mint, are known.

The distribution is relatively dispersed, but a few concentrations of findspots are seen, although this could simply highlight the small number of finds and popular metal-detecting areas. This period is characterised by the distribution of all finds near to roads, rivers or the coast.

East Kent, as previously, is most prolific, with 13 coins (61.9%), of which seven are from Canterbury, representing all the Wessex kings, Burgred of Mercia, Berhtwulf of Mercia, and Æthelred II of Northumbria. None of the coins in this period from Richborough are local, and the previously productive sites of Reculver and 'near Canterbury' are devoid of finds. On the North Downs Way, three sites have produced single finds, Lenham, Westwell and Wye (one of Æthelberht of Wessex, two of Alfred of Wessex), and the latter two are within 5km of the junction between the North Downs Way and the Roman road from Canterbury to Ashford. Around the north coast of Kent, at Rochester, Higham, and on the Isle of Sheppey three single finds have been made. The remaining find was made at Shoreham, which is situated on the River Darent, a few kilometres north of the North Downs Way.

Summary/ Discussion for the later ninth century

In many respects, little can be inferred for the period *c.* 840-*c.* 900 owing to the relative dearth of finds in Area 2. This is typical of much of England, and was also seen in the analysis of Area 1. This probably indicates a general collapse of the monetised economy in Area 2, and it may be that monetary exchange ceased, or was undertaken using old coins for some time in the later ninth century, at least until the issues of Alfred became established. The evidence also indicated that the importance of Canterbury as a mint was beginning to wane in this period, with London becoming dominant, and the new mints around southern England, e.g. at Winchester further eroding Canterbury's influence.

5.2.4 The circulation of coinage in Area 2

The circulation of coinage in Area 2 was examined as for Area 1, using the methodology and date grouping (one to nine) discussed in section 3.3.3.2.2. The results for the region and for individual sites were plotted (Fig. 5.13a-i). Each will be discussed in turn.

5.2.4.1 The regional circulation of coinage in Area 2

Fig. 5.13a shows the graph of proportions calculated for Area 2 as a whole, encompassing all datable single finds. The general pattern of Fig. 5.13a is one of steep rise followed by a rapid decline, and then a degree of stabilisation. The period

of rapid growth comprises groups one to three, *c.*650-*c.*740. The relatively high proportion of early gold/ pale gold coinages (thrymsas and tremisses) of group 1 showing that coinage circulated quite readily from the first, although it must be noted that this may not necessarily be due to trade. Groups two and three (*c.*680-*c.*710) are obviously dominant here with by far the highest levels of coin loss, representing 25.3% and 35.25% respectively. These two groups encompass the diverse sceatta series, as discussed above in sections 5.3.3.2 and 5.3.3.3, with the exception of the Northumbrian series Y sceattas.

A rapid decline in levels of coin loss is apparent for group four, *c.*740-*c.*790 (9.1% of the total), decreasing by 74% (100 coin finds) from group three. This period follows the collapse of the sceatta coinages, and the first issues on the broader based flan, initially of the Kentish kings around *c.*765-*c.*780, and then of Offa of Mercia (Grierson and Blackburn 1986, 271).

Levels of coin loss then appear to stay relatively stable through group five (*c.*790-*c.*810) with 9.1% of the total, but this is perhaps somewhat illusory, as group four is double the length of group five. Groups six to nine (*c.*810-*c.*840; *c.*840-*c.*855; *c.*855-*c.*870; and *c.*870-*c.*900) would appear to show a slow but inexorable decline through the ninth century, from 5.7% in group six, through 2.6%, and 1.6% in groups seven and eight, to 2.4% in group nine. The apparent upturn in coin loss in group nine is, though, like group five, illusory, as the previous two groups, totalling 4.2% of the overall assemblage, represent the same length of time.

A large number of datable finds have come from Reculver, 86 in total. As in Area 1, a further graph (Fig. 5.13b) was produced to assess to what extent such a sizeable assemblage would have on the overall regional trend. The omission of Reculver does alter the shape of the graph to a small extent, increasing the total proportion of all groups at the expense of group 3, which drops significantly, by *c.*10%. Therefore, it would appear wise to compare individual sites to both the amended graph, and the original, in order to reduce the bias caused by the large number of finds from group 3 at Reculver.

5.2.4.1 Distribution of sites showing at least ten datable coin finds within the region

Fig. 5.14 shows the distribution of sites where at least ten datable single finds have been made. There is a clear concentration of sites in eastern Kent, especially around the area of Reculver, Richborough, and Canterbury, described by Metcalf (1984b, 203) as the 'East Kent Triangle' where many coins have been found since the eighteenth century. Additionally, approximately 5km south of Richborough, is Eastry where ten datable finds have been made. All of these sites are within easy access of the coast, the Wantsum Channel, and the Roman road network.

The only remaining site, at Hollingbourne on/near the North Downs Way, has 31 late seventh to early ninth century finds (Bosner 1997, 41). It should, however, be noted that a further productive site is known in the same area near Lenham. Metal detectorists had reported a total of ten finds from the site to the Portable Antiquities Scheme by August 1998, albeit spread across two sites, divided nine to one. A further coin from 'near Lenham' was reported in Bosner (1998, 219), but whether this find was made in either of the two sites, or at a different one is not clear. Although inland, Hollingbourne (and 'near Lenham') are situated only *c.*15km from the north coast of Kent (shortest distance) or *c.*20km if travelling west along the North Downs Way and then north at the junction with Roman road to Rochester.

A caveat regarding this distribution should be made, however. The problems with stray and metal-detected finds can be applied to the distribution of productive sites in Area 2. In the concentration of sites in eastern Kent, Reculver has been a site of inquiry since early antiquarian interest over 200 years ago (Metcalf 1988b); Richborough is the site of extensive excavation, as is Canterbury; and Eastry is one of a large number of metal-detected sites over a small area between the Dover-Richborough Roman road and the coast, and it is possible that it is the product of a number of detectorists who have good relations with local archaeological groups and museums. The problem of non-reporting of finds is highlighted at Hollingbourne, where Bosner (1997, 41) states that 'We are fairly sure that the finds we have recorded are only a part of the total number of coins recovered', and that it is a site well known to the local detectorists. As a result this distribution must be examined with these reservations in mind.

Discussion

The numismatic evidence has shown that the sites with the highest levels of coin loss in Area 2 are all situated in eastern Kent, with the exception of one site (Hollingbourne). This reflects the traditional research bias toward the eastern coast of Kent around Canterbury and the Isle of Thanet, and it is entirely possible that highly productive sites may be present in the west of Area 2. However, extensive metal-detecting around Area 2, and especially across the whole of the eastern half does attest to the obvious importance of the area around the Wantsum Channel, and the majority of foreign coins were found in the east of Area 2.

The only site outside of this region was Hollingbourne, *c.*15km inland, and *c.*20km (via the North Downs Way and Roman road) from Rochester, where the important monastery and ninth century mint were located (Pagan 1986, 46-47) and *c.*40km from Canterbury. Hollingbourne was a documented estate centre (Everitt 1986, 117), located on a cross-country route, the North Downs Way, and as such appears to have been a regionally important place. It is possible that the site included a regional market, although this is not documented, and it could probably be described as a 'centre of authority', after Astill (1991, 103). It is questionable whether Hollingbourne would have had direct access to long-distance trade, as was seen for a number of sites in Area 1. Its location on the southern slopes of the North Downs would result in a difficult journey to the north coast of Kent as the North Down rises to *c.*230m OD at Hollingbourne, and a *c.*45km trek east along the North Downs Way to the coast.

5.2.4.2 Comparison of sites to calculated regional mean in Area 2

Fig. 5.13c-i shows the plots for individual sites, and it can be seen that there is variation. However, there is correlation between Canterbury, Hollingbourne, 'near Canterbury', and Reculver and the regional circulation, whilst the others (Eastry, and Richborough) differ to a greater or lesser extent, indicating, as for Area 1, that there was a regional pattern of coin loss.

Canterbury

The overall chart for Canterbury (Fig. 5.13c) shows that, like Reculver, it has greater coin loss in the early eighth century than the regional average. This possibly indicates that the decline in occupation intensity witnessed during this period at the Marlowe excavations (Blockley *et al*, 1995) was not replicated across the city, and indeed sites such as Christ Church College, and Longmarket attest to increasing intensity of occupation through this period (Houliston 1998; Rady 1990a; Pratt 1991). Additionally, charter evidence shows an intra-mural market and a reeve in the eighth century city (Russo 1998, 108). The graph does, however, follow the trend for the region in most respects until the ninth century when levels of coin loss were substantially above the regional average once more. Certainly this later period coincides with the time when Canterbury appears to have been expanding further, with greater density of settlement, and a wide range of people living inside the walls (Brooks 1984, 28-30).

Eastry

The graph for Eastry (Fig. 5.13d), a metal-detected site, is difficult to assess, owing to the low number of finds. These would, perhaps, show what is expected from the regional circulation with highest level of loss in group 3, and lesser in the later groups, but the record here is possibly too fragmentary to confidently discern a great deal.

Hollingbourne

Fig. 5.13e showing datable coin finds from Hollingbourne, follows regional coin loss closely until group six, after which no finds are known. The proportion of group 1 finds (pre-680) is interesting, being twice the regional average (16.1% as opposed to 8.8%), which may indicate something of the nature of the site from an early date, although the relatively small number of finds (five from group 1, 31 datable overall) must be considered. Group six also warrants attention, as the value here is over a third higher than the regional average (9.7% compared to 5.7%), but after this no finds have been reported.

'near Canterbury'

The metal-detected site 'near Canterbury' (Fig. 5.13f) produced a large number of coins throughout the 1980s (Bosner 1997, 41), and can be seen to correspond very well to the average regional circulation until group six (Fig. 5.13a), after which there are no finds until the post-Conquest period. However, a number of coins could not be included in the analysis: there was a total of six finds of Offa, including one with Bishop Eadberht of London, probably issued in the late 770s/ early 780s, and another produced by the moneyer Pehtwald at Canterbury, which Chick (1997, 58) places late during the light phase, that could be placed in group five. The others, however, were not described to a sufficient level that allowed attribution to group five or six. Additionally, two unidentified sceattas were also found, most likely of groups two or three. As a result, if these could be added, it is most probable that groups five or six may have witnessed greater coin loss than was normal for that period. It is unfortunate that the location of 'near Canterbury' has not yet been disclosed, and it will be extremely interesting to discover whether the site is coastal or inland, and whether it may be considered one of the middle Saxon ports near to Canterbury, i.e. Fordwich or Sarre.

Reculver

The minster site at Reculver has produced more finds than any other site in Area 2, although some of the earlier finds may have come from Thanet (Metcalf 1988b). Fig. 5.13g shows that these are highly concentrated into the early eighth century, with group 3 accounting for 67.44% of finds, well above the regional average. Groups 4-6 are correspondingly lower than average, but follow a similar pattern of decrease. As at Hollingbourne, and 'near Canterbury' no finds have been found dated later than c.810.

Richborough

The Richborough finds are problematic. There are 22 datable finds from the site, but the nine coins from groups 2 and 3 have been described as potential grave finds, although this is based on their proximity to the chapel in the Roman fort (Rigold and Metcalf 1984, 260). Therefore, two graphs have been produced, one including these finds, one excluding, in order that the pattern of coin loss for all coins can be

considered (Figs. 5.13h and 5.13i). Both graphs exhibit major differences to the regional pattern of coin loss, with far higher levels of coin loss in groups 4, 5, and 7. If indeed a number of the coins on the site were from burials, then the patterns could perhaps be considered to have been the product of a different pattern of deposition. However, as the evidence for this is circumstantial it can only be speculative.

5.2.4.3 Discussion

The analysis of the circulation of coinage in Area 2 has shown that comparing individual sites to a calculated regional mean is productive. A number of points have been highlighted: all but one of the most productive sites in Area 2 were coastal and may have been positioned for long-distance trading, and most foreign coins are within c.15km of the coast; a regional pattern of coin loss is apparent, and not a reflection only of the most productive sites; and a number of sites are highly comparable to this mean.

As in Area 1, it has been argued that those sites which show consistent coin loss, in relatively close correlation to the calculated regional mean, may have been actively involved in trade, i.e. they may have been markets. All of those in Area 2 (Canterbury, Reculver, 'near Canterbury', Richborough, and Hollingbourne) were coastal, located around the Wantsum Channel at the eastern end of Area 2, with the exception of Hollingbourne, and possibly 'near Canterbury'. The distribution of foreign coins matched the coastal nature of the consistently rich sites, although it must be admitted that their distribution is only slightly constrained in comparison to the distribution of finds of local minted coins, and it does cover much of the core settlement region, i.e. the northern and eastern coasts of Area 2, and the region just to the south of the North Downs, known as Holmesdale (Everitt 1986, 49). However, it would appear that in Area 2 the circulation of coinage may have been primarily geared toward waterborne, long-distance trade, and few inland sites were regionally important with respect to trade.

5.2.5 Discussion of coinage in Area 2

The coinage analyses must now be discussed as a whole. This section has shown that it is possible to trace the monetary history of Area 2. Transportation routes were

important throughout the study period, as they were in Area 1, with many finds near to Roman roads, the North Downs Way, rivers, and the coast. Certainly waterborne transportation networks appear to have been especially crucial, and the Wantsum Channel in the east of Area 2, and the Darent Valley and Rover Medway in the west have provided many finds. However, as Area 2 is relatively thin, with a very long coastline relative to area of land it is hardly surprising that settlements with access to water routes would have become important.

A number of useful conclusions have been drawn from the analyses, which it will be useful to re-iterate here. From the earliest English issues and imports onward there were a number of sites which consistently show monetary activity right through the study period, or until the early/ mid ninth century at least. There does not appear to have been any attempts to control trade through a single port, as postulated in Area 1. Also, there is no increase in numismatically rich sites appearing after the early eighth century, although some of the finds from Richborough dated to *c.* 710-*c.* 740 may have come from burials (Rigold and Metcalf 1984, 260), but this need not preclude them having arrived on the site via networks of trade.

With the exception of the Merovingian tremisses, there was a tight control over non-local issues of coinage throughout the study period. Most of the sceattas found have been given a mint attribution to Kent by Metcalf (1993). The later broad flan pennies were mostly minted in Canterbury, which is remarkable considering that in times of perceived monetary recession, e.g. the late eighth century, there was still a concerted re-minting of imported coinage. This implies that there must have been a high degree of central control over coinage entering the country.

In the third quarter of the ninth century there seems to be change, with the decline of the mint at Canterbury, and the increasing importance of other mints, namely Winchester and London. By this time, coin loss has ceased at Hollingbourne, 'near Canterbury', Reculver, and Richborough, possibly owing to the increase in Viking activity. When minting re-commenced in the 880s under Alfred of Wessex (871-899), finds are conspicuously absent from these sites, possibly suggesting that major changes were occurring reflected in the new burghal system.

5.3 Pottery

5.3.1 Introduction

The examination of pottery in Area 2 will follow the same pattern as for Area 1 (section 4.4). Pottery finds have been made on 19 sites across Area 2 (Fig 5.15). Integration of the assemblages into a comparable dataset is helped by the adoption of the categorisation system devised from the Marlowe excavations (Macpherson-Grant 1995b) across all Canterbury Archaeological Trust excavations around Kent. However, local wares from the major excavations at Sandtun (Gardiner *et al*, forthcoming) are described using a different system. Some integration of assemblages should be possible, though, especially for imported wares. The levels of available information may be problematic: of the 17 sites outside Canterbury, details regarding the ware type is only available from 10, although much of this lacks quantification. Where possible, quantification will be based on sherd count unless otherwise stated. Appendix 9 shows sherd count for each site by fabric type.

The chronologies for middle Saxon ceramic assemblages in Area 2 are better than for Area 1 (section 4.4.1). The Canterbury categories also have a chronological base, thus allowing for changes through time to be traced to at least a certain level. There remain assemblages where such tight dating is not available, especially those only published as interim reports or summaries.

In Area 2, datable deposits within the middle Saxon period range from the early/ mid seventh century, through to the late ninth century. Even those assemblages which are not quantified or described by fabric, generally those in interim reports, are often dated, and it is only a few sites, e.g. Fordwich and Rochester, which are categorised as 'middle Saxon'. Therefore, it should be possible to examine the pottery with greater assessment of chronological change than for Area 1.

5.3.2 Previous Work

As for Area 1, little previous work has been undertaken by way of examining the pottery from Kent regionally, or with respect to trade, except, perhaps, for some of the imported continental vessels, e.g. Hurst (1976, 288).

Hurst (1959, 19-21) noted that production in Kent was both hand and wheel thrown, and included a number of decorated pitchers, one of which, from Richborough, has since been described as Ipswich Ware (Kennett 1989, 58). Hurst (1959, 19-21) also noted the presence of imported pottery at Sandtun, probably from the later eighth century. In his short summary, Hodges (1981, 57) noted that middle Saxon Kentish pottery was 'very much in the English tradition', with the decorated pitchers probably made on a slow wheel like Ipswich Ware, and which he thought may have had Continental influences. Hawkes (1982, 76) argued that much of the seventh century imported pottery (in graves) was northern French suggesting trading links mostly across the English Channel.

Macpherson-Grant (1986a, 31-32) summarised what was then known about the evolution of pottery in Canterbury, arguing that the pottery dated *c.* 650-800 may have been a period of experimentation in response to increasing population, prior to an organised industry in the ninth century when increased use of the wheel was seen. Mainman and Macpherson-Grant (1995) has suggested that at least some of the pottery, especially early Saxon, was produced domestically from brickearth available around Canterbury, but that some of the middle Saxon wares, those made on a wheel, may have required a specialist. They argue for one or more workshops producing these pots around East Kent, albeit with little hard evidence (*ibid.*, 897).

5.3.3 Distribution

The analysis of regional distribution will be divided by the area of likely production, as previously for Area 1. This divides the section into local wares (from Area 2), wares made elsewhere in Britain, and Continental imports.

The distribution of finds datable to the middle Saxon period is shown in Fig 5.15. As mentioned above, quantification is problematic in places. Additionally, description of fabrics and form are absent for the sites at Biggin's Hill, Cheriton Hill, Cliffsend, and Fordwich, as well as proportions of the assemblages from Minster-in-Sheppey, and some sites in Canterbury. As a result, much of the analysis is focused toward those

sites with greater levels of information, although the remaining sites will be included wherever possible.

Fig 5.15 shows that the site distribution belongs predominantly to eastern Kent, with only four sites to the west of the line of the Lympe-Canterbury Roman road, none of which are south of the Canterbury-Rochester road. The lack of evidence over the central and south-western regions of Area 2 is interesting, and may, in part reflect research priorities which have traditionally focused on burial and documented ecclesiastical sites. However, the distribution of early Saxon cemeteries in Kent is not much greater (Lucy 2000, 142-143), and it is possible that it does reflect real Anglo-Saxon settlement patterns. Indeed, the Weald of south-east England which covered much of south-western area was probably at best only very sparsely populated in middle Saxon times, and the central southern area covers the Romney Marsh, drainage of which probably only began during the late Saxon period (Gardiner 1997, 7).

5.3.3.1 Local Wares

Pottery which was probably produced locally dominates most assemblages. As in Area 1, a range of types are known, tempered with quartz-sand, organics, shell, or chalk. Each will be examined separately, prior to a comparative discussion of the locally produced wares.

Quartz-sand tempered wares

Quartz-sand tempered wares are relatively widespread, found on 10 sites in Area 2 (Fig. 5.16). They are dominant at sites in Canterbury, and nearby, e.g. at Thanet Way site 11, Broad Oak Water and St. Martin's Hill, but appear to be no more common than other wares further away, and are a minor part at some sites, such as Sandtun.

Variations within the ware are difficult to assess confidently, as pottery from three of the ten sites is only described as quartz-sand tempered. The assemblages from Canterbury appear to represent a wider range of types, but this may be illusory owing to the high levels of publication from the city, and the relatively small number of sites elsewhere, too few of which are adequately published. Certainly many were long-lived, and spanned early and middle Saxon contexts at the Marlowe excavations

(Macpherson-Grant 1995c; Macpherson-Grant 1995d). Although many of the early quartz-sand Canterbury wares, labelled EMS (early-middle Saxon), may only have been in use locally (Mainman and Macpherson-Grant 1995), later types, MLS (middle-late Saxon), do show a wider distribution across Area 2. These have also been identified at Broad Oak Water, St. Martin's Hill, Dover, Sandtun, and Thanet Way site 11, albeit in small amounts at the latter three. Additionally, the ware from Dover (MLS5) is also tempered with shell, but in smaller quantities than quartz-sand (Underwood-Keevil 1994, 123).

Chronological variation is somewhat problematic to trace. Most sites are dated, but only Canterbury has an comprehensive overall chronology from the seventh to the ninth century. The problem is compounded by the lack of detailed reports or publications relating to sites with seventh or eighth century phases outside of Canterbury. Analysis of pottery found in cemetery excavations would, no doubt, be of help here, but this is outside the scope of the present project, and the publication of the sites from Minter-in-Sheppey, and the Channel Tunnel excavations near Folkestone are eagerly awaited. By comparing the Canterbury assemblages with those from elsewhere in Area 2, it appears that the wares which are found around the region, i.e. MLS2 and MLS5, are generally from eighth and/or ninth century deposits. This may support Macpherson-Grant (1995a, 887-888) who argued that evidence from the Marlowe excavations indicated a major change in fabric during the late seventh/ early eighth century.

Where described, vessel type was limited to a narrow range of forms, with virtually all either cooking pots, jars, or bowls suggesting basic domestic use. Gardiner *et al*, (forthcoming) note that most of the quartz-sand tempered wares from Sandtun were probably associated with drinking/ liquid storage, and discusses the possibility that some vessels of fabric MLS2 may be decorated pitchers or globular decorated jars, but these were in a minority.

Shell-tempered wares

Locally produced shell-tempered wares have been found on six sites in Area 2 (Fig. 5.17). No assemblages can be placed before the eighth century, excepting a single

sherd which was found at the Bus Station, Canterbury and dated to the sixth/ seventh century (Wilson 1983, 285). It appears that the context from which it derives overlay another sixth century deposit, and was sealed by a context containing tenth century to post-Conquest material (Frere and Stow 1983, 137). This may suggest that an eighth, or even ninth century date could be equally likely.

The distribution covers the eastern half of Area 2, although with few sites to the west, and undescribed pottery from Minster-in-Sheppey this may simply be due to excavation bias. It is unfortunate that few assemblages are quantified, but Fig. 5.18 does show noticeable differences between Canterbury and Sandtun: the former shows the shell-tempered pottery to be only a minor part of the overall assemblage, whereas at Sandtun such wares are the most dominant locally produced pot type, although quantification was somewhat difficult here. The small assemblages at St. Martin's Hill and Dover make interpretation difficult, but in both cases lower numbers of sherds were found than for other fabrics. No quantification was available for Stoneby-Faversham, which in any case may be late Saxon (Fletcher and Meates 1977, 69), or Cherry Hill Garden, where Gardiner *et al* (forthcoming) mention it is one of the fabrics present.

Vessel form would appear similar to the quartz-sand tempered vessels, providing domestic uses, although Gardiner *et al*, (forthcoming) argue that at Sandtun shell tempered vessels were more likely to be used for cooking or storage.

Other local wares

No other fabric types produced in Area 2 have been found either in large quantities, or across more than a few sites. Organic-tempered wares have been found on five sites (Fig. 5.19), although at Rochester only a single sherd was found, and that was residual in a medieval grave (Ward and Anderson 1990, 96). It was not a dominant type overall at either Canterbury or Sandtun, in both cases dated to the seventh century (Macpherson-Grant 1995c; Macpherson-Grant 1995d; Gardiner *et al*, forthcoming). In his summary of pottery from Canterbury, Macpherson-Grant (1986a, 31), cites the rise of organic tempered wares during the later sixth to seventh century, before declining again in the eighth century, although he could not account for this. Within

Canterbury, seventh century assemblages are dominated by organic-tempered wares, which account for 38.6% of quantified assemblages (Fig. 5.20). Little is known from eighth- mid ninth century levels, but this may be due to lower levels of evidence and a general lack of quantified material. However, once more detailed information is available for sites such as Christ Church College and Longmarket, the period *c.*700-*c.*850 will become clearer. The other two findspots in Area 2, Dolland's Moor and Church Whitfield crossroads, have been attributed seventh century and sixth/seventh century dates respectively, and at both organic tempered wares predominate (Bennett 1989, 58; Parfitt 1996). However, it should be noted that in both cases dating evidence was relatively scarce, with the pottery the only source: the additional presence of seventh century northern French pottery at Church Whitfield would though, indicate the date range of this site at least to be relatively safe.

The only other ware probably produced in Area 2 was tempered with chalk, and has only been discovered at sites in Canterbury, and in very small amounts at Church Whitfield crossroads (Fig. 5.21). The vast majority of this in Canterbury comes from seventh century contexts at Marlowe I, although a small number of sherds have been found in eighth century deposits both here and in the other Marlowe excavations (Macpherson-Grant 1995c; Macpherson-Grant 1995d).

5.3.3.2 Wares from elsewhere in mainland Britain

Pottery which was produced elsewhere in Britain has been identified in Area 2. At Sandtun, Ward (1996) identified a few sherds of late eighth/ mid ninth century shelly ware probably produced in East Sussex, no doubt reflecting one of the wide range of contacts enjoyed by the site. It has not been identified elsewhere in Area 2 as yet, but this may be partly due to the low levels of publication from sites in the south of Kent.

Ipswich Ware is the only other identified British import, and is present at eight sites (Fig. 5.22). The distribution covers much of the area of pottery finds in Area 2, but is especially focused toward the coast, and Canterbury. In general, Ipswich Ware is represented by just a few sherds, or a single vessel, as at Sandtun, Dover, Richborough, Stone-by-Faversham, and Teynham, but larger amounts have been found at Canterbury, St, Martin's Hill, and Minster-in-Sheppey. The largest of these

comes from Minster-in-Sheppey, but it is unpublished (information from Kent SMR). In Canterbury, all sites producing Ipswich Ware were intra-mural, with the exception of that found at the metalworking site at Christ Church College (Macpherson-Grant 1984; Bennett 1988, 135). Quantified intra-mural finds total only 23 sherds, of a total middle Saxon count of around 1000, and little appears to have been found during the numerous excavations at Christ Church College, although this has yet to be published, and reports available are not quantified. Nine vessels were found *c.* 1km outside of the walled town during the excavations at St. Martin's Hill (Rady 1987a, 178-181), accounting for 50% of the total sherd count from the site.

As in Area 1, vessel form is interesting, with a high proportion of pitchers, but a number of jars and cooking pots have been found in Canterbury, and a cooking pot in Dover. Finds elsewhere are all of pitchers, many of them decorative.

5.3.3.3 Continental Wares

Finds of Continental pottery have been made on five sites in Area 2 (Fig. 5.23), most from northern France, with some Rhenish material. At two sites northern French ware was found in relatively small quantities: a single sherd at Church Whitfield crossroads, and three black/ grey burnished sherds at Dover (Parfitt, 1996; Underwood-Keevil 1994, 122; Dunning 1957, 37). An unknown quantity, yet to be published, was also found at Minster-in-Sheppey in 1991, but is simply described as Continental pottery (Macpherson-Grant 1993, 17). The two remaining sites, Sandtun, and Canterbury have both produced larger assemblages.

In Canterbury, Continental pottery is known from six excavated sites across the city, both intra- and extra-mural. The vast majority is northern French, all of it black/ grey burnished ware, with only one site (east side of Canterbury Lane) showing any evidence of Rhenish material, in this case five sherds of Badorf ware, dated to the late ninth/ early tenth century (Wilson 1983, 232). The amounts found in Canterbury are proportionally very low, with a total sherd count of only 25, from an overall assemblage of around 1000 sherds from the city.

Sandtun is somewhat different, with Continental wares accounting for nearly a third of all sherds found (Gardiner *et al*, forthcoming). This equates well with coastal trading sites, and the site should perhaps be considered in this light. The range of pottery here is also far greater than elsewhere, although still virtually all northern French, with the exception of a single sherd of Mayen ware. This is probably unsurprising given the coastal location of the site (Blackmore, forthcoming).

5.3.4 Discussion

The examination of pottery in Area 2 has shown a wide variety of pottery circulating in the region during the middle Saxon period, from locally produced wares to imported Continental vessels.

The transition from early to middle Saxon material is very interesting with the apparent rise in the use of organic-tempered wares across the region for a period, prior to more homogeneous regional quartz-sand and shell tempered wares. Why this happened is still unclear, and may benefit from an in-depth analysis of both settlement and burial evidence.

With the exception of Sandtun, quartz-sand tempered wares were mostly dominant. By the eighth century there is evidence of a regional, rather than local distribution of some types, namely MLS2 and to a lesser extent MLS5, in contrast to the sixth/seventh century when the Canterbury evidence would indicate domestic production (Mainman and Macpherson-Grant 1995). Distribution mechanisms are difficult for this later material, which can only be described as 'Kentish' (Macpherson-Grant 1995b, 823) because the sources of the constituents are not known, and no kilns have been discovered.

Finds of pottery from elsewhere in Britain are widespread, albeit generally in quite small amounts. The finds of East Sussex shelly ware from Sandtun is hardly surprising given the proximity of the site to East Sussex, and its wide range of contacts. Ipswich Ware was far more widespread than in Area 1, being found on a great deal more sites, and some, Minster-in-Sheppey, and St. Martin's Hill, Canterbury, have produced enough that it may be suggested that contact was quite

intense. Kent is relatively close to Ipswich, and it would be easier for traffic to move down the east coast to Area 2, than north to Area 1. Sea-borne trade must have been an important aspect of the middle Saxon economy here, with many stopping points around the coast. It is unfortunate that no inland settlement sites have been found, but the Ipswich Ware distribution map produced by Blinkhorn (1999, 7) indicates that this is the extent of its circulation, with no grave finds known. If so, then it may suggest that demand for it was relatively low and was not sought after enough for inland inhabitants to attempt to procure it.

Imported Continental wares may be mostly indicative of direct access to networks of international trade, rather than any redistribution from a central site. Indeed, unlike Area 1, or areas such as Hampshire, Suffolk, or greater London, no large emporium has been discovered where massive assemblages of imported pottery may be expected. It is well known that in Kent the documentary sources cite places such as Fordwich, Sandwich and Sarre as trading ports, and it is possible that these may have been more akin to what was excavated at Sandtun.

Overall, the distribution of pottery in Area 2 may be indicative of settlement density, with most occupation around the coasts, and few sites inland. In section 5.1.1 it was seen that the settlement potential of much of the inland area is constrained by its geology and geography. This in turn may have promoted a developed sea-borne transportation network with cross country routes utilised to a lesser extent, especially for bulky produce.

5.4 Stone Artefacts

5.4.1 Introduction

Stone artefacts have been found on only five excavated settlement sites in Area 2 (Fig. 5.24). Regardless, it is still important that these finds are analysed as they were for Area 1 (section 4.5).

This aims of this section are as slightly less ambitious than for Area 1, given the low number of both finds, and sites. However, the finds will be examined to establish

whether the evidence can be used to reconstruct networks of trade, and whether particular stone types were more readily used.

5.4.2 Previous work in Area 2

There is currently very little outside the specialist post-excavation reports, and much of it relates to artefact type and probable geological provenance, e.g. Garrard and Stow (1995). Little else is available, although Evison (1975) provides an overview of early Saxon hones in burial contexts, including finds from Kent and their provenance.

5.4.3 Distribution

The discussion of stone artefacts in Area 2 will be based around the general provenance of stone types: from within Area 2; from elsewhere in Britain, and from Continental Europe.

Stone artefacts have been found on just five sites in Area 2 (Fig. 5.24, and Appendix 10). These are mostly dated to the eighth and ninth century, with the exception of the finds from Canterbury Marlowe IV, and Church Whitfield crossroads, which are both dated to the late seventh century (Garrard and Stow 1995; Parfitt 1996). Therefore, owing to both these factors, assessing any changes through the period will be very difficult, and potentially insecure. The analysis must be undertaken with this in mind, and only very general chronological interpretation can be considered, e.g. whether certain stone types were used throughout the study period. The provenance of the known artefacts is good, and all have been lithologically described, whereby their likely area of origin can be determined securely.

5.4.3.1 Stone provenanced within Area 2

Stone artefacts found in Area 2 which were produced from locally available material have been found at Sandtun, Church Whitfield crossroads, and Canterbury (Christ Church College).

Sandstone, probably from the Folkestone area (Houliston 1998), and Hythe Beds siltstone from eastern Kent were used to produce hones and/ or spindle whorls found at Christ Church College, and Sandtun (Houliston 1998; Gardiner *et al*, forthcoming).

Gardiner *et al* (forthcoming) argue that the evidence from Sandtun would indicate on-site production of spindlewhorls at least. A sandstone hone was also found in an SFB at Church Whitfield crossroads, and a sandstone quern at Sandtun, but the lithology is not further described for either. It is, however, probable that it would be the sandstone outcropping around Folkestone (Gallois 1965, 34-36).

The only other local stone type utilised was chalk used for weights, discovered at Sandtun, which although not provenanced, are most likely from the North Downs (see section 5.1.1).

5.4.3.2 Stone from elsewhere in Britain

Only one stone object has been excavated from a settlement site which may be provenanced to another area of Britain: a disc from Cliffsend, made of shale from the Kimmeridge formation in Dorset (Perkins 1998a, 357; Levison-Gower 1995, 1184-1185).

5.4.3.3 Stone from Continental Europe

Imported stone has been found at Dover, Sandtun, and in Canterbury (east side of Canterbury Lane, Marlowe IV, and Christ Church college), all of which is Mayen lava used for quernstones (Gardiner *et al*, forthcoming; Houliston 1998; Frere and Stow 1983, 183; Garrard and Stow 1995, 1206). Each site, apart Canterbury Lane, produced more than a single fragment, and Gardiner *et al* (forthcoming) believe that the assemblage represents more than one quern. This is also possible at Marlowe IV, where only a sample were published (Garrard and Stow 1995, 1206). Unlike Area 1 (section 4.5.3.3), no blanks or possible finishing waste were found, but blanks were discovered in the remains of a boat which was found in northern Kent at Graveney, dated to the first half of the tenth century (Fenwick 1978b). Overall, with the relatively small number of fragments, it is difficult to assess them much further.

5.4.4 Discussion

The analysis of stone artefacts has shown that a range of stone types, albeit relatively limited, were utilised in middle Saxon Area 2, and these came from a number of sources both within the study area, and imported into it. Nearby sources of stone were

certainly utilised by the local population, and on-site domestic production would be likely and is evidenced at Sandtun (Gardiner *et al*, forthcoming). Some transportation of stone, either as tools or raw material, did take place, however, with sandstone from the Folkestone region found in Canterbury, but the scale of this is not calculable on current evidence, especially considering the lack of comparable assemblages in the Folkestone area.

The low levels of imported stone is a little disappointing, but the presence of an eighth/ ninth century object from Dorset at Cliffsend is interesting, and indicates at least some contact between the different regions along the southern English coast. Such contacts were thriving in the Roman period, as shown by the finds from Canterbury (Levison-Gower 1995, 1184-1185), but it is impossible to speculate whether the Cliffsend find represents continuation of this, or highly intermittent trade. The finds of lava querns from the Mayen region are unsurprising, as these are common on middle Saxon sites across eastern England (Parkhouse 1997, 97). It is unfortunate that there are no excavated middle Saxon settlement sites further inland and in the western half of Area 2, with the result that levels of access to this material are currently difficult to assess. The available evidence does not imply a particularly high number of querns in use, a similar situation to Area 1 (section 4.5.4). Certainly, from the relatively small amount of evidence available from the Graveney boat excavations, Fenwick (1978a, 175) estimated that the boat would have been able to carry a maximum of *c.*280 querns, although only a handful of quern fragments was found (Smith 1978, 131).

5.5 Discussion

The archaeology of trade in Area 2 has been examined using a variety of artefact groups. This section will bring together the conclusions from sections 5.2-5.4, and allow for the results to be examined comparatively, from which the success of the analyses can be considered.

As anticipated in chapter 3, the evidence was not as extensive as in Area 1, with the exception of coinage, and ideas regarding the middle Saxon economy of Area 2 will be accordingly less developed. However, the study has provided useful information.

Local/ regional trade patterns proved most difficult to assess. Local pottery types, although well categorised, were relatively homogeneous across the study area, and a lack of provenance of clay types meant that movement of materials, or otherwise, could not be determined. Local wares were, however, dominant in virtually all assemblages. Local stone was durable enough for use as hones, as well as weights and spindlewhorls, and it appears, albeit from small amounts of evidence, that stone from the Folkestone area was used at least as far away as Canterbury. Coinage showed the dominance of the local mints, especially Canterbury, and their general correlation with Roman roads and the North Downs Way indicates the major transportation routes for monetised trade. Along these, there were few numismatically rich inland sites, with only Hollingbourne providing over ten finds, and nearby Lenham, just under ten. The general distribution of finds indicated that the monetary economy of Area 2 may have been more tightly controlled in the eastern half than in the west, where chronological changes were less pronounced.

Long-distance and international trade in Area 2 appears to have been concentrated around the coastal regions of the Kent. The coinage analysis showed the greatest concentrations, including non-local issues, around the coasts of east Kent with a number of sites, such as Reculver, producing extremely large numbers of finds. Pottery finds also followed the same pattern, with all non-local wares found in or very near to coastal locations. Ipswich ware was found in a number of places, attesting to the potential for relatively high levels of contact between Kent and East Anglia, especially along the northern coast. Continental pottery was found, and the site at *Sandtun* is of great importance, providing evidence for a non-urban site involved in overseas trade. The only other imported artefacts found were lava querns from the Rhineland, which were more widespread than other imported finds, as often found in eastern England.

Overall, the analyses from Area 2 have shown that the region probably had a complex economic system operating in the middle Saxon period, with coastal routes possibly more important than overland transport. It is unfortunate that a number of excavations with potentially relevant evidence, such as Minster-in-Sheppey and the Channel Tunnel, have not yet been published. These could provide far-reaching conclusions

regarding society and economy in middle Saxon Kent, and all results must remain provisional until these are available.

Chapter 6

The Archaeology of Trade in Eastern England, c.650-900

6.1 Introduction

Examination of the two study areas (chapters 4 and 5) has shown that each region had active regional trading networks, as well as access to longer distance and international trade, producing a somewhat more complex economic picture than envisaged by traditional theories.

The purpose of this chapter is to compare the results from Area 1 and Area 2, and to place them within a wider context. It will also explore the implications of the results for the organisation, control, and function of trade, those involved, and its operation. The chapter is divided into two main sections. The first is broadly based around the materials of exchange and the movement of goods (section 6.2), whilst the second will discuss the locations, organisation and administration of trade in middle Saxon eastern England (section 6.3).

6.2 Materials of exchange, and networks of trade

6.2.1 Introduction

This section examines the range of materials exchanged, the extensive networks of trade involved, and the control of resources by elite secular and ecclesiastical groups. Discussion is divided between luxury/prestige goods (section 6.2.2), bulk/utilitarian goods (section 6.2.3), and agriculture (section 6.2.4). The final discussion (section 6.2.5) places the other sections in the context of the control of, and access to resources.

6.2.2 Luxury goods

The academic focus on luxury items in models of the early medieval economy has declined over the last decade, with greater attention now paid to craft production at emporia and to utilitarian goods, e.g. Hodges (1996). However, the importation of luxuries formed a part of the economy of middle Saxon eastern England, and

therefore, it is important briefly to explore the range of goods known, and their potential impact.

The liturgical needs of the Church, including wine, oil and incense (Ulmschneider 2000a, 97), would have to be imported. Quantities are difficult to assess on the evidence of the small amounts of Continental pottery which may have held wine, and may not have been large (*ibid.*). However, this assumes that goods, such as wine and oil, entered the country in pottery vessels rather than other containers, possibly perishables such as wooden barrels. At Dorestad and Hamwic, wells have been found lined with wood from barrels, and it is entirely possible that they may have held wine, although obviously other goods, for example salt or fish, cannot be discounted (Hodges 1989b, 156; Morton 1992, 64). An indication of the potential scale of the wine trade can be seen from documentary sources. By the ninth century grain had to be imported to the wine-producing regions of the Middle Rhine, and some monasteries, (e.g. Fulda in Germany), appear to have acquired vineyards with some vigour (Hodges 1989b, 149; Fletcher 1997, 182-183). Therefore, the various requirements of the Church may have resulted in the relatively high level movement of goods, and Hinton (1990, 40) has suggested that the increased trade in bulk produce such as wine may have been a factor in the establishment of sites such as Hamwic and Ipswich in order to provide the necessary storage facilities at port.

Both archaeological and documentary sources show a range of other luxury commodities were traded into and around northern Europe, including metals (gold, iron, lead, silver, tin), dyes, glass, honey, leather, metalwork, spices, textiles, and weaponry (Hodges 1989b, 105). Quite what quantities were involved is extremely difficult to assess for many of these items, but it is clear that their trade was geographically extensive. Wood (1994, 215-216) discussed the concessions on tolls given to the monastery at Corbie (northern France) by Chilperic I in 716 on a wide range of spices, agricultural produce from the Mediterranean (figs, nuts, olives), and precious metals, all of which were imported, and it is known that the dying Bede gave his brethren pepper and incense (Fletcher 1997, 184).

Excavated fish remains can be important in discussion of regional economics and access to luxury goods. Any inland settlement with assemblages including marine or estuarine species would need to procure them from elsewhere. In Area 1, two salmon vertebrae were found at Cottam (Dobney *et al* 1999, 85), which Richards (1999b, 91) suggests came from either the North Sea or the Humber estuary. Middle Saxon contexts at Wharram Percy South Manor produced some fish bone and oyster shells, from the Yorkshire coast or Humber estuary (Clark 2000, 205; Pinter-Bellows 2000, 169; Richards 2000a, 199). Abundant remains at Thwing included fish remains and shellfish (Manby 1994, 4); unsurprising given the range of imported finds and its situation near enough to the coast for possible daily return travel.

This highlights the differential access of sites to non-local goods and materials. Much of the evidence from Area 1 indicates that only local resources were exploited, for example from nearby rivers, and that if fish were not available in the immediate vicinity then they did not form a part of the diet. Caythorpe is a good example: the site is only *c.*7.5km from the east coast, yet no fish remains were found, even though some bulk sieving took place. In contrast, Thwing, nearly 15km from the coast, produced a wide range and large amounts of marine fauna. If the inhabitants of Thwing could procure non-local goods, including pottery and stone artefacts, from regional markets at/or near the coast, then there is no reason why they could not have acquired fish at the same time. The small amounts found at Wharram Percy attest to the possibility of procuring at least some shellfish and fish from time to time. Broadly speaking, it may be that the flourishing of regional and long-distance trade seen in the middle Saxon period was also reflected in increased access to foodstuffs, whereby those with the means to procure goods from outside their locality could do so, as is witnessed at Thwing, and to some extent at Wharram Percy. Certainly there is evidence from other high status inland sites in England for the procurement of marine fauna, including Brandon, over 40km from the coast, and Chalton, *c.*15km inland (Carr *et al* 1988, 375; Champion 1977, 369).

Overall, the movement of luxury goods around north-western Europe, and into eastern England, was likely to have been of varied importance with some items, such as wine possibly being traded in some quantity. While it is difficult to assess the volume of

trade for many of these goods and materials, the fact that they are known to have been available over a very wide geographical region shows that complex networks of trade were in place throughout the period. The Church must have been an important factor in such trade with its various requirements, and its own great network of churches and monasteries across both England and mainland Europe. However, as archaeological work over the fifteen years has shown, e.g. Hodges and Hobley (1988), it is the trade in bulk produce and utilitarian items where the extent of and changes in the economy of middle Saxon England may be centred, and this will be examined next.

6.2.3 Utilitarian goods

The movement of utilitarian goods through networks of early medieval trade is well known and the importance of the trade in metals, especially iron, textiles, salt, and slaves has been stressed (Hodges 1989b, 117-129). The analyses made in Area 1 showed the potential importance of the trade in some archaeologically visible utilitarian items, highlighting grinding and sharpening stones, iron, and materials used in jewellery (e.g. jet) or the textile industry (e.g. haematite). Some of these may have moved over considerable distances. This section will highlight that a range of utilitarian goods were of great importance to the early medieval economy and that these required complex networks of trade to support them.

Stone objects illustrate this very well. The most archaeologically visible stone artefact in this period is undoubtedly the Mayen lava quern from the Eifel region of Germany, with its wide distribution across north-western Europe (Parkhouse 1997). Eastern England is very much a part of this distribution with many finds at major ports (Ipswich, York, and London) and rural settlements, including most of those excavated in study areas. Parkhouse (*ibid.*, 99-104) has argued for the importation of unfinished stones to emporia where finishing was undertaken prior to distribution throughout rural regions. Indeed, finishing waste has been found during excavation at London, York, and possibly Ipswich, and it may have been a specialised activity which took place at the port-of-entry (*ibid.*, 102). From this location a sophisticated distribution network would be required across eastern England.

The provenance determined for different stone types also provided an insight into networks of regional trade around Area 1. A distinction was seen between grinding stones, either querns or hones, and other objects, such as spindle whorls or weights. The latter, from stone not required to exhibit specific attributes, such as the strength, durability or coarseness needed for grinding, were more likely to be produced from materials available in the immediate vicinity of the settlement, such as chalk on the Yorkshire Wolds. This was not always the case, and on occasion useable materials of lesser quality than those found further away were utilised, such as some of the local limestone which was used for some of the querns at Wharram Percy. Grinding and sharpening stones were more likely to be made from materials which were obviously specially chosen, and transported over relatively large distances. Millstone Grit from the Pennines is likely to have travelled around 80km to York and the East Riding, and the materials from southern Scotland/ Cumbria would have moved in excess of 150km to York. Such large distances are indicative that the ability to procure high quality materials suited to different purposes was important, and that a well organised network of exchange existed to supply them.

Also highly visible are the products of the Ipswich Ware pottery industry, distributed widely across East Anglia and also into adjacent regions, albeit in far smaller amounts as was seen in Area 1 and Area 2 (sections 4.3.3.2 and 5.3.3.2). Blinkhorn (1999, 10-11) has argued that the widespread extent of the pottery illustrates an intensification in patterns of regional trading from the early eighth century, and Newman (1999, 39-40) that such evidence can be used to define the local hinterland of Ipswich.

Another utilitarian good known to be transported over large distances was salt. This was the most reliable preservative known throughout the medieval period (Hodges 1989b, 126). Whitelock (1952, 115-116) has argued that the ownership of salt pans, where available, was of considerable importance, and that by Domesday at least, the trade in salt carried tolls for the king. Sawyer (1977, 147-148) takes this further arguing that these tolls are visible at the major salt production centre at Droitwich (Worcestershire) by the early ninth century and were probably in place during the eighth century. The salt pans were controlled by the king of Mercia, although grants to ecclesiastical foundations were made for rights to produce salt in Droitwich (Hurst

1997, 142). A further indication of the importance of salt, and centres of salt production comes from the term 'saltway' used in contemporary documents to describe the routes of long-distance transportation of the commodity, and by c.800 Droitwich supplied salt to much of Mercia, from Gloucestershire in the south-west to Lincolnshire and Bedfordshire in the east (Taylor 1979, 95-96; Hurst 1997, 142). Trade in salt was obviously vital involving a variety of institutions and complex distribution networks, and to illustrate this Campbell (2000) recently calculated that the population of middle Saxon England would have required several thousand tons of salt annually. In some areas this was produced locally, for example the Lincolnshire and Norfolk fens (Leah 1992, 154), but others did not, at least it seems not in any quantity, including Area 1, and salt would have been imported from other regions, as was shown above with Droitwich. In Area 1 it was suggested that the high incidence of Lincolnshire shell tempered wares at Fishergate may indicate a steady trade in salt, possibly brought along the east coast and via the Humber to York, a distance potentially well over 100km. The ceramic evidence suggests that the bulk of this trade went via York, but it is unclear whether direct contact was made with other regions of Area 1. As argued above, a number of rural sites had direct access to networks of long-distance trade, and there is no reason to suppose that trade in salt should have been any different, especially if tolls were collected at these rural centres.

Slave-trading has been described as 'possibly the single most important trade in early medieval Europe' by Hodges (1989b, 128), who also suggested that the trade in slaves was based around the need to increase local production. Pelteret (1981, 102-107) argued for a widespread and active slave trade throughout the Anglo-Saxon period, with slaves sold locally as well as exported to the Continent. He argued that slaves were in plentiful supply not only through conquest, but also from other sources as cited in the *Poentientiale Theodori*, which probably dates back to the late seventh century. Slaves include young children being sold by poverty stricken parents, the poor selling themselves, and those enslaved as a punishment for certain crimes. Faith (1997, 58-67) illustrated the importance of the slave to the workings of Anglo-Saxon estates, including those held by the Church. Most slaves would have been trained as semi-skilled or skilled workers in order to pay back the investment made in them, including work vital to the effective running of an estate, with stock rearing,

ploughing and smithing often cited (*ibid.*, 65-66). It would appear that slaves were in reasonably ready supply, and their use widespread. The fact that there are a number of documentary references to their export, with Frisians acting as middlemen (Pelteret 1981, 102), does indicate their value as an export item, and it is interesting to consider where they were bought and sold. In England, the historical record mentions London, and the Frisian colony at York, but it does not mean that all slave trading went on through large centres only. Campbell (2000) has suggested that one role of the 'productive site' may have been the sale of slaves to foreign merchants, and, no doubt, local estate owners.

The large-scale export of cloth from Anglo-Saxon England is well attested and the letters between Charlemagne and Offa regarding the length of exported English tunics often quoted, e.g. Hodges (1989b, 126). Textile production has traditionally been seen as a major industry in early medieval England, and there is evidence that it was produced in large quantities in Ipswich and London by c.750, and there is also at least some evidence for textile production at Fishergate and Hamwic (Scull 1997, 278; Blackmore 1997, 127; Kemp 1996, 47, 71-2). In order for large-scale textile production to take place at emporia for export, a well managed network for the transportation of wool from rural areas was required, as was a consistent production of surplus. The evidence from the emporia must indicate that this was the case for much of eastern England. Crabtree (1996b) has argued from zooarchaeological evidence that increasingly specialised animal husbandry can be seen in East Anglia from the seventh century. A number of sites, including West Stow and Brandon show higher levels of mature and/ or male sheep than previously, as is typical of flocks bred for wool production, rather than meat/dairy (*ibid.*, 102). Additionally, a number of middle Saxon sites in the Norfolk Fens may represent early specialisation (Leah 1992, 54-56). Seven sites located in an apparently planned manner suggest a deliberate re-settlement of this region, later a rich wool producing area. The excavated evidence suggests that these middle Saxon sites were involved in stock rearing and salt production (*ibid.*), both of which could have been designed for the production of surplus. Therefore, within middle Saxon East Anglia at least change towards specialised wool production can be seen from the seventh century.

Specialised, controlled production can also be seen at this time with respect to iron. Certainly Loveluck (1996) has equated control over iron with greater wealth in early Saxon East Yorkshire, and the examination of metalwork in Area 1 (section 4.5) emphasised the significance of iron in domestic life. Finds of iron accounted for at least 70% of all metal finds on excavated settlements in Area 1. The control over a commodity such as iron would, then, appear to be of importance. This is illustrated by some of the middle Saxon evidence. Smithing evidence is seen from excavation on a regular basis, such as at Wharram Percy, sites in Canterbury, and the emporia, but middle Saxon smelting is far more restricted. The eighth/ ninth century iron working site at Ramsbury (Wiltshire) showed extensive evidence of smelting and smithing, including furnaces, an ore roasting area, and occupation debris including imported lava querns (Haslam 1980, 1-6). The ores used were mined at least 5km away, and there was evidence for outcrops over 30km west of the settlement being utilised (Fell 1980). Blinkhorn (1999, 18) has suggested that this implies controlled production because the transportation of raw ore would have been less efficient than smelting at source. The site itself, likely to have been part of a royal estate, is seen as part of growing specialisation in industrial activity, produced under tight control which provided iron for a wide area (Haslam 1980, 56-64). In Wessex, Yorke (1995, 307) mentions that sites where smelting has been found in Gillingham (Dorset) and Romsey (Hampshire) were also under royal control in the middle Saxon period.

Another possible specialised iron-working site has been found during excavations at Christ Church College, Canterbury (fully discussed in section 5.1.2.4.1). These produced extensive evidence for large-scale iron-working throughout the eighth and ninth centuries on a site adjacent to the site of the abbey of St. Peter and St. Paul, and Houliston (1998, 16) has stated that all excavated pits have included some smelting evidence. Charter evidence from 689 granted the abbey rights to extract iron ore which is likely to have come from the Kentish Weald (Houliston 1999, 2). Whether iron ore extracted in the Weald would have been transported around 50km to Canterbury for smelting is unknown and perhaps unlikely, but the distances known from Ramsbury do not make it impossible. A similar iron-smelting complex has also been found at Little Totham (Essex), with smelting and smithing from the seventh

century possibly representing specialised production (*Current Archaeology* 1989, 262-265).

Other smelting evidence is rare, but includes Ipswich, London and Flixborough (Kemp 1996, 70; Andrews 1997, 222, Loveluck 1998, 157). None of these or the examples discussed above can be considered ordinary domestic settlements, but represent either specialist or high status settlement of a type which appears from the late seventh century. Such examples highlight the restricted nature of the raw ore and its smelting, and the potential control that powerful groups had over such resources.

Associated with much of the above is wood- this would have been required as fuel, including for industrial process such as iron or salt production, and as building material which may be especially pertinent to the emporia whose requirements for timber may have resulted in large-scale importation of wood. It is certainly known that in some cases food-rent consisted of wood rather than agricultural produce (Blinkhorn 1999, 12-13).

6.2.4 Agriculture

An important factor in the intra-regional economy was undoubtedly agriculture, as the above discussion of textile production illustrates. It is a central tenet of a number of models for the early medieval economy, with the need for surplus important, e.g. Hodges (1989b) and Blinkhorn (1999). A major factor in this are the emporia. Environmental evidence indicates that their populations can be considered consumers rather than producers of agricultural products and thus required provisioning (O'Connor 1991), with efficient transportation networks required to provide food and materials.

Changes in settlement location and organisation through the seventh century have been perceived as representing the changing nature of land organisation, with settlements being re-configured deliberately in order to produce greater amounts of surplus, e.g. Hinton (1990, 34-35). This was potentially achieved through increasing specialisation, either in patterns of animal husbandry, or in the growing of a narrower range of arable crops (Blinkhorn 1999, 14-16; Crabtree and Stevens 1994). A still

(1991, 101-102; 1994, 30) proposed a two-tier hierarchical system emerging in middle Saxon eastern England, whereby agricultural surplus was collected at estate centres, whether secular or ecclesiastical, which was used to fuel the emporia. Ulmschneider (2000b, 66) has equated Flixborough, and possibly other highly productive sites in Lincolnshire with such a role being at least a part of their function.

The idea of specialisation in wool production (Crabtree 1996b) has been addressed above (section 6.2.32), but other changes have also been observed. Crabtree (1994, 1996a, 1996b) has also argued that self-sufficiency gave way to increased specialisation in regard to pigs and cattle at a number of settlements. Crabtree (1996a, 68-71) argued for some specialisation in pig production from the evidence at Wicken Bonhunt (Essex), where pigs accounted for over 60% of all animals. This was interpreted as representing 'a production site that formed a part of a broader network of trade and exchange in animal products [i.e. pork]' (ibid., 70). The use of cattle may also have changed during the middle Saxon period with more being utilised primarily for traction, as age at death had risen from ideal meat producing age to that of worn out working animals (ibid., 66).

Blinkhorn's premise (1999, 10-11) was that the provisioning of the emporia must have meant that trade in foodstuffs was vitally important. However, he disagreed with Hodges (1982a) use of the food-rent in the Laws of Ine as a typical amount, citing other documentary evidence indicating that food-rent varied greatly in both volume and the goods required. This variation was partly due to geographical and environmental factors, but also because of increased specialisation in the countryside with settlements concentrating on a narrow range of produce (ibid., 14). His archaeological evidence comes from only a small number of sites in eastern/ central England, but illustrated possible major changes in the economy of middle Saxon settlements, moving from relatively dispersed settlements towards greater nucleation. He argued for an emphasis on stock-rearing, or a narrow range of cereals, rather than subsistence agriculture, and concluded that regional trading activity increased greatly in the early eighth century, and that this was due to the requirements of the emporia (ibid., 16-20). Other indications of this include the sites found in the Norfolk fens interpreted as sites for salt production and summer pasture (Leah 1992, 54-56; see

6.2.3), and Carver's assertion (1994, 3) that arable land in south-east Suffolk was increasing greatly during this period suggesting wheat for export was of growing importance.

Whether specialisation encompassed a narrow range of sites or was genuinely widespread remains unclear. Much of the work cited above is often dependant on few sites, which may be atypical. Of the rural middle Saxon sites from East Anglia used by Crabtree (1994, 1996a, 1996b), Wicken Bonhunt and Brandon have both been cited as very high status settlements, the latter possibly monastic (Carr *et al* 1988; Wade 1980b), and there is nothing to indicate that they are typical of domestic rural settlement in the area. The settlements in Blinkhorn's study (1999) are simply those which show changes between early and middle Saxon, and again, may not be typical examples. Additionally, his argument is at least partly based around increased specialisation in order to support non-agrarian populations in the emporia, but those sites used in his study are some distance from their nearest urban centre.

Animal bone evidence from across Area 1 indicates that there was limited evidence for any specialisation in the middle Saxon period. A greater proportion of older sheep at Beverley and Fishergate (Scott 1991, 217-226; O'Connor 1991, 249) may be indicative of greater levels of wool production at some sites from the eighth/ ninth century, but other data, especially from the Wharram Percy excavations (Stevens 1992; Pinter-Bellows 1992; Pinter-Bellows 2000), are very similar to early Saxon assemblages in the region, such as Hayton Roman fort, Caythorpe and York Minster (Johnson 1978, 100-101; Stallibrass 1996, 76; Rackham 1995). These are more indicative of a self-sufficient economy with animals raised for a variety of purposes including meat, wool, and dairy, although none were especially dominant. Additionally, the very meagre evidence for textile manufacture at Thwing and Cottam may indicate primary meat production, e.g. Manby (1994); Pinter-Bellows (1992); Richards (2000a). Overall, the current evidence gives the impression of only low levels of specialisation during the middle Saxon period in Area 1, with obvious signs of the deliberate breeding for wool or traction animals only visible at Beverley and from those settlements provisioning Fishergate. There are, however, additional factors which must be taken into account, and these are applicable to eastern England

as a whole. Although there was only meagre evidence for specialisation in animal husbandry in Area 1, there is little indication of similar processes in cereal production. Also, even if specialised production became important for the production of large amounts of surplus for wool production or grain for export, it does not necessarily follow that non-specialised sites could not produce a surplus to be collected at 'centres of authority' as food rent/ *feorm*, a specified amount of produce required to provision the royal household.

Feorm is known from documentary references, in charters and law codes, and it is clear that foodstuffs and produce were transported around the countryside, although it appears to have taken a variety of forms (Stenton 1971, 287-288). Large amounts were required from ten hides of land in an oft-quoted clause in Ine's laws, (Hodges 1982, 136), which asks that:

10 vats of honey, 300 loaves, 12 ambers⁵ of Welsh ale, 30 ambers of clear ale, 2 full-grown cows or 10 wethers. 10 geese, 20 hens, 10 cheeses, a full amber of butter, 5 salmon, 20 pounds of fodder, and 100 eels shall be paid.
(Attenborough 1922, 59)

Stenton (1971, 288), however, considers this may have been atypical, representing an estate which was managed to produce surplus. Other examples are lower, including the rent owed to Offa at Westbury on Trym of 'two tuns⁶ of clear ale, one 'cumb' full of mild ale, one 'cumb' [amber] full of British ale, seven oxen, six wethers, forty cheeses, thirty 'ambers' of rye corn, and four 'ambers' of meal' (ibid.). A ninth century example requires mostly wood (Blinkhorn 1999, 12-13), and it is clear that food rent must have been varied, based upon both environmental considerations, the nature of particular sites and surplus requirements. However, there is nothing to suggest that the *feorm* had to travel great distances, and Stenton (1971, 288) suggested that it 'was naturally rendered at a royal village within or near to the district from which it came'.

It is certainly worth considering these aspects of *feorm* in connection with the provisioning of emporia, and taking into account the distance over which the produce

⁵ the volume of a medieval amber has been calculated as 141 litres (Blinkhorn 1999, 12)

⁶ A tun is c.1000 litres (ibid.)

may have travelled. Some of the provisioning no doubt came from a distance, but the evidence of farms immediately surrounding Ipswich and London, much as they do at Dorestad (Scull 1997, 278) does bring to light the possibility that the provisioning was based on local resources. The evidence from faunal remains at Fishergate showed a predominance of cattle, which is typical of the Vale of York (O'Connor 1991, 240), although, by arguing from the *feorm* required under the laws of Ine, O'Connor later suggested that food rent could mask the typical produce of its catchment area (ibid., 282-283). However, if the other documented rents are more typical and *feorm* was geared toward what was locally produced, then there is no reason to suppose that the provisioning of Fishergate need be from outside of the Vale of York region or, taking account of calculated theoretical limits, from within c. 15km of York.

It appears that there is a complex situation across eastern England. Both archaeological and documentary sources indicate a diversity in agricultural exploitation from subsistence to specialised surplus production. Levels of specialisation may have been lower than has been proposed previously, e.g. Blinkhorn (1999), Crabtree (1996a). This, of course, may reflect the character of the evidence with comparatively little known regarding the nature of production other than animal husbandry generally owing to problems of preservation (although cf. Carver 1994). The provisioning of emporia with *feorm*, e.g. Blinkhorn (1999, 10-11), was a possibility although a major factor may have been the general proximity of sites to an emporium. Britnell (1993, 82-83), for example, has shown for the later medieval period that foodstuffs were only transported over short distances, often 10-15km, due to the high costs and time involved in moving bulky produce. The incidence of farms around Ipswich and London as well as Dorestad (Scull 1997, 278) may indeed suggest that much of the food required could be brought in from nearby. As a final note in this section, it is worth considering that the majority of those settlements where specialist production is found have been interpreted as high status or monastic (Brandon, Wicken Bonhunt, Beverley) or have elements suggestive of deliberate foundation and/or outside control, such as those found in the Norfolk Fens (Leah 1992, 54-56).

6.2.5 Discussion

It is clear from the above discussion (sections 6.2.2-6.2.4) that trade in utilitarian and some luxury goods was potentially large, and a well located and efficient distribution network would have been required for this to function effectively (this will be discussed in detail in the following section). It is of prime importance here to be reminded that the range of materials and goods discussed above, and especially the utilitarian and agricultural, should not be considered in isolation but instead as part of an interconnected system with many goods vital for the production/ use of others. An example is salt production where wood was required for fuel, and lead was often used for vessels in which to boil the brine (Adshead 1992, 67), both of which would need to be imported to a specialised production site such as Droitwich.

There are four other main points which should be re-iterated. It has been shown that items travelled over long-distances within England if they were required, such as grinding stones. Trade in utilitarian and bulk produce was the most important. There is evidence for increasing internal trade from around the turn of the eighth century, and there is evidence for a growing control over resources during the middle Saxon period.

It can be demonstrated (section 6.2.2 and 6.2.3) that there is direct evidence for the control of salt and iron, and for specialisation at high status settlements with respect to agriculture from the eighth century. There is also charter evidence for the granting of rights by the king for the extraction of iron ore, as given to St. Peter and St. Paul, Canterbury for the Weald (Houliston 1999, 2), or salt, controlled by the king of Mercia at Droitwich (Hurst 1997, 142). Such resources can, therefore, be regarded as ultimately under royal control unless specific grants were made, and such control over resources, or access to them, must have been sought after. As well as iron and salt, other resources would no doubt also have been restricted, including perhaps quarries for widely used stone such as Millstone Grit in the Pennines, and other sources of metal ore.

Alongside the control over natural resources, section 6.2.4 highlighted that land was also important by the late seventh century, and it was argued that lands around high status centres were likely to be involved in surplus production. Ulmschneider (1999; 2000a, 2000b) has argued convincingly that at least some 'productive sites' were located for the exploitation of a range of local resources (e.g. Carisbrooke, Isle of Wight). Many early estates were known to have been granted land in several locations in order that a range of resources were available to provide for the estate (Yorke 1995, 74-76). Certainly much of this land was granted in large estates to religious communities in perpetuity but grants were also made to veterans and noblemen. However, the proportion of land held by the Church was so high by the middle of the eighth century that Bede, in his letter to Egbert complained of the lack of land available for noblemen and veterans (Charles-Edwards 1979, 100). To illustrate this, Knight (1999, 174) states that by *c.*750 the Church in Gaul controlled a third of all land. If a similar situation was prevalent in Anglo-Saxon England, then the Church was obviously of major importance to the economic development of the countryside.

The importance of such grants of land was that they allowed greater control over production, and in the seventh century the general shift in settlement from light to heavier soils which Hinton (1990, 25-34) sees as the initiative of landowners, whether secular or ecclesiastical, reorganising their estates to increase agricultural production in order to procure goods and materials they otherwise would not be able to. This would obviously be important to religious communities who would have required a range of imported goods (see section 6.2.2), and also because at least some had very large populations who required feeding, such as Jarrow, where the estimated population is 600 (Fletcher 1997, 173). Obviously some of the requirements would have come as gifts to monasteries, but undoubtedly some must have been traded for, as the Church's interest in land in London, and on the remission of tolls indicates (Kelly 1992).

Therefore, controlled access to resources was maintained and increased throughout the middle Saxon period by the elite groups in society, especially the Church and royalty, and the re-organisation of land allowed the production of surplus for trade. The next section will explore how this trade was articulated and organised.

6.3 An Archaeology of Trade in Middle Saxon England

In discussion of the materials of exchange (section 6.2) the wide range of traded items, including luxuries and utilitarian goods, was highlighted. The control of resources was also shown to have been of growing importance from the seventh century at least with royal and ecclesiastical estates probably organised to produce surplus which could be used to procure other goods. This section will expand upon section 6.2, and the results of chapters 4 and 5. First, the locations of trade will be discussed, in order to assess where elites groups, both secular and ecclesiastical, could access the various networks of trade. Second, the function of coinage in the period will be assessed, and changes in this through time traced. Finally, section (6.3.3) will discuss the organisation and administration of early medieval trade in eastern England.

6.3.1 Locations and networks of trade

In identifying trading places in Area 1 and Area 2, the distinction between the places of trade, and the places of consumption had to be made. The mere presence of coinage or imported archaeological material does not necessarily indicate trade at that particular site. The use of coinage as an archaeologically visible indicator of trade proved very useful in both study areas, pinpointing a number of locations where large numbers of coins have been found, many by metal-detectorists. However, a high level of coin loss is not in itself indicative of trade; rather finds must be examined in relation to the pattern of coin loss across a region. It was argued for both Area 1 and Area 2 that those sites which showed consistent coin loss, similar to the calculated regional average, were more likely to be sites of long-term trade than those lacking such a correlation.

Using this, and other evidence, including documentary references, a number of sites in both Area 1 and Area 2 were interpreted as potential trading places, located both inland and on the coast, including both small settlements as well as the larger and extensively studied emporia. Comparing the distributions of these sites (Fig. 4.10 and 5.14), there are similarities: in both areas sites with the most finds of coinage, and/ or large quantities of imported pottery, were found on transportation routes, such as Roman roads, rivers, or in coastal locations. This indicates that potential markets

were either taking advantage of traffic on the main routes, or were designed to regulate it in some way. In Area 1, a number of sites were interpreted as the locations of markets, where patterns of coin loss indicated that these sites were in consistent use throughout the study period: York, Whitby, South Newbald, Kilham, and near Malton 1, with the addition of North Ferriby, and a number of sites in the Vale of York which may have been the locations of periodic markets through the late seventh/ early eighth century. Area 2 was more problematic, with differential levels of publication of many excavated rural sites hindering interpretation. However, potential market sites were identified at Hollingbourne, near Canterbury, Canterbury, Sandtun, and Reculver, with the possible addition of Richborough, and Minster-in-Sheppey. Additionally, there were also the sites documented as middle Saxon trading sites in Kent for which no (or only a little) archaeological evidence is forthcoming at Fordwich, Sarre, Sandwich, and Dover (Russo 1998, 146).

Therefore, it can be argued that a number of trading places are archaeologically (and historically) visible in both Area 1 and Area 2. This was not taken to indicate that these places functioned in the same way, or were meant to. They are discussed below according to their general geographical location and potential size under the following headings: inland, small coastal/ riverine sites, and large coastal/ riverine sites.

6.3.1.1 Inland sites

The idea that internal networks of trade were articulated through rural sites has been the focus of increasing research over recent years, e.g. Astill (1991), Blair (1988), Ulmschneider (2000a). Much of this is based around distributions of coinage and metalwork, with sites showing high levels of coin loss often interpreted as the locations of markets or fairs (see section 2.2.1.4 for full discussion).

In both study areas similar patterns were observed with a number of inland sites in each producing high numbers of coins, metalwork or imported objects. The general distribution of coinage throughout the middle Saxon period in the two study areas was seen often to be on/ near transportation routes. The numismatically rich sites (Fig. 4.10 and Fig. 5.14) were no exception, with a number also in possibly strategically important locations, such as 'near Malton 1' which may be around the entrance to the

Vale of Pickering, and South Newbald on the junction of two important Roman roads. This trend has been noted elsewhere, for example by Ulmschneider (2000a, 31, 50-51) in Lincolnshire, Hampshire, and the Isle of Wight, and by Newman (1999, 39) in East Anglia. The general perception is that these sites were of economic significance, possibly central places (administrative, aristocratic, ecclesiastical) with a market component, or may have collected surplus from surrounding settlements, e.g. Astill (1991, 101-102), Ulmschneider (2000b, 65-70). Such an interpretation would appear to be reasonable, given their locations and, where available, the archaeological evidence.

However, differentiation of these sites has proved difficult, and more detailed discussion has not been attempted. The application of the methodology of comparing patterns of coin loss to a calculated regional mean (sections 4.2.4 and 5.2.4) was extremely useful in this respect. It was argued that those sites showing consistent coin loss over a long period, with a close correlation to the regional mean were more likely to have had some kind of central, economic role, potentially as a market or fair, than those which did not. Obviously this did not preclude sites with little correlation to the calculated regional average from being sites with similar functions especially if only for short periods, but it may be likely that they simply represent a coin-using population. Area 1 provided extremely interesting data in this respect with a potential network of market sites providing coverage across the south-eastern part of Area 1 from the early/ middle eighth century at least. Additionally, the distribution of coins for the period up to *c.* 710 showed a network of inland sites from the River Humber to York located on junctions between rivers and land routes which ceased during the period of most intense activity at Fishergate. The implication must be that trade was under some form of political control, whether to regulate the trade itself, or to maximise the tolls which could be levied on it. Area 2 appeared somewhat different, with few numismatically rich inland sites. Of those identified, at Hollingbourne, Lenham, and Eastry, only Hollingbourne was considered a potential market, although both here and Eastry were documented estate centres/ early minsters (Everitt 1986, 117), possibly implying some attempt to control inland trade was also made in Kent.

Even though the numismatic methodologies used above have not been applied to other regions of eastern England, there are nevertheless a number of sites outside Areas 1 and 2 which could be interpreted as economically significant. In Suffolk, the sites at Barham and Coddendam, both near to Ipswich and on an inland routeway along the Gipping Valley, have produced large numismatic and metalwork assemblages as well as varying amounts of pottery. Newman (1999, 45; 2000) has interpreted these as the locations of multi-function high status settlements which may embrace an economic role. Ulmschneider's (2000b) (see 2.2.1.4) sustained examination of rural sites in Lincolnshire has been especially important, but does not show many potential inland markets, although this may be a reflection of the levels of research and metal-detecting. Only a single inland site has produced large numbers of coins, at Riby Cross Roads (*ibid.*, 65), but the archaeology does not indicate that the site was anything other than a domestic settlement (Steedman 1994). However, Ulmschneider does convincingly show that many of the artefactually richer inland sites were located on transportation routes, including Roman roads and other overland routes, which may indicate their successful exploitation of surrounding lands (Ulmschneider 2000b, 69-71). Therefore, it would appear clear that a number of inland locations in eastern England can be interpreted as sites which were economically significant, some possibly markets/or fairs, whilst others may represent a coin-using population. However, if there were indeed markets/ fairs in inland eastern England, or at least in parts of it, it prompts the questions of how they functioned, and what their purpose was.

In this respect, the distribution of numismatically rich inland sites in Areas 1 and 2 has been discussed above, and elsewhere (section 4.2.4.2 and 5.2.4.2) the relation of these sites to the calculated theoretical limit of 15km proved productive, especially so in Area 1. The economically significant sites in Area 1 were within 15km of the coast, perhaps indicating direct access to networks of long-distance trade, possibly linked to coastal beach markets, long since eroded away. The incidence of virtually all foreign coins in this zone goes some way in support of this. Area 2 was problematic, although the three inland 'productive sites' were within 15km of the coast.

A similar trend is also visible elsewhere in eastern England: all of the sites in Lincolnshire used by Ulmschneider (2000b, 64) which have produced over six middle Saxon coins are within c. 15km of the coast, except for one on the River Trent. All of those in west Norfolk (Rogerson 2000) are also within this limit, as are most numismatically rich sites in Suffolk (Naylor, forthcoming). Additionally, the distribution of sites in East Anglia (Newman 1999, 36) shows Tilbury (Essex) at the mouth of the Thames estuary, as well as a few inland sites (Royston, Ely, Thetford and Brandon), the last three, along with Lakenheath, all situated between the Icknield Way and the Great Ouse. In eastern England, therefore, it would seem from current evidence that the overwhelming majority of numismatically rich sites are within 15km of the coast or a navigable river. The implications for this are of potential importance: through analysis of the distributions of middle Saxon coinage, it has been argued that the monetary economy was based around international and inter-regional trade, e.g. Metcalf (1988a, 244); Metcalf (1998, 170), and the evidence presented here supports this. It would appear that there was a zone of eastern England either actively involved in or gaining access to the networks of long-distance trade, whether inter-regional or international.

6.3.1.2 Non-urban coastal/ riverine sites

The existence of small coastal trading settlements in middle Saxon eastern England has generally been understudied, probably owing to the influence of Hodges' work (1982a) and his argument that international traffic was channelled through large emporia during this period, with the possible exception of Kent (Tatton-Brown 1988). However, with the work of Carver (1993b), it became clear that whilst the emporia may have represented a concentration of existing trade at a single location, it did not preclude the potential for smaller trading settlements.

Areas 1 and 2 provided somewhat contrasting results in this respect, with a general lack of data from Area 1 and far more in Area 2. A major factor in Area 1 is the long-term erosion of east coast, which has probably destroyed any evidence of settlement from the banks of the Humber estuary and along the North Sea coast, especially, but not exclusively, in the Holderness region (Ellis 1995, 13-15; Muir 2000, 194). As a result, only two small coastal settlements are known from Area 1: the metal-detected

site at North Ferriby, and the excavated settlement at Whitby, both of which are themselves under continuing threat from erosion (Pirie 1984, 208; Stopford 2000, 106). However, the two sites appear to be very different: the numismatic evidence from North Ferriby attests to only late seventh/ early eighth century occupation, and its location has previously been taken to suggest a trading role (Higham 1993, 169), and it was suggested that it may have been a part of a system of sites designed to regulate trade which extended into the Vale of York during this period (section 4.3.3.2). Whitby was obviously different, and the excavations on the site (see section 4.1.2.9) have shown a community with wide-ranging contacts. The numismatic evidence alone would indicate some form of economic role, potentially of quite major proportions. Leahy (2000, 78) has sensibly argued for an extra-mural market outside of the possible monastic vallum, as this is where most of the coins were apparently discovered.

Area 2 has comparatively abundant data, both from archaeology, and documentary sources. Coastal sites are known, especially in eastern Kent around the Wantsum Channel (Fig. 5.1). Their distribution would indicate direct access to coastal traffic and trade, with the majority located at the eastern end of the region. The evidence from the Wantsum Channel is particularly rich through their mention in early charters, and in the *Life of Wilfred* (e.g. Tatton-Brown 1982, 80), and also through the great antiquarian interest from the eighteenth century which has produced large amounts of numismatic data (Metcalf 1988b; chapter 5). Through his analysis of the toll charters, Tatton-Brown (1982, 80) has suggested that the sites at Sarre and Fordwich were under royal control, but that the monasteries at Minster-in-Thamet and Reculver were also important trading places. Sandwich was the other trading place mentioned in the documents, possibly replacing Richborough. It is unclear whether the site was used post-seventh century, perhaps due to silting of the channel at that point (Tatton-Brown 1988, 217), but the area around Sandwich and to its south is numismatically very rich (see section 5.3). Kelly (1992, 10) has since suggested that Sarre, from its location, was not the site of trade, but simply a toll stop for ships moving along the Wantsum on their way to London. The results of the analyses in Area 2 (Chapter 5) certainly emphasise the importance of Reculver with its massive numismatic assemblage, and

would also indicate that for a time, *c.*740-*c.*850, Richborough might have had some kind of economic role to play.

Elsewhere in Area 2, there was evidence from three sites: Dover, Minster-in-Sheppey, and Sandtun. Dover is the most difficult to assess. Tatton-Brown (1988, 220) and Evison (1987, 177) briefly discussed excavations which uncovered seventh century occupation (at least), and both Ipswich Ware and Continental wares have been found in small amounts, as have four coins, and ephemeral structural evidence (see sections 5.3, 5.4.3.2 and 5.4.3.3). Tatton-Brown (1988, 220) suggested Dover may have been similar to Canterbury, with a settlement within the walled area and trading site outside, but at present there is simply not enough published data to comment. Recent excavations at Minster-in-Sheppey (section 5.1.2.2) have produced good indications of long-distance contacts with the largest Ipswich Ware assemblage in Kent (Pratt 1993, 17). It is Sandtun, however, which has produced by far the most evidence for trade, and is potentially an extremely important site for the study of early medieval trade. Approximately a third of all pottery found on the site was Continental, mostly from northern France, and a small amount of Ipswich Ware was also found (Gardiner *et al*, forthcoming; Blackmore, forthcoming). The site was also possibly provisioned with certain foodstuffs, as there was a lack of cereal processing waste, and the location would be unsuitable for much cultivation (Weir, forthcoming). Gardiner *et al* (forthcoming) interpret the economic base of the site as 'broad with fishing, salt-making and various craft activities' (*ibid.*) taking place; international trade also occurred, probably in relation to its connection with the monastery at Lympne. The importance of the site lies in archaeologically demonstrating that small trading settlements did exist in middle Saxon eastern England.

Elsewhere, there are a number of non-urban coastal sites which may have been involved in trade. Ulmschneider's (2000a, Map 5) map of coin finds in Lincolnshire shows a number of sites in the north of the county where middle Saxon coins have been found on/ very near to the coast, but only two (Flixborough, and 'near' Grimsby) have produced more than a handful. Imported pottery, either Continental or Ipswich ware, has been found on a number of sites, again in the north of the county around the Humber (*ibid.*, Map 10), with Continental wares only from Flixborough and Barton-

upon-Humber (Loveluck 1997, 186; Youngs *et al* 1983, 184). Overall, Lincolnshire exhibits evidence that trade with coastal traffic certainly took place (e.g. Blackburn 1993, 80-83), but only at Flixborough is the evidence strong. Like Sandtun, Flixborough is an important site in an archaeological sense and is changing perceptions of settlement and trade in middle Saxon England. Located on the Trent 8km south of the junction with the Humber, the excavations at Flixborough uncovered extensive seventh to tenth century occupation, with three middle Saxon phases, a possible church and a large boundary ditch. The finds assemblages proved rich, with evidence of a wide range of craft-working, and imported materials from elsewhere in Britain and mainland Europe (Loveluck 1998, 156-158). The settlement was originally interpreted as a probable monastery (Leahy 1999), but post-excavation work has indicated that it may equally be a high secular site which may have had a short monastic phase (Loveluck 1997, 190-191; 1998, 158-160).

In East Anglia, Rogerson (2000) has identified six 'productive' sites in western Norfolk, four of which are either coastal or estuarine, and a site on the Suffolk coast at Burrow Hill, Butley has produced imported Continental pottery (Fenwick 1984), and seems likely to have been able to trade directly with coastal traffic (Naylor, forthcoming). At the mouth of the Thames estuary is another site, at Tilbury, which Newman (1999, 38-39) has suggested may have been a location of trade, possibly linked to St Cedd's monastery (Higham 1999, 101-104).

Also on the east coast the monastic sites north of the Tees at Hartlepool, Tynemouth and Jarrow/ Monkwearmouth were in prominent coastal locations. There may have been a small amount of imported material at Jarrow (Hodges 1981, 43), but there does not appear to be from the other sites. However, at Hartlepool, large quantities of industrial debris, and high quality metalwork were found (Daniels 1988, 206-208), which may indicate a role in production, and in the regional networks of trade. Additionally, Daniels (1999, 111-112) has suggested that the monastic focus at Hartlepool has not yet been located, and that imported artefacts may be more likely there. Finally, there is reference to a port on the south coast, at Hamblemouth (Hampshire), near the mouth of Southampton Water, c.10km south of Hamwic (Morton 1999, 51). It was from here that Willibald travelled to Rome in the early

eighth century, and Morton (1999, 51-52) suggests this may have been a *mercimonium*, a place where trade could legally take place.

Overall, there is relatively abundant evidence for non-urban coastal settlements in middle Saxon England. How many were directly involved in trade from large numismatic assemblages, imported materials, or documentary references is a little uncertain given the levels of published information (e.g. west Norfolk), but it would seem likely that a number were. There are a number of important conclusions which can be drawn from the general data examined above. A number of the sites were apparently secular or ecclesiastical centres, for example Flixborough and Reculver, or were linked to such settlements, for example Sandtun to Lympne, and some of the sites in the Wantsum Channel to Canterbury. Additionally, some coastal sites may have been toll stops, whereas others were actual trading sites, although this is difficult to assess reliably as such an argument must be based around location, since in many cases no archaeological investigations have been made at these sites.

6.3.1.3 Emporia

In the light of the conclusions drawn above, it is important to assess the data for the large trading places in middle Saxon England, the emporia. There are currently four sites in England categorised as emporia, these being York, Southampton (Hamwic), London and Ipswich. Traditional interpretation has centred around their role in trade, often acting as monopolistic ports-of-trade under the direct control of kings, e.g. Hodges (1989b), although cf. Astill (1985), and Scull (1997). Recently, a role in regional production has been mooted (Hodges 2000).

The archaeology of the emporia sets them apart from other contemporary settlement types. They were all much larger than is typical for middle Saxon England, with estimates of 42-45ha for Hamwic, c.50ha for Ipswich, 55-60ha for London, and probably c.25-65ha at York (Fishergate) (Scull 1997, 276-280; Kemp 1996, 75-77). This can be compared with less than 5ha for general contemporary rural settlement, e.g. no more than 3ha at Brandon or Catholme, and less at middle Saxon Cottam (Carr *et al* 1988, 371; Losco-Bradley 1977, 359, Richards 1999a, 54). Additionally, the excavations indicate some form of centralised planning and continued maintenance,

which has been influential in the models of royal control of these settlements, e.g. Hodges (1989b, 51-52). A gridded street system of well maintained metalled roads was found at Hamwic, Ipswich, and London (Blackmore 1997, 125; Brisbane 1988, 104; Scull 1997, 277). Blackmore (1997, 125) has also suggested that the excavations at the Royal Opera House in London showed that the plots for property were all of similar size, indicating that these were laid out. At the other emporia there was evidence for defined division of properties at least, although the sizes of these do not appear fixed (Andrews 1997, 46-48; Kemp 1996, 67; Scull 1997, 277). Another physical element consistent with planning are the boundary ditches: in England these are known from Hamwic and York (Kemp 1996, 67; Brisbane 1988, 102). The latter was likely to have been open for a year before human habitation implying the ditch was initially cut to define the area for settlement thus seeming to demarcate the maximum size of the settlement prior to its construction (Kemp 1996, 67).

Functionally, two aspects of the archaeology of the emporia predominate discussion: trade and production. The importance of trade has often been based around the number of coins and levels of imported pottery found during excavations, and these have shown the international component to the settlements. Excavations at Fishergate produced 31 middle Saxon coins, over 180 coins from Hamwic, over 140 from Ipswich, and 65 from London (Pirie, forthcoming; Ulmschneider 2000a, 41; Bosner 1998, 202-227; Newman 1999, 37; Rigold and Metcalf 1984, 253; *EMC*). The evidence for international trade most often cited is the high proportions of imported pottery found. Around a fifth of all ceramics at Hamwic were of Continental European origin, as were a third to a fifth (with time) of those at Fishergate, c. 15% at Ipswich, and between 8% and 12% at London (Timby and Andrews 1997, 207; Mainman 1993, 569-570; Wade 1988, 96; Cowie and Whytehead 1988, 81; Blackmore 1989, 105). As was seen above, the importation of Mayen lava quernstones was probably a major activity at all of the English emporia with blanks finished at port (Andrews 1997, 240; Parkhouse 1997). Alongside international contacts, their place in burgeoning regional networks of trade is also evident, as was seen by the level of local materials found at Fishergate including stone objects, pottery, and perishables (see chapter 4).

The potential for large-scale production at emporia has also been noted, and even described as the 'engine of activity' (Hodges 2000, 81). The Ipswich Ware pottery industry supplied East Anglia, and three kilns have been excavated, two from Cox Street, and one from the Buttermarket (Blinkhorn 1989, 12). Textile production (see section 6.2.3) has traditionally been seen as a major industry in early medieval England, and there is evidence that it was produced in large quantities, probably for export, in Ipswich, and in London by *c.*750 (Scull 1997, 278; Blackmore 1997, 127). At all identified emporia, including Fishergate, a range of other craftworking activity has been found, including metalworking (ferrous and non-ferrous), and bone/ antler working, with glass-working also undertaken at Hamwic and possibly York at least (Scull 1997; Andrews 1997, 217; Hinton 1996; Kemp 1996, 73-74). The difficulty lies in assessing whether this evidence related to industrial or domestic level activity (with the exception of the Ipswich ware industry). The Six Dials excavations from Hamwic indicated that bone/ antler working may have been on an industrial scale with spatially discrete deposits representing debris from workshops (Riddler 1997).

The final aspect of the archaeology of emporia which is of importance here is the nature of their food supply. Faunal remains are characterised by low species diversity, and it has been argued that the settlements were provisioned through tribute levied by royalty on estates in the region, e.g. (Bourdillon 1988) (see section 2.2.1.4 for full discussion). However, more recent archaeological work in Ipswich and London suggests that there may have been farms surrounding the immediate boundaries of the settlements, in much the same way as was discovered in Dorestad (Scull 1997, 278). Obviously this may have some bearing on the ideas of food supply, but the implications will be discussed below in section 6.3 when all relevant aspects can be examined as a whole.

The archaeology of the emporia suggests that they represent the concentration of activity at a single point, with likely specialisation in crafts as well as extensive evidence for long-distance and regional trade. Much of the evidence has been interpreted to imply overall control of trade by royalty, although the level to which kings were involved has been the subject of much debate (see sections 2.2.1.3 and 2.2.1.4). It is now considered that such overt royal control is unlikely with Church,

state and secular aristocrats probably involved in the overall running of the networks of trade (Scull 1997, 284-289). There is no reason to suggest that emporia were founded through the action of kings, and there is little from the coinage to indicate that there were royal issues prior to the middle of the eighth century, resulting in kings simply exploiting trade through tolls (Hinton 1990, 39-41; Wood 1994, 301-302). In addition to the lack of royal motifs on early coinage, Astill (185, 225) also cites the high number of counterfeit coins of Charlemagne at Dorestad as evidence of indifferent royal control. The exemption from tolls given by royalty to ecclesiastical houses at ports in Kent and London, and the king's first choice on goods certainly does not imply kings manipulating and tightly controlling trade (Kelly 1992, 16-17). It is known that the Church gained land from the seventh century onwards in London as an indication of their own interests (Blackmore 1997, 125-126), and there is no reason to suppose that secular aristocracy were not involved as well.

The ninth century decline of these settlements, however, does imply that their function was specifically related to export and production. As Hinton (1999, 28-30) has argued, the disruption caused by Viking raiding from the later eighth century, to both maritime travel and rural settlement meant that there was little international traffic, and lower levels of surplus available to export, with the result that there was simply no need for these settlements.

6.3.1.4 Discussion

Three broad groups appertaining to the locations of trade have been discussed in this section, and it is important briefly to assess the potential relationships between these locations.

In Hampshire, Ulmschneider (2000a, Map 20-24) plots different artefact types to show distributions tightly concentrated around Winchester and Hamwic with few finds elsewhere. There are relatively few numismatically rich sites in the region suggesting that Hamwic may have been the main trading place in Hampshire. As discussed in 6.2.2, there are documentary references to Hamlemouth (Morton 1999, 51), but there would appear to be nothing of the network of sites seen in Area 1, nor the probable number of locations with direct access to trade in Area 2. A similar

pattern to Hampshire is seen around Ipswich, with only two numismatically rich sites nearby, on land routes to the interior (Newman 2000), and a single coastal site with evidence for long-distance contacts.

London is more difficult to assess. The emporium at London was probably founded in the early seventh century by the East Saxons, although probably under Kentish control, and was subsequently taken into Mercian territory during the 720s, and it was only from this point that it appears to have flourished (Blackmore 1997; Hodges 1989a, 95-96). However, documentary evidence also asserts that the Church was heavily involved there from the later seventh century there are references to ecclesiastical houses and bishops holding property in the port of London (Blackmore 1997, 125-126; Kelly 1992), with remission from tolls granted to both some Kentish and Mercian bishops and monasteries during the eighth century. The Mercian take-over may have allowed them a gateway to the North Sea littoral, and the increase in activity around this time may be equated with the movement of goods and materials from Mercia down the Thames. The location of the settlement precludes traffic from moving down the Thames without passing by the port. The region immediately around London, like Ipswich and Hamwic also contains relatively few sites which may have been involved in trade, with the exception of Tilbury and Barking Abbey north of the Thames, and it is not until Minster-in-Sheppey is reached in Kent that direct access to long-distance trade is likely.

Yorkshire (Area 1) and Kent (Area 2) have obviously been studied extensively in the thesis and are very valuable for this discussion. In Area 1 it was shown that prior to Fishergate's foundation in the early eighth century there was a number of small sites in the vicinity which would probably fit into the category of non-urban coastal/riverine sites, and are then abandoned during the period of high activity at Fishergate. After c.750, the network of inland sites extends into the Humber area with the initial finds from South Newbald, and Fishergate appears to be a part, albeit an important one, of this regional system. In Kent the situation is different again, with the smaller coastal settlements predominating some of which, for example Sandtun, which are likely to simply have been attached to a monastery (Gardiner forthcoming), whilst

others may have had wider function such as Fordwich. However, there is no indication of any major port of the ilk of London or Hamwic.

This broad examination of the data from eastern England suggests that there two basic systems in operation for the organisation and regulation of trade in middle Saxon England. First, the major port, or emporium, dominating a region (such as Suffolk or Hampshire) with far fewer inland fairs or markets known. Second, a system based on the smaller inland sites, and no doubt coastal beach markets, as in Kent, Yorkshire and Lincolnshire. It is also known that there were smaller sites near to emporia, such as Barham (Suffolk) or Hamblemouth (Hampshire), so defined distinctions between these systems may be difficult to assign. However, it is interesting that the number of numismatically rich inland sites does decrease in areas near to an emporium, even when that area has been extensively studied, as in the case of south-east Suffolk (Newman 1999). This indicates the differences seen were real, and represent broadly different ways to regulate trade, and may well be the product of simple practicalities. For example, the English emporia, with the exception of York, are located in areas where coastlines are short in comparison to land area, and numismatically rich inland sites are often found on long coastlines.

Overall, it appears that where a large emporium was located, there are noticeably fewer other trading sites than in those regions distant from such a settlement, e.g. Lincolnshire, or Kent. The likelihood that emporia dominated their local regions seems high, and the idea that their appearance reflects elite control should be accepted.

6.3.1.5 Conclusion

This section has set the results of analyses in Areas 1 and 2 in the wider context of wider research on middle Saxon England. The results show that the early medieval economy was more complex than has been generally imagined with regional variations visible. The absence of an emporium seems not to be detrimental to access to long-distance trade because regions produced many numismatically rich sites, some of which were involved in trading. There are likely to have been at least some other sites with an international trading capacity, even when close to an emporium, for

example Hamblemouth and Hamwic. Trade took place at a variety of locations ranging from inland, rural sites on transportation routes and junctions, at small coastal settlements, some of which were ecclesiastical foundations, and at larger urban emporia.

The section drew attention to the general patterns of artefact distribution with relation to trade. Coinage was especially important with virtually all numismatically rich sites within c.15km of the coast, or major river; this distance identified as a theoretical limit for a day's return travel away from home, for example to market. Foreign coins followed the same pattern. It is now important that the way the coinage functioned in middle Saxon England is examined, and changes through time assessed.

6.3.2 Coinage: function and use in middle Saxon England

The analysis of coinage has traditionally formed an extremely important aspect of the interpretation of the middle Saxon economy in eastern England (especially sections 4.2, 5.2, and 6.3.1), including the chronology of economic change and the identification of locations of trading places. It is important to discuss what conclusions can be drawn from these analyses and discussions as regards the function of coinage and how this changed through the period. Much recent work has been undertaken, e.g. Newman (1999), Metcalf (1998), and Ulmschneider (2000a) and this should also be broadly compared to formative models of the function of middle Saxon coinage, e.g. Grierson (1957), Hodges (1982), Metcalf (1984).

The analyses undertaken have reflected the general numismatic interpretation of middle Saxon coinage as a genuine medium of exchange, including both regional and long-distance trade, e.g. Blackburn (1993), Metcalf (1984a), Metcalf (1988a), and follow general trends on current interpretation, e.g. Newman (1999), Ulmschneider (2000a). Such an approach was adopted for a variety of reasons- the number of finds of coinage was a major factor in this, indicating high levels of overall coin loss. This steadily increasing dataset has resulted in the anthropologically derived theoretical arguments of Hodges (1989b, 104-117) appearing somewhat at odds with the data, whilst the numismatic ideas of a montary economy (Metcalf 1988a) have become more readily acceptable. Also, the finds have been made over an increasingly

widespread distribution in eastern England, with analyses of the circulation of coinage showing a number of locations, interpreted here markets/ fairs. The only caveat is that many of the sites with highest levels of coin loss are known within 15km of the coast or major river which does imply that long-distance trade was of high importance in any money economy in the middle Saxon period. However, such an interpretation is by necessity generalised, taking little account of the regional and chronological variations which were shown to have taken place, and these must be assessed and explained.

The gold issues of the early-mid seventh century, Merovingian tremisses plus the English thrymsas and pale gold issues, are not considered to have circulated widely, especially outside of Kent, and their use may have been restricted to special payments such as *wergild* (Hinton 1990, 37; Hodges 1989a, 109; Metcalf 1988a, 232). There was little in the analyses in Area 1 or Area 2 to suggest anything different, as only Kent showed any more than one or two finds. Even here the total number of finds was only a third of the subsequent Primary/early Intermediate series of sceattas, which were minted over a substantially shorter time period. The distribution in Kent is predominantly coastal implying a relationship to long distance contacts which would perhaps be expected for high value foreign coinage. Its use as a special purpose currency can be illustrated perhaps with an unlocated site in Lincolnshire, where eight tremisses have been found (Bosner 1997, 41-42) and which Campbell (2000) has suggested could have been the location of a slave market, probably one of very few items for which a high value gold coin could have been used. The 'pale gold' issues, making the transition from a gold to silver standard for issues, are very similar with their predominately south-eastern distribution, and are also a restricted coinage. None are known from Area 1, and only six from Kent.

Whilst in part a reflection of decreasing availability of gold, the switch to a silver standard with the introduction of the sceat has been equated with a more commercial role (Hodges 1989a, 111). Previously however, the Primary phase and early Continental Intermediate phase have not been seen as much more than an extension of the old gold coinages with a core distribution around eastern Kent, and very little elsewhere in eastern England reflecting their use only for international exchanges,

(Blackburn 1993, 80-81; Hinton 1990, 52; Hodges 1989a, 111). Coin loss in Area 1 indicates something different- the finds along the rivers and roads to York north of the Humber reflect the likely long-distance trading function of the coins, but it would appear on both coastal and overland lands routes to the north. Additionally, in East Anglia a similar pattern has emerged (Naylor forthcoming). It is unfortunate that other recent studies of middle Saxon coinage have not assessed coin use through detailed chronological analysis, preferring to undertaken broad analysis of the period as a whole, e.g. Ulmschneider (2000a). Whilst agreeing with past work in the use of early sceattas primarily in long-distance trade, it does now appear that coins were in use as a currency across a wider area of eastern England from an earlier date.

The role of kings in issuing coins from this date has been the subject of much debate. The idea of royal reforms of coinage to stimulate trade, e.g. Hodges (1989a, 110-114) being now outweighed by argument for lower levels of royal control, with merchants possibly minting under licence, e.g. Astill (1985, 224-225), Hinton (1990, 55), Grierson and Blackburn (1986, 169). Within the two study areas, and from other examinations of eastern England, there is little in the period to indicate overt control over the coinage, with the obvious exception of the small-scale issues of Aldfrith of Northumbria.

The Secondary phase, however, does indicate differences. There is more evidence of overt control with major issues dominating certain regions and a far wider range of issues known (Metcalf 1993, 297-308). Such a situation also affects the interpretation of function with their large distributions and finds in rubbish pits or floor levels suggesting that a money economy was more pervasive than previously (Hinton 1990, 54, Metcalf 1988, 231), although Hodges (1989a, 112-113, 150) remained sceptical, maintaining that their use in international trade was most important. The ready acceptance of the former in most current work reflects the growing database of finds from rural excavations and metal-detecting, e.g. Newman (1999), Ulmschneider (2000a). In Area 1 and Area 2 the distribution patterns showed widespread coin loss, including the network of inland sites in Area 1, and the extension of Metcalf's (1984b, 2.3) 'East Kent Triangle' across the whole of eastern Kent. The study has been successful in its examination of local monetised trading from this point into the ninth

century, and has shown that the coin economy was widespread. However, the importance of long-distance trade to the money economy was also highlighted from this period, with the finds of most productive sites and foreign coins in eastern England within a days' return travel to the coast. Their primary function may have been to integrate the networks of regional and long-distance trade. The use of coins for the payment of tolls at port and at the inland markets is likely given their lower value as a result of debasement, although payment could equally be in produce, as Kelly (1992, 20) has argued for a ten percent toll on most goods, presumably payable in coin or cargo.

The later eighth century is somewhat difficult to assess with the decline of the sceatta series and introduction of the broad flan penny in southern England, and the continuation of the sceatta in Northumbria with the regally issued series Y. In both cases, decreased coin use is implied with the vast majority of series Y issued by *c.* 760, and the number of finds of Offan pennies only a quarter of the Secondary phase sceattas, although the general distributions remain the same. In Northumbria this period was interpreted as showing increasing regionalisation of the money economy through the foundation of a market at South Newbald. It is, therefore, likely that the economy was based around the same mechanisms as before. The general decrease in finds though does imply that the money economy became more restricted than previously, and the issues by Offa may even be attributed to political rather than economic motives (Hinton 1990, 62-3). This change has variously been attributed to a shortage of silver (Metcalf 1977) and economic recession (Hodges 1989a, 113; Metcalf 1998, 173), reflected in the fact that less coins may have been minted (Hinton 1986, 18). It may be an indication that coin use had not reached the levels envisaged by Metcalf (e.g. 1988, 231), and a role in long-distance trade the primary function, as the distribution of productive sites has suggested.

The first half of the ninth century saw coin loss in Areas 1 and 2 remaining low in comparison to the early eighth century, although tight control over non-local coins remained. The high numbers of stycas found in Area 1 must be seen against their extremely low intrinsic value and somewhat more restricted distribution. Metcalf (1998) argued strongly from the overall wide distribution ninth century in southern

England for a primary function of the coinage in inter-regional and international trade. Such an idea does lie well with the data, and this can easily include its use in the payment of tolls at inland sites and ports (discussed further below in section 6.3.3).

However, soon after the middle of the ninth century coin use decreased dramatically across eastern England with an apparent cessation of minting until the last few years of the ninth century north of the Humber and in East Anglia (Grierson and Blackburn 1986, 273-274). Minting continued in Kent, albeit only on a small-scale given the general dearth of finds even from this region, possibly implying political motivation in the same way Hinton (1990, 62-63) suggested for Offan pennies. The period obviously coincides with the Viking take-over of much of England, and the decline of both the emporia and numismatically rich inland sites. Such a situation does indicate that coin use had not necessarily penetrated society to any particular depth, at least not for the best part of a century and without the networks of long-distance trade the use of coinage became limited. Additionally, if the regional networks were disrupted through Viking raids (Hinton 1999, 30), revenue from tolls could have been dented thus removing another aspect of coin use for a period. Whether trade reverted to mostly non-monetary exchange in northern England and East Anglia or pre-Viking coinage simply stayed in circulation is uncertain, but it is possible that bullion became a more acceptable form of payment as it was during that time in Scandinavia (Gustin 1998).

Early medieval coinage developed greatly throughout the period of study, especially through the sceatta coinages of the early eighth century. In general, they can be considered a true medium of exchange as envisaged by the work of David Metcalf (e.g. 1965, 1967, 1974) albeit perhaps fundamentally based around inter-regional and international trade. With the decline in these networks in the ninth century, coin use was affected in an obvious way prior to its re-introduction in the last quarter of the century.

6.3.3 The organisation and administration of trade

Systems of trade in middle Saxon eastern England have been shown to be of some complexity. This chapter has suggested that trade was organised on a regionally

variable basis, generally based around either an emporium or a network of inland sites, although it is likely that smaller coastal settlements involved in long-distance trade were present all along the east coast. The bulk of trade was in utilitarian goods, such as stone, metals, salt or agricultural produce, and these resources were under tight control by royalty, and ecclesiastical and secular aristocracy. Much work has recently focused on the role of the Church in this process, e.g. Ulmschneider (2000a), but it is known that secular aristocracy were also granted land by the king (Charles-Edwards 1977, 100) and it would seem unlikely that they were not a part of the growing specialisation seen in the countryside. This section will discuss the organisation and administration of this trade in order that the control of trade, the role of the Church and secular authority, and the nature of numismatically rich inland sites can be assessed.

The measure of control over trade held by any one group has been touched upon above (see especially sections 6.2 and 6.3.1), with the likely combination of Church, secular aristocracy and royalty all involved, although the latter were probably dominant. However, the evidence presented here suggests that this is limited mostly to the regulation of trade and collections of tolls rather than any over-riding control as envisaged by Hodges (1982a), and is thus in broad agreement with recent work, e.g. Hinton (1996, 100-101); Wood (1994, 215-217).

Much of the evidence for tolls comes from a small number of surviving charters granting remission from toll payment. These relate tolls at London, Fordwich and Sarre on ships from a number of religious communities (Kelly 1992). Whilst obviously implicating the involvement of the Church in trade (see below), these charters are important. The fact that the remission of tolls was given to these houses suggests that tolls were a significant burden and, therefore, an important source of revenue for the king (Sawyer 1977, 153). An indication of the level of tolls may be found in the references made in a letter from Charlemagne to Offa regarding English merchants attempting to enter Frankish ports disguised as pilgrims in order to avoid paying the required toll (Whitelock 1955, 781-782). It appears that the control and regulation of trade by the royal administration was of great importance. Many early law codes related to trade discuss the protection of traders, and their supervision, for

example by the king's reeve. The emporia may have been seen as an attempt to concentrate traders in a single place for purposes of protection, regulation and exploitation (Yorke 1995, 302). By the ninth century at least, tolling was found inland as well as at the coast, with references made to tolls at Droitwich, which may be based on earlier eighth century dues (Sawyer 1977, 148).

Evidence for tolls is more extensive from mainland Europe than England, and shows a wide range of duties due in a variety of locations. Wood (1994, 215-216) discussed the toll concessions given by Chilperic II to the monastery at Corbie in 716 on a wide range of goods from agricultural produce and wood to imported spices and precious metals. Sawyer (1977, 153) cites a grant of exemptions from Louis the Pious (814-840) to two Jewish merchants for:

'teloneum, toll...pontaticus, at a bridge, or trabaticus, possibly at a bar on a road...There were dues for moorings and harbours, ripaticus and portaticus, fishing dues, cenaticus, a traffic tax to cover damage to fields and meadows, cespitaticus, and they were also freed from liability to paraverada and mansionaticus, requisitioning for the post and for accommodation' (ibid., 153)

Although not English evidence, it nevertheless shows at least some of the range of contemporary tolls levied in northern Europe. The lack of evidence from England does not mean that such tolls were not levied. The evidence from Droitwich, and the locations of numismatically rich inland sites is certainly indicative of inland as well as coastal tolls, and appears likely.

Another important aspect of the grant by Louis the Pious is that it is given to merchants, rather than to any particular monastery or aristocrat. All of the English charters relating to the remission of tolls are granted to ecclesiastical communities, and this has been taken to show the 'possible special role for the church in trade' (Ulmschneider 2000a, 97). However, this may be due to very selective survival, as Ulmschneider (ibid.) herself admits in a footnote. It is equally plausible to contest that the remission of tolls may have been granted to parties who had major involvement in trade, and certain ecclesiastical communities were simply one such party. There is no doubt that the Church was participating in trading to a high level,

as the remission of tolls shows, but there is little reason to suppose that the aristocratic elite were not also involved.

The evidence from tolls is certainly important when considering the nature and level of royal control over trade. Hodges (1989b) influential work (see section 2.2.1.4 and 2.2.1.4 for full discussion) considered massive royal control to be imperative in the period. He argued that kings not only controlled access to trade by channelling all of it through the emporia in order to maintain a prestige goods economy but also deliberately reformed the coinage at significant moments resulting in economic stimulation. These theories have been roundly criticised, e.g. Astill (1985), Samson (1999), and much of the more recent debate has reflected a need to re-evaluate the nature of royal involvement in trade. Hinton (1996, 100) has suggested that by the eighth century prestige goods were dwindling, due to the diminishing amounts of gold available and that kings maintained authority through grants of land instead. As a result, he argued that the royal interest in trade would have been for the revenue provided by tolling, much as Sawyer (1977, 153) had previously contended. Carver (1993b, 57) has also argued that much wealth could be derived from tolls, while Scull (1997, 285), in his synthesis of data from the English emporia, has proposed that in simple terms, anyone with the means to do so could trade, subject to tolls and conditions imposed by royalty.

The analyses of coinage have proven extremely productive in identifying places and regions of monetary activity, and even locations of trade. However, the predominance of numismatically rich sites within 15km of the coast has also lent support to the argument that coinage was primarily an index of long-distance trade, integrating regional and international networks of trade. Elsewhere a monetary economy may have been less important, although the distributions artefacts, such as stone objects, and pottery (e.g. granitic tempered wares from Leicestershire) show that inland trade was certainly taking place. Additionally, as Wood (1994, 217-219) succinctly pointed out, the intrinsically high value of coinage would have meant it was simply too valuable to use in many circumstances. Certainly, Hinton (1996, 99) has argued for Wessex that barter rather than a money economy was more typical in rural areas from the lack of series H sceattas known outside Hamwic. It is likely that exchange for

other goods was probably widespread given such evidence of the movement of goods versus finds of coinage.

As a result, there is no need to envisage non-monetary and monetary trade as mutually exclusive as they served different purposes regarding long-distance and local trade, high value and low value. Both would have operated at the fairs documented around Europe, and probably even at the emporia. Indeed, Kelly (1992, 18) has cited Merovingian evidence for toll collection at Quentovic, Dorestad, and the Alpine passes indicating tolls amounted to about a tenth of the value of the cargo. There is nothing to suppose that this was always paid, or even regularly paid in coin but could equally have been provided by the produce itself. These fairs are documented in northern Europe from the seventh century, including the annual fair held outside the monastery at St. Denis near Paris which has often been cited to illustrate the role played by ecclesiastical communities in trading activity (Hodges 1989b, 127). Wood (1994, 216) stated that in Gaul the fairs were often related to religious festivals, no doubt because the monasteries would attract large numbers of visitors at these times. In England there is evidence of an intra-mural market with attendant royal reeve to regulate trading in Canterbury from the eighth century (Russo 1998, 108). This evidence is important as it sheds light on the organisation of rural/ inland trade. In part, this indicates that they were at least some of the time located at places of ecclesiastical origin, although obviously the selective survival of records may overstate the role of the Church in this way. Also, it implies the periodic nature of such trade. This is in no way at odds with the data from either study area for the sites interpreted as markets (e.g. Kilham or South Newbald). The coin loss seen over a long period could easily have been produced at fairs occurring once or twice a year.

This may be where the distinction lies between these sites and emporia. Sites such as Ipswich or London were designed for export and production (see section 6.3.1.3), and their location suggests direct involvement in long-distance coastal trade throughout the sailing season. In a similar sense the distinction between emporia and other, smaller coastal settlements involved in trading was that the latter's primary function lay elsewhere, be that ecclesiastical or a reversion to domestic settlement. It is likely that some at least were associated with elite settlements, as the documentary evidence

shows for Sandtun being under the control of the nearby monastery at Lyminge, which was in turn a *feorm* collection point for the monastery at Canterbury (Gardiner, forthcoming). An additional, but very important difference between coastal sites such as Sandtun and Burrow Hill, Butley, and emporia and centres of the ilk of Reculver or Whitby may be a market component, as evidenced by levels of coin loss. Smaller sites may have caught passing coastal traffic, and perhaps then only intermittently, and been able to trade for materials unavailable locally, but they show little evidence for consistent levels of trade.

The general trend indicates that much trade was conducted under the auspices of royalty, but that wealth and power came from the ability to tax trade through tolls, rather than as a monopoly on the trade itself, e.g. Carver (1993b, 57). The Church was briefly discussed above in relation to tolls, and its involvement in trade. Although it was argued that the evidence of remission on tolls to ecclesiastical houses may be biased, the role of the Church in trade must be a matter for serious debate. In an important work, Blair (1988) argued that the decision by kings to grant markets rights to minsters, was based on the focal role that the settlements had in the countryside. Unlike royal *villae*, they were settled communities, and their religious role attracted a range of people for varied reasons, including festivals, church councils, and pilgrimages (*ibid.*, 47-48). As a result, the positioning of markets around them was practical. Astill (1991, 101-102) agreed, suggesting that ecclesiastical communities would have acted as settlements where surplus from the estates would have been collected to be used in economic activity. That early medieval monasteries were probably major producers is not a new idea, and their massive landed wealth is likely to have resulted in them being large-scale centres of both consumption and production in the countryside (Hodges and Whitehouse 1983, 105-106).

Therefore, it would appear that ecclesiastical settlements were of potential importance to the development of early medieval trade and the economy. Equating this with the evidence currently available archaeologically is more difficult. Ulmschneider (2000a, 87-88) considers most high status sites, including metal-detected 'productive sites', to be of ecclesiastical origin. Citing the excavated evidence of possible churches and

'religious' features, and artefacts, such as boundary ditches (the monastic *Vallum*) and styli from the sites at Brandon and Flixborough alongside the topographic and later medieval associations at others (e.g. Wormegay and Bawsey in Norfolk), she argues for the presence of the Church at the sites with the richest assemblages. However, the archaeological interpretation of monastic sites is difficult, and Loveluck (1998, 158-159) has persuasively argued that the interpretation of the data has been conditioned by the excavations of documented monasteries, such as Jarrow, Whitby and Hartlepool. Considering the remains from Flixborough, he asserted that they were little different from a range of high status sites, including Brandon, Wicken Bonhunt, Riby Cross Roads and North Elmham. These sites have each been interpreted as estate centres, of either an ecclesiastical or secular nature, which, like monasteries, would have 'supported dependant artisans...and that these centres would have been fully integrated into regional and longer distance exchange networks' (ibid., 159). Therefore, the model promoted by Ulmschneider (2000a) that many 'productive sites', including the richest ones, were ecclesiastical foundations, and likely to be monasteries can be disputed. It seems that this is perhaps based on too traditional a reading of the archaeological data.

Comparing this with the evidence from Areas 1 and 2 may be useful. In Area 1, the network of sites across the Yorkshire Wolds was interpreted as representing a method of regulating regional trade, collecting appropriate tolls, and integrating long-distance coastal trade and regional trade. The late seventh/ early eighth century changes indicate some form of overall control both before and after, with the locations of the sites appearing to provide the best economic coverage, thus allowing the king to raise revenue. Of course, that is not to say that some of these sites were not of an ecclesiastical nature. Leahy (2000) has convincingly argued for a minster at South Newbald, and Whitby is likely to have been the site of *Streonæshalch*, but there is no reason to suppose that none of them were secular (royal or aristocratic) estate centres. The site at Kilham on the Wolds, identified as a market (section 4.2.4.4.), has no known ecclesiastical origin, but the parish included four secular estates at Domesday, two of which were held by the king, and did become a major late medieval market (Purdy 1974, 247-251). That the local area may have been of importance during the early Saxon period is attested by the fifth/ sixth century burials found near to the

village, and there are later, unfurnished burials which may be middle Saxon, although this is not certain (Lucy 1999, 26, 40). The finds from near Malton were interpreted as toll stops and/or markets positioned around the gap between the Hambleton Hills and Howardian Hills which joins the Vale of Pickering to the Vale of York, and there are no known estates in the vicinity. Although based on patchy data, the above may indicate that both ecclesiastical and secular settlements could be significant economic points in the landscape, and a combination of appropriate location and pre-existing local significance would certainly be factors in their choice as locations for market/toll stop.

Levels of evidence are far higher in Area 2, and may indicate the major role of the Church in economic development in middle Saxon Kent. Numismatically rich sites including Reculver, Canterbury, Hollingbourne, Eastry, and Lenham were in strategically significant locations, and they were early royal estate centres (Everitt 1986, 117). By the late seventh/ eighth century, all of these were associated with minsters/ mother churches, although many still remained *villa regalis* (ibid., 190-191). Other *villa regalis* with associated ecclesiastical foundations, such as Minster-in-Sheppey and Minster-in-Thamet, have provided similar evidence of their economic importance, either through documentary references or archaeology. Hodges (1989a, 92-94) argument that the economy in the Wantsum Channel area may have been dominated by the Church seems plausible. However, the caveat is the fact that the religious houses needed to acquire remission of tolls at sites such as Fordwich. Combined with the continued presence of *villa regalis*, the indications are that royal control over the most important sites remained strong.

Elsewhere in England evidence is more akin to Area 1. In western Norfolk, the sites discussed by Rogerson (2000) show no evidence of contemporary religious function, and one (West Walton) was possibly associated with a later Saxon *villa regalis*. In Cambridgeshire, Newman (1999, 43-44) has argued from the distribution of series Q sceattas that the monastery at Ely was likely to have been a mint place, and a regionally important centre. In Suffolk, the high status site at Brandon has been interpreted as a monastery (Carr *et al* 1988), although note Loveluck (1996) above; Coddanham, near Ipswich, has produced many finds including over 60 coins, styli,

and metalwork, and may have been the site of an early minster, whereas Barham, also near Ipswich, shows no signs of ecclesiastical connections with excavations uncovering no middle Saxon remains, and may have been a temporary fair site (Newman 2000; Hodges 1989a, 98-99). Also in East Anglia is the high status site at Wicken Bonhunt, thought to be a secular centre (Wade 1980b), and the numismatically rich site at Tilbury on the Thames estuary which may have been associated with St. Cedd's monastery (Newman 1999, 39).

The idea, then, that ecclesiastical communities provided the economic impetus toward the regional production of surplus and the siting of markets, and that they were major components in the various networks of trade and exchange in middle Saxon England, would appear a possibility. As Blair (1996, 9) asserted, minsters 'were bigger, more populous, and more permanent than any lay settlement: the closest thing to towns that the early insular societies knew'. They formed a focus for the communities around them, and with their lands seemingly producing large amounts of surplus, they would also have been economically very important. The available evidence certainly goes some way to supporting Blair (1988) and Ulmschneider (2000a) in their argument that it was at minsters, rather than *villa regalis*, where inland markets, and no doubt some coastal markets, took place. However, the role of the church in trade was still secondary to the overall organisational control held by royalty. The siting of markets at certain minsters or monasteries in significant positions may have been undertaken to deliberately maximise the revenues which could be brought from effective regulation of trade through tolls. Even in the church-dominated area of eastern Kent around the Wantsum Channel, religious houses such as Reculver and Minster-in-Thanet still had to pay tolls to the king at his trading ports, unless remission was granted, and he had rights of pre-emption on all cargoes (Kelly 1992).

It is by no means clear if most numismatically rich sites were ecclesiastical foundations, or associated with them. Loveluck (1998) has shown that the perceived archaeological differences between monastic and high status secular estates may be illusory, and interpretation of either may be insecure on current evidence. Also, in Area 1 particularly, the possibility that some of the numismatically rich sites may have been tolling points deliberately positioned on junctions, might indicate that they were

neither ecclesiastical nor secular residences. Therefore, between the mid/ late seventh and mid ninth century, it appears that trade was controlled by royal administration either through a regional network of sites, some of which were of ecclesiastical origin, or through emporia, but that anyone with the means to trade could do so.

The mid to late ninth century is far more difficult to assess. It is well known that the emporia declined, with only Ipswich surviving, and new occupation appeared in intramural locations rather than outside of the walls as before, e.g. Astill (1994, 53). It is generally considered that a decline in international trade brought about by the continuing Viking raiding and instability in Carolingia resulted in emporia becoming obsolete. Hinton (1999, 29-30) suggested that Hamwic existed primarily to export surpluses and that without those it had no reason to exist. He proposed that rural farming would have been affected badly by Viking raiding on Wessex, and that restocking would have been a long process, thus taking a settlement such as Hamwic out of the economic loop. There is no reason to suppose that eastern England was much different, with Viking attacks from the 830s along the east coast and inland causing disruption (Collins 1991, 326-332).

It is unfortunate that the regional data for the later ninth century remains relatively poor. Numismatic analysis is unavailable, owing to the cessation of minting for the period from c.870-c.900 over much of England. Other archaeological evidence can only be broadly dated by comparison. There was most certainly change during the period, with a high number of sites abandoned or their locations shifted, including for example, Cottam, Thwing, and Brandon (Richards 1999b; Manby forthcoming; Carr *et al* 1988, 376). However, others continued to be occupied longer, such as Flixborough, for which there is evidence up until the eleventh century (Loveluck 1998, 159). The archaeology of trade in the period c.850-c.900 is extremely unclear as a result, and may have included a massively reduced international component, although some late ninth/ early tenth century imported ceramics are known.

6.4 Conclusion: trade in middle Saxon eastern England

This chapter has explored the results from the analyses and the archaeology of Area 1 and Area 2 within the broader framework of middle Saxon eastern England in order to

produce an archaeology of trade ranging from local/ regional trade through to international exchange. The main points will briefly be re-iterated.

Assessing the roles played by royalty, the Church and secular aristocracy were of importance. The current vogue for interpreting the data, especially that from metal-detecting, within a framework which argues for regional economic development centred around the Church and Minster sites (see sections 2.2.1.4 and 2.3), e.g. Blair (1988), Ulmschneider(2000a) can be shown to be inadequate. Religious foundations were undeniably important, and were indeed catalysts for increasing regional, and perhaps long-distance, trade. But the attribution of many 'productive sites' to Minsters is all too often based on flimsy documentary evidence from the late Saxon period, and the assumption that finds of more than a handful of coins indicates an economically significant centre. Instead, I argue here that 'productive sites' were more indicative of a generalised zone of monetised trade along the east coast. A few of these sites may be the locations of fairs/ markets but an ecclesiastical link is more difficult to secure. The Church was certainly one of the principal factors in the reorganisation of the countryside for the production of surplus, but there is no evidence to suggest that other groups, including secular aristocracy, were not also a part of this.

The interpretation of royal interest in trade based around revenue from tolls is in line with much current research (e.g. Hinton 1999), and the range of tolls known from contemporary Continental documentary sources (Wood 1994, 214-217) shows the range of ways in which they could be levied. The likelihood is that they were levied at ports and on inland routes. Sites such as near Malton 1 were possibly located for this purpose.

Trade was undertaken at a variety of points in the landscape: in coastal areas, on rivers and inland, often in prominent positions on significant transportation routes. Geography may have been a factor in their location, and there appears to be differentiation between regions where an emporia is known to have been founded and those areas where no such evidence exists, with respect to the number of numismatically rich inland sites. The distinction may have been based around the

most appropriate method to regulate trade in a particular region, and a lack of an emporium did not necessarily result in a lessening of access to long-distance coastal trade. Certainly in the south of Area 1 the network of possible market locations reflects the widespread networks of regional and long-distance trade in the period.

Trade was focused around bulk, utilitarian items and raw materials, such as salt, metals, wool, slaves, stone, and foodstuffs and control over such materials was very important. Luxury items, including wine, oil, precious metals, and possibly marine fish (with respect to inland sites) would obviously account for much less bulk, even though they may have been given undue attention in past research. However, the evidence presented attests to complex patterns of trade involving the large-scale movement of goods, over large distances. With such movement of goods, the levels of revenue available to kings through well maintained toll and tax systems could have been extremely large, and it is argued that the positioning of markets was deliberate in order to maximise this source of revenue. Continental documentary references regarding the range of tolls applied support such an interpretation.

The early medieval economy should be seen as a complex set of inter-connected trading networks, functioning on a number of levels from local to international, and to the benefit of range of groups including royalty, church and secular aristocracy. The king appears to have maintained control over much of its regulation throughout the period, exploiting trade through tolls on a wide range of goods and materials, and at a variety of locations.

Chapter 7

Conclusion

7.1 Introduction

This thesis has explored the archaeology of trade in middle Saxon eastern England through the regional analysis of a range of archaeological data. The project primarily aimed to critique, and challenge, traditionally held views of the middle Saxon economy based around urban emporia and the long-distance trade in prestige goods, e.g. Hodges (1982a), and refine them with alternative models. Within this critique, it was envisaged that the project would produce a new understanding of how trade functioned on a regional basis, and the importance of different levels of trading, from local and regional through to long-distance and international trade.

This chapter will broadly summarise the results of the thesis, especially chapters 4 to 6, and appraise the success of the approaches used (section 7.2). This will be followed by a brief consideration of further work (7.3), and a general conclusion to the project (7.4).

7.2 General considerations of the thesis

The analyses undertaken in chapters 4 and 5 on the archaeological evidence from Area 1 and Area 2 were designed to examine different levels, and networks, of trade which may have operated across the rural regions, and around emporia in eastern England during the seventh to ninth centuries. Additionally, they were intended to form the basis for more theoretical discussion of the organisation and administration of trade, and the levels of control by elite groups in society, i.e. royalty and the church (chapter 6).

The results obtained from each study area has shown this approach to have been a success. In both cases, it was clear from the archaeological evidence alone that rural regions in middle Saxon England were fully involved in trade, including direct access to networks of international trading. Archaeologically visible imported materials,

such as pottery or stone, were not in abundance on rural sites, unlike at the emporia (including Fishergate), but coinage proved to be an extremely useful indicator of trade. This was especially applicable to direct access to long-distance trade, with virtually all foreign coins, and most sites with high coin loss being within c. 15km of the coast, taken as the calculated theoretical limit for return travel to market within a day. The implications of this were important regarding traditionally urban-centred theories of emporia as monopolistic ports of trade (e.g. Hodges 1982a), as it clearly showed that both local/ regional and long-distance trade could take place without an emporium, although the archaeology of larger emporia, such as Hamwic, or Ipswich, does imply that were very important trading centres. However, the fact that Fishergate was apparently not very successful and may have become a part, albeit important, in the regional network of economically significant sites in Area 1 showed that there may have been different ways of organising trade in middle eastern Saxon England (see below). This basic idea was further supported by the evidence from Area 2, with a high level of known access to coastal trade, in a seemingly less structured system than in Area 1.

The analyses of other artefacts, pottery, stone and, in Area 1, metalwork, were successful in the study of the movement of goods, especially those of a utilitarian nature such as stone. Stone objects showed the utilisation of various outcrops in both Area 1 and Area 2. Area 1 provided greater detail for analysis. There was a trend that in areas where local stone was not particularly strong or durable, such as on the Yorkshire Wolds, this was used for objects such as spindle whorls or weights, but that stones for grinding, shaping or polishing, i.e. querns or hones, were generally imported. Here, it appeared that much came from the Pennines plus the lava querns imported from the Rhineland. Additionally, strong stone for hones was brought in from the west, Cumbria/ southern Scotland, and it appears that much of this may have gone through Fishergate.

Pottery proved somewhat more problematic in tracing trade within a region, due to the general lack of provenance studies, as well as an often homogeneous fabric type. The lack of good chronology was also disappointing for Area 1. Area 2 fared better with finds from many sites around Kent based on the series produced for Canterbury.

However, levels of evidence from the latter did not help and again only generalisations could really be made regarding the regional/ local movement of pottery in either area, assuming that most pottery was not produced domestically. Certainly in Area 1 there was a local tradition of chalk/ limestone-tempered wares in a small area of the Wolds but whether this simply indicated local production or had some other societal significance was not determined, and in many ways was outside of the scope of the present work. Imported pottery was more useful in both Area 1 and Area 2. The generally small amounts found inland when compared to coastal/ riverine settlements such as Hamwic, or *Sandtun*, were seen as supporting Brown's (1997) suggestions that there was no demand for imported pottery, with the possible exceptions of Ipswich Ware pitchers, and Tating Ware; and that other types would generally not be found away from their entry points into the country. The shell-tempered wares from Lincolnshire found at Fishergate may prove to be extremely important as indicators of trade in archaeologically invisible goods: here they were interpreted as potentially representing a large-scale salt trade between York and Lindsey throughout the study period, based on the general lack of evidence of salt production in Area 1, and the long- history of it in the fens in southern Lincolnshire.

The analyses of metalwork assemblages in Area 1 were disappointing with respect to trade, owing to the massive bias against iron on metal-detected sites. In itself, this was an important finding, and illustrated the problems which can be inherent in utilising such data. However, examining the assemblages of certain non-ferrous artefact types from the sites across the region did suggest that the range of metal objects was relatively standard. There were no indications that the metal-detected 'productive site' was in any way special, supporting other arguments regarding their nature, e.g. Richards (1999c). The predominance of iron on excavated settlements showed that it would have been an extremely important commodity to procure, and would have been a vital trade good. Loveluck (1996) had argued for its role in the maintenance of power in early Saxon Yorkshire, and the results from Area 1 indicated that this continued through the middle Saxon period. The extensive excavations of an iron working (smelting and smithing) site in Canterbury, adjacent to the abbey of St Peter and St. Paul, who had rights to the extraction of iron ore from the Weald supported this view.

Overall, the artefact analyses undertaken were successful, and the methodologies applied appropriate and useful. Examining Anglo-Saxon coin finds against a calculated regional mean was particularly useful, and has helped to produce a detailed understanding of patterns of coin loss in both study areas. The overall results showed without doubt that trade in each study area was complex, wide-ranging, and quite possibly large-scale. With this evidence, it was then possible to examine the organisation of trade in each study area, and also compare it to other regions of middle Saxon England.

The identification of potential market sites from the analysis of regional patterns of coin loss showed a zone of greatest monetisation along a *c.*15km corridor from the coast, with other points of consistent coin loss at significant locations, such as crossing points of rivers, and junctions between roads and rivers, which may have been tolling points and/ or markets. The implication is that trade was primarily organised by the royal administration around needs to acquire as much revenue as possible from tolls and taxes. The overall political organisation of trade was highlighted in the chronological evolution of the distributions of coinage in Area 1, where a number of sites on junctions in the Vale of York were replaced by Fishergate, which then appeared to become a part of a regional network of sites during the eighth century. A number of identified market locations were potentially ecclesiastical foundations, but the archaeology also indicated that secular settlements were likely to have been involved.

7.3 Ideas for future work

This thesis has provided a number of significant results and interpretations which provide new ideas regarding early medieval trade, and many aspects of this can form the basis for further work. The nature of the metal-detected 'productive site' remains somewhat unclear, even though other workers have also begun to examine them in detail, e.g. Ulmschneider (2000a), Newman (1999). The work presented here has been important in proposing certain sites which may have been markets, based on analysis rather than conjecture, but other aspects of this are not understood. The excavations at Cottam (Richards 1999b) have proved fundamental, and show that the

mere presence of non-ferrous metalwork and coins does not equate to a high status settlement. Therefore, archaeological investigations of other 'productive site' are vital if a fuller understanding of them is to be gained. For example, were those sites interpreted as markets associated with settlements, and if so, in what way?

A further area in need of greater consideration is the relationship between urban (emporia) and rural. Although various models regarding the provisioning of the emporia have been proposed, e.g. Bourdillon (1988), O'Connor (1991), these are based almost entirely on urban assemblages and no projects examining the hinterlands have been made. Other area surveys, including the south-east Suffolk survey, and the Fenland projects, e.g. Newman (1992), Leah (1992) have been successful and defined hinterland studies could prove fruitful, as they have elsewhere, e.g. around the Roman city of Tarragona, Spain (Carreté *et al* 1995).

Regional trading patterns may also be aided by gaining greater understanding of middle Saxon pottery: including provenance studies and ideas regarding production, i.e. domestic, or centralised. The West Heselton pottery project (Vince 1998) intends to attempt this for the Vale of Pickering area, but such study is also required elsewhere, along the south coast and in Kent, for example.

7.4 General Conclusions

This thesis has provided significant new insights into the study of early medieval trade, especially regarding the access that rural regions had to international networks of trade, and the way in which trade was organised. The results challenge various current ideas, and recent research, e.g. Ulmschneider (2000a), both through detailed archaeological study of early medieval trade, and the application of methods not previously used on the materials. The major achievement of the study has been to illustrate the usefulness of regional study to our understanding of the early medieval economy, and to demonstrate that trade away from the emporia is something for which there is growing evidence. As with Ulmschneider (2000a), this thesis has shown the growing importance of metal-detected finds, which cannot be ignored.

Overall, trade in the middle Saxon period was of some complexity, encompassing different networks of trade from local through to international, and there was clearly a conscious effort to integrate them. Regional trading appears to have been a large-scale activity, with much movement of substantial amounts of utilitarian materials, from salt to metals, through a wide network of sites.

Appendix 1

Date groups for the circulation of coinage

Section 3.3.3.2.2 discussed the methodology applied to the numismatic data from the study areas in order to analyse patterns of coin loss. The date groups used in this are shown below (Fig. A1.1), as are the individual issues making up each date group (Fig. A1.2). The chronologies used for the dates of issue follow Metcalf (1993) and Blackburn (1984) for sceattas, and historically attested dates for reigns for archiepiscopal and royal issues.

Fig A1.1: Date groups used in sections 4.3.4. and 5.3.4

group	date
1	pre-680
2	c.680-c.710
3	c.710-c.740
4	c.740-c.790
5	c.790-c.810
6	c.810-c.840
7	c.840-c.855
8	c.855-c.870
9	c.870-c.900

Fig A1.2: Issues by date group

1. Group 1 (pre-680)

coinage	dates of issue
tremissis	c.600-c.675
thrymsas	c.625-c.650
pada	c.655-c.680
vanimundas	c.660-c.680

2. Group 2 (c.680-c.710)

coinage	dates of issue
Aldfrith, king of Northumbria	c.685-c.704
A	c.675-c.710
B (BX/BI)	c.680-c.700
BII	c.700-c.710
BIII	c.700-c.710
C	c.700-c.710
D	c.700-c.715
E (types D, E, G, & VICO)	c.695-c.710
F	c.700-c.710
runic porcupine Æthilraed	c.695-c.710
Soroaldo	c.705-c.715
VERNVS	c.700-c.710
W	c.690-c.710
Z & BZ	c.695-c.710

3. Group 3 (c.710-c.740)

coinage	dates of issue
Celtic Cross	<i>c.710-c.740</i>
E (other varieties)	<i>c.710-c.740</i>
G	<i>c.720-c.740</i>
H	<i>c.715-c.740</i>
J	<i>c.710-c.740</i>
K	<i>c.720-c.740</i>
L	<i>c.710-c.740/60</i>
M	<i>c.720-c.725</i>
N	<i>c.715-c.725</i>
O	<i>c.710-c.740</i>
Q	<i>c.720-c.750</i>
R	<i>c.c.705-c.760</i>
Saltire Standard	<i>c.710-c.740</i>
S	<i>c.730-c.740</i>
T	<i>c.715-c.720</i>
U	<i>c.710-c.735</i>
Ummayyad Islamic dirham	<i>c.735-c.740</i>
V	<i>c.715-c.730</i>
X	<i>c.700-c.750</i>

4. Group 4 (c.740-c.790)

coinage	dates of issue
Eadberht of Northumbria (737-c.758)	<i>737-c.758</i>
Eadberht (737-c.758) with Archbishop Ecgbert (c.732-766)	<i>c.737-c.758</i>
Alcred of Northumbria (765-774)	<i>c.765-c.774</i>
Offa, king of Mercia	<i>c.760-c.792</i>
Cynethryth (wife of Offa)	<i>c.760s-c.792</i>
Jaenberht, archbishop of Canterbury	<i>c.765-c.792</i>
Æthelred I of Northumbria, 1 st reign (774-779)	<i>c.774-c.779</i>
Ælfwald I of Northumbria (779-788)	<i>c.779-c.788</i>
Æthelred I, with Archbishop Eanbald I of York (780-796)	<i>c.780-c.788</i>
series H, type 49	<i>c.740-c.790</i>
Ecgberht, king of Kent	<i>c.765-c.780</i>
Pippin the Short, king of the Franks	<i>c.752-c.768</i>
Charlemagne, king of the Franks (768-814)	<i>c.768-c.793</i>
Madinat al Salam, dirhem	<i>c.760-c.770</i>

5. Group 5 (c.790-c.810)

coinage	dates of issue
Æthelred I, king of Northumbria, 2 nd reign	<i>c.790-c.796</i>
Offa, king of Mercia, heavy issue	<i>c.792-c.796</i>
Eadberht Praen, king of Kent	<i>c.796-c.798</i>
Beorhtric, king of Wessex	<i>c.796-c.802</i>
Coenwulf, king of Mercia	<i>c.796-821</i>
Cuthred, king of Kent	<i>c.798-c.807</i>
Eadwald, king of East Anglia	<i>c.796-c.800</i>
Earduulf, king of Northumbria	<i>c.796c.810</i>
Æthelheard, archbishop of Canterbury	<i>c.793-c.805</i>
Charlemagne, king of the Franks, heavy issue	<i>c.793-c.812</i>
Ælfwald, king of Northumbria	<i>c.808</i>

6. Group 6 (*c.810-c.840*)

coinage	dates of issue
Eanbald II, Archbishop of York	<i>c.796-c.830</i>
Wulfred, Archbishop of Canterbury	<i>c.805-c.832</i>
Ecgerht, king of Wessex	<i>c.802-c.839</i>
Eanred, king of Northumbria	<i>c.810-c.840</i>
Louis the Pious, king of the Franks	<i>c.810-c.840</i>
Anon. archiepiscopal issue	<i>c.818-c.822</i>
Æthelstan, king of East Anglia	<i>c.825-c.845</i>
Baldred, king of Kent	<i>c.823-c.825</i>
Coelnoth, archbishop of Canterbury	<i>c.833-c.848</i>
Wiglaf, king of Mercia	<i>c.827-829 & c.830-c.840</i>

7. Group 7 (c.840-c.855)

coinage	dates of issue
Æthelred II, king of Northumbria	c.840-c.848
Æthelwulf, king of Wessex	c.839-c.858
Wigmund, Archbishop of York	c.837-c.854
Berhtwulf, king of Mercia	c.840-c.852
Charles the Bald, king of the Franks	c.840-c.855
Redwulf, king of Northumbria	c.844

8. Group 8 (c.855-c.870)

coinage	dates of issue
Osbert, king of Northumbria	c.848-c.867
Wulfhere, Archbishop of York	c.854-c.867
Burgred, king of Mercia	c.852-c.874
Æthelberht, king of Wessex	c.860-c.865
Æthelred I, king of Wessex	c.865-c.871

9. Group 9 (c.870-c.900)

coinage	dates of issue
Alfred, king of Wessex	c.871-c.899
St Edmund Memorial Coinage	c.895-915
Viking 'cunetti'	c.900

Appendix 2

Archaeological sites in Area 1

The following catalogue of sites, and that found in Appendix 7 (Area 2) includes all sites from which data was used in the thesis. Sites are listed alphabetically, with National Grids References (NGR) given where known. A number of sites, especially those found through metal-detecting activities are only located to a parish. In these cases a four-digit figure corresponding to the centre of the village in question is given.

1. **Aiskew** (SE2788)
metal-detected finds of coinage probably representing a small hoard. Ten coins: one of Archbishop Jænberht of Canterbury, others of Offa of Mercia.
ref: Booth 1997b, 36.
2. **Bedale** (SE2688)
metal-detected find of coinage
ref: CR1996, no. 131.
3. **Beverly, near** (TA0440)
metal-detected finds of coinage
ref: EMC
4. **Beverley, Lurk Lane** (TA03793919)
Excavations on the south side of the Minster church between 1979 and 1982, which uncovered evidence for Anglo-Saxon occupation, with finds including Ipswich ware and a ninth century coin hoard. Discussed in section 4.1.2.3
ref: Armstrong *et al* 1991
5. **Bielby** (SE7843)
metal-detected finds of coinage
refs: CR1998, nos. 60, 66, and 104; CR1996, no. 74; Barclay 1997, 160.
6. **Bolton Percy** (SE5341)
metal-detected find of coinage. Also, two large hoards of stycas were found in the nineteenth century.
ref: CR1996, no. 97; Booth 1997b, 37.
7. **Boynton** (TA1367)
casual find of coinage
ref: EMC
8. **Burton Fleming** (TA0871)
metal-detected find of coinage
ref: Booth 2000, 87; Pirie 1995a.
9. **Caythorpe** (TA122679-TA092653)
excavations along the route of a gas pipeline uncovered prehistoric to medieval remains, including an Anglo-Saxon settlement. Discussed in section 4.1.2.10.
ref: Abramson 1996
10. **Cottam** (SE975667)
extensive metal-detection and subsequent excavations uncovered evidence of middle to late Anglo-Saxon occupation, including structural remains. Discussed in section 4.1.2.4.
refs: Booth 1997, 40; Didsbury 1990; EMC; Haldenby 1990; Haldenby 1992; Haldenby 1994; Richards 1994; Richards 1999b
11. **Cottam B** (SE975667)
metal-detected find of coinage.
ref: Booth 1997b, 39.
12. **Cottingham** (TA0432)
metal-detected find of coinage.
ref: CR1998, no. 96.
13. **Coxwold** (SE5377)
coin find
ref: Bosner 1998, 226.
14. **Dariton Parlours** (SE402445)
excavations of SFB produced pottery of middle Saxon date, possibly the seventh century.
ref: Webster and Cherry 1978, 150-151.
15. **Driffield** (TA0257)
metal-detected find of coinage
ref: Rigold and Metcalf 1984, 251.
16. **Dunnington** (TA1551)
casual find of coinage
ref: CR1988, no. 115.
17. **Easingwold** (SE5269)
metal-detected find of coinage
ref: CR1998, no. 46.
18. **East Leys** (TA144713)

- middle Saxon pottery. Described as Grindale in Humber SMR, but same NGR as Coutts (1991) ref: Coutts 1991, 255; Hull museums; Humber Archaeology Partnership SMR no.7592.
19. **East Lutton** (SE9469)
metal-detected find of coinage
ref: CR1996, no. 138.
 20. **East Riding** (NGR unknown)
metal-detected finds of coinage with provenance of 'East Riding'
refs: CR1998, nos. 62, 67, 84, 92, 95,101, 105 and 108.
 21. **Elloughton** (SE9428)
field-walking finds of Anglo-Saxon pottery and a sceatta
ref: Hull museums; Humber Archaeology Partnership SMR nos.17704, and 17243.
 22. **46-54 Fishergate, York** (SE60655115)
excavations on east bank of the river Foss in York uncovered extensive middle Saxon settlement, with evidence of international trade. The site has been interpreted as an emporium. Discussed in detail in section 4.1.2.1.
refs: O'Connor 1991; Mainman 1993; Rogers 1993; Kemp 1996; Pirie, forthcoming
 23. **Fridaythorpe** (SE8759)
metal-detected find of coinage
ref: CR1997, no. 95.
 24. **Goldsborough** (NGRSE3856)
metal-detected find of metalwork
ref: Bailey 1992, 89
 25. **Guisborough** (NZ6015)
excavations within the church at the Augustinian priory uncovered Anglo-Saxon features. Finds included pottery and a coin.
ref: Heslop 1995.
 26. **Hayton** (SE816456)
metal-detected finds of coinage. Additionally, excavations at the Roman Fort yielded early Saxon material, including a useful environmental assemblage.
refs: Rigold and Metcalf 1984, 252; Johnson 1978.
 27. **Heslington** (SE6250)
metal-detected find of coinage
ref: CR1998, no. 47.
 28. **Hickleton** (SE4805)
metal-detected find of coinage
ref: Rigold & Metcalf 1984, 252.
 29. **Hornsea** (TA1947)
find of coinage
ref: Rigold & Metcalf 1984, 253.
 30. **Hutton Rudby** (NZ4606)
metal-detected finds of coinage
refs: CR1995, nos. 116, 122, 126 ; CR1997, no. 86.
 31. **Kemp Howe** (SE9364)
excavation find of coinage. No details forthcoming for the excavations themselves.
ref: Booth 1997b, 43.
 32. **Kingston-upon-Hull, area of** (NGR uncertain)
finds of coinage
refs: CR1998, 110; Hull museums; Humber Archaeology Partnership SMR.
 33. **Kilham** (TA0664)
numismatically rich site producing 17 middle Saxon coins through metal-detecting activity. Additionally, early Saxon burials have been found in the vicinity as have unfurnished graves of possible middle Saxon date.
refs: CR1996, nos. 107, 127, 133, 139, 148; CR1997, nos. 62, 63, 77, 79, 81, 84, 85, 88, 90, 91, 97, 105; Lucy 1999, 26, 40.
 34. **Kirkbymoorside** (SE6986)
metal-detected find of coinage.
ref: Booth 1997b, 43.
 35. **Kirkdale** (SE677857)
excavations have taken place around the Anglo-Saxon church at Kirkdale 1994-2000. producing evidence of occupation from the ninth century including burial, craft-working, and trade.
refs: Rahtz *et al* 1996; Rahtz and Watts 1997; Rahtz and Watts 1998; Rahtz 2001, 219-226; Rahtz, forthcoming.

36. **Low Caythorpe** (TA121678)
excavations at the Manor House uncovered a bank and associated pottery of probable middle Saxon date, and a later Saxon timber building.
refs: Coppack 1974
37. **Malton** (SE7871)
find of coinage made in the nineteenth century.
ref: Rigold & Metcalf 1984, 255.
38. **Malton, near** (NGR uncertain)
metal-detected finds of coinage. None are attributed to the specific sites near Malton, i.e. 'near Malton 1' or 'near Malton 2'.
ref: *EMC*.
39. **Malton, near, site 1** (NGR uncertain)
numismatically rich site producing 33 middle Saxon coins. Exact location of the site is currently secret.
refs: Bosner 1997a, 42; *EMC*.
40. **Malton, near, site 2** (NGR uncertain)
numismatically rich site producing 54 middle Saxon coins. Exact location of the site is currently secret.
refs: Bosner 1997a, 42-43.
41. **Market Weighton, near** (SE8741)
metal-detected find of coinage
ref: *EMC*.
42. **Naburn Ings, Naburn** (SE597450)
finds of coinage made in the eighteenth century
ref: Rigold & Metcalf 1984, 256.
43. **North Ferriby** (SE9826)
metal-detected finds of coinage found along the foreshore, possibly due erosion of the cliffs.
refs: Pirie 1984, 208; Rigold & Metcalf 1984, 257.
44. **North Frodingham** (TA091533, TA088534, TA093535)
fieldwalking finds of pottery from three locations around North Frodingham.
ref: Hull museums; Humber Archaeology Partnership SMR no. 1686.
45. **North Yorkshire** (NGR uncertain)
finds of coinage, with provenance only given as 'North Yorkshire'.
ref: *EMC*.
46. **Norton** (SE7971)
metal-detected finds of coinage.
ref: CR1996, nos. 98, 128 and 129.
47. **Otley** (SE2046)
excavations at the Archbishop of York's medieval manor house at Otley uncovered stake-holes, post-holes and pottery of probable middle Saxon date. Stone sculpture dating from the eighth century has been found in the vicinity of the nearby church.
ref: Le Patourel and Wood 1973.
48. **Ousethorpe** (SE8151)
metal-detected finds of coinage.
ref: CR1998, nos. 107 and 108.
49. **Pocklington** (SE8048)
metal-detected finds of coinage and metalwork.
refs: CR1996, nos. 79, 130 and 193; Hull museums; Humber Archaeology Partnership SMR, no. 18064.
50. **Ricall** (SE6237)
metal-detected find of coinage.
ref: CR1996, no. 99.
51. **Richmond, Hospital of St. Nicholas** (NZ180010)
find of coinage made in nineteenth century.
ref: Rigold & Metcalf 1984, 261.
52. **Ryther** (SE5539)
metal-detected finds of coinage and ninth century metalwork.
refs: CR1996, nos. 66, 81; CR1997, no. 96; CR1998, no. 68; Rogers 1993, 1352.
53. **Scrampton** (NGR uncertain)
metal-detected find of coinage.
ref: CR1998, no. 97.
54. **Selby, region of** (NGR uncertain)
metal-detected coin finds.
ref: CR1995, nos. 117 and 123.
55. **Sherburn** (SE9576)
metal-detected find including coinage and a copper-alloy mount.

refs: Portable Antiquities Scheme (Yorkshire); CR1996, no. 142; CR1997, no. 89.

56. **Sherburn-in-Elmet (SE4933)**

casual find of coinage.
ref: CR1997, no. 87.

57. **South Newbald (SE8935)**

metal-detecting has produced a huge assemblage of middle Saxon coinage and metalwork (mostly pins and strap-ends), but no archaeological work has ever taken place. Fully discussed in section 4.1.2.6. Earlier literature (Rigold & Metcalf 1984, 261; Booth 1988) wrongly identified the location as Sancton.

refs: Booth and Blowers 1988; Booth 1997a; Booth 2000; Leahy 2000; Rigold & Metcalf 1984, 261.

58. **Staxton (TA0179)**

metal-detected finds of coinage.
ref: CR1997, nos. 92 and 94.

59. **Stutton (SE4841)**

casual find of coinage.
ref: CR1989, no. 72.

60. **Thwing (TA030707)**

major excavations of a Bronze Age ringwork between 1973 and 1987 uncovered a large Anglo-Saxon cemetery and associated high status middle Saxon occupation, including evidence of long-distance contacts. Discussed fully in section 4.1.2.5.

refs: Manby 1983; Manby 1985; Manby 1988; Manby 1994; Manby, forthcoming.

61. **Weaverthorpe (SE9670)**

metal-detected find of disc brooch.
ref: Portable Antiquities Scheme (Yorkshire).

62. **Welton (SE9527)**

metal-detected finds of coinage.
ref: Booth 1997b, 48.

63. **Welwick (TA3421)**

Unidentified Anglo-Saxon coins now lost.
ref: Hull museums; Humber Archaeology Partnership SMR no. 2639.

64. **West Heselerton (SE9277)**

major excavations between 1986 and 1995 uncovered remains from late Roman to the ninth century, the most extensive being early Saxon. Fully discussed in section 4.1.2.7.

refs: Powlesland 1997; Powlesland 1998; Powlesland 1999; Powlesland 2000.

65. **Wharram Percy, site 39 (SE8664)**

excavations in 1975/6 on the medieval boundary of the village uncovered an eighth century SFB, infilled with midden deposits. Fully discussed in section 4.1.2.8.

ref: Milne & Richards 1992.

66. **Wharram Percy, sites 94/95 (SE858645)**

excavations in 1989-1990 uncovered an SFB, hearth, and metalworking evidence, all of eighth century date. Fully discussed in section 4.1.2.8.

ref: Milne & Richards 1992.

67. **Wharram Percy, the south manor (SE858642)**

excavations in 1977/78 and 1981-1990 over 550m² uncovered extensive middle Saxon occupation including ditches, pits, and structural remains. One such structure appears to have been associated with smithing. Fully discussed in section 4.1.2.8.

ref: Stamper & Croft 2000.

68. **Whitby Abbey (NZ90301120)**

The likely site of the Anglo-Saxon monastery of *Streanæshalch*, Whitby has been excavated a number of times, the most recent of which are still continuing. The excavations of the 1920s to the north of the medieval abbey have provided most evidence of Anglo-Saxon occupation, but were poorly undertaken and recorded, and have been the subject of much subsequent discussion. Burials, structural remains, and evidence of craft-working and long-distance trade were found. Fully discussed in section 4.1.2.9.

refs: Cramp 1976a & 1976b; Cramp, 1993; EMC; *English Heritage* 1999 & 2000; Hurst, 1976,

- 303-305; Johnson, 1993; Peers & Radford 1943; Rahtz 1967; Rahtz 1976; Rahtz 1995; Rigold & Metcalf 1984, 265; Stopford 2000.
69. **Wighill (SE4746)**
metal-detected finds of coinage.
ref: CR1996, nos. 83, 146 and 147.
70. **Woodmansey (TA0440)**
casual find of coinage 'on farmland between Woodmansey and Beverley'.
ref: CR1988, no 117.
71. **10 miles south of York (NGR uncertain)**
metal-detected finds of coinage
ref: CR1995, nos. 121 & 150.
72. **York, near (NGR uncertain)**
systematic metal-detecting of highly productive site (metalwork and coinage). Location is secret but described as 'south of York'
ref: Leahy 2000, 72-77.
73. **York, city of (various NGR)**
various unprovenance finds from the city.
refs: Moulden *et al* 1999, 289-302; Rigold & Metcalf 1984, 267
74. **York- 11-13 Parliament Street, Midlands Bank (SE60365182)**
excavations produced Anglo-Scandinavian evidence, and Ipswich Ware pottery.
refs: Moulden *et al* 1999, 251; Mainman 1992.
75. **York- 118-126 Walmgate (SE60945150)**
excavations uncovered deposits dating from the ninth century including York ware and Thetford/Torksey type ware.
ref: Moulden *et al* 1999, 259; Rigold & Metcalf 1984, 267.
76. **York- 16-22 Coppergate (SE60425168)**
major excavations uncovered Anglo-Scandinavian occupation dating from the mid ninth century, although there were ephemeral indications of earlier, middle Saxon settlement, including pottery, some of which was imported, and coinage. The site is fully discussed in section 4.1.2.2.
refs: Hall 1994; Mainman 1990; Mainman & Rogers 2000; Moulden *et al* 1999, 258-259; O'Connor 1989; Pirie 1984, 207; Pirie 1986; Rigold & Metcalf 1984, 267.
77. **York- 2 Paragon Street, Barbican Baths (SE60955120)**
excavations uncovered eighth century levels, including a wattle and daub wall, which collapsed into top of Roman well. Finds include middle Saxon coinage and metalwork.
refs: Moulden *et al* 1999, 252-253; Rigold & Metcalf 1984, 267.
78. **York- 21-33 Aldwark (SE60665213)**
excavations uncovered pits cutting a Roman mosaic floor, beneath tenth century church. Finds include middle Saxon pottery, coinage, metalwork.
refs: Moulden *et al* 1999, 253-255; Pirie 1984, 207; Rigold & Metcalf 1984, 267.
79. **York- 23-28 Skeldergate (SE60235147)**
excavations discovered small amounts of Ipswich ware and possibly imported pottery.
refs: Moulden *et al* 1999, 267; Mainman 1992.
80. **York- 3 Hessay Place, Acomb (SE56305105)**
casual finds of iron sword pommel.
ref: Moulden *et al* 1999, 288.
81. **York- 31-37 Gillygate (SE60635218)**
excavations produced a sceatta and sherd of middle Saxon pottery.
ref: Moulden *et al* 1999, 251-252; Rigold & Metcalf 1984, 267.
82. **York- 36 Aldwark (SE0606521)**
excavations produced a residual sherd of imported Northern French pottery.
ref: Mainman 1993, 559, 654.
83. **York- 37 Bishopshill Senior (SE60145144)**

excavations produced Roman and Anglo-Scandinavian features, and a small amount of middle Saxon pottery and metalwork.
ref: Moulden *et al* 1999, 252.

84. York- 5 Rougier Street
(SE60045179)

excavations uncovered post-Roman dark earth, and ninth century pit. Finds include a sceatta and ninth century metalwork.

refs: Moulden *et al* 1999, 262; Rigold & Metcalf 1984, 267.

85. York- 58-9 Skeldergate
(SE60195144)

excavations uncovered middle Saxon finds including metalwork, coinage, and imported pottery.

refs: Moulden *et al* 1999, 253; Rigold & Metcalf 1986, 267; Pirie, 1986.

86. York- 6-26/ 21-27 Union Terrace
(SE60225262)

single middle Saxon sherd found during nineteenth century excavations.

ref: Moulden *et al* 1999, 252.

87. York- 6-8 Pavement, Lloyds Bank
(SE60465175)

excavations uncovered Roman to Anglo-Scandinavian deposits, although the only middle Saxon activity was represented by a bone comb and copper alloy pin. A hone was also potentially middle Saxon.

ref: Moulden *et al* 1999, 252.

88. York- 8 Wellington Row (SE600518)

excavations revealed Roman road, and associated deposits from first century onwards. A post-Roman/ pre-Anglo-Scandinavian timber structure was also found. Anglian dark earth seems to have been reworked, possibly through agriculture. Finds of coins, pottery, metalwork
refs: Mainman 1992; Mainman 1993, 654; Moulden *et al* 1999, 266.

89. York- 9 Blake Street (SE60175203)

excavations revealed middle Saxon metalwork, coinage and

pottery, all of which was found residually in later medieval deposits.

refs: Moulden *et al* 1999, 256; Pirie 1986.

90. York- Anglian Tower (SE60015210)

The Anglian Tower was built in a gap in the Roman defences at some point between the late Roman and Anglo-Scandinavian period, but precise dating is not known. Excavations showed that the late Roman rampart was covered by an accumulation of black earth, probably through natural process. Middle Saxon finds were restricted a very small amount of pottery.

refs: Moulden *et al* 1999, 251; Tweddle 1999, 189-190.

91. York- Baile Hill (SE60265125)

excavations in 1968-69 uncovered late medieval occupation. although three sherds of middle Saxon pottery were also found. Additionally, three coins were found here in the early twentieth century under unknown circumstances.

refs: Moulden *et al* 1999, 250-251, 284.

92. York- Bishophill (SE601514)

pottery found in post-Roman deposits. No other details.

ref: Holdsworth 1978, 3, 18-19.

93. York- Bishopshill, Friends' Burial Ground (SE60165138)

finds of metalwork, and Ipswich Ware pottery were made during excavations.

refs: Moulden *et al* 1999, 252; Mainman 1992, 17.

94. York- Bootham Terrace (SE597523)

Anglian bronze brooch found during excavations.

ref: Moulden *et al* 1999, 249.

95. York- City Walls, Foss Islands Road
(SE61075143)

excavations uncovered possible ninth century remains (stakeholes and slots). Finds included coinage and pottery.

ref: Mainman 1990, 391; Moulden *et al* 1999, 263.

96. **York- Clifford Street** (SE603515)
casual find of Anglian metalwork.
ref: Moulden *et al* 1999, 279.
97. **York- Old County Hospital, Monkgate** (SE60655231)
excavations uncovered middle Saxon pits containing shell tempered pottery.
refs: Mainman 1993, 559, 654; Moulden *et al* 1999, 262.
98. **York- Hungate** (SE606517)
excavations uncovered remains from late Roman to late medieval, but middle Saxon material was restricted to Ipswich ware and a piece of metalwork.
refs: Mainman 1992; Mainman 1993, 561; Moulden *et al* 1999, 249.
99. **York- Interval Tower, Aldwark, NE6** (SE60635218)
small amounts of middle Saxon pottery were found from post-Roman layers during excavations.
ref: Moulden *et al* 1999, 251.
100. **York- Jewbury** (SE60755213)
middle Saxon finds were made during the excavation of a Jewish cemetery in 1983.
refs: Moulden *et al* 1999, 262-263.
101. **York- King's Square** (SE60425193)
middle Saxon pottery was found during excavations.
refs: Mainman 1992; Mainman 1993, 559; Moulden *et al* 1999, 250.
102. **York- Micklegate, Queen's Hotel** (SE60105161)
excavations uncovered a large number of post-Roman pits, post-holes, stake-holes, and two burials. Associated finds included imported pottery. Discussed in section 4.1.2.2. A pin was also found at Micklegate but the circumstances of recovery are unknown.
refs: Mainman 1990, 391; Mainman 1993, 561; Moulden *et al* 1999, 267, 288.
103. **York- Minster excavations** (SE603521)
excavations uncovered post-Roman activity in the Roman basilica and barracks, as well as structural remains and associated finds. Dating is ambiguous with the excavators (Phillips and Heywood 1995) preferring occupation until the ninth century, whilst Carver (1995) argued all post-Roman/ pre-Anglo-Scandinavian activity was fifth century. Fully discussed in section 4.1.2.2.
refs: Carver 1995; Moulden *et al* 1999, 239; Phillips & Heywood 1995.
104. **York- Museum Gardens** (SE60015206)
excavations behind Interval Tower SW6 uncovered an Anglian structure of uncertain date, plus finds of pottery, coins and metalwork.
ref: Moulden *et al* 1999, 250.
105. **York- Museum Street/ Lendal** (SE60075202)
finds of Anglian pottery were made during excavations of Interval Tower SW5.
refs: Holdsworth 1978, 18; Mainman 1993, 561; Moulden *et al* 1999, 252.
106. **York- The Mount, near** (SE592511)
finds of metalwork made in the nineteenth century.
ref: Moulden *et al* 1999, 270.
107. **York- Old County Hospital, Fossbank** (SE60785225)
a sherd of pottery and a styca were found during excavations.
refs: Mainman 1993, 654; Moulden *et al* 1999, 262; Pirie 1986, 78.
108. **York- Old Railway Station** (SE596516)
various Anglian finds made during the nineteenth century.
ref: Moulden *et al* 1999, 270-275.
109. **York- Parliament Street/ New Market Street** (SE603518)
casual find of a ninth-century brooch. Found during the nineteenth century.
ref: Moulden *et al* 1999, 277.

110. **York- Pavement** (SE604518 approx.)
casual find of pin. Found 1951.
ref: Moulden *et al* 1999, 286.
111. **York- Picadilly** (SE60595169)
finds of Anglian pottery made during excavations.
ref: Mainman 1993, 561; Moulden *et al* 1999, 263-266.
112. **York- St. Lawrence vicarage, Hull Road** (SE612514)
unspecified Anglo-Saxon metalwork
ref: Moulden *et al* 1999, 279.
113. **York- St. Mary Bishophill Junior** (SE599514)
excavations uncovered post-Roman pitting and possible Anglian finds.
ref: Moulden *et al* 1999, 238.
114. **York- St. Mary's Abbey** (SE599521)
excavations uncovered Anglian stratigraphy, and finds, including eighth century metalwork.
ref: Moulden *et al* 1999, 250.
115. **York- St. Oswald's Church, Fulford** (SE46054965)
single Anglian sherd found during excavations.
ref: Moulden *et al* 1999, 239.
116. **York- St. Saviorgate** (SE606519)
bronze bowl of Anglian date. Circumstances of find are unknown.
ref: Moulden *et al* 1999, 269.
117. **York- Tanner Row** (SE599517)
casual finds of ninth century metalwork.
ref: Moulden *et al* 1999, 284, 286 and 288.
118. **York- Tempest Anderson Hall** (NGR not known)
Ipswich ware sherd marked 'Tempest Anderson Hall'. Probably found when hall built in 1912
ref: Mainman 1992, 17
119. **York- The School for the Blind, Tadcaster Road** (SE583488)
casual find of eighth/ ninth century metalwork
ref: Moulden *et al* 1999, 288-289.
120. **Yorkshire** (NGR uncertain)
find of thrymsa.
ref: EMC

Appendix 3- coinage from Area 1

c.600-675/680: early gold (tremissis/ thrymsas) to pale gold (pada/ vanimundas)

Site Name	Coin Type	Number of Coins	Date group
Yorkshire	Thymsas	1	1
York	thymsas	4	1

c.680-710: primary and early intermediate phase sceattas

Site Name	Coin Type	Number of Coins	Date group
Bielby	C	1	2
Bielby	D	1	2
Bielby	E (early varieties)	1	2
Bolton Percy	F	1	2
Cottam	E (early varieties)	1	2
Dunnington	E (early varieties)	1	2
Easingwold	B (Bx BI)	1	2
East Riding	E (early varieties)	1	2
Elloughton	D	1	2
Fishergate	E (early varieties)	1	2
Fishergate	C	1	2
Fishergate	D	2	2
Heslington	B (Bx BI)	1	2
Kilham	E (early varieties)	2	2
near Malton	C	2	2
near Malton 1	E (early varieties)	1	2
near Malton 1	BIII	1	2
near Malton 1	Aldfrith 685-704	1	2
North Ferriby	C	2	2
North Ferriby	E (early varieties)	1	2
North Ferriby	D	3	2
North Ferriby	Aldfrith 685-704	2	2
North Ferriby	BII	1	2

Pocklington	D	1	2
Ricall	E (early varieties)	1	2
Ryther	D	1	2
Ryther	A	1	2
Ryther	E (early varieties)	1	2
Thwing	D	1	2
Thwing	F	1	2
Whitby	Z + BZ	1	2
Whitby	D	2	2
Whitby	Aldfrith 685-704	2	2
Whitby	E (early varieties)	1	2
Wighill	E (early varieties)	1	2
York	BII	1	2

c.710-740: later intermediate and non-regal secondary phase sceattas

Site Name	Coin Type	Number of Coins	Date group
Cottam	J	2	3
East Riding	E (later varieties)	1	3
East Riding	J	1	3
East Riding	U	1	3
East Riding	X	1	3
Fishergate	E (later varieties)	3	3
Fishergate	G	1	3
Fishergate	J	6	3
Fishergate	K	1	3
Kilham	Q	1	3
Kilham	U	1	3
Kilham	X	1	3
Kilham	E (later varieties)	1	3
Kilham	N	1	3
near Malton	G	1	3
near Malton 1	E (later varieties)	2	3
near Malton 1	J	3	3

near Malton 1	K	1	3
near Malton 1	N	2	3
near Malton 2	X	1	3
near Malton 2	G	1	3
near Malton 2	J	2	3
near Malton 2	L	1	3
North Ferriby	X	1	3
North Ferriby	E (later varieties)	1	3
North Yorkshire	J	2	3
North Yorkshire	G	1	3
Norton	G	1	3
Welton	Saltire-standard	1	3
Whitby	R	1	3
Whitby	K/N	1	3
Whitby	L	1	3
Whitby	K	1	3
Whitby	J	1	3
Whitby	G	1	3
Whitby	Q	1	3
Whitby	E (later varieties)	2	3
Whitby	Celtic cross with rosettes	1	3
Woodmansey	E (later varieties)	1	3
York	Q	3	3
York	E (later varieties)	1	3
York	J	2	3

c. 740-796: later eighth century issues

Site Name	Coin Type	Number of Coins	Date group
Bedale	Aichred, Northumbria, 765-774	1	4
Beverley	Eadberht, Northumbria 737-758	2	4
Beverley	Aelfwald I	1	4
Beverley	Aethelred I, stca, 2nd reign	1	5

Cottam	Eadberht, Northumbria 737- 758	1	4
Cottam	Aelfwald I	1	4
Cottam A	Alchred, Northumbria, 765- 774	1	4
Cottingham	Eadberht w. Archbish Ecgberht	1	4
Driffield	Aelfwald I	1	4
Driffield	Aelfwald I	1	4
Fishergate	Aethelred I, 2nd reign	1	5
Fishergate	Alchred, Northumbria, 765- 774	1	4
Fishergate	Eadberht, Northumbria 737- 758	2	4
Guisborough	Eadberht w. Archbish Ecgberht	1	4
Hayton	Eadberht w. Archbish Ecgberht	1	4
Hayton	Eadberht, Northumbria 737- 758	1	4
Hornsea	Aethelred I, 1st reign	1	4
Hutton Rudby	Aethelred I, stca, 2nd reign	1	5
Kilham	Eadberht, Northumbria 737- 758	2	4
Kilham	Aethelred I, 1st reign	1	4
Kirkbymoorside	Aethelred I, 2nd reign	1	5
Malton	Eadberht, Northumbria 737- 758	1	4
Market Weighton, near	Aethelred I, 1st reign	1	4
near Malton	Aethelred I, 2nd reign	1	5
near Malton 1	Alchred, Northumbria, 765- 774	1	4
near Malton 1	Eadberht, Northumbria 737- 758	2	4
Near Malton 1	Aethelred I, 2nd reign	1	5
near Malton 2	Aelfwald I	1	4
near Malton 2	Eadberht, Northumbria 737- 758	6	4
near Malton 2	Eadberht w. Archbish Ecgberht	3	4
near Malton 2	Ecgbert, Archbishop of York	1	4
Newbald	Eadberht, Northumbria 737- 758	24	4
Newbald	Eadberht w. Archbish Ecgberht	11	4

Newbald	Alchred, Northumbria, 765- 774	3	4
Newbald	Aethelred I, 1st reign	1	4
Newbald	Aethelred I, 2nd reign	6	5
Newbald	Aethelred I w. Eadbald	1	4
Newbald	denier, Charlemagne, heavy issue	1	5
Newbald	Aelfwald I	3	4
Norton	Eadberht, Northumbria 737- 758	2	4
Pocklington	Eadberht, Northumbria 737- 758	1	4
Richmond	Eadberht w. Archbish Ecgberht	1	4
Scrampton	Alchred, Northumbria, 765- 774 w. Archbishop Ecgberht	1	4
Stutton	Eadberht, Northumbria 737- 758	1	4
Thwing	Aelfwald I	1	4
Thwing	Eadberht, Northumbria 737- 758	4	4
Thwing	Aethelred I w. Eadbald	1	4
Welton	Eadberht, Northumbria 737- 758	2	4
Wharram Percy	Eadberht, Northumbria 737- 758	3	4
Whitby	H type 49	1	4
Whitby	Aelfwald I	1	4
Whitby	Eadberht, Northumbria 737- 758	12	4
Whitby	Aethelred I, 1st reign	12	4
Whitby	Eadberht w. Archbish Ecgberht	1	4
York	Eadberht w. Archbish Ecgberht	2	4
York	Alchred, Northumbria, 765- 774 w. Archbishop Ecgberht	1	4
York	Aelfwald I	1	4
York	Eadberht, Northumbria 737- 758	11	4
York	Aethelred I	3	4

796-c.840: early ninth century issues

Site Name	Coin Type	Number of Coins	Date group
Beverly, near	Eanred, styca	2	6
Bielby	Eanred, styca	1	6
Boynton	Eanred, styca	1	6
Burton Fleming	Eardwulf of Northumbria (808)	1	5
Cottam	Eanred, styca	7	6
Fishergate	Eanred, styca	2	6
Kilham	Eanred, styca	1	6
Kilham	denier, Louis the Pious	1	6
near Malton 1	Eanred, styca	4	6
near Malton 2	Eanred, styca	7	6
Newbald	Eanred, styca	15	6
Newbald	Aelfwald II	3	5
Newbald	Aethelred I, 2nd reign	6	5
Newbald	Wulfred, Archbishop of Canterbury	1	6
Sherburn	Eanred, styca	1	6
Sherburn-in-Elmet	Archbishop Eanbald II, styca	1	5
Thwing	Eanred, styca	7	6
Whitby	Eanred, styca	26	6
Whitby	Archbishop Eanbald II, styca	2	6
York	Aelfwald II	1	5
York	Eanred, styca	13	6

c.840-c.900: later ninth century issues

Site Name	Coin Type	Number of Coins	Date group
10 miles south of York	St Edmund Memorial Coinage	1	9
10 miles south of York	Osbert	1	8
Beverley	Aethelred II, styca, 2nd reign	1	7
Beverley	Osbert	1	8
Bielby	Aethelred II, styca, 2nd reign	3	7
Bielby	Osbert	1	8
Cottam	Wessex penny, Aethelbert	1	8
Cottam	Aethelred II, 1st reign	10	7

Cottam	Aethelred II, 2nd reign	5	7
Cottam	Aethelred II, styca	1	7
Cottam	Redwulf, styca	2	7
Cottam	Wigmund, archbishop of York	2	7
Coxwold	Denier, Charles the Bald	1	7
East Lutton	Aethelred II, styca, 2nd reign	1	7
East Riding	Aethelred II, styca, 1st reign	1	7
Fishergate	Archbishop Wigmund, styca	1	7
Fishergate	Wessex penny, Aethelbert	1	8
Fishergate	Aethelred II, styca	6	7
Fridaythorpe	Aethelred II, styca	1	7
Hayton	Aethelred II, styca	1	7
Hutton Rudby	Osbert	1	8
Hutton Rudby	Archbishop Wigmund, styca	1	7
Hutton Rudby	Aethelred II, styca	1	7
Kemp Howe	Aethelred II, styca	1	7
Kilham	Archbishop Wulfhere, styca	1	8
Kilham	Aethelred II, styca	3	7
Kilham	denier, Charles the Bald	1	7
near Malton 1	Aethelred II, styca	8	7
near Malton 1	Wigmund, archbishop of York	1	7
near Malton 2	Redwulf, styca	1	7
near Malton 2	Aethelred II, styca	19	7
near Malton 2	Archbishop Wigmund, styca	5	7
near Malton 2	Osbert	1	8
Newbald	Osbert	9	8
Newbald	Aethelred II, styca	27	7
Newbald	Archbishop Wigmund, styca	10	7
Pocklington	Viking 'cunetti'	1	9
Ryther	Aethelred II, styca	1	7
Selby	Aethelred II, styca	1	7
Staxton	Redwulf, styca	1	7
Staxton	Aethelred II, styca	2	7

Thwing	Aethelred II, styca	2	7
Whitby	Wigmund, archbishop of York	14	7
Whitby	Redwulf, styca	2	7
Whitby	Osbert	3	8
Whitby	Aethelred II, 1st reign	44	7
York	Mercian penny. Burgred	2	8
York	Aethelred II, styca	36	7
York	Archbishop Wigmund, styca	4	7
York	Wessex penny, Aethelwulf	1	7
York	Osbert	2	8
York	denier, Charles the Bald	1	7
York	Archbishop Wulfhere, styca	1	8

Undated middle Saxon coins

Site Name	Coin Type	Number of Coins
Beverley	irregular stycas	1
Cottam	unidentified stycas	11
Cottam	irregular stycas	2
East Riding	irregular stycas	2
Fishergate	irregular stycas	1
Fishergate	unidentified stycas	1
Hull	Abbasid Caliphate	1
Hull	unidentified stycas	1
Naburn	unidentified sceattas	2
Naburn	unidentified sceatteas	2
near Malton 1	unidentified stycas	2
near Malton 1	E	3
near Malton 2	unidentified stycas	5
Newbald	irregular stycas	11
Ousethorpe	Irregular stycas	2
Selby region	irregular stycas	1
Sherburn	unidentified stycas	1
Thwing	irregular stycas	1

Welwick	Unidentified	0
West Heslerton	unidentified stycas	2
West Heslerton	unidentified sceatteas	1
Wharram Percy	unidentified	unknown
Wharram Percy-south manor	E	1
Whitby	unidentified stycas	15
Whitby	irregular stycas	9
Wighill	irregular stycas	2
York	unidentified sceattas	8
York	unidentified stycas	6
York	irregular stycas	2

Appendix 4- pottery from Area 1

Local Wares

1. Quartz-sand tempered wares

site name	fabric	form	sherd count (minimum)	date
Beverley		cooking pot	2	early-mid 9th century
Beverley	York Ware	cooking pot	1	early-mid 9th century
Caythorpe			59	6th/ 7th century
Fishergate		jar, bowl, cooking pots	30	c.700-c.750
Fishergate		bowl	85	c.750-c.800?
Fishergate		lamp	28	c.800-c.850
Fishergate			56	c.700-c.850
North Frodingham	Whitby-type		n/a	middle Saxon
North Frodingham	York ware		n/a	middle/ late Saxon
Otley	Otley-type		10	middle Saxon
Thwing	Type 2: medium-coarse quartz:		9	6th-7th century
Thwing	fine to coarse types		81	8th-9th century
West Heslerton	fine to coarse sand		n/a	early/ middle Saxon
Wharram Percy, sites 39	medium/ coarse		179	8th century
Wharram Percy, sites 39	with calcitic inclusions		25	8th century
Wharram Percy, sites 94/95	fine to medium		153	8th century
Wharram Percy, sites 94/95	with calcitic inclusions		51	8th century
Wharram Percy-south manor			847	650-850
Wharram Percy-south manor	and calcareous tempering		36	650-850
Whitby	Whitby-type		n/a	middle Saxon
York- 16-22 Coppergate	fine, with organics		21	middle Saxon
York- 16-22 Coppergate	various	includes cooking pots	149	c.850-c.900
York- 16-22 Coppergate	York ware	includes cooking pots & lamps	974	c.850-c.900
York- 21-33 Aldwark	some organic tempering	jar	n/a	mid-8 th century-9 th century.
York- Anglian Tower	medium	jar	n/a	middle Saxon
York- Bishophill	fine	cooking pot	2	650-850
York- Bishophill	with calc. inclusions	cooking pot	1	650-850

York- interval Tower, Aldwark			1	middle Saxon
York- Minster excavations	various	jar/ bowl/ ?pitcher	n/a	5th-8 th century
York- Minster excavations	York ware	jar	n/a	9 th century.
York- Museum Street/ Lendal	fine	cooking pot	1	middle Saxon
York- Old County Hospital, Fossbank	fine	jar	1	Anglian
York- Picadilly			n/a	middle Saxon
York- 118-126 Walmgate	York ware		n/a	middle/ late Saxon

2. Calcite/ limestone tempered wares

Site Name	Fabric Type	Form	sherd count (minimum)	Date
Caythorpe	includes some organics		4	6th/ 7 th century
Caythorpe			1	6th/ 7 th century
Caythorpe			1	6th/ 7 th century
Thwing	Type 1 (handmade)		40	6th-7 th century
West Heslerton			n/a	middle Saxon
Wharram Percy, sites 39	plus calcite		25	8th century
Wharram Percy, sites 94/95	plus calcite		35	8th century
Wharram Percy-south manor			18	650-850
Wharram Percy-south manor			162	650-850

3. Organic-tempered wares

site name	fabric	form	sherd count (minimum)	date
Cottam			5	8th/9th c.
Fishergate			9	c.750-c.800?
Fishergate			6	c.800-c.850
Fishergate			12	c.700-c.850
Thwing			1	8th/ 9th century
West Heslerton	straw and dung			early/ middle Saxon
Wharram Percy, sites 39			6	8th century
Wharram Percy, sites 94/95			2	8th century
Wharram Percy-south manor			138	650-850
York- Museum Street/ Lendal			1	middle Saxon

Wares from elsewhere in mainland Britain

1. Ipswich ware

site name	form	provenance	sherd count (minimum)	date
Beverley	pitcher	East Anglia	29	early-mid 9th century
Fishergate	includes cooking pots and pitchers	East Anglia	3	c.700-c.750
Fishergate	includes cooking pots and pitchers	East Anglia	9	c.750-c.800?
Fishergate	includes cooking pots and pitchers	East Anglia	3	c.800-c.850
Fishergate	includes cooking pots and pitchers	East Anglia	10	c.700-c.850
Wharram Percy-south manor		East Anglia	3	650-850
York- 11-13 Parliament Street, Midlands Bank		East Anglia	n/a	c.720-c.850
York- 16-22 Coppergate	various	East Anglia	10	c.720-c.850
York- 23-28 Skeldergate		East Anglia	1	c.720-c.850
York- 8 Wellington Row	includes cooking pot/ pitcher	East Anglia		c.720-c.850
York- Bishopshill, Friends' Burial Ground		East Anglia	1	c.720-850
York- Clifford Street	pitcher	East Anglia	1	c.720-c.850
York- Hungate		East Anglia	1	c.720-c.850
York- King's Square		East Anglia	1	c.720-c.850
York- Tempest Anderson Hall		East Anglia	n/a	c.720-c.850

2. Shell-tempered ware

site name	form	provenance	sherd count (minimum)	date
Beverley		Lincolnshire	1	8th/ 9th century
Cottam		Lincolnshire	3	9th century
Fishergate	includes bowl and jar	Lincolnshire	20	c.700-c.750
Fishergate	includes jar and cooking pot	Lincolnshire	63	c.750-c.800?
Fishergate	includes jar	Lincolnshire	34	c.800-c.850
Fishergate	includes bowl	Lincolnshire	74	c.700-c.850
Wharram Percy-south manor		Lincolnshire	4	650-850
York- 16-22 Coppergate	bowl	Lincolnshire	6	MSx
York- 8 Wellington Row	bowl	Lincolnshire	n/a	MSx
York- 9 Blake Street			n/a	9th century
York- Anglian Tower	bowl		n/a	7th-9th c.
York- County Hospital,			1	Anglian

Monkgate				
York- Micklegate	jar		n/a	Anglian

3. Charnwood ware

site name	fabric	provenance	sherd count (minimum)	date
Wharram Percy-south manor	igneous inclusions	east Midlands	135	650-850
West Heslerton	igneous	east Midlands	n/a	early/ middle Saxon

Continental Wares

site name	fabric	form	provenance	sherd count (minimum)	date
Fishergate	Buff wares			24	c.700-c.750
Fishergate	Buff wares			25	c.750-c.800?
Fishergate	Buff wares			2	c.800-c.850
Fishergate	Buff wares			4	c.700-c.750
Fishergate	Grey burnished ware			13	c.700-c.750
Fishergate	Grey burnished ware			21	c.750-c.800?
Fishergate	Grey burnished ware			7	c.800-c.850
Fishergate	Grey burnished ware			11	c.700-c.850
Fishergate	Black burnished ware		northern France	17	c.700-c.750
Fishergate	Black burnished ware		northern France	98	c.750-c.800?
Fishergate	Black burnished ware		northern France	8	c.800-c.850
Fishergate	Black burnished ware		northern France	28	c.700-c.850
Fishergate	Mayen Ware		Rhineland	1	c.700-c.750
Fishergate	Mayen Ware		Rhineland	2	c.750-c.800?
Fishergate	Mayen Ware		Rhineland	1	c.800-c.850
Fishergate	Mayen Ware		Rhineland	1	c.700-c.850
Thwing	Grey burnished ware			7	8th century
West Heslerton	imported		imported	1	middle Saxon
Wharram Percy, sites 39	Tating Ware		Rhineland	1	8th century
Wharram Percy, sites 39	Black burnished ware		northern France	1	8th century
Wharram Percy-south manor	Black burnished ware		northern France	14	650-850
Whitby	Mayen Ware		Rhineland	n/a	middle Saxon
Whitby	Black burnished ware		northern France	n/a	middle Saxon

York- 23-28 Skeldergate			imported	1	middle Saxon
York- 36 Aldwark	Black burnished ware		northern France	1	middle Saxon
York- 58-9 Skeldergate	Tating ware	pitcher	Mayen/ Rhineland	2	8th century
York- 8 Wellington Row	Tating ware	pitcher	Mayen/ Rhineland	n/a	8th/9th century
York- Micklegate	Black burnished ware	pitcher?	northern France	1	middle Saxon
York- Micklegate	Tating ware		Mayen/ Rhineland	n/a	8th century
York- Picadilly	Badorf Ware	relief band amphora	Rhineland	1	9th century

Wares of undescribed fabric

site name	form	provenance	sherd count (minimum)	date
Beverley			2	8th century
Beverley			3	early-mid 9th century
Caythorpe			15	6th/ 7th century
Dariton Parlours			n/a	middle Saxon
Elloughton			n/a	Anglo-Saxon
Fishergate	crucible		n/a	c.750-c.800?
Fishergate	includes cooking pot/ jar		n/a	c.800-c.850
Grindale	bowl		1	middle Saxon
Kirkdale			n/a	Anglo-Saxon
Low Caythorpe	jar and cooking pot		4	middle Saxon
Thwing	jar (at least 1)		42	8th-9th century
Wharram Percy- south manor			5	650-850
York- 16-22 Coppergate	spouted pitcher	possibly imported	10	middle Saxon
York- 31-37 Gillygate			1	Anglian
York- 37 Bishopshill Senior			3	middle Saxon
York- 6-26/ 21-27 Union Terrace			n/a	Anglian
York- 8 Wellington Row			n/a	9th century
York- Baile Hill			3	middle Saxon
York- City Walls, Foss Islands Road			1	Anglian
York- Jewbury			n/a	middle Saxon
York- King's Square			4	middle Saxon
York- museum Gardens			n/a	Anglian
York- St. Oswald's Church, Fulford			1	Anglian

Appendix 5- stone artefacts from Area 1

Local stone

site name	artefact type	lithology	provenance	number	date
Beverley	millstone	sandstone- Millstone Grit	Pennines	1	800-850
Beverley	jet lump	jet	Area 1 (erratic)	2	9 th century
Beverley	hone	'sandstone'	Pennines	4	9 th century
Cottam	weight	chalk	Yorkshire Wolds	3	8 th /9 th century- late 9 th century
Cottam	chalk stone	chalk	NE Yorkshire	1	8 th - late 9 th century
Cottam	hone	sandstone- Middle Jurassic	NE Yorkshire	3	8 th / 9 th century
Fishergate	net sinker	flint nodules	Yorkshire Wolds	1	c.800-c.850
Fishergate	stone weight	chalk	Yorkshire Wolds	1	c.700-c.750
Fishergate	hone	sandstone	Pennines	1	c.750-c.800
Fishergate	hone	Fine-grained calcareous sandstone	Vale of Pickering, Howardian/ Hambleton Hills	1	c.750-c.800
Fishergate	ingot mould	sandstone- Middle Jurassic	NE Yorkshire	1	c.700-c.850
Fishergate	fossil	Carboniferous limestone	Yorkshire Wolds	1	c.700-c.750
Fishergate	fossil	Yoredale sequence/ Harrogate Roadstone	northern Pennines	2	c.750-c.800
Fishergate	fossil	chalk group and Yoredale / Harrogate	Yorkshire Wolds/ Pennines	2	c.800-c.850
Fishergate	spindlewhorl	Cretaceous Chalk Group	Area 1	3	700-850
Fishergate	crinoid fossil, possibly used as bead	Yoredale sequence/ Harrogate Roadstone	Pennines	8	c.700-c.850
Fishergate	object	sandstone- Upper Carboniferous	Pennines	1	c.700-c.850
Fishergate	bead	jet	NE Yorkshire	1	3z
Fishergate	spindlewhorl	Coal Measures, or possibly Millstone Grit	Pennines	1	c.700-c.850
Thwing	hone	Carboniferous siltstone/ sandstone	Pennines	3	middle/ late Saxon
Thwing	hone	sandstone- Mid/ Upper Jurassic	Yorkshire Wolds	3	middle/ late Saxon
Thwing	hone	sandstone- Upper Carboniferous to Mid Jurassic	Pennines/ Wolds	14	middle/late Saxon
Thwing	spindlewhorl	chalk	Yorkshire Wolds	n/a	middle/late Saxon
West Heslerton	bead	amber	NE Yorkshire	n/a	early/ middle Saxon
Wharram Percy, sites 94/95		amber	NE Yorkshire	2	8 th century

Wharram Percy, sites 94/95	quernstone	sandstone-Millstone Grit	Pennines	5	8 th century
Wharram Percy, sites 94/95	quernstone	sandstone-Birdsall Calcareous Grit	Pennines	1	8 th century
Wharram Percy, sites 94/95	hone	sandstone-Millstone Grit	Pennines/ Vale of Pickering (possible erratic)	1	8 th century
Wharram Percy, sites 94/95	quernstone	sandstone-Millstone Grit	Pennines	2	8 th century
Wharram Percy, sites 94/95	spindlewhorl	chalk	Yorkshire Wolds	1	8 th century
Wharram Percy, sites 94/95		jet	NE Yorkshire	1	8 th century
Wharram Percy-south manor	spindlewhorl	chalk	Yorkshire Wolds	1	650-850
Wharram Percy-south manor	bead	amber	NE Yorkshire	1	650-850
Wharram Percy-south manor	block	limestone	Yorkshire Wolds	2	650-850
Wharram Percy-south manor	bead	quartz pebble	Area 1 (erratic)	1	650-850
Wharram Percy-south manor	pot boiler	Shap granite	Yorkshire/Cumbria	2	650-850
Wharram Percy-south manor	disc	Brandsby Roadstone	Yorkshire Wolds	1	650-850
Wharram Percy-south manor	hone	sandstone	Area 1	2	650-850
Wharram Percy-south manor	hone	Birdsall Calcareous Grit	Pennines	1	650-850
Wharram Percy-south manor	hone	calcareous sandstone Jurassic	Area 1	1	650-850
Wharram Percy-south manor	quernstone	Oolitic Limestone	Howardian Hills, north & west margins of the Vale of Pickering	1	650-850
Wharram Percy-south manor	quernstone	sandstone-Millstone Grit	Pennines	11	650-850
Wharram Percy-south manor	quernstone	Crinoid Grit	Hambledon/Howardian Hills	3	650-850
Wharram Percy-south manor	'smoothers'	metamorphic	Area 1 (erratic)	1	middle Saxon?
Wharram Percy-south manor	'smoothers'	Carboniferous siltstone	Area 1 (erratic)	1	650-850
Whitby	bead	jet	NE Yorkshire	1	middle Saxon
York- 16-22 Coppergate	shale bracelet	shale	Area 1	1	late 9 th -early 10 th century
York- 16-22 Coppergate	quernstone	sandstone-Millstone Grit	Pennines	6	late 9 th -early 10 th century
York- 16-22 Coppergate	lamp	Lower Magnesian Limestone	Yorkshire Wolds	2	late 9 th -early 10 th century
York- 16-22 Coppergate	spindlewhorl	Ferriby Chalk Formation	slopes of the Wolds facing north and across the Vale of Pickering and York	1	late 9 th -early 10 th century
York- 16-22 Coppergate	spindlewhorl	Chalk group	Yorkshire Wolds	3	late 9 th -early 10 th century
York- 16-22 Coppergate	grindstone	sandstone-Millstone Grit	Pennines	1	late 9 th -early 10 th century
York- 16-22 Coppergate		amber	NE Yorkshire	21	late 9 th -early 10 th century
York- 16-22 Coppergate		jet	NE Yorkshire	1	late 9 th -early 10 th century
York- 16-22 Coppergate	hone	sandstone	Wolds and Pennines	14	late 9 th -early 10 th century

York- 16-22 Coppergate	spindlewhorl	sandstone	Pennines/ Wolds	1	late 9 th -early 10 th century
York- Minster excavations	plaque	jet	NE Yorkshire	5	9 th -11 th century
York- Minster excavations	bracelet	jet	NE Yorkshire	3	9 th -11 th century

Imported stone (mainland Britain)

site name	artefact type	lithology	provenance	number	date
Beverley	fired clay	clay (white)	Broseley, Shropshire	1	800-850
Beverley	hone	highly micaceous ironstone	south Humberside	2	800-850
Fishergate	spindlewhorl	Lower Palaeozoic/ Upper Carboniferous siltstone./ mudstone	southern Scotland/ Lake District	1	700-c.750
Fishergate	hematite	Hematite	south-west Cumbria	44	8 th /9 th century
Fishergate	hone	'grey-wacke like sandstone'	southern Scotland/ Lake District	1	c.700-c.750
Wharram Percy, sites 39	hone	sandstone- Lower Palaeozoic	southern Scotland/ Lake District	1	8 th century
Wharram Percy- south manor	hone	sandstone- Lower Palaeozoic	southern Scotland/ Lake district	2	650-850
York- 16-22 Coppergate	hone	sandstone	various	14	late 9 th - early 10 th century

Imported stone (Continental Europe)

site name	artefact type	lithology	provenance	number	date
Cottam	quernstone	Mayen lava	Rhineland	1	8 th / 9 th century
Fishergate	quernstone	Mayen lava	Rhineland	76	c.700-c.850
Kirkdale	quernstone	Mayen lava	Rhineland	n/a	middle/ late Saxon
Thwing	hone	Norwegian schist	Norway	1	middle/ late Saxon
Thwing	quernstone	Mayen lava	Rhineland	n/a	middle Saxon
West Heslerton	hone	schist?	Scandinavia	n/a	?middle Saxon
West Heslerton	quernstone	Mayen lava	Rhineland	n/a	?middle Saxon
Wharram Percy, sites 94/95	quernstone	Mayen lava	Rhineland	1	8 th century
Wharram Percy- south manor	quernstone	Mayen lava	Rhineland	45	650-850
Wharram Percy- south manor	quernstone	Mayen lava	Rhineland	47	650-850
Wharram Percy- south manor	hone	Phyllite	Norway	1	?650-850
Wharram Percy- south manor	hone	schist	Norway	1	?650-850
York- 16-22 Coppergate	quernstone	Mayen lava	Rhineland	10	late 9 th - early 10 th century

York- 16-22 Coppergate	hone	schist	Norway	5	late 9 th -early 10 th century
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Unknown provenance

site name	artefact type	lithology	number	date
Fishergate	marcasite	iron sulphide	1	c.700-c.750
West Heslerton	hone	unidentified	n/a	early/ middle Saxon
Wharram Percy- south manor	pot boiler	limestone	1	650-850
Wharram Percy- south manor	bead	cannel coal or carbonaceous mudstone	1	650-850
Whitby	quernstone	unidentified	n/a	middle Saxon
Whitby	hone	unidentified	3	middle Saxon
York- 6-8 Pavement, Lloyds bank	hone	unidentified	1	Anglo-Saxon

Appendix 6- metal artefacts from Area 1

Copper Alloy

site name	artefact type	number	date
Bielby	strap-end	1	9 th century
Cottam	pin	66	middle Saxon
Cottam	ring	7	middle Saxon
Cottam	brooch	2	8 th - 9 th century
Cottam	buckle	5	mid-late Saxon
Cottam	other objects	9	middle Saxon
Cottam	strap-end	37	middle Saxon
Fishergate	strap-end	5	8 th / 9 th century
Fishergate	Buckle	4	middle Saxon
Fishergate	pins	33	middle Saxon
Fishergate	other objects	1	middle Saxon
Goldsborough	strap-end	1	9 th century
near York	tweezers	4	middle Saxon
near York	strap-end	31	9 th century
near York	pins	44	9 th century
near York	mounts	8	middle Saxon
Newbald	hooked tags	4	middle Saxon
Newbald	mounts	4	middle Saxon
Newbald	pins	81	middle Saxon
Newbald	strap-end	25	middle Saxon
Newbald	other objects	11	middle Saxon
Pocklington	strap-end	2	9 th century
Ryther	strap-end		middle Saxon
Sherburn	mount	1	9 th century
Thwing	pins	8	middle Saxon
Thwing	strap-end	9	9 th century
Thwing	ring	2	middle Saxon
Thwing	mount	2	middle Saxon

Thwing	tweezers	3	middle Saxon
Thwing	other objects	8	middle Saxon
Weaverthorpe	brooch	1	9 th century
Wharram Percy, sites 39	pin	1	8 th century
Wharram Percy, sites 39	ring	1	8 th century
Wharram Percy, sites 39	other objects	10	8 th century
Wharram Percy, sites 94/95	pin	3	8 th century
Wharram Percy, sites 94/95	other objects	9	8 th century
Wharram Percy- south manor	pins	10	middle Saxon
Whitby	strap-end	12	middle Saxon
Whitby	mounts	26	middle Saxon
Whitby	brooch	4	middle Saxon
Whitby	ring	4	middle Saxon
Whitby	tweezers	13	middle Saxon
Whitby	other objects	27	middle Saxon
York	hooked tag	1	8 th century
York	strap-end	6	9 th century
York	pin	11	middle Saxon
York	other objects	3	Anglo-Saxon
York- 16-22 Coppergate	brooch	2	9 th century
York- 16-22 Coppergate	ring	5	9 th century
York- 16-22 Coppergate	hooked tag	1	9 th century
York- 16-22 Coppergate	pins	20	9 th century
York- 16-22 Coppergate	other objects	9	9 th century
York- 2 Paragon Street, Barbiacan Baths	brooch	1	8 th century
York- 2 Paragon Street, Barbiacan Baths	pin	11	middle Saxon
York- 21-33 Aldwark	strap-end	1	middle Saxon
York- 21-33 Aldwark	pin	n/a	middle Saxon
York- 37 Bishopshill Senior	pin	n/a	middle Saxon
York- 58-9 Skeldergate	pin	1	middle Saxon
York- Bishopshill, Friends' Burial Ground	pin	1	middle Saxon
York- Bootham Terrace	brooch	1	early/ middle Saxon

York- Clifford Street	gridle hanger	1	middle Saxon
York- Hungate	Buckle	1	9 th century
York- Jewbury	pin	1	middle Saxon
York- Micklegate	pin	1	middle Saxon
York- near the Mount	pin	4	middle Saxon
York- Old Railway Station	strap-end	1	middle Saxon
York- Old Railway Station	Buckle	1	9 th century
York- Old Railway Station	pin	3	middle Saxon
York- Pavement	pin	2	middle Saxon
York- St. Lawrence vicarage, Hull Road		n/a	middle Saxon
York- St. Mary's Abbey	pin	1	late 8 th century
York- St. Mary's Abbey	buckle	1	middle Saxon
York- St. Saviorgate	other object	1	uncertain
York- Tanner Row	other object	1	9 th century
York- Tanner Row	strap-end	2	middle Saxon
York- Tadcaster Road	strap-end	1	9 th century

Iron

site name	artefact type	number	date
Cottam	knives	44	8 th /9 th century
Cottam	other objects	27	8 th /9 th century
Fishergate	ring	3	c.700-c.850
Fishergate	buckle	2	750-800
Fishergate	pins	15	c.700-c.850
Fishergate	knife	28	c.700-c.850
Fishergate	other objects	298	c.700-c.850
Thwing	knives	34	middle/ late Saxon
Thwing	pins	4	middle Saxon
Thwing	buckle	1	middle Saxon
Thwing	other objects	52	middle Saxon
Wharram Percy, sites 39	buckle	1	8 th century
Wharram Percy, sites 39	other objects	32	8 th century

Wharram Percy, sites 94/95	buckle pin	1	8 th century
Wharram Percy, sites 94/95	pin	2	8 th century
Wharram Percy, sites 94/95	knife	2	8 th century
Wharram Percy, sites 94/95	other objects	13	8 th century
Wharram Percy-south manor	pins	7	middle Saxon
Wharram Percy-south manor	strap-end	3	middle Saxon
Wharram Percy-south manor	ring	1	middle Saxon
Wharram Percy-south manor	buckle pin	1	middle Saxon
Wharram Percy-south manor	other objects	7	middle Saxon
Whitby	rings	2	middle Saxon
Whitby	other objects	9	middle Saxon
York- 16-22 Coppergate	knives	41	c.850-c.900
York- 16-22 Coppergate	pins	6	c.850-c.900
York- 16-22 Coppergate	ring	7	c.850-c.900
York- 16-22 Coppergate	buckle	17	c.850-c.900
York- 16-22 Coppergate	other objects	1092	c.850-c.900
York- 16-22 Coppergate	other objects, excluding nails	180	c.850-c.900
York- 3 Hessay Place, Acomb	sword pommel	1	9 th century

Lead/ lead-alloy

Site Name	Type of Artefact	Number	Dates
Cottam	ring	1	8 th / 9 th century
Cottam	pin	1	8 th / 9 th century
Cottam	brooch	1	9 th century
Cottam	other objects	12	middle Saxon
Whitby	other objects	2	middle Saxon
York- 16-22 Coppergate	other objects	23	c.850-c.900
York- Parliament Street/ New Market Street	brooch	1	9 th century

Gold

site name	artefact type	number	date
Cottam	other objects	1	8 th / 9 th century

Fishergate	ring	1	early 9 th century
York- 16-22 Coppergate	other objects	1	c.850-c.900

Silver

site name	artefact type	number	date
Cottam	ring	1	8 th / 9 th century
Newbald	pinhead	2	8 th century
York	brooch	1	9 th century
York- 16-22 Coppergate	other objects	2	c.850-c.900
York- 5 Rougier Street	strap-end	1	early 9 th century
York- Old Railway Station	pin	1	Anglo-Saxon

Artefacts of unknown metal type

site name	artefact type	number	date
Elloughton	pin	1	650-900
Whitby	hooked tags	3	middle Saxon
Whitby	buckle	4	middle Saxon
Whitby	pins	114	middle Saxon
York- 8 Wellington Row	brooch	1	early/ middle Saxon
York- 8 Wellington Row	strap-end	0	9 th century
York- 9 Blake Street	unidentified	1	early/ middle Saxon
York- St. Mary Bishophill Junior	pin	1	400-850
York- St. Mary's Abbey	ring	1	Anglo-Saxon

Appendix 7

Archaeological sites in Area 2

1. **Aldington** (TR0836)
metal-detected find of coinage.
ref: CR1996, no. 94.
2. **Ash** (TR2958)
metal-detected finds of coinage.
refs: CR1994, no. 111; EMC.
3. **Aylesford** (TQ7359)
metal-detected finds of coinage.
refs: Blackburn & Bonser 1985, 56; Bonser 1998, 204.
4. **Barham** (TR2150)
casual finds of coinage.
refs: Rigold & Metcalf 1984, 246; CR1993, no. 173.
5. **Bekesbourne, nr Canterbury** (TR1955)
metal-detected find of coinage.
ref: CR1998, no. 74.
6. **Between Sandwich and Dover** (TR3249)
casual find of coinage.
ref: EMC.
7. **Biggins Wood** (TR202378)
part of Channel Tunnel excavations around Folkestone. A 7th century SFB associated with a trackway, rubbish pits and post-holes (fence or animal enclosure) were found. Finds included pottery, sea shells and jewellery (?Roman). Probably represents poor standards of living.
refs: Bennett 1989, 59; Rady 1990b.
8. **Birchington** (TR3069 approx.)
casual find of coinage.
ref: Rigold & Metcalf 1984, 247.
9. **Boxley** (TQ7759)
casual finds of coinage.
refs: CR1988, no. 130; CR1994, no. 190; Bonser 1998, 206, 217.
10. **Bredgar** (TQ8890)
casual find of coinage.
ref: CR1989, no.64.
11. **Brickfield, near Canterbury** (TR160595)
excavation find of coinage.
ref: Rigold & Metcalf 1984, 249.
12. **Broad Oak Water** (TR16386231 centred)
evaluation trenching uncovered mid/late Saxon and post-Conquest material and features in 6 trenches. Finds include middle Saxon pottery, bone objects, and slag.
ref: Cross 1992.
13. **Broadstairs, St. Peters** (TR3868)
metal-detected find of coinage.
ref: CR1998, no. 65.
14. **Brook** (TR0644)
metal-detected find of coinage.
ref: CR1997, no. 48.
15. **Canterbury, city of** (various NGR)
casual and excavation finds of coinage reported without exact provenance.
refs: Rigold & Metcalf 1984, 249; Bosner 1998, 218, 220
16. **Canterbury- 16 Watling St** (TR147575)
excavations uncovered occupation from the sixth/ seventh century, including seven sixth/ seventh century SFBs, and a Late Saxon hut. Finds were quite extensive, with metalwork, bone combs, and weaving equipment, although none is dated in the short report.
ref: *Canterbury's Archaeology 1978/79*, 6.
17. **Canterbury- 24a Old Dover Road** (TR151575)
excavations in 1995 and 1996 uncovered evidence of occupation, mostly pitting, from the sixth to tenth centuries. A single seventh century burial was also found. Finds included bone, shell, slag and pottery, some of which was imported Northern French wares. The pottery was dated mostly to 775-875, but some

as late as 950.

refs: Hicks 1996; Hicks 1997;
Hicks 1999.

18. Canterbury- 36-37 Stour Street
(TR146576)

Excavations in 1985/6 indicated riverine conditions throughout the Anglo-Saxon period, although further investigations the following year uncovered at least one sixth/ seventh century SFB. Finds included bone combs and pottery.
refs: Rady 1987b; Rady 1987c.

19. Canterbury- 60a Stour St + Adelaide Place (TR147576)

excavations uncovered black loam sealing two middle/ late Saxon structures. The earliest was of post-hole construction, although was mostly outside the excavated area. The other was well preserved, of ninth/ tenth century date.

ref: Canterbury Archaeological Trust Annual Report 1980/81, 9.

20. Canterbury- 68 Stour St (TR147576)

excavation find of coinage.
ref: Rigold & Metcalf 1984, 249.

21. Canterbury- 77-79 Castle St.
(TR145575)

Excavations in the 1975/76 at nos. 78-79 uncovered 'Anglo-Frisian' pottery, and in 1978/79 at nos. 77-79 badly disturbed eighth century deposits. Rubbish pits and a timber structure were uncovered, and finds included weaving equipment and two sceattas.

refs: *Canterbury Archaeological Trust Annual Report 1975/76*, 8; *Canterbury Archaeological Trust Annual Report 1978/79*, 11; Rigold & Metcalf 1984, 249.

22. Canterbury- between St. George's Street and Burgate Street
(TR151578)

excavations took place between St- George's Street and Burgate Street, encompassing Canterbury Lane, during the period 1947-1957. A number of Anglo-Saxon features from the late sixth/ seventh century through to eighth/ ninth century were among those uncovered. This was mostly

pitting, although a number of later ninth century occupation layers were found. Finds included local and imported pottery, loomweights, and animal bone.

ref: Frere and Stow 1983.

23. Canterbury- Bus Station (TR515577)

excavations in 1949 uncovered a number of post-Roman deposits, including layers containing sixth/ seventh century and ninth century pottery. An fifth/ sixth century pit was also found.

ref: Frere & Stow 1983, 135-143.

24. Canterbury- Cathedral (TR151579)

excavations in 1992/93 uncovered parts of the Anglo-Saxon cathedral a floor of 1786. The foundations found may be part of the original church. The evidence suggested demolition in the ninth/tenth century, and a new building was constructed. Local and imported (Continental and Ipswich Ware) pottery has been found residually in later deposits.

refs: Blockley and Bennett 1993, 2.

25. Canterbury- Christ Church College
(TR155579)

excavations undertaken since 1993, on land which once formed a part of the Outer Court of St. Augustine's Abbey, have uncovered extensive evidence of middle Saxon settlement. Fully discussed in section 5.1.2.4.1.

refs: Bennett 1984; Bennett 1986; Anderson 1987; Bennett 1988; Bennett 1991; Hicks 1993; Ward 1994; Hicks 1995; Jarman 1997; Houliston 1998; Houliston 1999.

26. Canterbury- Diocesan House
(TR159579)

excavation in 1992/93 uncovered pits and post-holes dug into a dark earth soil layer, with two hearths constructed on top. Pottery was dated to middle/ late Saxon. the site may represent small scale industrial activity, possibly associated with early monastery.

ref: Hutcheson 1994

27. Canterbury- Gravel Walk
(TR149579)

excavations in 1967 included finds of ninth century pottery.
ref: Williams 1975, 123.

28. **Canterbury- Hop Garden** (TR1558 approx.)
casual find of coinage.
ref: Rigold & Metcalf 1984, 249.
29. **Canterbury- Longmarket** (TR150179)
excavations in 1990 uncovered extensive Anglo-Saxon deposits. Residual Anglo-Saxon pottery was also found. Middle Saxon structural evidence consisted of five SFBs, one incorporating two parallel Roman walls into its structure, another an *opus signinum* floor. Finds of pottery, metalwork, and a fine bone comb suggested ninth century dates. The evidence is most likely to suggest domestic settlement.
refs: Rady 1990a; Pratt 1991; Riddler 1991.
30. **Canterbury- Marlowe excavations** (TR148580)
excavations around the area of the Marlowe Car Park uncovered extensive early to mid Saxon deposits including structural remains. Finds included an extensive pottery assemblage, metalwork, stone objects and coinage. Fully discussed in section 5.1.2.4.2.
ref: Blockley *et al* 1995.
31. **Canterbury- Mint Yard site** (TR1558)
excavations in 1979/80 uncovered Saxon remains, consisting of three rough courtyard metallings laid over each other associated with a row of large post-holes aligned parallel to Roman street. Finds included organic tempered wares indicating a seventh/ eighth century date. Four possible boundary ditches at approximately perpendicular to post-holes, cut earlier Saxon levels and possibly indicate later Saxon division into properties.
ref: *Canterbury Archaeological Trust Annual Report 1979/1980*, 15.
32. **Canterbury- North Lane** (TR147584)
excavations found residual and intrusive Anglo-Saxon pottery, but no other Anglo-Saxon evidence.
ref: Rady 1997, 19.
33. **Canterbury- Rose Lane** (TR149575)
excavation find of coinage.
ref: Rigold & Metcalf 1984, 249.
34. **Canterbury- St Dunstan's Church/ St Dunstan's House** (TR1558)
excavation finds of coinage.
ref: Rigold & Metcalf 1984, 249.
35. **Canterbury- St George's Clocktower** (TR150578)
excavations in 1991/92 uncovered section of loose textured metalling interpreted as courtyard, dated to before the tenth century. Finds from nearby later features included residual ninth to late tenth century pottery.
ref: Bennett *et al* 1993
36. **Canterbury- St Gregory's Priory** (TR153583)
during excavations of a later medieval cemetery in 1988/89, residual seventh century pottery was found in the grave fills. Further excavations in 1989/1990 uncovered a number of middle and late Saxon features including three timber lined wells, and three large ditches, which probably acted as boundaries.
refs: Hicks and Anderson 1990; Hicks and Hicks 1991.
37. **Canterbury- St. Margaret's St.** (TR146575)
excavation find of coinage.
ref: Rigold & Metcalf 1984, 249.
38. **Conduit Meadow, St Martin's Hill, Canterbury** (TR171579)
excavations during 1984/85 uncovered evidence of middle Saxon occupation consisting of a metalling trackway and much pitting. Finds included Ipswich Ware. The excavations are fully discussed in section 5.1.2.5.
ref: Rady 1987a.
39. **Canterbury- St Ranigund's Street** (TR150582)
excavations uncovered evidence of early/ middle Saxon occupation

including two SFBs, possibly of seventh century date, and another dated to the ninth century. Finds included an undescribed assemblage of early and middle Saxon pottery.
ref: Rady 1987d.

40. **Canterbury- the 3, Beer Cart Lane** (TR146575)
excavations uncovered Anglo-Saxon black earth containing eighth to eleventh century pottery (undescribed) A sceatta was also found.
refs: Bennett 1979, 271; Rigold & Metcalf 1984, 249.
41. **Chalk** (TQ6873)
casual find of coinage.
ref: Bonser 1998, 209.
42. **Chartham** (TR0955)
metal-detected find of coinage.
ref: Kent Portable Antiquities Scheme.
43. **Cheriton Hill** (TR198382)
part of Channel Tunnel excavations around Folkestone. Evidence of occupation was uncovered, with the excavation of three rubbish pits containing eighth and ninth century material. Finds included a small amount of pottery, bone, marine shells, and large quantities of daub.
ref: Rady 1990, 37-38.
44. **Cherry Hill Garden** (TR206382)
part of Channel Tunnel excavations around Folkestone, located on a high plateau. Two groups inter-cutting rubbish pits containing bone, pottery and marine shells were found, which possibly reflect the position of a building which has subsequently been ploughed away. The finds were dated to the early/ mid eighth century.
ref: Bennett 1989, 59.
45. **Chestfield** (TR1366)
casual find of coinage.
ref: CR1987, no. 38.
46. **Church Whitfield cross-roads** (TR313458)
part of excavations for Whitfield-
Eastry bypass near Dover. Anglo-Saxon remains consisted of two timber framed post-hole buildings and four SFBs. Finds included pottery, a sherd of which was imported Northern French ware, metalwork, bone, and marine fish/shellfish. Occupation was dated to c.575-700. Fully discussed in section 5.1.2.3.
refs: Parfitt 1996; Parfitt, Allen, & Rady 1997.
47. **Cliffe** (TQ7376)
casual finds of coinage.
ref: CR1987, no. 54; CR1988, no. 108.
48. **Cliffe and Cliffe End Woods, Medway** (TQ7376 approx.)
metal-detected find of coinage.
ref: Kent Portable Antiquities Scheme.
49. **Cliffsend** (TR3464)
metal-detected finds of coinage.
ref: CR1996, nos. 91, and 115.
50. **Cliffsend, Oaklands Nursery, Cottingham Road** (TR345644 approx.)
excavations uncovered two eighth/ninth century features. Finds included undescribed pottery, whale bone, bone/ ivory combs and a stone object.
ref: Perkins 1998b, 357.
51. **Cobham/Cobham Park** (TQ6868)
metal-detected finds of coinage.
ref: Rigold & Metcalf 1984, 250; CR1987, no. 58 CR1988, nos. 103 and 109; EMC.
52. **Cooling** (TQ756759)
casual finds of coinage.
refs: Rigold & Metcalf 1984, 250 Metcalf 1993, 445.
53. **Dartford** (TQ5575 approx.)
casual finds of coinage.
refs: CR1987 nos. 46 and 105; Bonser 1998, 206.
54. **Deal, near** (NGR uncertain)
metal-detected find of coinage.
ref: Bonser 1998, 206.
55. **Deptford** (TQ7739)
casual find of coinage.

- ref: Rigold & Metcalf 1984, 250-251.
56. **Derringstone** (TR2049)
metal-detected find of coinage.
ref: Coin Register 1996, no.181.
57. **Dolland's Moor, just to the east of** (TR179372)
part of Channel Tunnel excavations around Folkestone. Two SFBs, and associated features were uncovered. Finds included organic-tempered pottery, loomweights, and animal bone, which were dated to the seventh century
ref: Bennett 1989, 58.
58. **Dover** (TR309430 approx.)
excavations have uncovered seventh century occupation at least, on a number of sites in and around the town. Finds include pottery in small amounts, both local wares, Ipswich Ware and Continental wares, casual and excavation finds of coinage, and ephemeral structural evidence.
refs: Dunning 1957, 36-37; Rigold & Metcalf 1984, 251; Evison 1987, 177; Tatton-Brown 1988, 220; Underwood-Keevil 1994, 115-123; *Arch. Cant.* 1996, 321; Bonser 1998, 206; *EMC*.
59. **East Kent** (NGR uncertain)
casual find of coinage.
ref: CR1994, no. 153.
60. **Eastry** (TR3154)
metal-detected and casual finds of coinage.
refs: Rigold & Metcalf 1984, 251; CR1992, no. 244 (TR30985483); CR1995, nos. 87, 96, 100-101; Bosner 1998, 205, 209, 221; *EMC*.
61. **Faversham, near** (TR0161)
metal-detected find of coinage.
ref: CR1993, no.194
62. **Fordwich, High Street** (TR180595)
single middle Saxon sherd found during excavations.
ref: Blockley 1987.
63. **Folkestone** (TR2236)
casual finds of coinage, and finds of local pottery, dated to the eighth/ ninth century
refs: Blackburn & Bonser 1985, 61; Blackmore (forthcoming); *EMC*.
64. **Gillingham, near** (TQ8065)
metal-detected find of coinage.
ref: CR1996, no. 198
65. **Gravesend** (TR7565)
casual finds of coinage.
refs: CR1993, no. 175; Bonser 1998, 214
66. **Great Chart** (TQ9742)
casual find of coinage.
ref: CR1995, no. 102.
67. **Great Mongeham** (TR3452)
metal-detected finds of coinage
refs: CR1992, no.195 and 196; CR1993, nos. 136, 137, 139, 161, 183, 195, and 196; CR1996, 119.
68. **Ham** (TR3256)
metal-detected find of coinage.
ref: CR1996, no. 67.
69. **Hartlip** (TQ8564)
casual find of coinage.
ref: CR1995, no. 84.
70. **Herne** (TR1865)
metal-detected finds of coinage.
ref: CR1998, no. 39; *EMC*.
71. **Higham** (TQ7171)
casual finds of coinage.
refs: CR1989, no. 69 ;CR1995, no. 154 .
72. **Hoath** (TR2064)
metal-detected find of coinage.
ref: CR1996, no. 92.
73. **Hollingbourne, near** (TQ8455)
metal-detected finds of coinage.
refs: CR1992, no. 253; Bosner 1997, 41; Bonser 1998, 209; *EMC*.
74. **Horton Kirby, Farningham, near** (TQ5568)
casual finds of coinage.
ref: CR1987, no. 39 (under near Farningham); CR1996 63, 77, and 123 (under Horton Kirby).
75. **Hythe** (TR1735)

- casual find of coinage.
ref: Rigold & Metcalf 1984, 253.
76. **Ightham** (TQ5857)
metal-detected find of coinage.
ref: CR1996, 78.
77. **Isle of Grain** (TQ8877)
casual finds of coinage.
refs: Rigold & Metcalf 1984, 253;
Metcalf 1993, 444.
78. **Isle of Sheppey** (NGR uncertain)
casual finds of coinage.
ref: CR1988, no. 59; Bosner 1998,
222.
79. **Isle of Thanet** (NGR uncertain)
casual find of coinage.
ref: EMC.
80. **Kemsing** (TQ5558)
casual find of coinage.
ref: CR1995, no. 130.
81. **Kent** (NGR uncertain)
casual and metal-detected finds of
coinage.
refs: CR1996, no. 62; CR1997,
nos. 44, 65; Bosner 1998, 210,
217; EMC.
82. **Lenham, near** (TQ8455, & TQ9051)
metal-detected finds of coinage.
There appears to be two different
locations from the NGR given by
the Kent Portable Antiquities
Scheme. It is unsure from which
site the Bosner (1998, 219) coin is
from.
refs: Bosner 1998, 219; Kent
Portable Antiquities Scheme.
83. **Little Mongeham** (TR3351 approx.)
Three coins from around Little
Mongeham at TR33085118,
TR33435127, and an undisclosed
NGR. All were found during the
same metal-detecting rally.
ref: CR1992, 223, 225, and 226.
84. **Lympne** (TR1235)
casual finds of coinage
ref: CR1996, 161; EMC.
85. **Maidstone, near** (NGR uncertain)
casual finds of coinage.
refs: CR1987 no.102; Bosner
1998, 202.
86. **Margate, near** (NGR uncertain)
casual find of coinage.
ref: CR1987, no. 74.
87. **Merton Farm, near Canterbury**
(TR149552)
metal-detected find of coinage.
ref: CR1998, no. 55.
88. **Milton Regis** (TQ9065)
casual find of coinage.
ref: Rigold & Metcalf 1984, 256.
89. **Minster-in-Sheppey** (TQ958735)
casual finds of coinage.
refs: Rigold & Metcalf 1984, 256.
90. **Minster-in-Sheppey, Bell Farm**
(TQ9573 approx.)
metal-detected find of coinage.
ref: CR1988, 101.
91. **Minster-in-Sheppey- pumping
station** (TQ9573 approx.)
excavations in 1993 uncovered a
pebbled surface and local/ East
Anglian pottery. See section
5.1.2.2.
ref: Pratt 1993.
92. **Minster-in-Sheppey- St George's
School** (TQ961727, and TQ960727)
Watching briefs at the school
uncovered evidence of occupation
from the seventh to ninth
centuries, including structural
remains. Finds included pottery.
Disucssed fully in section 5.1.2.2.
ref: Pratt 1999
93. **Minster-in-Sheppey- Falcon
Gardens** (TQ9573 approx.)
excavations in 1991 by the
Sheppey Archaeological Society
uncovered middle Saxon remains,
including post-hole buildings.
Finds include imported and local
pottery (Continental and Ipswich
Ware), glass, a coin, and
metalwork. See section 5.1.2.2.
refs: Pratt 1993; Kent SMR.
94. **Minster-in-Thanet** (TR3164)
casual finds of coinage.
refs: Rigold & Metcalf 1984, 256;
CR1994, nos. 135, 138, 143, 166;
CR1996, no. 73.
95. **Monkton** (TR2965)
metal-detected finds of coinage.

- ref: CR1997, no. 113; CR1998, no. 112
- casual find of coinage.
ref: CR1995, no. 70
96. **Canterbury, near** (NGR undisclosed)
large number of metal-detected finds of coinage.
ref: Bosner 1997, 41; *EMC*.
97. **Northbourne** (TR5322)
casual find of coinage.
ref: *EMC*.
98. **Old Romney** (TR0525)
casual find of coinage.
ref: CR1993, no.157.
99. **Petham** (TR1252)
casual find of coinage.
ref: CR1996, no. 65.
100. **Rainham** (TQ8165)
casual find of coinage.
ref: *EMC*.
101. **Ramsgate** (TR3765 approx.)
casual find of coinage.
ref: CR1994, no. 113.
102. **Reculver** (TR237694)
numerous finds of coinage have been made at the Roman fort and Anglo-Saxon Minster site. It is possible that some of the finds may have come from the north coast of Thanet.
refs: Rigold and Metcalf 1984, Pirie 1984, 212-213; Metcalf 1988b; 258-260; Metcalf 1993, 556; Bosner 1998, 203, 229-230; *EMC*
103. **Richborough, Roman fort** (TR325602)
coinage and Ipswich ware pottery were found during excavation in the 1920s and 1930s. These coins (cited in Rigold & Metcalf 1984) may have come from graves and were not used in analysis.
refs: Bushe-Fox 1932; Hurst 1976, Rigold & Metcalf 1984, 260-261; Kennett 1989, 58; 302; Bosner 1998, 201, 230, *EMC*.
104. **Ringwould** (TR3448)
metal-detected find of coinage.
ref: CR1996, no. 64.
105. **Ripple** (TR3450)
106. **Rochester** (TQ6872)
casual and excavation finds of coinage.
refs: Rigold & Metcalf 1984, 261; CR1987, no.99; Bosner 1998, 201, 218, 222, Kent Portable Antiquities Scheme; *EMC*.
107. **Rochester- Cathedral** (TQ744685)
small amount of seventh/ eighth century pottery was found during excavations.
ref: Ward and Anderson 1990; Ward 1997b.
108. **Rochester- North Gate car park** (TQ7568)
a find of coinage was made during excavations in 1986.
refs: Ward 1997a.
109. **Sandwich** (TR3358)
casual finds of coinage.
refs: CR1995, no. 64; Bosner 1998, 203, 219, 230.
110. **Sepham Farm, Shoreham, Sevenoaks** (TQ5159)
metal-detected find of coinage.
ref: Kent Portable Antiquities Scheme.
111. **Sevenoaks** (TQ5255 approx.)
metal-detected finds of coinage.
ref: Kent Portable Antiquities Scheme
112. **Shoreham** (TQ5262)
casual find(s) of coinage.
refs: CR1995, no. 153, Bosner 1998, 219.
113. **Shorne** (TQ6971)
metal-detected find of coinage.
ref: CR1998, no. 38.
114. **Sittingbourne** (TQ9063)
casual find of coinage.
ref: *EMC*.
115. **Southfleet** (TQ6272)
casual find of coinage.
ref; CR1997, no.42.
116. **St Peter's, Broadstairs** (TR3769)
metal-detected find of coinage.

refs: CR1998, no. 65; Kent Portable Antiquities Scheme.

was ninth century activity. No further details.

ref: Rady 1993.

117. **St. Nicholas at Wade** (TR2867)
casual find of coinage.
ref: EMC.
118. **Stone-by-Faversham** (TQ992613)
middle Saxon coinage and pottery were found during excavations at the church 1971-1972. The pottery has since been interpreted as Ipswich Ware.
refs: Fletcher and Meates 1977; Blinkhorn forthcoming.
119. **Stone-cum-Ebony** (TQ0961)
metal-detected find of coinage.
ref: Kent Portable Antiquities Scheme.
120. **Stourmouth** (TR256629)
casual find of coinage.
Rigold & Metcalf 1984, 263.
121. **Strood** (TQ7269)
casual find of coinage.
ref: EMC.
122. **Sutton** (TR3349)
metal-detected find of coinage.
Note: EMC 1999.0020 cites same coin, but provenanced to Waldershare Park, near Dover. Location is kept here as published in CR1998.
ref: CR1998, no. 111; EMC.
123. **Sutton Court Farm, Sutton, near Deal** (TR331486)
metal-detected find of coinage.
ref: CR1998, no. 53.
124. **Teynham** (TQ6295)
metal-detected find of coinage.
Pottery is also known.
refs: Hurst 1959, 19-21; CR1997, no. 108.
125. **Thanet- Thanet Way** (various NGR)
excavations in 1991/92 uncovered evidence of Anglo-Saxon occupation at a number of sites. At site 11 (TR16736610), eighth/ninth century activity was found, including a sherd of local pottery; at site 13 (TR17226620) a feature of early Saxon date (sixth/seventh century) was found; and at site 14 (TR177664) there
126. **Thurnham** (TQ8058)
metal-detected finds of coinage.
refs: CR1997, no. 52; CR1998, no. 83.
127. **Upper Deal** (TR3652)
casual find of coinage made on Sandwich to Deal road (A258).
ref: Blackburn & Bonser 1985, 72
128. **Waldershare Park, near Dover** (TR2848)
metal-detected finds of coinage.
Note: see Sutton above.
refs: CR1997, no. 122; CR1998, nos. 42, and 113; EMC.
129. **West Hythe** (TR125335)
metal-detected finds of coinage.
refs: Blackburn & Bonser 1985, 73; CR1996, nos. 178-179; CR1998, no. 109; Bonser 1998, 203, 212; EMC.
130. **West Hythe- Sandtun** (TR121338)
Excavations in the late 1940s and again in the 1990s, on the sand dunes outside West Hythe, at the site traditionally known as Sandtun have uncovered much evidence of middle Saxon occupation, although no structural evidence was found. Finds included imported pottery, coinage, animal bones, metalwork, and stone objects. The settlement was interpreted as a small coastal fishing settlement, also involved in long-distance trade. It may have been associated with the nearby minster at Lympne. See section 5.1.2.1 for full discussion.
refs: Hurst 1959, 21; Wilson 1971, 76, 82, 91; Clutton-Brock 1976, 376-385; Ward 1996; Gaimster *et al* 1998, 141; Gardiner, forthcoming.
131. **Westerham** (TQ4555)
metal-detected find of coinage.
ref: CR1996, no. 106.
132. **Westwell** (TQ9947)
metal-detected find of coinage.
ref: Bonser 1998, 222.

133. **Whitfield** (TR3044)
metal-detected find of coinage.
ref: CR1996, 70.
134. **Wickhambreux** (TR2258)
casual find of coinage.
ref: CR1992, no. 220.
135. **Wingham** (TR2457)
casual find of coinage.
ref: Rigold & Metcalf 1984, 266.
136. **Woodnesborough** (TR3257)
metal-detected finds of coinage.
137. **Wrotham** (TQ6159)
casual find of coinage.
ref: Bonser 1998, 212.
138. **Wye** (TR0546)
casual finds of coinage.
refs: Metcalf 1993, 433-4;
CR1996, no. 153, 157; Bosner
1998, 222.

Appendix 8- coinage from Area 2

c.600-675/680: early gold (tremissis/ thrymsas) to pale gold (pada/ vanimundas)

Site Name	Coin Type	Number of Coins	Date group
Ash	tremissis	2	1
between Sandwich and Dover	tremissis	1	1
Cobham	Pada	1	1
Dover	thrymsa	2	1
Folkstone	tremissis	2	1
Great Mongeham	Tremissis	1	1
Great Mongeham	Thymsas	1	1
Herne	pada	2	1
Hollingbourne	thrymsa	1	1
Hollingbourne	tremissis	3	1
Hollingbourne	pada	1	1
Isle of Thanet	thrymsa	1	1
Lenham	unidentified	1	1
Lypne	thrymsa	1	1
Minster-in-Sheppey	Tremissis	2	1
near Canterbury	pada	1	1
near Canterbury	Thrymsa	1	1
Rainham	tremissis	1	1
Reculver	thrymsa	1	1
Reculver	tremissis	2	1
Sandwich	Tremissis	1	1
Shorne	Thymsas	1	1
Sittingbourne	thrymsa	1	1
Southfleet	Pada	1	1
Strood	thrymsas	1	1
West Hythe	tremissis	1	1

c.680-710: primary and early intermediate phase sceattas

Site Name	Coin Type	Number of Coins	Date group
Barham (K)	E (early varieties)	1	2
Birchington	D	1	2
Bredgar	D	1	2
Brook	C	1	2
Canterbury	E (early varieties)	3	2
Canterbury	Runic porcupine (Aethilraed)	1	2
Canterbury	C	1	2
Canterbury	B (Bx BI)	2	2
Chestfield	A	1	2
Cliffe	D	1	2
Cliffe and Cliffe End Woods, Medway	unidentified sceattas	3	2
Cliffsend	E (early varieties)	1	2
Cobham	VERNVS	1	2
Cobham	E (early varieties)	2	2
Cobham	D	1	2
Dartford	BII	1	2
Farningham	A	1	2
Folkstone	B (Bx BI)	1	2
Folkstone	C	1	2
Great Mongeham	Saroaldo	1	2
Great Mongeham	BII	1	2
Ham	B (Bx BI)	1	2
Hartlip	E (early varieties)	1	2
Higham	F	1	2
Hoath	E (early varieties)	1	2
Hollingbourne	A	3	2
Hollingbourne	C	1	2
Hollingbourne	B	3	2
Horton Kirby	D	1	2
Horton Kirby	A	2	2
Hythe	E (early varieties)	1	2

Ightham	D	1	2
Isle of Grain	A	1	2
Kent	B (Bx BI)	1	2
Kent	A	1	2
Kent	E (early varieties)	1	2
Lenham	unidentified sceattas	7	2
Merton Farm, nr Canterbury	C	1	2
Minster-in-Thanet	E (early varieties)	1	2
Minster-in-Thanet	Runic porcupine (Aethilraed)	1	2
Minster-in-Thanet	Saroaldo	1	2
Minster-in-Thanet	C	1	2
Minster-in-Thanet	B (Bx BI)	1	2
Minster-in-Thanet	D	1	2
near Canterbury	A	2	2
near Canterbury	C	1	2
Old Romney	E (early varieties)	1	2
Petham	A	1	2
Ramsgate	B (Bx BI)	1	2
Reculver	B (Bx BI)	1	2
Reculver	E (early varieties)	4	2
Reculver	C	2	2
Reculver	BII	1	2
Reculver	BIII	2	2
Reculver	D	3	2
Reculver	A	4	2
Ringwould	A	1	2
Ripple	A	1	2
St Nicholas at Wade, Thanet site 1	B (Bx BI)	1	2
St. Nicholas at Wade	A	1	2
Stone-cum-Ebony	unidentified sceattas	1	2
Stone-next- Faversham	Runic porcupine (Aethilraed)	1	2
Sutton Court Farm, Sutton, nr Deal	C	1	2
Thurnham	D	1	2

Thurnham	F	1	2
Waldershare Park, near Dover	BI	1	2
Whitfield	Z + BZ	1	2
Woodnesborough	E (early varieties)	1	2
Woodnesborough	Aldfrith 685-704	1	2

c.710-740/50: later intermediate and non-regal secondary phase sceattas

Site Name	Coin Type	Number of Coins	Date group
Aldington	E (later varieties)	1	3
Aylesford	E (later varieties)	1	3
Barham (K)	K	1	3
Bekesbourne, nr Canterbury	E (later varieties)	1	3
Boxley	L	1	3
Canterbury	unidentified	1	3
Canterbury	G	2	3
Canterbury	O	1	3
Canterbury	U	1	3
Canterbury	M	1	3
Canterbury	N	2	3
Chartham	unidentified sceattas	1	3
Cliffe	E (later varieties)	1	3
Cliffsend	K	1	3
Cooling	K/N eclectic group	1	3
Cooling	L/X mule	1	3
Deptford	R	1	3
Dover	E (later varieties)	1	3
East Kent	M	1	3
Eastry	R	1	3
Eastry	N	2	3
Eastry	E (later varieties)	1	3
Eastry	K	1	3
Eastry	V	1	3
Gravesend	R	1	3

Great Chart	N	1	3
Great Mongeham	X	1	3
Great Mongeham	E (later varieties)	1	3
Hollingbourne	N	1	3
Hollingbourne	U	3	3
Hollingbourne	R	1	3
Hollingbourne	X	2	3
Hollingbourne	J	1	3
Hollingbourne	O	1	3
Hollingbourne	Q	2	3
Hollingbourne	K	1	3
Horton Kirby	Animal mask eclectic type	1	3
Isle of Grain	K	1	3
Kent	E (later varieties)	1	3
Lenham	unidentified sceattas	2	3
Little Mongeham	X	1	3
Little Mongeham	E (later varieties)	2	3
Margate	K	1	3
Milton Regis	W	1	3
Minster-in-Sheppey	U	1	3
Minster-in-Sheppey	X	1	3
near Canterbury	saltire-standard	1	3
near Canterbury	N	1	3
near Canterbury	U	1	3
near Canterbury	E (later varieties)	1	3
near Canterbury	J	1	3
Reculver	O/U	1	3
Reculver	Q	3	3
Reculver	U	3	3
Reculver	J	4	3
Reculver	V	1	3
Reculver	unidentified sceattas	2	3
Reculver	E (later varieties)	9	3

Reculver	O	5	3
Reculver	R	1	3
Reculver	K	10	3
Reculver	X	1	3
Reculver	L	4	3
Reculver	M	7	3
Reculver	N	7	3
Rochester	L	1	3
Rochester	unidentified sceattas	1	3
Sevenoaks	unidentified sceattas	1	3
St Peter's, Broadstairs	E (later varieties)	1	3
Stone-next-Faversham	W	1	3
Stourmouth	K	1	3
West Hythe	N	1	3
West Hythe	O	1	3
West Hythe-Dykeside Farm	N	1	3
Westerham	K	1	3
Wickhambreux	E (later varieties)	1	3
Wingham	V	1	3
Wye	moneto Sanctorum	1	3

c.740/50-796: later eighth century issues

Site Name	Coin Type	Number of Coins	Date group
Canterbury	Penny, Offa, Group1	1	4
Canterbury	Offa of Mercia- light issue	1	4
Cobham	Offa of Mercia- light issue	1	4
Eastry	Offa of Mercia-heavy issue	1	5
Faversham	Penny, Offa, Group 2	1	5
Great Mongeham	Penny, Offa, Group 2	1	5
Hollingbourne	Penny, Offa, general	2	4
Kemsing	Penny, Offa, Group 2	1	5
Kent	Penny, Offa, general	1	4
Lympne	Penny, Offa, Group1	1	4

Minster-in-sheppey: Minster village	Eadberht, Northumbria 737- 758	1	4
Monkton	Offa of Mercia- heavy issue	1	5
Monkton	Penny, Offa, Group1	1	4
near Canterbury	Penny, Offa, general	6	4
Northbourne	Offa of Mercia- light issue	1	4
Reculver	Eadberht w. Archbish Ecgberht	2	4
Reculver	Aethelred I, 2nd reign	1	5
Reculver	Eadberht, N'umb	2	4
Richborough	Offa of Mercia- light issue	1	4
Richborough	Eadwald, king of East Anglia	1	5
Richborough	denier, Pippin the Short, 752-768	1	4
Richborough	Offa of Mercia- heavy issue	1	5
Richborough	Aethelred I, 1st reign	1	4
Richborough	Aethelheard, under Offa, (Archbish. Cant)	1	5
Richborough	Cynethryth	1	4
Richborough	Offa of Mercia- light issue	1	4
Richborough	Offa of Mercia- light issue	1	4
Rochester	Penny, Offa, Group1	2	4
Sandwich	Eadberht Praen, king of Kent	1	5
Sepham Farm, Shoreham, Sevenoaks	Ecgberht, king of Kent	1	4
St. Nicholas at Wade	Offa of Mercia- light issue	1	4
Teynham	Penny, Offa, Group1	1	4
Upper Deal	Offa of Mercia- light issue	1	4
Waldershare Park, near Dover	Offa of Mercia- light issue	1	4
Waldershare Park, near Dover	Cenwulf, king of Mercia	1	5
West Hythe	Eadberht Praen, king of Kent	1	5
West Hythe	Cenwulf, king of Mercia	3	5
West Hythe	denier, Pippin the Short, 752-768	1	4
Wrotham	Cenwulf, king of Mercia	1	5
Wye	Penny, Offa, Group1	2	4

796-c.840: early ninth century issues

Site Name	Coin Type	Number of Coins	Date group
Aylesford	Baldred, king of Kent	1	6
Boxley	Ecgeberht, king of Wessex	2	6
Boxley	Wulfred, Archbishop of Canterbury	1	6
Canterbury	Cenwulf, king of Mercia	2	5
Canterbury	Eanred, styca	1	6
Chalk	Cenwulf, king of Mercia	1	5
Dartford	Wulfred, Archbishop of Canterbury	1	6
Dartford	Anonymous Archiepiscopal issue	1	6
Deal	Wulfred, Archbishop of Canterbury	1	6
Derringstone	Cenwulf, king of Mercia	1	5
Dover	Wulfred, Archbishop of Canterbury	1	6
Eastry	Cenwulf, king of Mercia	1	5
Eastry	Aethelheard (under Cenwulf), archbish Cant	1	5
Gillingham	Ecgeberht, king of Wessex	1	6
Gravesend	Wiglaf, king of Mercia	1	6
Great Mongeham	Cenwulf, king of Mercia	1	5
Hollingbourne	Wulfred, Archbishop of Canterbury	2	6
Hollingbourne	Ceolnoth, Archbishop of Canterbury	1	6
Hollingbourne	Cenwulf, king of Mercia	2	5
Kent	Eadberht Praen, king of Kent	1	5
Kent	Aethelheard, archbish of Cant (non-regal issue)	1	5
Kent	Cenwulf, king of Mercia	3	5
Kent	Ecgeberht, king of Wessex	2	6
Maidstone	Wulfred, Archbishop of Canterbury	1	6
Maidstone	Eadberht Praen, king of Kent	1	5
near Canterbury	Cenwulf, king of Mercia	1	5
near Canterbury	Eanred, styca	1	6
Reculver	Eanred, styca	2	6
Reculver	Cuthred, king of Kent	1	5

Reculver	Aethelred I, 2nd reign	1	5
Richborough	Eadwald, king of East Anglia	1	5
Richborough	Eanred, styca	1	6
Rochester	Ecgeberht, king of Wessex	1	6
Rochester	Aethelheard (under Cenwulf), archbish Cant	1	5
Rochester	Aethelstan, knig of East Anglia	1	6
Sandwich	Eadberht Praen, king of Kent	1	5
Sutton	Wulfred, Archbishop of Canterbury	1	6
Waldershare Park, near Dover	Cenwulf, king of Mercia	1	5
Waldershare Park, near Dover	Wulfred, Archbishop of Canterbury	2	6
West Hythe	Cenwulf, king of Mercia	2	5
West Hythe	Cenwulf, king of Mercia	1	5
West Hythe	Eadberht Praen, king of Kent	1	5
Wrotham	Cenwulf, king of Mercia	1	5

c. 840-c. 900: later ninth century issues

Site Name	Coin Type	Number of Coins	Date group
Canterbury	Alfred, king of Wessex	2	9
Canterbury	Burgred, king of Mercia	1	8
Canterbury	Aethelwulf, king of Wessex	2	7
Canterbury	Aethelberht, king of Wessex	1	8
Eastry	Alfred, king of Wessex	1	9
Higham	Alfred, king of Wessex	1	9
Isle of Sheppey	Alfred, king of Wessex	1	9
Kent	Aethelred of East Anglia	1	8
Lenham	Aethelberht, king of Wessex	1	8
Richborough	Berhtwulf, king of Mercia	1	7
Richborough	Aethelred II, styca	2	7
Rochester	Alfred, king of Wessex	1	9
Sandwich	Aethelwulf, king of Wessex	1	7
Sandwich	Aethelred II, styca	1	7
Shoreham	Aethelberht, king of Wessex	1	8

Stone-by-Faversham	Alfred	1	9
Westwell	Alfred, king of Wessex	1	9
Wye	Alfred, king of Wessex	1	9

Undated middle Saxon coins

Site Name	Coin Type	Number of Coins
Canterbury	E	1
Dartford	unidentified	1
Great Mongeham	E	1
Hollingbourne	E	7
Little Mongeham	E	1
near Canterbury	unidentified sceattas	2

Appendix 9- pottery from Area 2

Local Wares

1. Quartz-sand tempered wares

site name	fabric	form	provenance	sherd count (minimum)	date
Broad Oak Water	fine sandy		Canterbury	n/a	850-900/925
Canterbury- 24a Old Dover Road	Sandy			22	c.775/800-875
Canterbury- 24a Old Dover Road	Sandy	globular		34	c.850-950
Canterbury- Bus Station	granular/ sandy			2	ate 6 th / 7 th century
Canterbury- Canterbury Lane	granular, hard			n/a	850-950
Canterbury- Cathedral	MLS2			2	c.775-c.850
Canterbury- Cathedral	MLS3			1	c.750-c.800
Canterbury- St. George's Street/ Burgate	granular/ sandy	includes pitcher		65	850-950
Canterbury- Marlowe I				113	700-850/75
Canterbury- Marlowe I		includes cup and jar		23	650-700
Canterbury- Marlowe I				102	625-675
Canterbury- Marlowe III site		includes jar, and cooking pot/ bowl		6	700-750/75
Canterbury- Marlowe III site		jar		2	775-825/50
Canterbury- Marlowe III site		jar		5	7 th century
Canterbury- Marlowe IV		includes cooking pot, and jar/ bowl		12	650-850
Canterbury- Marlowe Theatre site		includes cup, jar, bowl, and cooking pot	Canterbury	35	700-750/775
Canterbury- Christ Church College	coarse	jar	local?	n/a	early/ middle Saxon
Canterbury- Christ Church College				300	middle Saxon
Canterbury- Christ Church College	coarse sandy	jar and cooking pot	Kent	2	late 7 th - late 8 th century
Canterbury- Christ Church College	jar			9	c.775-c.825
Canterbury- St Martin's Hill	coarse sandy	jar	local	7	750-850
Canterbury- St, George's Street/ Burgate				7	850-950
Dover	medium- fine			1	late 8 th - mid 9 th century
Dover				1	middle Saxon
Dover				2	6 th -7 th century
Dover	sandy with shell			1	late 8 th -mid 9 th century

Folkestone	sandy	cooking pot	Kent	n/a	775-850/875
Thanet- Thanet Way	MLS2			1	c.775-c.850
West Hythe-Dykeside Farm	sandy ware with shell			1	750-850
West Hythe-Dykeside Farm	sandy		Canterbury	5	750-850
West Hythe-Dykeside Farm	sandy ware		local	1	750-850

2. Organic-tempered wares

site name	fabric	form	sherd count (minimum)	date
Canterbury-Cathedral	grass tempered ware		4	c.650-700/725
Canterbury-Marlowe I	EMS4		15	625-675
Canterbury-Marlowe I	EMS4		83	650-700
Canterbury-Marlowe I	EMS4		51	700-850/75
Canterbury-Marlowe IV	EMS4	includes cooking pot, jar/ beaker	10	650-850
Canterbury-Christ Church College	EMS4		3	middle Saxon
Canterbury- St George's St/ Burgate			n/a	6 th / 7 th century
Church Whitfield cross roads	EMS4	jars/ cooking pots	100	575-700
Dolland's Moor			n/a	7 th century
Rochester			1	Anglo-Saxon
West Hythe-Sandtun			2	late 6 th / 7 th century

3. Shell-tempered ware

site name	fabric	form	sherd count (minimum)	date
Canterbury- Bus Station			1	6 th / 7 th century
Canterbury-Cathedral			2	c.775-c,850
Canterbury- east side Canterbury Lane			6	850-950
Canterbury-Marlowe I	MLS4		1	625-675
Canterbury-Marlowe I	MLS4		4	700-850/75
Canterbury-Marlowe I	LS2		4	700-850/75
Canterbury-Marlowe III site	MLS4	includes cooking pot and jar	6	775-825/50
Canterbury-Marlowe IV	MLS4	jar	1	650-850
Canterbury-Christ Church College	MLS4	cooking pot		early/ middle Saxon
Canterbury-St Martin's Hill	MLS4		n/a	750-850
Cherry Hill Garden	Shell tempered ware	cooking pot	n/a	775-875
Dover	Shell tempered ware		1	8 th -9 th century

Dover	MS4		1	late 8 th -mid 9 th century
West Hythe-Dykeside Farm	MLS shell filled ware		17	750-850
West Hythe-Dykeside Farm	MLS shell filled sandy ware		1	825-870?
West Hythe-Sandtun	Shell tempered ware		43	9 th century

4. Chalk-tempered ware

site name	fabric	form	sherd count (minimum)	date
Canterbury-Marlowe I	EMS3		5	700-850/75
Canterbury-Marlowe I	EMS3		2	650-700
church Whitfield cross roads	chalk-tempered ware		1	c.575-700

Wares from elsewhere in mainland Britain

1. Ipswich ware

site name	form	provenance	sherd count (minimum)	date
Canterbury		East Anglia	1	650-700
Canterbury-Cathedral		East Anglia	4	c.720-c.850
Canterbury-Christ Church College		East Anglia	833	mid 8 th mid/late 9 th century
Canterbury-St. George's St./Burgate	lugged pitcher	East Anglia	1	850-950
Canterbury-Marlowe III site	includes pitcher/jar, and cooking pot	East Anglia	12	775-825/50
Canterbury-Marlowe Theatre site	includes pitcher/jar, and cooking pot	East Anglia	5	700-750/75
Canterbury-St Martin's Hill		East Anglia	10	750-850
Dover		East Anglia	3	c.720-c.850
Minster-in-Sheppey-pumping station		East Anglia	4	650-850
Minster-in-Sheppey-Falcon Gardens		East Anglia	n/a	middle Saxon
Richborough	lugged pitcher	East Anglia	1	c.720-c.850
Stone-by-Faversham		East Anglia	1	c.720-c.850
Teynham	lugged pitcher	East Anglia	1	c.720-c.850
West Hythe-Sandtun	includes pitcher/jar, and cooking pot	East Anglia	10	c.750-c.850

2. East Sussex shelly ware

site name	sherd count	date
West Hythe-Dykeside Farm	2	750-850

Continental Wares

site name	fabric	form	provenance	sherd count (minimum)	date
Canterbury- 24a Old Dover Road	black/ grey reduced ware		Northern France	1	c.650-950
Canterbury- Cathedral	black burnished ware		North France	3	c.700-c.850
Canterbury- St George's St./ Burgate	Black Ware		northern France	2	7 th -early 9 th century.
Canterbury- St George's St./ Burgate	Black Ware	pitcher	northern France	2	850-950
Canterbury- St George's St./ Burgate	black burnished ware		northern France	2	850-950
Canterbury- St George's St./ Burgate	Grey Ware	cooking pot	northern France	3	850-950
Canterbury- St George's St./ Burgate	Black Ware	pitcher	northern France	n/a	850-950
Canterbury- St George's St./ Burgate	Badorf Ware		Rhineland	5	850-950
Canterbury- Marlowe III site	Northern French Grey Ware	bowl	Northern France	1	700-750/75
Canterbury- Marlowe theatre site	Grey Ware	bowl	Northern France	3	700-750/75
Church Whitfield cross roads	sand tempered		Northern France	n/a	575-700
Dover	black burnished ware		N. France	2	8 th - 10 th century
Dover	grey burnished ware	bottle	France	1	7 th century
Minster-in- Sheppey- Falcon Gardens	Continental wares		unknown	n/a	middle Saxon
West Hythe- Sandtun	Mayen Ware	jar	Rhineland	1	early eighth century onwards
West Hythe- Sandtun	Lundenwic NFBW	spouted pitcher	northern France/ eastern Belgium (Meuse Valley?)	7	8 th century?
West Hythe- Sandtun	brown ware	spouted pitcher	Northern France	n/a	late 8 th / early 9 th century
West Hythe- Sandtun	Lundenwic whiteware (NFWR)	various	northern France; Meuse valley	12	late 8th - mid 9th century
West Hythe- Sandtun	unidentified	globular pot	Northern France?	n/a	8 th / early 9 th century
West Hythe- Sandtun	n/a	globular pot	Northern France?	n/a	8th/ early 9th century
West Hythe- Sandtun	Shell tempered ware		northern France (Quentovic?)	42	9 th century
West Hythe- Sandtun	Lundenwic NFGW	jar		7	middle Saxon
West Hythe- Sandtun	Lundenwic whiteware (NFWR2)		northern France/ western Belgium	2	middle Saxon
West Hythe- Sandtun	Seine Valley Buff ware		northern France (La Londe?)	1	middle Saxon

West Hythe-Sandtun	Lundenwic NFWW1	large vessel	Meuse valley/ northern France	1	9 th century and later
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Wares of undescribed fabric

site name	fabric	form	sherd count (minimum)	date
Biggins Wood	unknown		n/a	7 th century
Canterbury- 36-37 Stour Street	unknown		n/a	6 th / 7 th century
Canterbury- Christ Church College	unknown		3	late 6 th -8 th century
Canterbury- Christ Church College	local		n/a	8 th / 9 th century
Canterbury- St. George's St./ Burgate	unknown		1	850-950
Canterbury- Gravel Walk	unknown		n/a	9 th century
Canterbury- Longmarket	unknown		n/a	9 th / 10 th century
Canterbury- Longmarket	unknown		n/a	5 th -11 th century
Canterbury- St Ranigund's Street	unknown		n/a	9 th century
Canterbury- St Ranigund's Street	unknown		n/a	7 th century
Canterbury- the 3, Beer Cart Lane	unknown		n/a	middle/ late Saxon
Cheriton Hill	unknown		n/a	8 th / 9 th century
Cliffsend	unknown		n/a	8 th / 9 th century
Dover	unknown		n/a	possible early Saxon
Minster-in- Sheppey	local/ regional	beaker	n/a	8th century
Minster-in- Sheppey- St George's School	unknown		n/a	mid/ late 7 th century
Ramsgate	unknown		n/a	8 th / 9 th century

Appendix 10- stone artefacts from Area 2

Local stone

site name	artefact type	lithology	provenance	number	date
Canterbury- Christ Church College	spindle whorl	greensand	Folkestone?	1	mid 8 th - mid/late 9 th century
Canterbury- Christ Church College	spindle whorl	Hythe Beds siltstone	east Kent	2	mid 8 th - mid/late 9 th century
Canterbury- Christ Church College	hone	greensand	east Kent	1	mid 8 th -mid/late 9 th century
Church Whitfield cross roads	hone	sandstone	Area 2	1	575/600-700
West Hythe-Sandtun	weight	chalk	Area 2	2	8 th - mid 9 th century
West Hythe-Sandtun	spindle whorl	Hythe Beds siltstone	east Kent	4	8 th -mid 9 th century
West Hythe-Sandtun	hone	micaceous greensand	Folkestone?	2	8 th - mid 9 th century
West Hythe-Sandtun	quernstone	sandstone	Folkestone?	2	8 th - mid 9 th century

Imported stone

site name	artefact type	lithology	provenance	number	date
Canterbury- Christ Church College	quernstone	basalt lava	Rhineland	8	mid 8 th - mid/late 9 th century
Canterbury- east side Canterbury Lane	quernstone	Mayen lava	Rhineland	1	850-950
Canterbury- Marlowe IV	quernstone	Mayen lava	Rhineland	3	650-700
Cliffsend	perforated disc	Kimmeridge shale	Dorset	1	8 th / 9 th century
West Hythe-Sandtun	quernstone	Mayen lava	Rhineland	6	8 th - mid 9 th century

Bibliography

Abramson, P. (1996), Excavations along the Caythorpe Gas Pipeline, North Humberside, *Yorkshire Archaeological Journal* 68, 1-88.

Addyman, P. V. (1973), Saxon Southampton: a town and international port of the eighth to the tenth century, in H. Jankuhn, W. Schelinger, and W. Stuer (eds.) *Vor-und Frühformen der europäischen Stadt im Mittelalter*, (Göttingen, Vandenhoeck & Ruprecht), 218-228.

Addyman, P. V. and Hill, D. H. (1969), Saxon Southampton: a review of the evidence, part II, industry, trade and everyday life, *Proceedings of the Hampshire Field Club and Archaeological Society* 26, 61-96.

Addyman, P. V. and Hill, D. H. (1968), Saxon Southampton: a review of the evidence, part I, history, location, date and character of the town, *Proceedings of the Hampshire Field Club and Archaeological Society* 25, 61-94.

Adshead, S. A. M. (1992), *Salt and Civilization* (London, Macmillan).

Ambrosiani, B. (1977), Urban archaeology in Sweden, in M. W. Barley (ed.) *European Towns: their archaeology and early history*, (London, Academic Press), 103-126.

Anderson, I. (1987), Christ Church College, *Archaeologia Cantiana* 104, 303-304.

Anderton, M. (ed.) (1999b), *Anglo-Saxon Trading Centres: beyond the emporia*. (Glasgow, Cruithne Press).

Andrews, P. (1997), *Excavations at Hamwic volume 2: excavations at the Six Dials*, CBA Research Report 109 (York, CBA).

Armstrong, P., Tomlinson D., and Evans, D. H. (1991), *Excavations at Lurk Lane, Beverley 1979-1982*. Sheffield Excavation Reports 1, (Sheffield: Humberside Archaeology Unit).

Armstrong, P. and D. H. Evans. (1991), The excavation report, in P. Armstrong, D. Tomlinson, and D. H. Evans (eds.) *Excavations at Lurk Lane Beverley, 1979-1982*, (Sheffield, Humberside Archaeology Unit), 7-60.

Arnold, C. J. (1983), Review of: R. Hodges 'Dark Age Economics'. *Scottish Archaeological Review* 2 (1), 80-83.

Astill, G. G. (1984) The towns of Berkshire, in J. Haslam (ed.), *Anglo-Saxon Towns in Southern England*, (Chichester, Phillimore), 53-86.

Astill, G. G. (1985), Archaeology, economics, and early medieval Europe. *Oxford Journal of Archaeology* 4 (2), 215-231.

Astill, G. G. (1991), Towns and town hierarchies in Saxon England, *Oxford Journal of Archaeology* 10 (1), 95-117.

Astill, G.G. (1994), Archaeological theory and the origins of English towns- a review, *Archaeologia Polona* 32, 27-71.

Attenborough, F. L. (1922), *The Laws of the Earliest English Kings*, (Cambridge, Cambridge University Press).

Austin, T. (1999), The pottery, in Richards, J. D. (1999b). Cottam: an Anglo-Scandinavian settlement on the Yorkshire Wolds, *Archaeological Journal* 156, 49-60.

Bailey, R. N. (1992), An Anglo-Saxon strap-end from Woolperton, *Archaeologia Aeliana* 21, 87-92.

Barclay, C. (1997), Coin finds reported to the Yorkshire Museum, 1992-96, *The Yorkshire Numismatist* 3, 159-171.

Barley, M. W. (ed.) (1977), *European Towns: their archaeology and early history*, (London, Academic Press Inc).

Baynes, N. H. (1955), M. Pirenne and the unity of Mediterranean World, in Baynes, N. H. (ed.), *Byzantine Studies and Other Essays* (London, University of London), 310-316.

Bennett, P. (1979), No. 3 Bear Cart Lane, *Archaeologia Cantiana* 95, 270-272.

Bennett, P. (1984), The Outer Court of St. Augustine's Abbey, *Archaeologia Cantiana* 101, 294-296.

Bennett, P. (1986), Rescue excavations in the Outer Court of St. Augustine's Abbey, 1983-1984, *Archaeologia Cantiana* 103, 79-118.

Bennett, P. (1988), Christ Church College: Paramedical Centre, *Archaeologia Cantiana* 106, 135-136.

Bennett, P. (1989), Channel Tunnel Excavations, *Canterbury's Archaeology 1987-1988*, 57-60.

Bennett, P. (1991), Christ Church College, *Canterbury's Archaeology 1989-1990*, 12-13.

Bennett, P., Houlston, M., and Ward, A. (1993), Excavations at St. George's clocktower, *Canterbury's Archaeology 1991/1992*, 2-5.

Biddle, M. (1964), Excavations at Winchester, 1962-63: 2nd interim report, *Antiquaries Journal* 44, 188-219.

Biddle, M. (1973), Winchester: the development of an early capital, in H. Jankuhn, W. Schelinger, and W. Stuer (eds.), *Vor-und Frühformen der europäischen Stadt im Mittelalter*, (Göttingen, Endenheock & Ruprecht), 229-261.

Biddle, M. (1976), Towns, in D. M. Wilson (ed.), *The Archaeology of Anglo-Saxon England*, (London: Methuen & Co. Ltd), 99-150.

Blackburn, M. A. S. (1984), A chronology for the sceattas, in D. Hill and D. M. Metcalf (eds.), *Sceattas in England and on the Continent*, BAR British Series no. 128 (Oxford, British Archaeological Reports), 165-174.

Blackburn, M. A. S. (ed.) (1986), *Anglo-Saxon Monetary History: essays in memory of Michael Dolley*, (Leicester, Leicester University Press).

Blackburn, M. A. S. (1993), Coin finds and coin circulation in Lindsey, in A. Vince (ed.), *Pre-Viking Lindsey*, (Lincoln, City of Lincoln Archaeology Unit), 80-90.

Blackburn, M. A. S. and Dumville, D. N. (eds.) (1998), *Kings, Currency and Alliances: history and coinage of southern England in the ninth century*, (Woodbridge: Boydell Press).

Blackburn, M. A. S. and Gillis, A. (1996), A Second of King Ælfwald of Northumbria and the attribution of the moneyer coins of King Ælfwald, *British Numismatic Journal* 67, 97-99.

Blackmore, L. (1997), From beach to burh: new clues to entity and identity in 7th to 9th century London, in G. de Boe and F. Verhaeghe (eds.), *Urbanism in Medieval Europe- papers of the 'Medieval Europe, Brugge 1997' Conference* volume 1, (Zellik, Institute for the Archaeological Heritage), 123-132.

Blackmore, L. (forthcoming), The imported and non-local Saxon pottery, in Gardiner *et al* (eds.), Continental trade and non-urban ports in mid-Anglo-Saxon England: excavations at *Sandtun*, West Hythe, Kent, *Archaeological Journal* 158.

Blagg, T. (1995), The Marlowe excavations: an overview, in K. Blockley, M. Blockley, P. Blockley, S. Frere, and S. Stow (eds.), *Excavations in the Marlowe Car Park and Surrounding Areas*, Canterbury: Canterbury Archaeological Trust, 7-26.

Blair, J. (1988), Minster churches in the landscape, in D. Hooke (ed.), *Anglo-Saxon Settlements*, (Oxford, Blackwell), 35-58.

Blair, J. (1996), Churches in the early English landscape: social and cultural contexts, in J. Blair and C Pyrah (ed.), *Church Archaeology: research directions for the future.*, (York: CBA), 6-18.

Blair, J. and Pyrah, C. (ed.) (1996), *Church Archaeology: research directions for the future*, CBA Research Report no.104, (York: CBA).

Blinkhorn, P. (1989), Middle Saxon pottery from the Buttermarket kiln, Ipswich, Suffolk, *Medieval Ceramics* 13, 12-16.

Blinkhorn, P. (1997), Habitus, social identity and Anglo-Saxon pottery, in P. Blinkhorn and C. G. Cumberpatch (eds.), *Not so much a pot more a way of life: current approaches to artefact analysis in archaeology*, (Oxford, Oxbow), 113-124.

Blinkhorn, P. (1999), Of cabbages and kings: production, trade, and consumption in middle-Saxon England, in M. Anderton (ed.), *Anglo-Saxon Trading Centres: beyond the emporia*, (Glasgow, Cruithne Press), 4-23.

Blinkhorn, P. (forthcoming), *The Ipswich Ware Project: ceramics, trade and society in middle Saxon England*, English Heritage/ Medieval Pottery Research Group.

Blinkhorn, P. and Cumberpatch, C. G. (eds.) (1997), *Not so much a pot more a way of life: current approaches to artefact analysis in archaeology*, (Oxford, Oxbow).

Blockley, K. and Bennett, P. (1993), Canterbury Cathedral, *Canterbury's Archaeology* 1992/93, 1-3.

Blockley, K., Blockley, M., Blockley, P., Frere, S., and Stow, S., (1995), *Excavations in the Marlowe Car Park and Surrounding Areas*, The Archaeology of Canterbury Vol. V. (Canterbury, Canterbury Archaeological Trust).

Blockley, P. (1987), Fordwich High Street, *Canterbury's Archaeology* 1985/1986, 10.

Booth, J. (1984), Sceattas in Northumbria, in D. Hill and D. M. Metcalf (eds.) *Sceattas in England and on the Continent*, BAR British Series no. 128 (Oxford, British Archaeological Reports), 71-112.

Booth, J. (1997a), Northumbrian Coinage and the Productive site at South Newbald, *The Yorkshire Numismatist* 3, 15-38.

Booth, J. (1997b), *Sylloge of Coins of the British Isles*, 48, *Northern Museums: Ancient British, Anglo-Saxon, Norman and Plantagenet to 1279*, (Oxford: Oxford University Press).

Booth, J. (2000), Northumbrian coinage and the productive site at South Newbald ('Sancton'), in H. Geake and J. Kenny (eds.) *Early Deira: archaeological studies of the East Riding in the fourth to ninth centuries AD*, (Oxford, Oxbow), 83-97.

Booth, J. and Blowers, I. (1988), Finds of sceattas and stycas from Sancton, *Numismatic Chronicle* 143, 139-145.

Bosner, M. J. (1997), Fifteen years of coin finds from productive sites, *The Yorkshire Numismatist* 3, 39-46.

Bosner, M. J. (1998), Single finds of ninth century coins from southern England: a listing, in Blackburn. M. A. S. and D. N. Dumville (eds.), *Kings, Currencies, and*

Alliances: history and coinage of southern England in the ninth century, (Woodbridge, Boydell Press), 199-240.

Bourdillon, J. (1988), Countryside and town: the animal resources of Saxon Southampton, in D. Hooke (ed.) *Anglo-Saxon Settlements*, (Oxford, Blackwell), 177-195.

Brisbane, M. (1988), Hamwic (Saxon Southampton): an eighth century port and production centre, in R. Hodges and B. Hobley (eds.) *The Rebirth of Towns in the West AD700-1050*, CBA Research report no.68 (York: CBA), 101-108.

Britnell, R. H. (1993), *The Commercialisation of English Society, 1000-1500*, (Manchester, Manchester University Press).

Brooks, N. (1984), *The Early History of the Church of Canterbury: Christ Church from 597 to 1066*, (Leicester, Leicester University Press).

Brooks, N. (1988), Romney Marsh in the early middle ages, in J. Eddison and C. Green (eds.) *Romney Marsh: evolution, occupation and reclamation*, (Oxford, Oxford University Committee for Archaeology), 90-103..

Brown, D. H. (1997), The social significance of imported medieval pottery, in C. G. Cumberpatch and P. Blinkhorn (eds.), *Not So Much A Pot More A Way of Life: current approaches to artefact analysis in archaeology*, (Oxford, Oxbow Books), 95-112.

Brown, M. P. and Farr, C. A. (eds.) (2001), *Mercia: an Anglo-Saxon kingdom in Europe*, (London, Leicester University Press).

Bruce-Mitford, R. L. S. (ed.) (1956), *Recent Archaeological Excavations in Britain*, (London, Routledge).

Bruce-Mitford, R. L. S. (ed.) (1975), *Recent Archaeological Excavations in Europe*, (London, Routledge).

Buckley, O. G. (ed.) (1980), *Archaeology in Essex to AD1500*, CBA research report 34, (York, CBA).

Burnett, A. (1991), *Interpeting the Past: coins*, (London, British Museum Press).

Bushe-Fox, J. P. (1932), *Third Report on the Excavations of the Roman Fort at Richborough, Kent*, Report of the Research Committee of the Society of Antiquities no. X. (Oxford, Oxford University Press/ Society of Antiquities).

Campbell, J. (2000), Consumption and Production, paper presented at 'The Archaeology of Inland Markets, Fairs and 'Productive Sites' c.650-850' conference 15th-17th December 2000, Worcester College, Oxford.

Carr, R. D., Tester, A., and Murphy, P. (1988), The Middle Saxon settlement at Staunch Meadow, Brandon, *Antiquity* 62, 371-377.

Carreté, J. M., Keay, S., and Millett, M. (1995), *A Roman Provincial Capital and its Hinterland: the survey of the territory of Tarragona, Spain, 1985-1990*, Journal of Roman Archaeology supplementary series no. 15, (Ann Arbor, Society for Roman Archaeology).

Carver, M. O. H. (1987), *Underneath English Towns: interpreting urban archaeology*, (London, Batsford).

Carver, M. O. H. (ed.) (1992), *The Age of Sutton Hoo: the seventh century in north-western Europe*, (Woodbridge, The Boydell Press).

Carver, M. O. H., (ed.) (1993a), *In Search of Cult*. (Woodbridge, Boydell Press).

Carver, M. O. H. (1993b), *Arguments in Stone*, (Oxford, Oxbow Books).

Carver, M. O. H. (1994), Environment and Commodity in Anglo-Saxon England, in J. Rackham (ed.), *Environment and Economy in Anglo-Saxon England*, CBA Research Report 89, (York, CBA), 1-6.

Carver, M. O. H. (1995), Roman to Norman at York Minster, in D. Phillips and B. Heywood (eds.), *Excavations from York Minster Volume 1: from Roman fortress to Norman cathedral*, (London, HMSO), 177-195.

Casey, P. J. and Reece, R. (eds.) (1988), *Coins and the Archaeologist*, second edition, (London, Seaby).

Champion, T. (1977), Chalton, *Current Archaeology* 59, 364-369.

Charles-Edwards, T. M. (1979), The distinction between land and moveable wealth in Anglo-Saxon England, in P. H. Sawyer (ed.), *English Medieval Settlement* (London, Edward Arnold), 97-104.

Chick, D. (1997), Towards a chronology for Offa's coinage: an interim study, *The Yorkshire Numismatist* 3, 47-65.

Clark, E. A. (1992), Miscellaneous small finds of stone, clay, jet, amber, and glass, in G. Milne and J. D. Richards (eds.), *Wharram, a Study of Settlement on the Yorkshire Wolds, VII: two Anglo-Saxon buildings and associated finds*, (York, York University), 40-47.

Clark, E. A. (2000), Appendix 3: Mollusca, in P. A. Stamper and R. A. Croft (eds.), *Wharram, a Study of Settlement on the Yorkshire Wolds, VIII: the South Manor*, (York, York University Archaeological Publications 10), 205.

Clark, E. A. and Gaunt, G. D. (2000), Stone objects, in P. A. Stamper and R. A. Croft (eds.) *Wharram, a Study of Settlement on the Yorkshire Wolds, VIII: the South Manor area*, (York, York University Archaeological Publications 10), 101-117.

Clutton-Brock, J. (1976), The animal resources, in D. M. Wilson (ed.) *The Archaeology of Anglo-Saxon England*, (Cambridge, Cambridge University Press), 373-392.

Collins, R. (1991), *Early Medieval Europe*, (London, Macmillan).

Cook, A. 1978. The Anglo-Saxon material, in S. Johnson (ed.), Excavations at Hayton Roman Fort, 1975, *Britannia* 9, 103-113.

Coppack, G. (1974), Low Caythorpe, East Yorkshire- the manor site, *Yorkshire Archaeological Journal* 46, (34-41).

Coutts, C. (1991), Pottery and the emporia: imported pottery in Middle Saxon England with particular reference to Ipswich, unpublished PhD thesis, University of Sheffield.

Cowie, R. (2001), Mercian London, in M. P. Brown and C. A. Farr (eds.), *Mercia: an Anglo-Saxon kingdom in Europe*, (London, Leicester University Press), 194-209.

Crabtree, P. J. (1994), Animal Exploitation in East Anglian Villages, in J. Rackham (ed.), *Environment and Economy in Anglo-Saxon England*, CBA Research Report 89 (York, CBA), 40-54..

Crabtree, P. J. (1996a), Production and consumption in an early society: animal use in Middle Saxon East Anglia, *World Archaeology* 28 (1), 58-75.

Crabtree, P. J. (1996b), The wool trade and the rise of urbanism in Middle Saxon England, in B. Wailes (ed.) *Craft Specialisation and Social Evolution: in memory of V. Gordon Childe*, (Philadelphia, The University Museum of Archaeology and Anthropology University of Pennsylvania), 99-105.

Crabtree, P. J. and Stevens, P. M. (1994), *The animal bone remains from Ipswich: report for publication*, unpublished report (Bury St. Edmunds: Suffolk County Council Archaeological Services).

Cramp, R. (1969), Excavations at the Monastic Sites of Wearmouth and Jarrow, County Durham: an interim report, *Medieval Archaeology* 8, 21-66.

Cramp, R. (1976a), Analysis of the finds register and location plan of Whitby Abbey, in D. M. Wilson (ed.) *The Archaeology of Anglo-Saxon England*, (London, Methuen & Co. Ltd), 453-458.

Cramp, R. (1976b). Monastic sites. in D. M. Wilson (ed.) *The Archaeology of Anglo-Saxon England*, (London, Methuen & Co. Ltd), 201-252.

Cramp, R. (1993), A reconsideration of the monastic site at Whitby, in R. M. Spearman and J. Higgitt (eds.), *The Age of Migrating Ideas*, (Edinburgh, National Museum of Scotland) 64-73.

Crawford, O. G. S. (1942), Southampton, *Antiquity* 16, 36-50.

Christie, N. and Loseby, S. T. (eds.) (1996), *Towns in Transition: urban evolution in Late Antiquity and the early middle ages*, (Aldershot, Scolar Press).

Cross, R. P. (1992), *Broad Oak Water Joint Steering Committee, Kent Water Resources Study: archaeological evaluation survey*, unpublished report (Canterbury, Canterbury Archaeological Trust).

Dalton, G. (1977), Aboriginal economies in stateless societies, in T. K., Earle, and J. E. Ericson, (eds.), *Exchange System in Prehistory*, (London, Academic Press), 191-212.

Daniels, R. (1988), The Anglo-Saxon monastery at Church Close, Cleveland, *Archaeological Journal* 145, 158-210.

Daniels, R. (1999), The Anglo-Saxon monastery at Hartlepool, England, in J. Hawkes and S Mills (eds.) *Northumbria's Golden Age*, (Stroud, Sutton), 105-112.

Davis, R. H. C. (1957), *A History of Medieval Europe: from Constantine to Saint Louis*, (London, Longman).

de Boe, G. and Verhaeghe, F. (eds.) (1997), *Urbanism in Medieval Europe- papers of the 'Medieval Europe, Brugge 1997' Conference* volume 1, (Zellik, Institute for the Archaeological Heritage).

de Boe, G. and Verhaeghe, F. (eds.) (1997), *Exchange and Trade in Medieval Europe- papers of the 'Medieval Europe, Brugge 1997' Conference*, volume 3, (Zellik, Institute for the Archaeological Heritage).

de Boe, G. and Verhaeghe, F. (eds.) (1997), *Rural Settlement in Medieval Europe- papers of the 'Medieval Brugge 1997' conference* volume 6, (Zellik, Institute for the Archaeological Heritage).

Delogu, P. (1998), Reading Pirenne again, in R. Hodges and W. Bowden (eds.) *The Sixth Century: production, distribution and demand*, (Leiden, Brill), 15-40.

Dennett, D. C. (1948), Pirenne and Muhammad, *Speculum* 23, 167-190.

Didsbury, P. (1990), Fieldwork in Cottam and Cowlam Parish, *Yorkshire Archaeological Journal* 62, 63-67.

Dinnin, M. (1995), Introduction to the palaeoenvironmental survey, in R. Van de Noort and S. Ellis (eds.) *Wetland Heritage of Holderness: an archaeological survey*, (Hull, Humber Wetlands Project, University of Hull), 27-48.

Dobinson, C. and Denison, S. (1995), *Metal detecting and Archaeology in England*, (English Heritage & CBA), <http://www.britarch.ac.uk/detecting/cont.html>

Dobney, K., Jaques, D., and Brothwell, D., (1999), Assessment of the bone assemblage from COT93, in Richards, J. D. (ed.), Cottam: an Anglo-Scandinavian settlement on the Yorkshire Wolds, *Archaeological Journal* 156, 84-86.

Dolley, M. (1970), The location of the pre-Ælfredian mint(s) of Wessex, *Proceedings of the Hampshire Field Club and Archaeological Society* 27, 57-61.

Duby, G. (1973), *The Early Growth of the European Economy: warriors and peasants from the seventh to eleventh centuries*, (London, Weidenfeld & Nicolson).

Dunning, G. C. (1956), Trade relations between England and the Continent in the late Anglo-Saxon period, in D. B. Harden (ed.) *Dark-Age Britain*, (London, Methuen & Co. Ltd), 218-233.

Dunning, G. C. (1957), Saxon and medieval pottery, in Thriepland, L. M. (ed.), Excavations in Dover, *Archaeologia Cantiana* 71, 36-37.

Dunning, G. C. (1987), A note on the Badorf-type pottery, in S.S. Frere and S. Stow (eds.), *Excavations in the St. George's Street and Burgate Street Areas*, (Trowbridge: Canterbury Archaeological Trust and Kent Archaeological Society), 310-311.

Earle, T. K. (1977), A reappraisal of redistribution: complex Hawaiian chiefdoms, in T. K. Earle and J. E. Ericson (eds.) *Exchange System in Prehistory*, (London, Academic Press), 213-229.

Earle, T. K. and Ericson, J. E. (eds.) (1977), *Exchange System in Prehistory*, (London, Academic Press).

Edwards, W. and Trotter, F. M. (1954), *British Regional Geology: the Pennines and adjacent areas*, (London, HMSO).

Ellis, S. (1995), Physical background to Holderness, in R. Van de Noort and S. Ellis (eds.), *Wetland Heritage of the Holderness: an archaeological survey*, (Hull, Humber Wetlands Project, University of Hull), 9-16.

Ellis, S. E. (1969), The petrography and provenance of Anglo-Saxon and medieval English hones, with notes on some other hones, *Mineralogy* 2, 138-187.

English Heritage, (1999a) *Whitby Abbey Headland Project- southern Anglian enclosure. Update 2: July 1999*, <http://www.eng-h.gov.uk/projects/whitby/wahspae/update02/update02.htm>. Accessed 21-6-1999

English Heritage, (1999b), *Whitby Abbey Headland Project- southern Anglian enclosure. Update 3: End of excavation (August 1999)*, <http://www.eng-h.gov.uk/projects/whitby/wahspae/update03/update03.htm>. Accessed 1-12-1999

English Heritage, (1999c), *Whitby Abbey Headland Project- southern Anglian enclosure. Update: June 1999*, <http://www.eng-h.gov.uk/projects/whitby/wahspae/update/htm>. Accessed 1-12 1999. .

English Heritage, (1999d), *Whitby Abbey Headland Project- southern Anglian enclosure. Project design- summer 1999*. <http://www.eng-h.gov.uk/projects/whitby/wahspae/pd99v1/intro.htm#background>. Accessed 21-6 1999. internet.

Evans, D. H. (1991), The discussion, in P. Armstrong, D. Tomlinson, and D. H. Evans (eds.), *Excavations at Lurk Lane Beverley, 1979-82*, (Sheffield, Humberside Archaeology Unit), 243-250.

Everitt, A. (1986), *Continuity and Colonization: the evolution of Kentish settlement*. (Leicester, Leicester University Press).

Evison, V. I. (1975), Pagan Saxon whetstones, *Antiquaries Journal* 55, 70-85.

- Evison, V. I. (1987), *Dover: the Buckland Anglo-Saxon cemetery*, Archaeological Report no. 3, (London, Historic Building and Monuments Commission for England).
- Faith, R. (1997), *The English Peasantry and the Growth of Lordship*, (London, Leicester University Press).
- Fell, S. (1980), Possible sources of iron ore, in Halsam, J. (ed.), A middle Saxon iron smelting site at Ramsbury, Wiltshire, *Medieval Archaeology* 24, 55-56.
- Fenwick, H. (2001), Marshchapel: a late Anglo-Saxon salt production site, *Current Archaeology* 15 (4), 169.
- Fenwick, V. (1978a), Geographical and historical background, in V. Fenwick (ed.), *The Graveney Boat: a tenth-century find in Kent*, BAR British Series no. 53 (Oxford, British Archaeological Reports), 165-178.
- Fenwick, V. (ed.) (1978b), *The Graveney Boat: a tenth-century find in Kent*, BAR British Series no. 53 (Oxford, British Archaeological Reports).
- Fenwick, V. (1984), Insula de Burgh: excavations at Burrow Hill, Butley, Suffolk 1978-1981, *Anglo-Saxon Studies in Archaeology and History* 3, 35-54.
- Fletcher, Lord. and Meates, G. W. (1977), The ruined church of Stone-by-Faversham: second report, *Antiquaries Journal* 57, 67-72.
- Fletcher, R. (1998), *The Conversion of Europe: from paganism to Christianity 371-1386AD*, (London, Fontana Press).
- Foreman, M. (1991a), The jet, shale, and amber, in P. Armstrong, D. Tomlinson, and D. H. Evans (eds.), *Excavations at Lurk Lane Beverley, 1979-1982*, (Sheffield, Humberside Archaeology Unit), 122-123.

Foreman, M. (1991b), The stone and fired clay. in P. Armstrong, D. Tomlinson, and D. H. Evans (eds.), *Excavations at Lurk Lane Beverley, 1979-1982*, (Sheffield, Humberside Archaeology Unit), 105-114.

Frere, S. S., Bennett, P., Rady, J., and Stow, S. (1987), *Canterbury Excavations: intra- and extra-mural sites, 1949-1955 and 1980-1984*, The Archaeology of Canterbury, vol. VIII, (Maidstone, Kent Archaeological Society).

Frere, S.S. and Stow, S. (1983), *Excavations in the St. George's Street and Burgate Street Areas*, The Archaeology of Canterbury VII, (Trowbridge, Canterbury Archaeological Trust and Kent Archaeological Society).

Freshwater, T. (1996), A Lava Quern Workshop on Late Saxon London, *London Archaeologist* 8 (2), 39-45.

Fulford, M. (1978) The interpretation of Britain's late Roman trade: the scope of medieval historical and archaeological analogy, in J. Taylor (ed.), *Roman Shipping and Trade*, (London, CBA), 59-69.

Gallois, R. W. (1965), *British Regional Geology: The Wealden District*, (London: HMSO).

Gardiner, M. (1997), The colonisation of the Weald of South-east England, *Medieval Settlement Research Group Annual Report* 12, 6-8.

Gardiner, M., Cross, R., Macpherson-Grant, N., and Riddler, I. (forthcoming), Continental trade and non-urban ports in mid-Anglo-Saxon England: excavations at *Sandtun*, West Hythe, Kent, *Archaeological Journal* 158.

Garrard, I. P. and Stow, S. (1995), The quernstones, in K. Blockley, M. Blockley, P. Blockley, S. Frere, and S. Stow (eds.), *Excavations in the Marlowe Car Park and Surrounding Areas*, (Canterbury, Canterbury Archaeological Trust), 1206-1210.

Garrard, P. (1987), The small finds, in J. Rady (ed.), *Excavations at St. Martin's Hill, Canterbury, 1984-85*, *Archaeologia Cantiana* 104, 182-199.

Geake, H. (1997), *The Use of Grave Goods in Conversion-Period England, c.600-c.850*. BAR British Series 261. (Oxford, British Archaeological Reports)

Geake, H. and Kenny, J. (eds.) (2000), *Early Deira: archaeological studies of the East Riding in the fourth to ninth centuries AD*, (Oxford, Oxbow).

Grierson, P. (1959), Commerce in the Dark Ages: a critique of the evidence, *Transactions of the Royal Historical Society* 9, 123-140.

Grierson, P. (1963), Mint output in the time of Offa, *Numismatic Circular* 71, 114-115

Grierson, P. (1967), The volume of Anglo-Saxon coinage, *Economic History Review* 20, 153-160.

Grierson, P. (1991), *Coins of Medieval Europe*, (London, Seaby).

Grierson, P. and Blackburn, M. A. S., (1986), *Medieval European Coinages- 1. The Early Middle Ages (5th to 10th centuries)*, (Cambridge: Cambridge University Press).

Grimes, W. F. (1956), Excavations in the City of London, in R. L. S. Bruce-Mitford (ed.), *Recent Archaeological Excavations in Britain*, (London, Routledge), 111-143.

Gustin, I. (1998), Means of payment and the use of coins in the Viking Age town of Birka in Sweden, *Current Swedish Archaeology* 6, 73-83.

Haldenby, D. (1990), An Anglian site on the Yorkshire Wolds, *Yorkshire Archaeological Journal* 62, 51-63.

Haldenby, D. (1992), An Anglian site on the Yorkshire Wolds- continued, *Yorkshire Archaeological Journal* 64, 25-39.

Haldenby, D. (1994), Further Saxon finds from the Yorkshire Wolds, *Yorkshire Archaeological Journal* 66, 51-56.

Hall, R. A. (1994), *Viking Age York*, (London, Batsford/ English Heritage).

Hall, R. A. (2000), Excavation at 16-22 Coppergate, in A. J. Mainman and N. S. H. Rogers (eds.), *Craft, Industry and Everyday Life: finds from Anglo-Scandinavian York*, (York, Council for British Archaeology), 2455-2461.

Harden, D. B. (ed.) (1956), *Dark-Age Britain*, (London, Methuen & Co. Ltd).

Haselgrove, C. (1993), The development of British Iron-Age coinage, *Numismatic Chronicle* 153, 31-63.

Haslam, J. (1980), A middle Saxon iron smelting site at Ramsbury, Wiltshire, *Medieval Archaeology* 24, 1-68.

Haslam, J. (ed.) (1984), *Anglo-Saxon Towns in Southern England*, (Chichester, Phillimore).

Haughton, C. (1996), Anglian Pottery, in P. Abramson, (ed.) Excavations along the Caythorpe Gas Pipeline, North Humberside, *Yorkshire Archaeological Journal* 68: 52-54.

Haughton, C. (1998), Other Material Classes: additional data recovered in 1995, in D. Powlesland (ed.), The West Heslerton Assessment, *Internet Archaeology* 5: <http://intarch.ac.uk/journal/issue5/westhes/4-15.htm#sect415>.

Havinghurst, A. F. (ed.) (1969), *The Pirenne Thesis: analysis, criticism, and revision*, (Lexington, D.C. Heath and Co).

- Hawkes, J. and Mills, S. (eds.) (1999), *Northumbria's Golden Age*, (Stroud: Sutton).
- Hawkes, S. C. (1982), Anglo-Saxon Kent c.425-725, in Leah, P. E. (ed.), *Archaeology in Kent to AD1500*, CBA Research Report 48 (London: CBA), :64-78.
- Hayes, P. P. (1988), Roman to Saxon in the south Lincolnshire fens, *Antiquity* 62(2), 321-326.
- Henig, M. (1995), Objects of jet and shale, in D. Phillips and B. Heywood (eds.), *Excavations from York Minster Volume 1: from Roman fortress to Norman cathedral*, (London, RCHME), 430-432.
- Herrmann, J. (1977) Research into the early history of the town in the territory of the German Democratic Republic, in M. W. Barley (ed.), *European Towns: their archaeology and early history*, (London, Academic Press), 243-259.
- Heslop, D. (1995), Excavation within the churchyard at the Augustine Priory of Gisborough, Cleveland, *Yorkshire Archaeological Journal* 64, 51-126.
- Hicks, A. (1997), No. 24a Old Dover Road, *Canterbury's Archaeology 1995-1996*, 14-15.
- Hicks, A. and Hicks, M. (1991) St. Gregory's Priory, *Canterbury's Archaeology 1989/1990*, 4.
- Hicks, A. J. (1993), *Excavations at Christ Church College 1993, interim report*, Canterbury Archaeological Trust unpublished report.
- Hicks, A. J. (1996), *An archaeological evaluation of the site at 24a Old Dover Road*, Canterbury Archaeological Trust unpublished report.
- Hicks, A. J. (1999), 24a Old Dover Road, *Canterbury's Archaeology 1996-1997*, 6-7.

Hicks, M. and Bennett, P. (1995), Christ Church College, *Canterbury's Archaeology 1993/1994*, 1-4.

Hicks, M. J. and Anderson, T. (1990), St. Gregory's Priory: the cemetery, *Canterbury's Archaeology 1988/1989*, 15.

Higham, N. J. (1987), Landuse and landscape in northern England, *Landscape History* 9, 35-44.

Higham, N. J. (1993), *The Kingdom of Northumbria*, (Stroud, Sutton).

Higham, N. J. (1999), Dynasty and cult: the utility of Christian mission to Northumbrian kings between 642 and 654, in J. Hawkes and S. Mills (eds.), *Northumbria's Golden Age*, (Stroud: Sutton), 95-104.

Hill, D. and Metcalf, D. M. (eds.) (1984) *Sceattas in England and on the Continent*. BAR British Series 128. (Oxford, British Archaeological Reports).

Hinchcliffe, J. (1986), An early medieval settlement at Cowage Farm, Foxley, near Malmesbury, *Archaeological Journal* 143, 240-259.

Hines, J. (ed.) (1997), *The Anglo-Saxons from the Migration Period to the Eighth Century- an ethnographic perspective*, (Woodbridge, The Boydell Press).

Hinton, D. A. (1986), Coins and commercial centres in Anglo-Saxon England, in M. A. S. Blackburn (ed.), *Anglo-Saxon Monetary History: essays in memory of Michael Dolley*, (Leicester, Leicester University Press), 11-26.

Hinton, D. A. (1990), *Archaeology, Economy and Society: England from the fifth to fifteenth century*, (London, Seaby).

Hinton, D. A. (1996), *The Gold, Silver and Other Non-Ferrous Alloy Objects from Hamwic, and the Non-Ferrous Metalworking Evidence*. Southampton Finds 2, (Stroud: Sutton).

Hinton, D. A. (1999), Metalwork and the emporia, in M. Anderton (ed.), *Anglo-Saxon trading centres: beyond the emporia*, (Glasgow, Cruithne Press), 24-31.

Hirth, K. G. (1978), Inter-regional trade and the formation of prehistoric gateway communities, *American Antiquity* 43, 25-45.

Hodges, R. (1977a), Some early medieval French wares in the British Isles: an archaeological assessment of the French wine trade with Britain, in D. P. S. Peacock (ed.), *Pottery and Early Commerce: characterization and trade in Roman and later ceramics*, (London, Academic Press), 239-256.

Hodges, R. (1977b), Trade and urban origins in Dark Age England: an archaeological critique of the evidence, *Berichten van de Rijksdienst voor het oudheidkundig Bodenmonderzoek* 27, 191-215.

Hodges, R. (1978), Ports of trade in early medieval Europe, *Norwegian Archaeological Review* 11 (2), 97-101.

Hodges, R. (1981), *The Hamwih Pottery: the local and imported wares from 30 years' excavation at Middle Saxon Southampton and their European context*. CBA Research Report no. 37, (London, Council for British Archaeology).

Hodges, R. (1982a), *Dark Age Economics: the origins of towns and trade*, (London: Duckworth).

Hodges, R. (1982b), The evolution of gateway communities: their socio-economic implications, in C. Renfrew and S. Shennan (eds.), *Ranking, resource and exchange: aspects of the archaeology of early European society*, (Cambridge, Cambridge University Press), 117-123.

Hodges, R. (1988), *Primitive and Peasant Markets*, (Oxford, Blackwell).

Hodges, R. (1989a), *The Anglo-Saxon Achievement*, (London, Duckworth).

Hodges, R. (1989b), *Dark Age Economics: the origins of towns and trade* (second edition), (London: Duckworth).

Hodges, R. (1996), Dream cities: emporia and the end of the Dark Ages, in N. Christie and S. T. Loseby (eds.), *Towns in Transition: urban evolution in Late Antiquity and the early middle ages*, (Aldershot, Scolar Press), 289-305.

Hodges, R. (2000), *Towns and Trade in the Age of Charlemagne* (London, Duckwoth).

Hodges, R. and Bowden, W. (eds.) (1998), *The Sixth Century: production, distribution and demand*, (Leiden, Brill).

Hodges, R. and Hobley, B. (eds.) (1988), *The Rebirth of Towns in the West, AD 700-1050*, CBA Research Report no. 68, (London, Council for British Archaeology).

Hodges, R. and Whitehouse, D. (1983), *Mohammed, Charlemagne and the Origins of Europe*, (London, Duckworth).

Hoey, L. R. (ed.) (1995), *Yorkshire Monasticism*, (London, British Archaeological Association).

Holdsworth, J. (1978), *Selected Pottery Groups AD650-1780*, The Archaeology of York AY16/1, (York, York Archaeological Trust/ CBA).

Holdsworth, J. (1995), Post-Roman pottery, in D. Phillips and B. Heywood (eds.), *Excavations from York Minster Volume 1: from Roman fortress to Norman cathedral*, (London, RCHME), 468-480.

Holmqvist, W. (1975), Helgö, an early trading settlement in central Sweden, in R. Bruce-Mitford (ed.), *Recent Archaeological Excavations in Europe*, (London, Routledge), 111-132.

Holwerda, J. H. (1930), Opgravingen van Dorestad, *Oudheidkundige Mededelingen* 9, 32-93.

Hooke, D. (ed.) (1988), *Anglo-Saxon Settlements*, (Oxford, Blackwell).

Hope-Taylor, B. (1977), *Yeavinger: an Anglo-British centre of early Northumbria*, (London, HMSO).

Houliston, M. (1988), St. Martin's Heights, *Archaeologia Cantiana* 104, 136-137.

Houliston, M. (1998), *Excavations at Christ Church College 1996, stratigraphic summary*, Canterbury Archaeological Trust unpublished report.

Houliston, M. (1999), Christ Church College, *Canterbury's Archaeology 1996-97*, 1-3.

Hunter, J. R. and Jackson, C. M. (1993), The glass, in N. S. H. Rogers (ed.), *Anglian and other finds from Fishergate*, The Archaeology of York AY17/9, (York, Council for British Archaeology), 1331-1344..

Hurst, J. D. (1997), The extent and development of the Worcestershire medieval salt industry and its impact on the regional economy, in G. de Boe, and F. Verhaeghe (eds.), *Exchange and Trade in Medieval Europe- papers of the 'Medieval Europe, Brugge 1997' Conference*, volume 3, (Zellik, Institute for the Archaeological Heritage), 139-146.

Hurst, J. G. (1959), Middle Saxon pottery, *Medieval Archaeology* 3, 13-31.

Hurst, J. G. (1976), The pottery, in D. M. Wilson (ed.), *The Archaeology of Anglo-Saxon England*, (London, Methuen & Co. Ltd), 283-348.

Hurst, J. G. (1984), The Wharram Research Project: results to 1983, *Medieval Archaeology* 28, 77-111.

Hutcheson, A. (1994), Diocesan House, *Canterbury's Archaeology 1992/1993*, 7.

James, S., Marshall, A., and Millett, M. (1984), An early medieval building tradition, *Archaeological Journal* 141, 182-215.

Jankuhn, H. (1939), Haithabu and the Danewerk, *Antiquity* 13 (1), 103-105.

Jankuhn, H. (1977), New beginnings in northern Europe and Scandinavia, in M. W. Barley (ed.), *European Towns: their archaeology and early history*, (London, Academic Press Inc), 355-371.

Jankuhn, H. (1982), Trade and settlement in Central and Northern Europe up to and during the Viking Period, *Journal of the Royal Society of Antiquaries of Ireland* 112, 18-50.

Jankuhn, H., Schelinger, W., and Stuer, W. (eds.) (1973), *Vor-und Frühformen der europäischen Stadt im Mittelalter*, (Göttingen, Vandenhoeck & Ruprecht).

Jarman, C. (1997), Christ Church College, *Canterbury's Archaeology 1995/96*, 2-3.

Jellema, D. (1955), Frisian trade in the Dark Ages, *Speculum* 30, 15-36.

Jobey, G. (1967), Excavations at Tynemouth Priory and Castle, *Archaeologia Aeliana* 45, 33-104

Johnson, M. (1993), The Saxon monastery at Whitby: past, present, future, in M. O. H. Carver (ed.), *In Search of Cult*, (Woodbridge, The Boydell Press), 83-89.

Johnson, M. (1999), *Archaeological Theory: an introduction*, (Oxford, Blackwell).

Johnson, S. (1978), Excavations at Hayton Roman Fort, 1975, *Brittania* 9, 57-114.

Johnson, S. (1983), *Burgh Castle: excavations by Charles Green, 1958-61*, East Anglian Archaeology 20, (Dereham: Norfolk Archaeology Unit).

Kelly, S. (1992), Trading privileges from eighth century England, *Early Medieval Europe* 1, 3-28.

Kemp, R. L. (1996), *Anglian Settlement at 46-54 Fishergate*, The Archaeology of York 7/1. (York, Council for British Archaeology).

Kennett, D. H. (1989), *Anglo-Saxon Pottery*, (Aylesbury, Shire).

Kent, P. and Gaunt, G. D. (1980), *British Regional Geology: Eastern England from the Tees to the Wash*, (London, HMSO).

Knight, J. K. (1999), *The End of Antiquity: archaeology, society and religion AD235-700*, (Stroud, Tempus).

Laing, L. and Laing, J. (1979), *Anglo-Saxon England*, (London, Granada).

Lane, T. W. (1993), *The Fenland Project, number 8: Lincolnshire survey, the northern fen edge*, East Anglian Archaeology 66. (Sleadford, Heritage Trust of Lincolnshire).

Lane, T. W. (2001), The Fens, *Current Archaeology* 15 (4), 149-156.

Le Patourel, J. and Wood, P. (1973), Excavations at the Archbishop of York's manor house at Otley, *Yorkshire Archaeological Journal* 45, 115-141.

Leach, P. E. (ed.) (1982), *Archaeology in Kent to 1500AD*, CBA Research Report no. (York, CBA).

Leah, M. (1992), The Fenland Management Project, Norfolk, in C. Evans (ed.), *Fenland Research: fieldwork and research in the fenlands of eastern England*, (Cambridge, Cambridge Archaeology Unit, University of Cambridge), 49-59.

Leahy, K. (1999), The middle Saxon site at Flixborough, north Lincolnshire, in J. Hawkes and S. Mills (eds.), *Northumbria's Golden Age*, (Stroud, Sutton), 87-94.

Leahy, K. (2000), Middle Anglo-Saxon metalwork from South Newbald and the 'Productive Site' phenomenon in Yorkshire, in H. Geake and J. Kenny (eds.), *Early Deira: archaeological studies of the East Riding in the fourth to ninth centuries AD*, (Oxford, Oxbow Books), 51-82.

Levison-Gower, J. (1995), The objects of shale, and jet: the CAT objects, in K. Blockley, M. Blockley, P. Blockley, S. Frere, and S. Stow (eds.), *Excavations in the Marlowe Car Park and Surrounding Areas*, (Canterbury, Canterbury Archaeological Trust), 1184-1193.

Lillie, M. and Gearey, B. (2000), Introduction to the palaeoenvironmental survey of the Hull valley, in R. Van de Noort and S. Ellis (eds.), *Wetland Heritage of the Hull Valley: an archaeological survey*, (Hull, Humber Wetlands Project, University of Hull), 21-28.

Lobbedey, U. (1977), Northern Germany, in M. W. Barley (ed.), *European Towns: their archaeology and early history*, (London, Academic Press), 127-157.

Lopez, R. S. (1943), Mohammed and Charlemagne: a revision, *Speculum* 18, 14-38.

Loveluck, C. (1996), The development of the Anglo-Saxon landscape, economy and society 'on Driffield', East Yorkshire, *Anglo-Saxon Studies in Archaeology and History* 9, 25-48.

Loveluck, C. (1997), Flixborough: the character and economy of a high status Middle Saxon settlement in northern England, in G. de Boe and F. Verhaeghe (eds.), *Rural Settlement in Medieval Europe- papers of the 'Medieval Brugge 1997' conference* volume 6, (Zellik, Institute for the Archaeological Heritage), 141-146.

Loveluck, C. (1998), A high status Anglo-Saxon settlement at Flixborough, Lincolnshire, *Antiquity* 72, 140-161.

Lucy, S. J. (1998), *The Early Anglo-Saxon Cemeteries of East Yorkshire: an analysis and re-interpretation*, BAR British Series 272, (Oxford, British Archaeological Reports)

Lucy, S. J. (1999), Changing burial rites in Northumbria AD 500-750, in J. Hawkes and S. Mills (eds.), *Northumbria's Golden Age*, (Stroud, Sutton), 12-43.

Lucy, S. J. (2000), *The Anglo-Saxon Way of Death: burial rites in early England*, (Stroud, Sutton).

Lyon, B. (1969), The work of Henri Pirenne after twenty-five years, in A. F. Havinghurst (ed.), *The Pirenne Thesis: analysis, criticism, and revision*, (Lexington, D.C. Heath and Co), 101-108.

Lyon, B. (1974), *Henri Pirenne: A bibliographical and intellectual study*, (Ghent, E. Story-Scientia).

Macpherson-Grant, N. (1984), The Outer Court of St. Augustine's Abbey: summary of the pottery, in P. Bennett, (ed.), *The Outer Court of St. Augustine's Abbey*, *Archaeologia Cantiana* 101: 295-296.

Macpherson-Grant, N. (1986a), Post-excavation pottery research: the evolution of Canterbury's post-Roman ceramic, Anglo-Saxon- late medieval, *Canterbury Archaeological Trust Annual Report 1984-85*, 30-33.

Macpherson-Grant, N. (1986b), The pottery, in P. Bennett (ed.), Rescue excavations in the Outer Court of St. Augustine's Abbey, 1983-1984, *Archaeologia Cantiana* 103, 105-111.

Macpherson-Grant, N. (1987), The pottery, in J. Rady (ed.) Excavations at St. Martin's Hill, Canterbury, 1984-85, *Archaeologia Cantiana* 104, 177-182.

Macpherson-Grant, N. (1993), Ceramic implications report, in S. Pratt (ed.), *Minster Pumping Station- archaeological evaluation*, Canterbury Archaeological Trust unpublished report 1993/2, 17-19.

Macpherson-Grant, N. (1995a), Chronology: the key factors, in K. Blockley, M. Blockley, P. Blockley, S. Frere, and S. Stow (eds.), *Excavations in the Marlowe Car Park and Surrounding Areas*, (Canterbury, Canterbury Archaeological Trust), 882-891.

Macpherson-Grant, N. (1995b), Fabric descriptions, in K. Blockley, M. Blockley, P. Blockley, S. Frere, and S. Stow (eds.), *Excavations in the Marlowe Car Park and Surrounding Areas*, (Canterbury, Canterbury Archaeological Trust), 822-824.

Macpherson-Grant, N. (1995c), The Marlowe I sequence: periods 5-8, in K. Blockley, M. Blockley, P. Blockley, S. Frere, and S. Stow (eds.), *Excavations in the Marlowe Car Park and Surrounding Areas*, (Canterbury, Canterbury Archaeological Trust), 835-852.

Macpherson-Grant, N. (1995d), The other Marlowe sites, in K. Blockley, M. Blockley, P. Blockley, S. Frere, and S. Stow (eds.), *Excavations in the Marlowe Car Park and Surrounding Areas*, (Canterbury, Canterbury Archaeological Trust), 853-863.

Mainman, A. J. (1990), *Anglo-Scandinavian Pottery from 16-22 Coppergate*, The Archaeology of York AY16/5, (York, York Archaeological Trust/ CBA).

Mainman, A. J. (1992), Ipswich Ware from York, in D. Gaimster and M. Redknapp (eds.), *Everyday and Exotic Pottery from Europe: studies in honour of John G. Hurst*, (Oxford, Oxbow), 16-20.

Mainman, A. J. (1993), *Pottery from 46-54 Fishergate*, The Archaeology of York AY 16/6. (York, Council for British Archaeology).

Mainman, A. J. (forthcoming), The Anglo-Saxon pottery, in T. Manby (ed.), *Paddock Hill, Octon: Excavations of a Fortified Bronze Age and Anglo-Saxon site at Thwing, East Yorkshire*, English Heritage.

Mainman, A. J. and Macpherson-Grant, N. (1995), Location of the early-mid and late Saxon pottery production, in . K. Blockley, M. Blockley, P. Blockley, S. Frere, and S. Stow (eds.), *Excavations in the Marlowe Car Park and Surrounding Areas*, (Canterbury, Canterbury Archaeological Trust), 896-897.

Mainman, A. J. and Rogers, N. S. H. (2000), *Craft, Industry and Everyday Life: finds from Anglo-Scandinavian York*, The Archaeology of York AY17/14. (York, CBA).

Maitland Muller, M. R. (1949), Southampton Excavations: first interim report, 1946, *Papers and Proceedings of the Hampshire Field Club and Archaeological Society* 17(1), 65-71.

Maitland Muller, M. R. (1951), The Southampton Excavations: second interim report, 1947, *Papers and Proceedings of the Hampshire Field Club and Archaeological Society* 17(2), 125-129.

Malinowski, B. (1922), *Argonauts of the Western Pacific*, (London, Routledge and Keegan Paul Ltd).

Manby, T. (1983), Paddock Hill, Thwing, *Proceedings of the Prehistoric Society* 49, 399-400.

Manby, T. (1985.), *The Thwing Project: excavation and field archaeology in East Yorkshire*, (York: Yorkshire Archaeological Society).

Manby, T. (1988), Excavation and field archaeology in eastern Yorkshire: the Thwing project 1973-1987, *CBA Forum 1988*, 16-18.

Manby, T. (1994), *Paddock Hill, Thwing: economy and territorial aspects*, Humberside Archaeology Forum, minutes of the 33rd meeting.

Manby, T. G. (forthcoming), *Paddock Hill, Octon: Excavations of a Fortified Bronze Age and Anglo-Saxon site at Thwing, East Yorkshire*, English Heritage.

Margary, I. D. (1967), *Roman Roads of Britain*, (London, John Baker).

Mauss, M. (1925), *Essai sur le don*, (Paris)

McKenna, W. J. B. (1991), The plant, molluscan, insect, and parasite remains, in P. Armstrong, D. Tomlinson, and D. H. Evans (eds.), *Excavations at Lurk Lane Beverley, 1979-82*, (Sheffield, Humberside Archaeology Unit), 209-215.

Meaney, A. (1964), *A Gazetteer of Early Anglo-Saxon Burial Sites* (London, Allen & Unwin).

Metcalf, D. M. (1965), How large was the Anglo-Saxon currency?, *Economic Historical Review* 18, 475-482.

Metcalf, D. M. (1967), the prosperity of north-western Europe in the eighth and ninth centuries, *Economic Historical Review* 20, 344-357.

Metcalf, D. M. (1977), Monetary affairs in Mercia in the time of Aethelbald, in A. Dornier (ed.), *Mercian Studies*, (Leicester, Leicester University Press), 87-106.

Metcalf, D. M. (1984a), Monetary circulation in southern England in the first half of the eighth century, in D. Hill and D. M. Metcalf (eds.), *Sceattas in England and on the Continent*, BAR British Series no. 128, (Oxford, British Archaeological Reports), 27-70.

Metcalf, D. M. (1984b), Twenty-five notes on sceatta finds, in D. Hill and D. M. Metcalf (eds.), *Sceattas in England and on the Continent*, BAR British Series no. 128, (Oxford, British Archaeological Reports), 193-205.

Metcalf, D. M. (1987) A topographical commentary on the coin finds from ninth-century Northumbria (c.780-c.870), in D. M. Metcalf (ed.), *Coinage in Ninth-Century Northumbria*, BAR British Series no. 180 (Oxford, British Archaeological Reports), 361-382.

Metcalf, D. M. (ed.) (1987), *Coinage in Ninth-Century Northumbria*, BAR British Series no. 180 (Oxford, British Archaeological Reports).

Metcalf, D. M. (1988a), Monetary expansion and recession: interpreting the distribution of seventh and eighth-century coins, in J. Casey and R. Reece (eds.), *Coins and the Archaeologist*, second edition (London, Seaby), 230-253.

Metcalf, D. M. (1988b), A plate of Anglo-Saxon coins found at Reculver, Kent in the eighteenth century, *British Numismatic Journal* 58, 126-128.

Metcalf, D. M. (1988c), A sceat of series K minted by Archbishop Berhteald of Canterbury (693-731), *British Numismatic Journal* 58, 124-126.

Metcalf, D. M. (1993), *Thrymsas and Sceattas in the Ashmoleum Museum*, (London: Royal Numismatic Society and Ashmoleum Museum Oxford).

Metcalf, D. M. (1998), The monetary economy of ninth century England south of the Humber: a topographical analysis, in M. A. S. Blackburn and D. N. Dumville (eds.),

Kings, Currency and Alliances: history and coinage of southern England in the ninth century, (Woodbridge, The Boydell Press), 167-197.

Metcalf, D. M. and Northover, J. (1989), Coinage alloys from the age of Offa and Charlemagne to c.864, *Numismatic Chronicle* 149, 101-120.

Millett, M. and James, S. (1983), Excavations at Cowdrey's Down, Basingstoke, Hampshire, *Archaeological Journal* 140, 151-279.

Milne, G. (1992a), Characterisation and dating of the assemblages: site 39, in G. Milne and J. D. Richards (eds.), *Wharram, a Study of Settlement on the Yorkshire Wolds, VII: two Anglo-Saxon buildings and associated finds*, (York: York University), 80-82.

Milne, G. (1992b), Site 39, in G. Milne and J. D. Richards (eds.), *Wharram, a Study of Settlement on the Yorkshire Wolds, VII: two Anglo-Saxon buildings and associated finds*, (York: York University), 5-12.

Milne, G. and Richards, J. D. (1992), *Wharram: a study of settlement on the Yorkshire Wolds: Two Anglo-Saxon buildings and associated finds*, York University Archaeological Publication 9, (York: University of York).

Moore, D.T. (1978), The petrography and archaeology of English honestones, *Journal of Archaeological Science* 5, 61-73.

Morris, R. (1989), *Churches in the Landscape*, (London: Dent).

Morton, A. (1999), Hamwic in its context, in Anderton. M (ed.), *Anglo-Saxon Trading Centres: beyond the emporia*, (Glasgow, Cruithne Press), 48-62.

Morton, A. D. (1992), *Excavations at Hamwic: volume 1*, CBA Research Report 84, (London, CBA).

Moss, H. St. L. B. (1937), Economic consequences of the Barbarian invasions, *Economic History Review* 7, 209-216.

Moulden, J. (1999), The nature of the evidence, in D. Tweddle, J. Moulden, and E. Logan (eds.), *Anglian York: a survey of the evidence*, The Archaeology of York AY7/2, (York, CBA/ York Archaeological Trust), 213-230.

Moulden, J., Logan, E., and Tweddle, D., (1999), Catalogue of Anglian sites, in D. Tweddle, J. Moulden, and E. Logan (eds.), *Anglian York: a survey of the evidence*, The Archaeology of York AY7/2, (York, CBA/ York Archaeological Trust), 231-290.

Muir, R. (2000), *The New Reading the Landscape: fieldwork in landscape history*, (Exeter, University of Exeter Press).

Naylor, J. D. (2001), York and its region in the eighth and ninth centuries AD: an archaeological study, *Oxford Journal of Archaeology* 20(1), 79-105.

Naylor, J. D. (forthcoming), Access to international trade in Middle Saxon England: a case of urban over-emphasis?, in M. Pasquinucci and T. Weski (eds.), *Close Encounters: sea- and riverbourne trade, ports and hinterlands, ship construction and navigation in Antiquity, the middle ages, and early modern time*, BAR International Series, (Oxford, Archaeopress).

Newman, J. (1992), The late Roman and Anglo-Saxon settlement pattern in the Sandlings of Suffolk, in M. O. H. Carver (ed.), *The Age of Sutton Hoo: the seventh century in north-western Europe*, (Woodbridge, The Boydell Press), 25-38.

Newman, J. (1999), Wics, trade and the hinterlands- the Ipswich region, in M. Anderton (ed.), *Anglo-Saxon Trading Centres: beyond the emporia*, (Glasgow, Cruithne Press), 32-47.

Newman, J. (2000), Exceptional sites, exceptional finds? What role did Barham and Coddanham fulfil in the kingdom of East Anglia?, paper presented at 'The

Archaeology of Inland Markets, Fairs and 'Productive Sites' c.650-850' conference 15-17th December 2000. Worcester College, Oxford.

North, J. J. (1994), *English Hammered Coinage: Volume 1: Early Anglo-Saxon to Henry III, c.600-1272*, (London, Spink & Son Ltd).

O'Brien, C. T. and Miket, R. (1991), The early medieval settlement of Thirlings, Northumberland, *Durham Archaeological Journal* 7, 57-91.

O'Connor, T. P. (1989), *Bones from Anglo-Scaninavian levels at 16-22 Coppergate*, The Archaeology of York AY15/3, (York, CBA).

O'Connor, T. P. (1991), *Bones from 46-54 Fishergate*, The Archaeology of York AY15/4. (York, CBA).

Op Den Velde, W., De Boone, W. J., and Pol, A. (1984), A survey of sceattas finds from the Low Countries, in D. Hill and D. M. Metcalf (eds.) *Sceattas in England and on the Continent*, BAR British Series no.128 (Oxford, British Archaeological Reports), 117-145.

Orton, C., Tyers, P., and Vince, A. (1993), *Pottery in Archaeology*, (Cambridge: Cambridge University Press).

Pagan, H. (1986), Coinage in southern England, 796-874, in M. A. S. Blackburn (ed.), *Anglo-Saxon Monetary History: essays in memory of Michael Dolley*, (Leicester, Leicester University Press), 45-65.

Parfitt, K. (1996), *Whitfield-Eastry Bypass 1995, Assessment Report on Excavations at Site 2 (Church-Whitfield Cross-road*, unpublished report, Canterbury Archaeological Trust.

Parfitt, K., Allen, T., and Rady, J. (1997), Whitfield-Eastry by-pass, *Canterbury's Archaeology 1995-1996*, 28-31.

Parkhouse, J. (1997), The distribution and exchange of Mayen lava quernstones in early medieval North-west Europe, in G. de Boe and F. Verhaeghe (eds.), *Exchange and Trade in Medieval Europe- papers of the 'Medieval Europe, Brugge 1997' Conference*, volume 3, (Zellik, Institute for the Archaeological Heritage), 97-106.

Pasquinucci, M. and Weski, T. (eds.) (forthcoming), *Close Encounters: sea- and riverbourne trade, ports and hinterlands, ship construction and navigation in Antiquity, the middle ages, and early modern time*, BAR International Series, (Oxford, Archaeopress).

Peacock D. P. S. (ed.) (1977), *Pottery and Early Commerce: characterization and trade in Roman and later ceramics* (London,

Peers, C. and Radford, C. A. R. (1943), The Saxon monastery of Whitby, *Archaeologia* 89, 27-88.

Pelteret, D. (1981), Slave raiding and slave trading in early England, *Anglo-Saxon England* 9, 99-114.

Perkins, D. R. J. (1998a), Oaklands Nursery site, Cottington Road, Cliffsend, Ramsgate, *Archaeologia Cantiana* 118, 356-357.

Phillips, A. D. (1995a), The excavation campaign, in D. Phillips and B. Heywood (eds.), *Excavations at York Minster volume 1: from Roman fortress to Norman cathedral*, (London, HMSO), 16-32.

Phillips, A. D. (1995b), The excavations, in D. Phillips and B. Heywood (eds.), *Excavations at York Minster volume 1: from Roman fortress to Norman cathedral*, (London, HMSO), (London, HMSO), 33-169.

Phillips, D. and Heywood, B. (1995), *Excavations from York Minster Volume 1: from Roman fortress to Norman cathedral*, (London, RCHME).

Pinter-Bellows, S. (1992), The vertebrate remains from sites 94 and 95, in G. Milne and J. D. Richards (eds.), *Wharram, a Study of Settlement on the Yorkshire Wolds, VII: two Anglo-Saxon buildings and associated finds*, York University Publications 9 (York, York University), 69-79.

Pinter-Bellows, S. (2000), The animal remains, in P. A. Stamper and R. A. Croft (eds.), *Wharram, a Study of Settlement on the Yorkshire Wolds, VIII: the south manor*, York University Publications 10, (York: York University), 167-184.

Pirenne, H. (1925), *Medieval Cities: their origins and the revival of trade*, (translation F. D. Halsey), (Princeton, Princeton University Press).

Pirenne, H. (1933), *Economic and Social History of Medieval Europe*, (translation I. E. Clegg), (New York, Harvest).

Pirenne, H. (1939), *Mohammed and Charlemagne*, (translation B. Miall), (London, Allen & Unwin).

Pirie, E. J. E. (1984), Some Northumbrian finds of sceattas, in D. Hill and D. M. Metcalf: (eds.), *Sceattas in England and on the Continent*, BAR British Series no.128, (Oxford, British Archaeological Reports), 207-215.

Pirie, E. J. E. (1986), *Post-Roman Coin Finds from the York Excavations, 1971-1981*, The Archaeology of York, AY18/1, (York: CBA/ York Archaeological Trust).

Pirie, E. J. E. (1991), The Northumbrian coins: single finds and the pruse hoard, in P. Armstrong, D. Tomlinson, and D. H. Evans (eds.), *Excavations at Lurk Lane Beverely, 1979-82*, (Sheffield: Humberside Archaeology Unit), 164-167.

Pirie, E. J. E. (1995a), Earduulf: a significant addition to the coinage of Northumbria, *British Numismatic Journal* 65, 20-31.

Pirie, E. J. E. (1995b), Post-Roman coins, in Phillips. D. and B. Heywood (eds.), *Excavations from York Minster Volume 1: from Roman fortress to Norman cathedral*, (London, HMSO), 527-530.

Pirie, E. J. E. (forthcoming), *Anglo-Saxon coins from 46-54 Fishergate*, The Archaeology of York. (York, CBA).

Polanyi, K. (1957), The economy as an instituted process, in K. Polyani, C. M. Arensberg, and H. Preason (eds.), *Trade and Market in the Early Empires: economics, history and theory*, (Glencoe, The Free Press), 243-270.

Polanyi, K. (1963), Ports of trade in early societies, *Journal of Economic History* 23, 30-45.

Polanyi, K. (1978), Trade, markets, and money in the European early middle ages, *Norwegian Archaeological Review* 11(2), 92-96.

Polyani, K., Arensberg, C. M., and Preason, H. (eds.) (1957), *Trade and Market in the Early Empires: economics, history and theory*, (Glencoe, The Free Press).

Powlesland, D. (1997), Early Anglo-Saxon settlements, structures, form, and layout, in J. Hines(ed.), *The Anglo-Saxons from the Migration Period to the Eighth Century-an ethnographic perspective*, (Woodbridge, The Boydell Press), 101-123.

Powlesland, D. (1998), The West Heslerton Assessment, *Internet Archaeology* 5, <http://intarch.ac.uk/journal/issue5/westhes>.

Powlesland, D. (1999), The Anglo-Saxon settlement at West Heslerton, North Yorkshire, in J. Hawkes and S. Mills (eds.) *Northumbria's Golden Age*, (Stroud, Sutton), 55-65.

- Powlesland, D. (2000), West Heslerton settlement mobility: a case of static development, in H. Geake and J. Kenny (eds.), *Early Deira: archaeological studies of the East Riding in the fourth to ninth centuries AD*, (Oxford, Oxbow Books), 19-26.
- Pratt, S. (1991), Longmarket, Canterbury, *Archaeologia Cantiana* 109, 286-295.
- Pratt, S. (1993), *Minster Pumping Station- archaeological evaluation*, unpublished report, Canterbury Archaeological Trust.
- Pratt, S. (1995), Minster-in-Sheppey, *Canterbury's Archaeology 1993/94*, 26-27.
- Pratt, S. (1999), St. George's School, Minster-in-Sheppey, *Canterbury's Archaeology 1996-1997*, 21.
- Price, J. (2000), Glass objects, in P. A. Stamper and R. A. Croft (eds.), *Wharram, a Study of Settlement on the Yorkshire Wolds, VIII: the South Manor Area*, York University Archaeological Publications 10 (York, York University), 121-124.
- Purdy, J. D. (1974), Kilham, in K. J. Allison (ed.), *A History of the County of York East Riding Volume II*, (Oxford, Oxford University Press), 247-263.
- Rackham, J. (ed.) (1994), *Environment and Economy in Anglo-Saxon England*, CBA Research Report (York, CBA).
- Rackham, J. (1995), Animal bone from post-Roman contexts, in D. Phillips and B. Heywood (eds.), *Excavations at York Minster volume 1, Roman to Norman: the Roman Legionary fortress at York and its exploitation in the early middle ages AD71-1070*, (London, RCHME), 533-558.
- Rady, J. (1987a), Excavations at St. Martin's Hill, Canterbury, 1984-85, *Archaeologia Cantiana* 104, 123-207.
- Rady, J. (1987b), Nos. 36-37 Stour Street, *Canterbury's Archaeology 1985-1986*, 15.

- Rady, J. (1987c), Nos. 36-37 Stour Street, *Archaeologia Cantiana* 104, 300-303.
- Rady, J. (1987d), St. Radigund's Street, *Archaeologia Cantiana* 104, 304-308.
- Rady, J. (1990a), Longmarket, *Archaeologia Cantiana* 108, 218-226.
- Rady, J. (1990b), New excavations, *Canterbury's Archaeology 1988-1989*, 37-38.
- Rady, J. (1993), Thanet Way evaluation, *Canterbury's Archaeology 1992/1992*, 20-21.
- Rady, J. (1997), North Lane, *Canterburys Archaeology 1995/1996*, 16-19.
- Rahtz, P. A. (1967), Whitby 1958, *Yorkshire Archaeological Journal* 40, 604-618.
- Rahtz, P. A. (1976), The building plan of the Anglian monatery of Whitby Abbey, in D. M. Wilson (ed.), *The Archaeology of Anglo-Saxon England*, (London, Methuen & Co. Ltd), 459-462.
- Rahtz, P. A. (1995), Anglo-Saxon and later Whitby, in L. R. Hoey (ed.), *Yorkshire Monasticism*, (London, British Archaeoligcal Association), 1-11.
- Rahtz, P. A. (2001), *Living Archaeology*, (Stroud, Tempus).
- Rahtz, P. A. (forthcoming), *Kirkdale: St. Gregory's Minster*.
- Rahtz, P. A. and Watts, L. (1997), Kirkdale Anglo-Saxon minster, *Current Archaeology* 155, 419-422.
- Rahtz, P. A. and Watts, L. (1998), Kirkdale Archaeology 1996-1997, supplement to *The Ryedale Historian* 19.

Rahtz, P. A., Watts, L., and Grenville, J. (1996), *Archaeology at Kirkdale*, supplement to *The Ryedale Historian* 18.

Reece, R. (1987), *Coinage in Roman Britain* (London, Batsford).

Renfrew, C. (1975), Trade as action at a distance: questions of intergration and communication, in J. A. Sabloff and C. C. Lamberg-Karlovsky (eds.), *Ancient Civilisation and Trade*, (Albuquerque, University of New Mexico Press), 3-59.

Renfrew, C. (1977), Alternative models for exchange and spatial distribution, in T. K. Earle and J. E. Ericson (eds.), *Exchange Systems in Prehistory*, (London, Academic Press), 71-90.

Renfrew, C. (1982), Socio-economic change in ranked societies, in C. Renfrew and S. Shennan (eds.), *Ranking, resource and exchange: aspects of the archaeology of early European society*, (Cambridge, Cambridge University Press), 1-7.

Renfrew, C. (1986), Peer-polity interaction and socio-political change, in C. Renfrew and J. Cherry (eds.), *Peer-polity Interaction and Socio-political Change*, (Cambridge, Cambridge University Press), 1-18.

Renfrew, C. and Cherry, J. (eds.) (1986), *Peer-polity Interaction and Socio-political Change*, (Cambridge, Cambridge University Press).

Renfrew, C. and Shennan, S. (eds.) (1982), *Ranking, resource and exchange: aspects of the archaeology of early European society*, (Cambridge, Cambridge University Press).

Richards, J. D. (1992a), Anglo-Saxon settlement at Wharram Percy: a general introduction, in G. Milne and J. D. Richards (eds.), *Wharram, a Study of Settlement on the Yorkshire Wolds, VII: two Anglo-Saxon buildings and associated finds*, York University Archaeological Publications 9, (York, York University), 89-94.

Richards, J. D. (1992b), Characterisation and dating of the assemblages: sites 94 and 95, in G. Milne and J. D. Richards (eds.), *Wharram, a Study of Settlement on the Yorkshire Wolds, VII: two Anglo-Saxon buildings and associated finds*, York University Archaeological Publications 9, (York, York University), 82-85.

Richards, J. D. (1992c), Sites 94 and 95, in G. Milne and J. D. Richards (eds.), *Wharram, a Study of Settlement on the Yorkshire Wolds, VII: two Anglo-Saxon buildings and associated finds*, York University Archaeological Publications 9, (York, York University), 82-85.

Richards, J. D. (1994), Cottam Evaluation, *Yorkshire Archaeological Journal* 66, 57-58.

Richards, J. D. (1999a), Anglo-Saxon settlements of the Golden Age, in J. Hawkes and S. Mills (eds.), *Northumbria's Golden Age*, (Stroud, Sutton), 44-54.

Richards, J. D. (1999b), Cottam: an Anglo-Scandinavian settlement on the Yorkshire Wolds, *Archaeological Journal* 156, 1-111.

Richards, J. D. (1999c), What's so special about 'productive sites'? Middle Saxon settlements in Northumbria, *Anglo-Saxon Studies in Archaeology and History* 10, 71-80.

Richards, J. D. (2000a), The Anglo-Saxon and Anglo-Scandinavian evidence, in P. A. Stamper and R. A. Croft (eds.), *Wharram, a Study of Settlement on the Yorkshire Wolds, VIII: the South Manor*, York University Archaeological Publications 10, (York, York University), 195-200.

Richards, J. D. (2000b), Anglo-Saxon settlement and archaeological visibility in the Yorkshire Wolds, in H. Geake and J. Kenny (eds.), *Early Deira: archaeological studies of the East Riding in the fourth to ninth centuries AD*, (Oxford, Oxbow Books), 27-40.

Riddler, I. (1991), Two late Saxon combs from the Longmarket excavations, *Canterbury's Archaeology 1989/1990*, 54-55.

Riddler, I. (1997), Bone and antler working, in P. Andrews (ed.), *Excavations at Hamwic, volume 2: excavations at Six Dials*, (York, CBA), 227-230.

Riddler, I. (1998), Small finds summary: the middle Saxon finds, in M. Houliston (ed.), *Excavations at Christ Church College 1996, stratigraphic summary*, unpublished report, Canterbury Archaeological Trust, 142-147.

Riddler, I. (forthcoming), The small finds, in M. Gardiner, R. Cross, N. Macpherson-Grant, I. Riddler (eds.), Continental trade and non-urban ports in mid-Anglo-Saxon England: excavations at *Sandtun*, West Hythe, Kent, *Archaeological Journal* 158.

Rigold, S. E. and Metcalf, D. M. (1984), A revised checklist, in D. Hill and D. M. Metcalf (eds.), *Sceattas in England and on the Continent*, BAR British Series no.128, (Oxford, British Archaeological Reports), 245-268.

Rogers, N. S. H. (1993), *Anglian and other finds from Fishergate*, The Archaeology of York AY17/9, (York, Council for British Archaeology).

Rogerson, A. (1995), *A Late Neolithic, Saxon and Medieval Site at Middle Harling, Norfolk*. East Anglian Archaeology 74, (London, British Museum/ Field Archaeology Division, Norfolk Museums Service).

Rogerson, A. (2000), West Norfolk, a 'productive' sub-region in the 8th and 9th centuries, paper presented at 'The Archaeology of Inland Markets, Fairs and 'Productive Sites' c.650-850' conference 15th-17th December 2000. Worcester College, Oxford.

Rollason, D., Gore D. and Fellow-Jensen, G. (1998), *Sources for York History to AD1100*, The Archaeology of York AY1/-, (York, CBA/ York Archaeological Trust).

Rollason, D. (1999), Historical evidence for Anglian York, in D. Tweddle, J. Moulden, and E. Logan (eds.), *Anglian York: a survey of the evidence*, The Archaeology of York AY7/2, (York, CBA/ York Archaeological Trust), 117-140.

Russo, D. G. (1998), *Town Origins and Development in Early England, c.400-950AD*, (London, Greenwood Press).

Sabloff, J. A. and Lamberg-Karlovsky, C. C. (eds.) (1975), *Ancient Civilisation and Trade*, (Albuquerque, University of New Mexico Press).

Samson, R. (1999), Illusory emporia and mad economic theories, in M. Anderton (ed.), *Anglo-Saxon Trading Centres: beyond the emporia*, (Glasgow, Cruithne Press), 76-90.

Saunders, T. (1991), Markets and individuals: the idealism of Richard Hodges, *Scottish Archaeological Review* 8, 140-145.

Sawyer, P.H. (1977), Kings and merchants, in P. H. Sawyer and I. N. Woods (eds.), *Early Medieval Kingship*, (Leeds, School of History, University of Leeds), 139-158.

Sawyer, P. H. (ed.) (1979), *English Medieval Settlement* (London, Edward Arnold).

Schofield, J. and Vince, A. (1994), *Medieval Towns*, (London, Leicester University Press).

Scott, S. (1991), The animal bones, in P. Armstrong, D. Tomlinson, and D. H. Evans (eds.), *Excavations at Lurk Lane Beverley, 1979-82*, Sheffield Excavation Reports 1, (Sheffield: Sheffield Excavation Reports), 216-233.

Scull, C. (1997), Urban centres in pre-Viking England? in J. Hines (ed.), *The Anglo-Saxons from the Migration Period to the Eighth Century- an ethnographic perspective*, (Woodbridge, The Boydell Press), 269-298.

Slowikowski, A. M. (1992), Anglo-Saxon and medieval pottery, in G. Milne and J. D. Richards (eds.), *Wharram, a study of settlement on the Yorkshire Wolds, VII: two Anglo-Saxon buildings and associated finds*, York University Archaeological Publications 9, (York, York University), 27-38.

Slowikowski, A. M. (2000), The Anglo-Saxon and medieval pottery, in P. A. Stamper and R. A. Croft (eds.), *Wharram, a study of settlement on the Yorkshire Wolds, VIII: the south manor area*, York University Archaeological Publications 10, (York, York University), 60-98.

Smith, C. A. (1976), Exchange systems and the spatial distribution of elites: the organisation of stratification in agrarian societies, in Smith, C. A. (ed.), *Regional Analysis 2*, (New York, Academic Press), 309-374.

Smith, D. (1978), The lava querns, in V. Fenwick (ed.), *The Graveney Boat: a tenth-century find from Kent*, BAR British Series no. 53, (Oxford, British Archaeological Reports), 131-132.

Sparks, M. and Tatton-Brown, T. (1987), The history of the ville of St. Martin's, Canterbury, in J. Rady (ed.), *Excavations at St. Martin's Hill, Canterbury, 1984-85*, *Archaeologia Cantiana* 104, 200-207.

Spearman, R. M. and Higgitt, J. (eds.) (1993), *The Age of Migrating Ideas*, (Edinburgh, National Museum of Scotland)

Stallibrass, S. (1996), The animal bones, in P. Abramson (ed.), excavations along the Caythorpe Gas Pipeline, North Humberside, *Yorkshire Archaeological Journal* 68, 72-80.

Stamper, P. A. and Croft, R. A. (2000), *Wharram, a Study of Settlement on the Yorkshire Wolds, VIII: the South Manor Area*, York University Archaeological Publications 10, (York, York University).

Stamper, P. A., Croft, R. A., and Andrews, D. D. (2000), The excavations, in Stamper, P. A. and R. A. Croft. (2000), *Wharram, a Study of Settlement on the Yorkshire Wolds, VIII: the South Manor Area*, York University Archaeological Publications 10, (York, York University), 17-56.

Steedman, K. (1994), Excavation of a Saxon site at Riby Cross Roads, Lincolnshire, *Archaeological Journal* 151, 212-306.

Stenton, F. (1971), *Anglo-Saxon England*, (Oxford, Oxford University Press).

Stephenson. (1933), *Borough and Town* (Cambridge, Mass., Medieval Academy of America).

Stevens, P. M. (1992), The vertebrate remains from site 39, in G. Milne and J. D. Richards (eds.), *Wharram, a Study of Settlement on the Yorkshire Wolds, VII: two Anglo-Saxon buildings and associated finds*, York University Archaeological Publications 9, (York, York University), 67-69.

Stewart, I. (1984), The early English denarial coinage, c.680-c.750, in D. Hill and D. M. Metcalf (eds.), *Sceattas in England and on the Continent*, BAR British Series, no.128, (Oxford, British Archaeological Reports), 5-26.

Stopford, J. (2000), The case for archaeological research at Whitby, in H. Geake and J. Kenny (eds.), *Early Deira: archaeological studies of the east Riding in the fourth to ninth centuries*, (Oxford, Oxbow Books), 99-107.

Tait, J. (1936), *The Medieval English Borough*, (Newton Abbott, David & Charles).

Tatton-Brown, T. (1982), Canterbury and the early medieval towns of kent, in P. E. Leach (ed.), *Archaeology in Kent to AD1500*, CBA Research Report 48 (London, Council for British Archaeology), 79-83.

Tatton-Brown, T. (1988), The Anglo-Saxon towns of Kent, in D. Hooke (ed.), *Anglo-Saxon Settlements*, (Oxford, Blackwell), 213-232.

Taylor, C. (1979), *Roads and Tracks of Britain*, (London, Orion).

Taylor, J. (ed.) (1978), *Roman Shipping and Trade*, CBA Research Report 24 (London, CBA),

Timby, J. and Andrews, P. (1997), The pottery, in P. Andrews (ed.), *Excavations at Hamwic volume 2: excavations at the Six Dials*, CBA Research Report no.109 (York, CBA), 207-209.

Tweddle, D. (1999), The Anglian city, in D. Tweddle, J. Moulden, and E. Logan (eds.), *Anglian York: a survey of the evidence*, The Archaeology of York 7/2, (York: CBA/ York Archaeological Trust), 151-212.

Tweddle, D., Moulden, J., and Logan, E. (1999), *Anglian York: a survey of the evidence*, The Archaeology of York 7/2, (York: CBA/ York Archaeological Trust).

Ulmschneider, K. (1999), Archaeology, history, and the Isle of Wight in the middle Saxon period, *Medieval Archaeology* 43, 19-44.

Ulmschneider, K. (2000a), *Markets, Minsters, and Metal-Detectors: the archaeology Middle Saxon Lincolnshire and Hampshire compared*, BAR British Series 307, (Oxford, Archaeopress).

Ulmschneider, K. (2000b), Settlement, economy and the 'productive' site: Middle Anglo-Saxon Lincolnshire, A.D. 650-780, *Medieval Archaeology* 44, 53-80.

Underwood-Keevil, C. (1994), The Anglo-Saxon, medieval, and post-medieval pottery, in D. R. P. Wilkinson, (ed.), *Excavations on the White Cliffs Experience site, Dover, 1988-1991*, *Archaeologia Cantiana* 114: 114-126.

Van de Noort, R. (2000), Where are Yorkshire's 'terps'? Wetland exploitation in the early medieval period, in H. Geake and J. Kenny (eds.), *Early Deira: archaeological studies of the East Riding in the fourth to ninth centuries AD*, (Oxford, Oxbow), 121-131.

Van de Noort, R. and Ellis, S. (eds.) (1995), *The Wetland Heritage of Holderness: an archaeological survey*, (Hull, Humber Wetlands Project, University of Hull).

Van de Noort, R. and Ellis, S. (eds.) (1999), *The Wetland Heritage of the Vale of York: an archaeological survey*, (Hull, Humber Wetlands Project, University of Hull).

Van de Noort, R. and Ellis, S. (eds.) (2000), *Wetland Heritage of the Hull Valley: an archaeological survey*, (Hull, Humber Wetlands Project, University of Hull).

Van Es, W. A. (1969), Excavations at Dorestad; a preliminary report: 1967-1968, *Berichten van de Rijksdienst voor het oudheidkundig Bodemonderzoek* 19, 183-207.

Vince, A. (1990), *Saxon London: an archaeological investigation*, (London, Seaby).

Vince, A. (ed.) (1993), *Pre-Viking Lindsey*, (Lincoln, City of Lincoln Archaeology Unit).

Vince, A. (1998), Anglian pottery petrological assessment, in Powlesland, P. (ed.), West Heslerton Assessment, *Internet Archaeology* 5, <http://www.intarch.ac.uk/journal/issue5/westhes/4-10.htm>.

Vince, A. (2000), review of M. Anderton (ed.), 'Anglo-Saxon Trading Centres: beyond the emporia', *British Archaeology* 51, <http://www.britarch.ac.uk/ba/ba51/ba51book.html>

Vyner, B. E. (1999), Fieldwalking Cottam, *Archaeological Journal* 156, 15-16.

Wade, K. (1980a), *Origins of Ipswich*, (Bury St. Edmunds, Suffolk County Council).

Wade, K. (1980b), A settlement site at Bonhunt Farm, Wicken Bonhunt, Essex, in O. G. Buckley (ed.), *Archaeology in Essex to AD1500*, CBA research report 34, (York, CBA), 96-102.

Wade, K. (1988), Ipswich, in R. Hodges and B. Hobley (eds.), *The Rebirth of Towns in the West AD700-1050*, CBA Research Report no. 68, (London, CBA), 93-100.

Wade-Martins, P. (1980), Excavations at North Elmham Park, 1967-72, *East Anglian Archaeology* 9.

Wailes, B. (ed.) (1996), *Craft Specialisation and Social Evolution: in memory of V. Gordon Childe*, (Philadelphia, The University Museum of Archaeology and Anthropology University of Pennsylvania).

Walton Rogers, P. (1999), The identification of dye on middle Saxon pottery from Christ Church College, *Canterbury's Archaeology 1996/97*, 36.

Ward, A. (1994), Christ Church College, *Canterbury's Archaeology 1992/93*, 12.

Ward, A. (1997a), North Gate, Rochester, *Canterbury's Archaeology 1995-1996*, 49.

Ward, A. (1997b), Rochester Cathedral crypt, *Canterbury's Archaeology 1995-1996*, 47-48.

Ward, A. and Anderson, T. (1990), Excavations at Rochester Cathedral, *Archaeologia Cantiana* 108, 91-151.

Ward, M. A. (1996), *Plot 1, Dykeside Farm, West Hythe, Archaeological Excavation*, unpublished report, Canterbury Archaeological Trust.

Watkins, G. (1991), *The pottery.*, in P. Armstrong, D. Tomlinson, D. H. Evans, *Excavations at Lurk Lane, Beverley 1979-1982*, Sheffield Excavation Reports 1. (Sheffield, Humber Archaeology Unit), 61-103.

Watts, S. R. (2000), Grinding stones, in P. A. Stamper and R. A. Croft (eds.), *Wharram, a Study of Settlement on the Yorkshire Wolds, VIII: the South Manor area*, York University Archaeological Publication 10, (York, York University), 111-115.

Webster, L. E. and Cherry, J. (1978) Medieval Britain in 1977, *Medieval Archaeology* 22, 142-188.

Weir, D. (forthcoming), Charred grains and seeds, in M. Gardiner, R. Cross, N. Macpherson-Grant, I. Riddler, Continental trade and non-urban ports in mid-Anglo-Saxon England: excavations at *Sandtun*, West Hythe, Kent, *Archaeological Journal* 158.

West, B. (1989), The animal bones, in R. L. Whytehead and R. Cowie (eds.), Excavations at the Peabody Site, Chandos Place, and the National Gallery, *Transactions of the London and Middlesex Archaeological Society* 40, 150-167.

West, S. E. (1963), Excavations at Cox Lane (1958) and at the Town Defences, Shire Hall Yard, Ipswich (1959), *Proceedings of the Suffolk Institute of Archaeology and History* 29, 233-303.

White, A. (1984), Finds from the Anglian monastery at Whitby, *Yorkshire Archaeological Journal* 56, 33-40.

Whitelock, D. (1952), *The Beginnings of English Society*, (Harmondsworth, Penguin).

Whitelock, D. (1955), *English Historical Documents, volume 1: c.500-1042*, (London, Methuen & Co. Ltd.).

Whytehead, R. L. and Cowie, R. (eds.) (1989), Excavations at the Peabody Site, Chandos Place, and the National Gallery, *Transactions of the London and Middlesex Archaeological Society* 40, 35-176.

Wickham, C. (1983), Review of: R. Hodges 'Dark Age Economics', *History* 68, 138-139.

Wilkinson, T. J. (1994), The structure and dynamics of dry-farming states in Upper Mesopotamia, *Current Anthropology* 35(5), 483-505.

Williams, D. (1993) The fabrics, in J. Timby (ed.), Sancton I Anglo-Saxon cemetery excavations carried out between 1976 and 1980, *Archaeological Journal* 150: 266-268.

Williams, D. and Vince, A. (1997), The characterization and interpretation of early to middle Saxon granitic tempered pottery in England, *Medieval Archaeology* 41, 214-220.

Williams, J. H. (1975), Excavations at Gravel Walk, Canterbury, *Archaeologia Cantiana* 91, 119-143.

Wilson, D. M. (1971), *The Anglo-Saxons*, (London, Penguin).

Wilson, D. M. (ed.) (1976), *The Archaeology of Anglo-Saxon England*, (London: Methuen & Co. Ltd).

Wilson, M. (1983), The pottery, in S. S. Frere and S. Stow (eds.), *Excavations in the St. George's Street and Burgate Street Areas*, The Archaeology of Canterbury VII, (Maidstone, Kent Archaeological Society/ Canterbury Archaeological Trust), 192-300.

Wood, I. N. (1994), *The Merovingian Kingdoms 450-751*, (London, Longman).

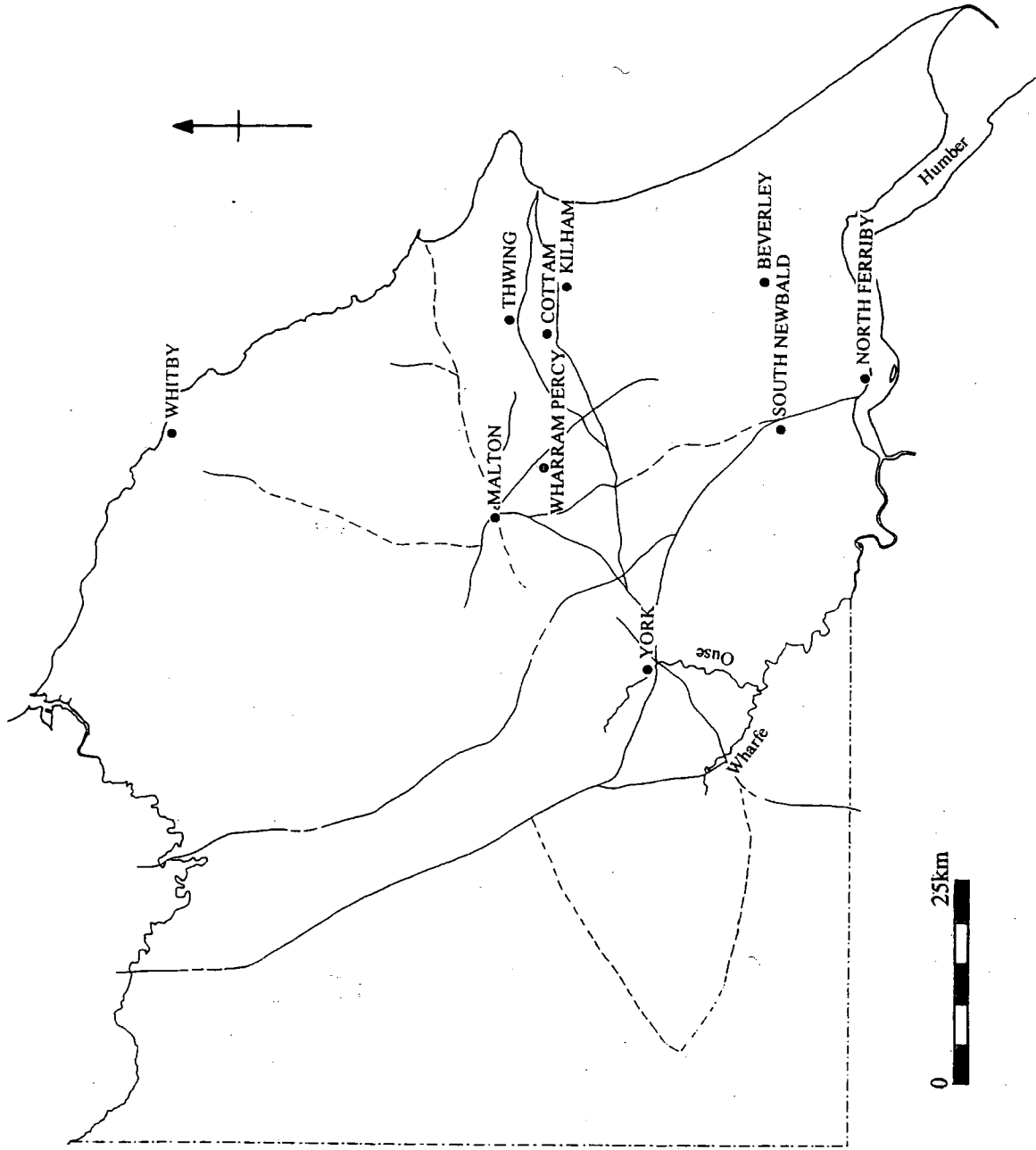
Yorke, B. (1990), *Kings and Kingdoms of Early Anglo-Saxon England*, (London, Routledge).

Yorke, B. (1995), *Wessex in the Early Middle Ages*, (London, Leicester University Press).

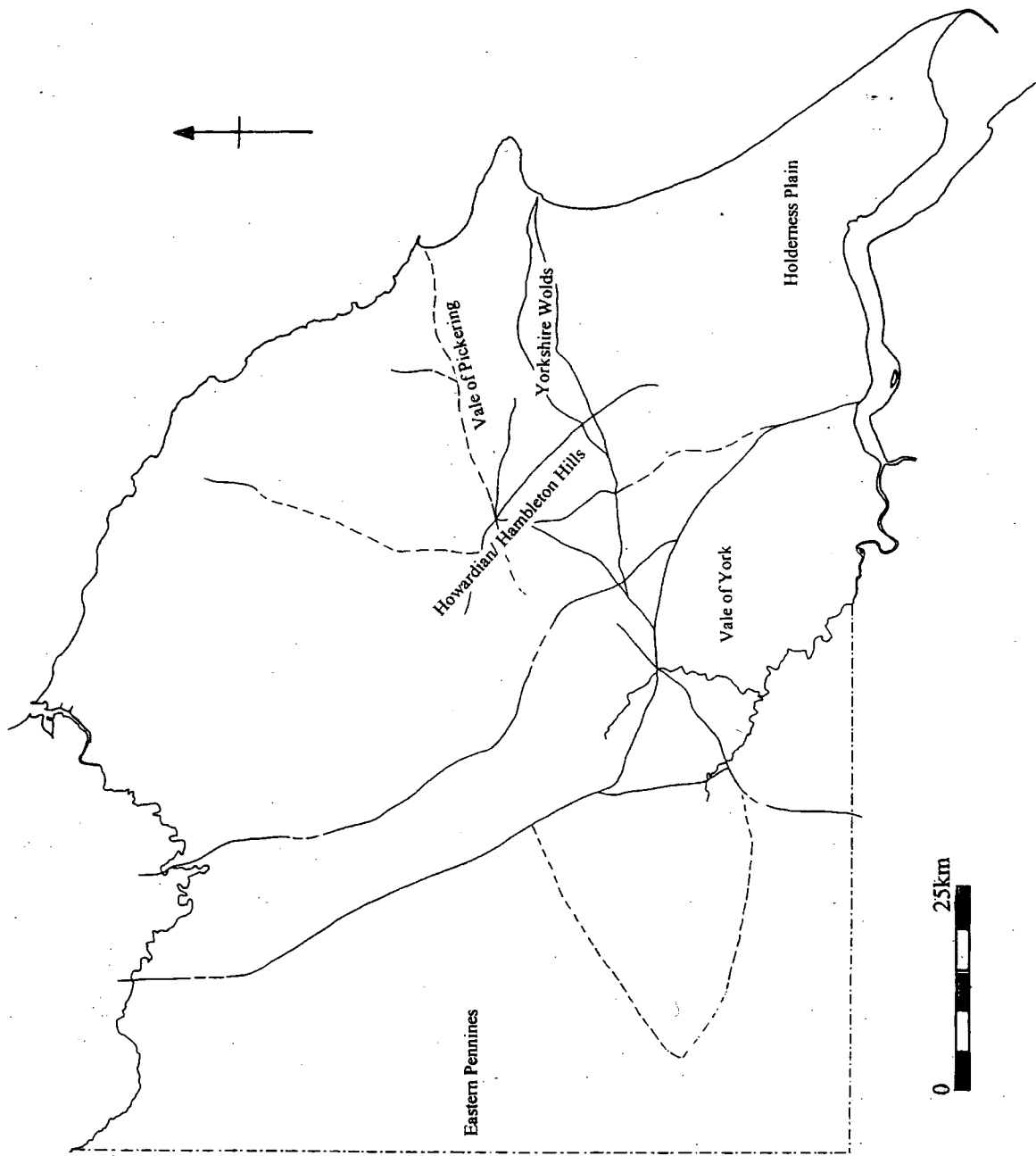
Youngs, S. M., Clark, J., and Barry, T. B. (1983), Medieval Britain in 1982 *Medieval Archaeology* 27, 161-229).



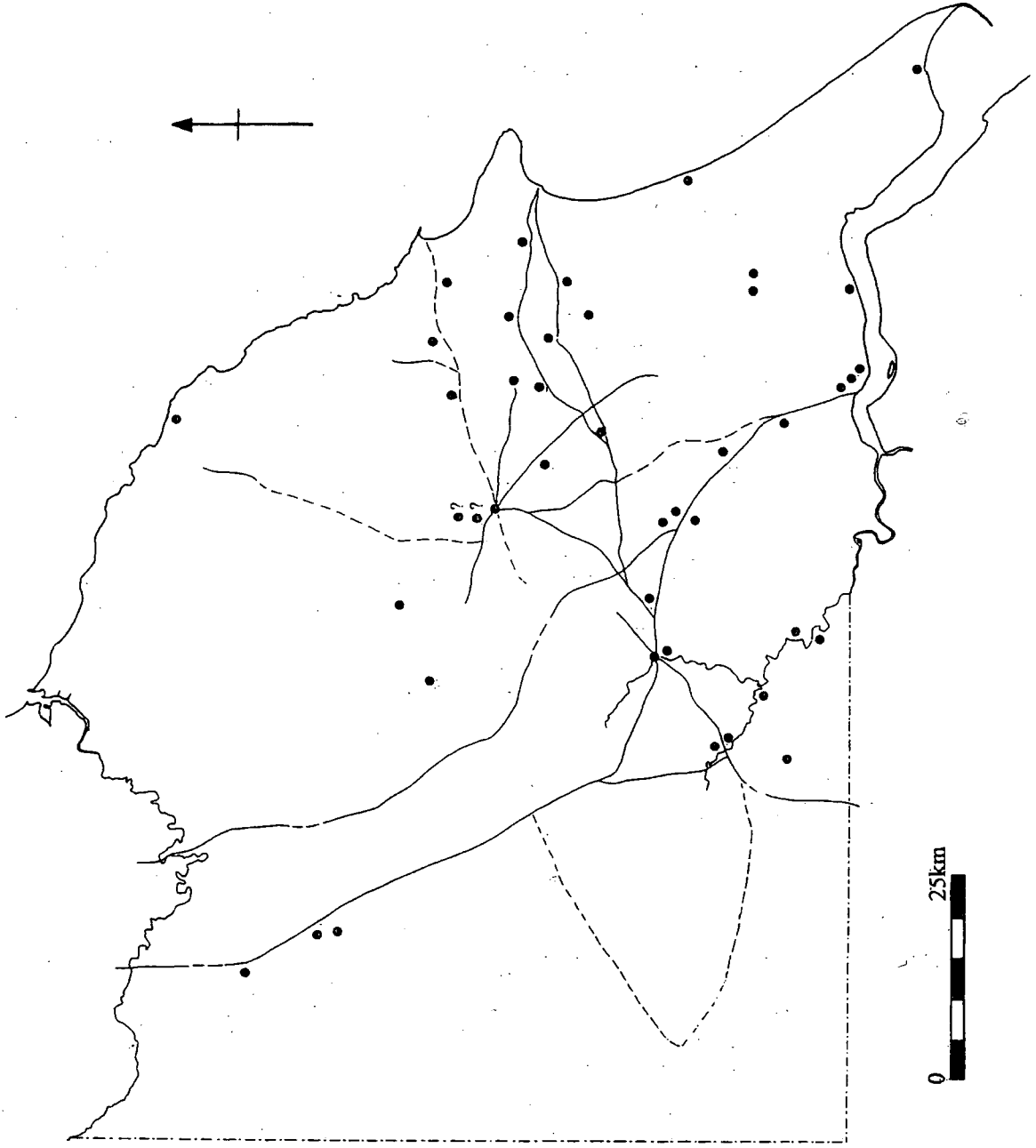
3.1 Map of Britain showing locations of Area 1 and Area 2



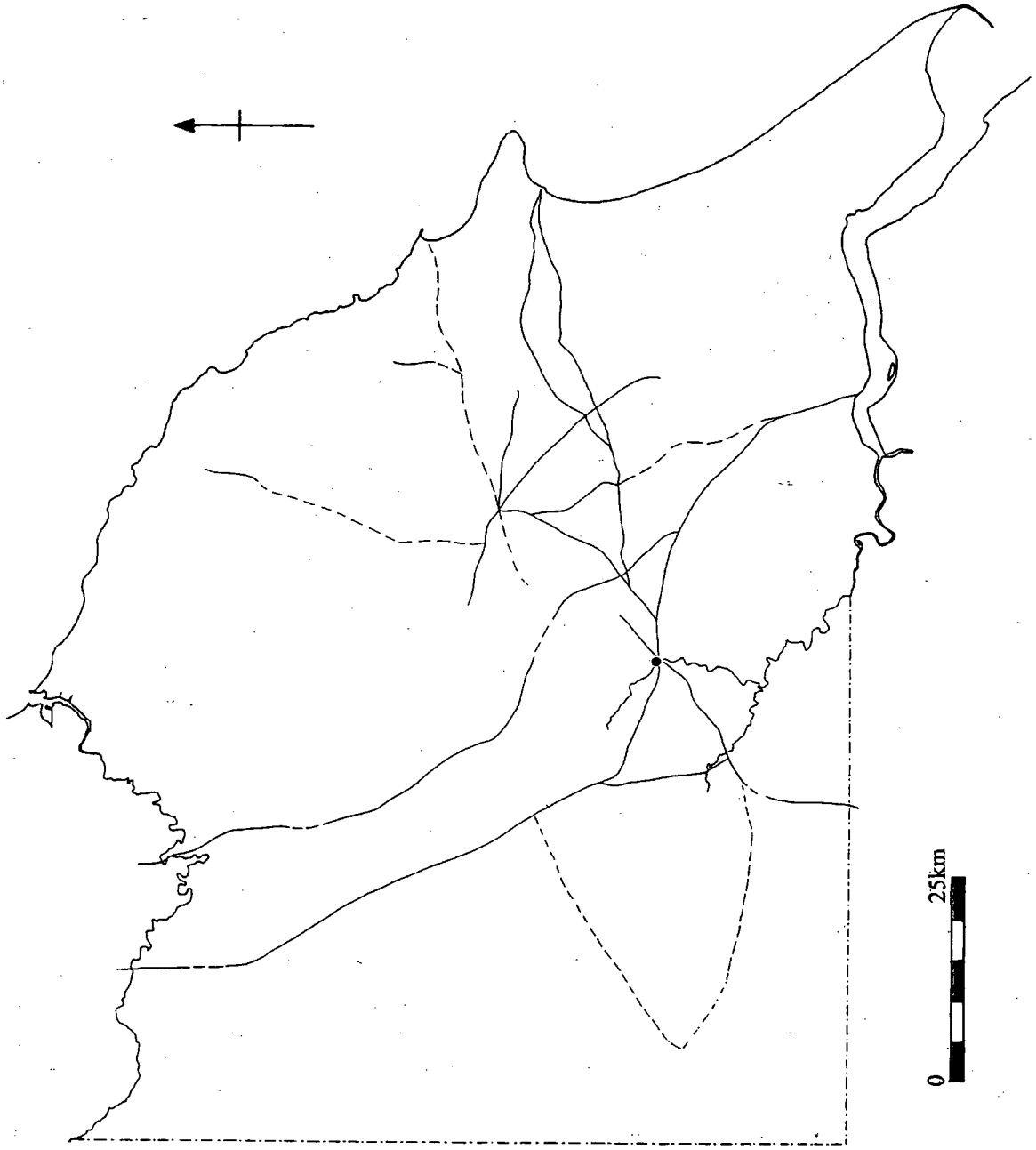
4.1 Area 1 - main sites discussed in text



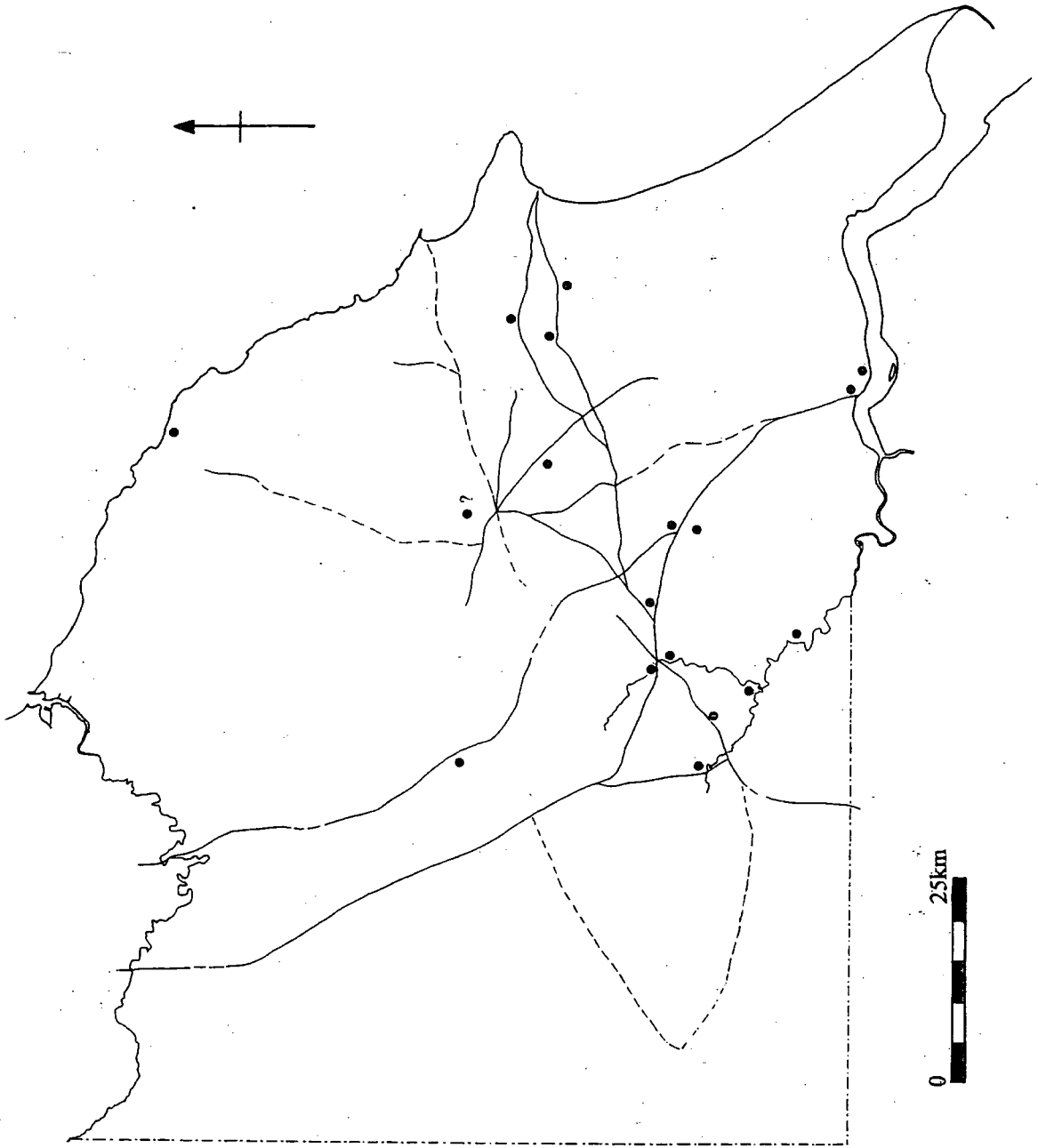
4.2 Area 1 - geographical sub-regions



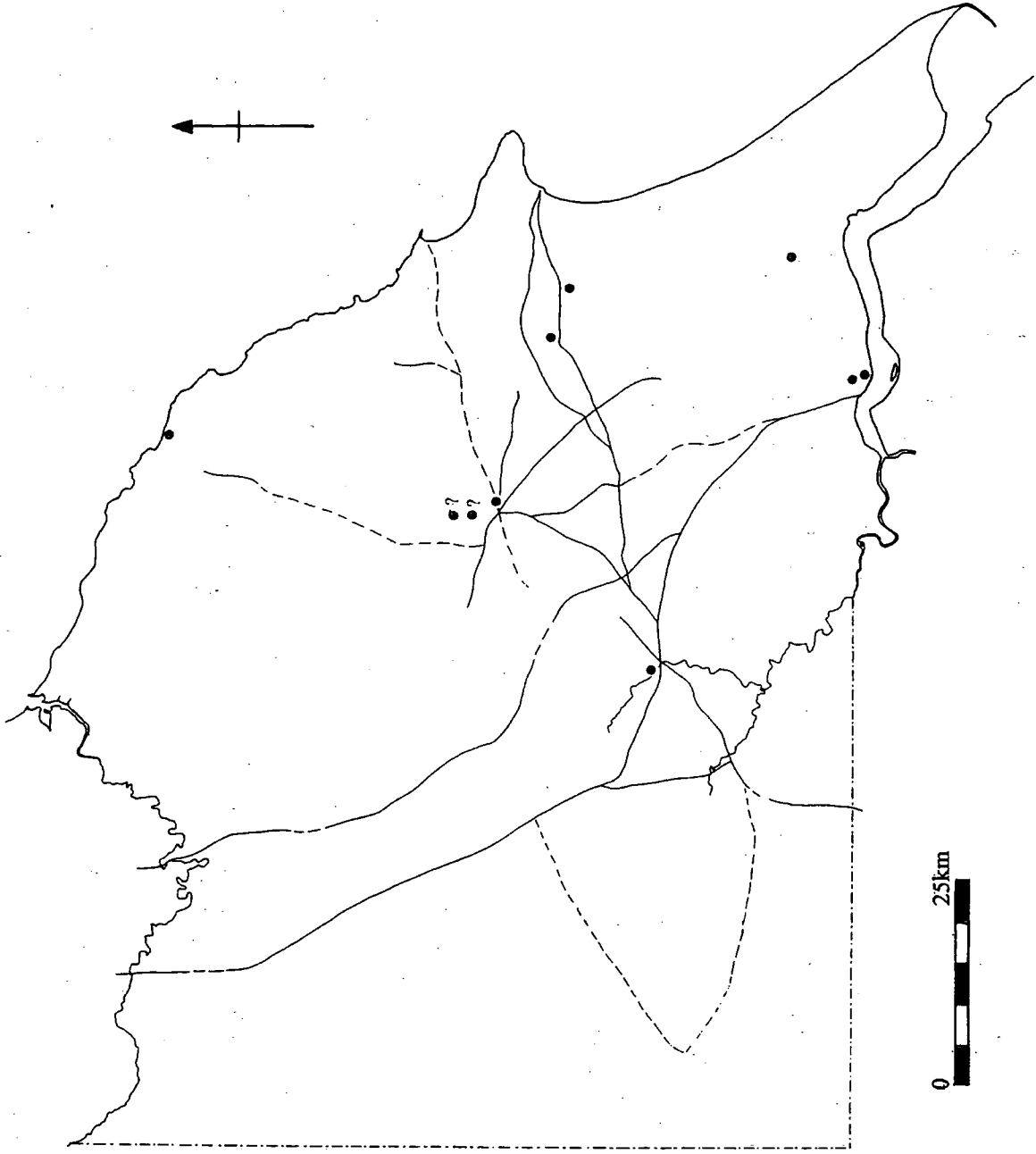
4.3 Area 1 - all finds of coinage



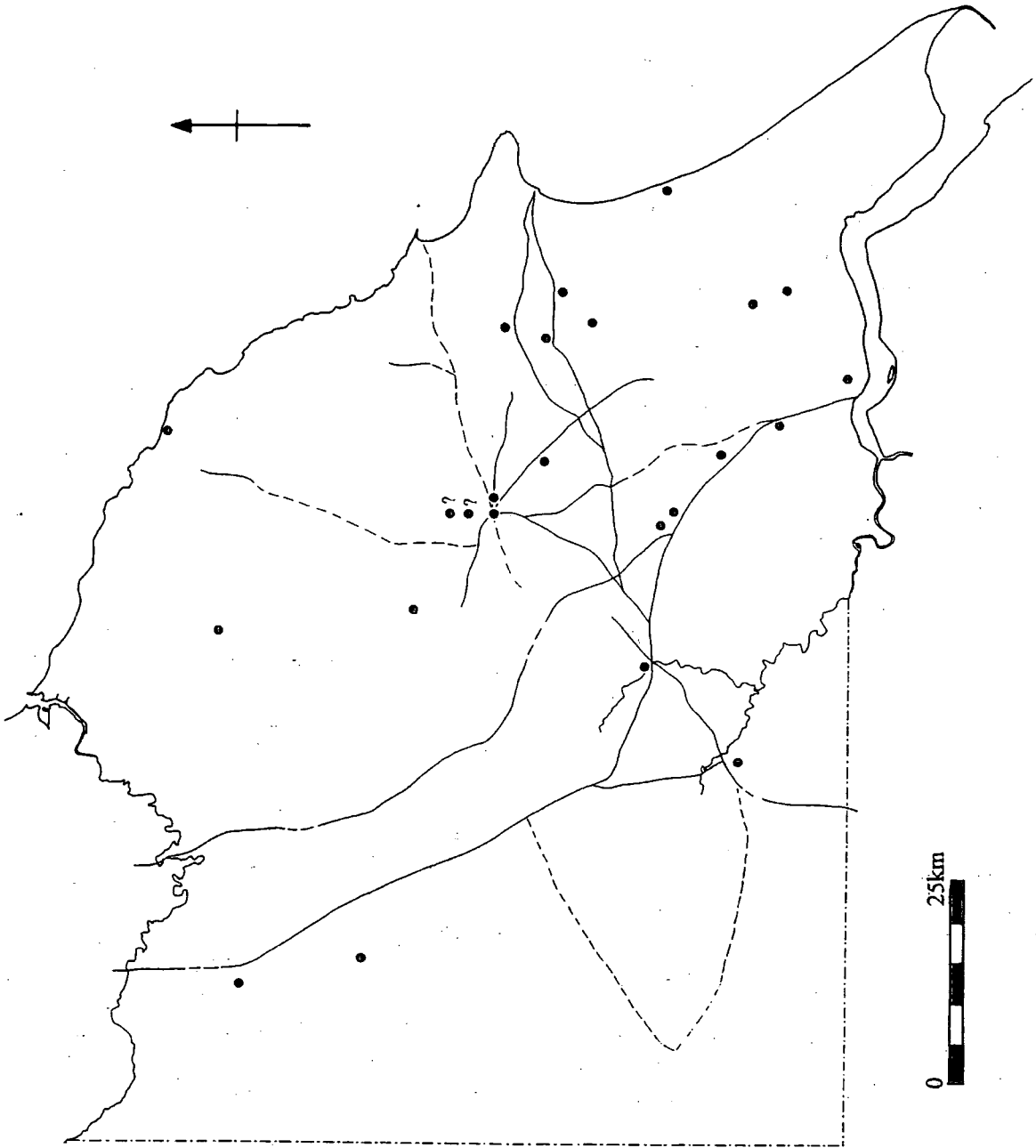
4.4 Area 1 - finds of gold coinage



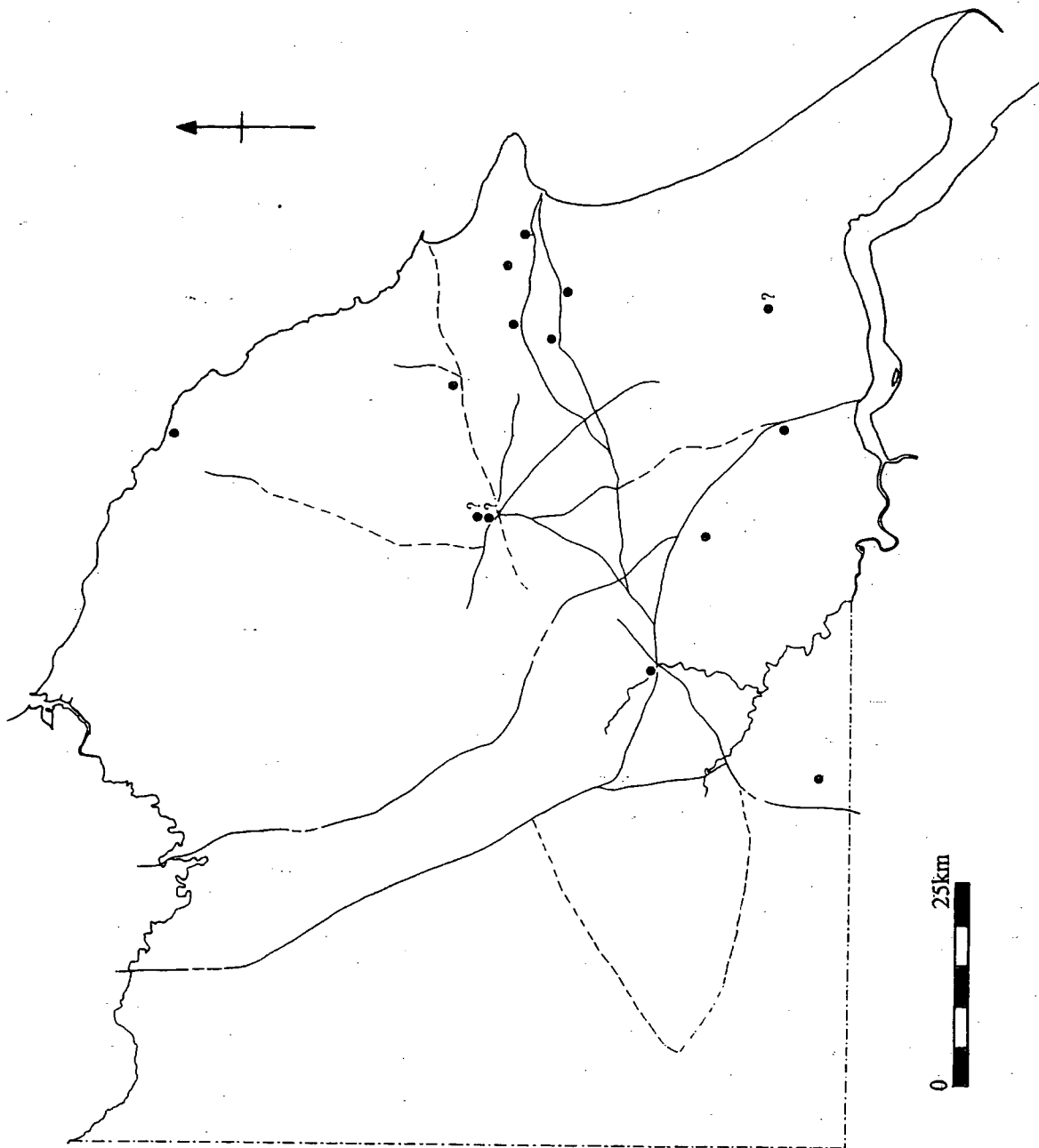
4.5 Area 1 - finds of Primary and early Intermediate phase scattas, 680-710



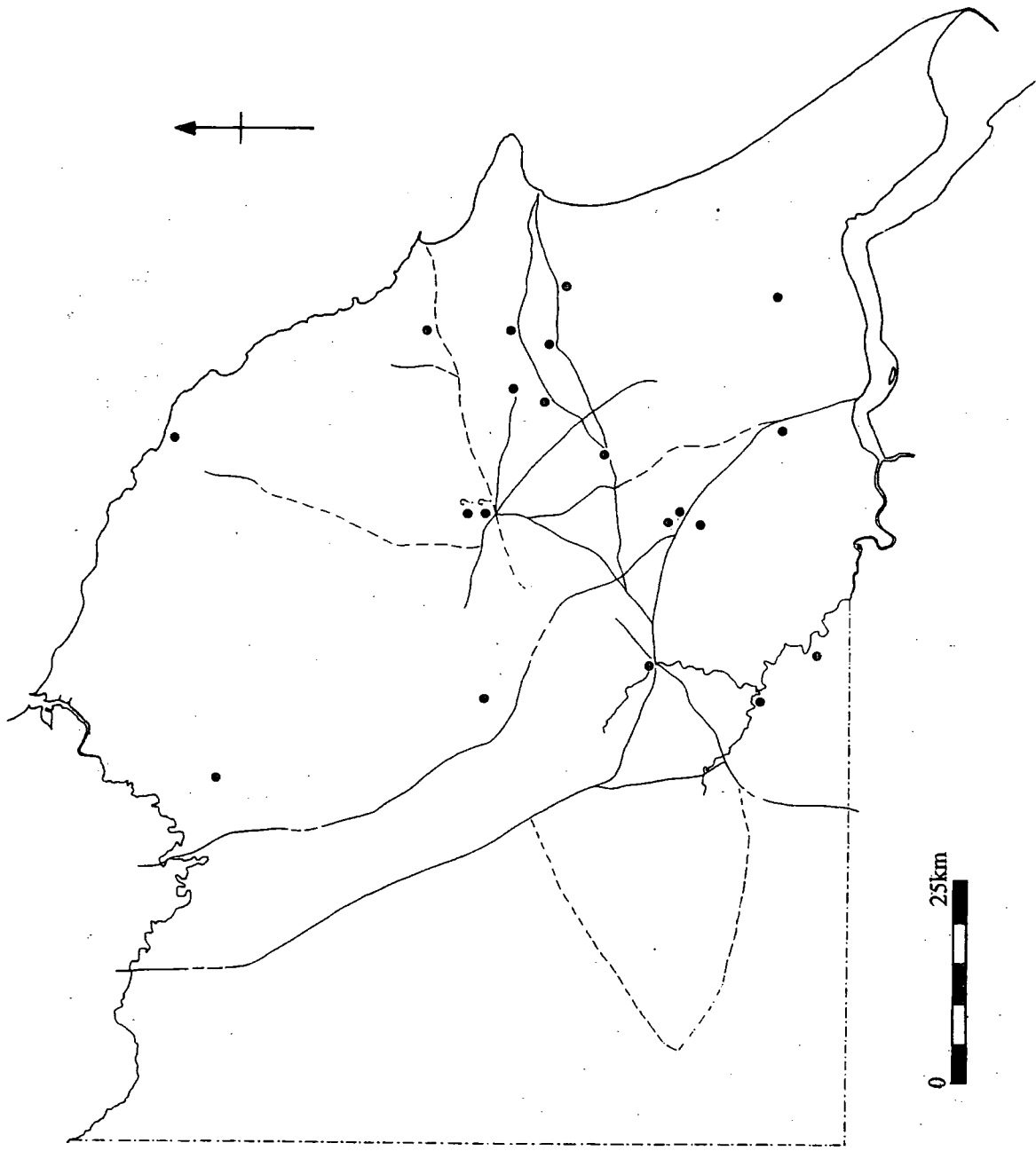
4.6 Area 1 - finds of later Intermediate and Secondary phase sceattas, 710-740



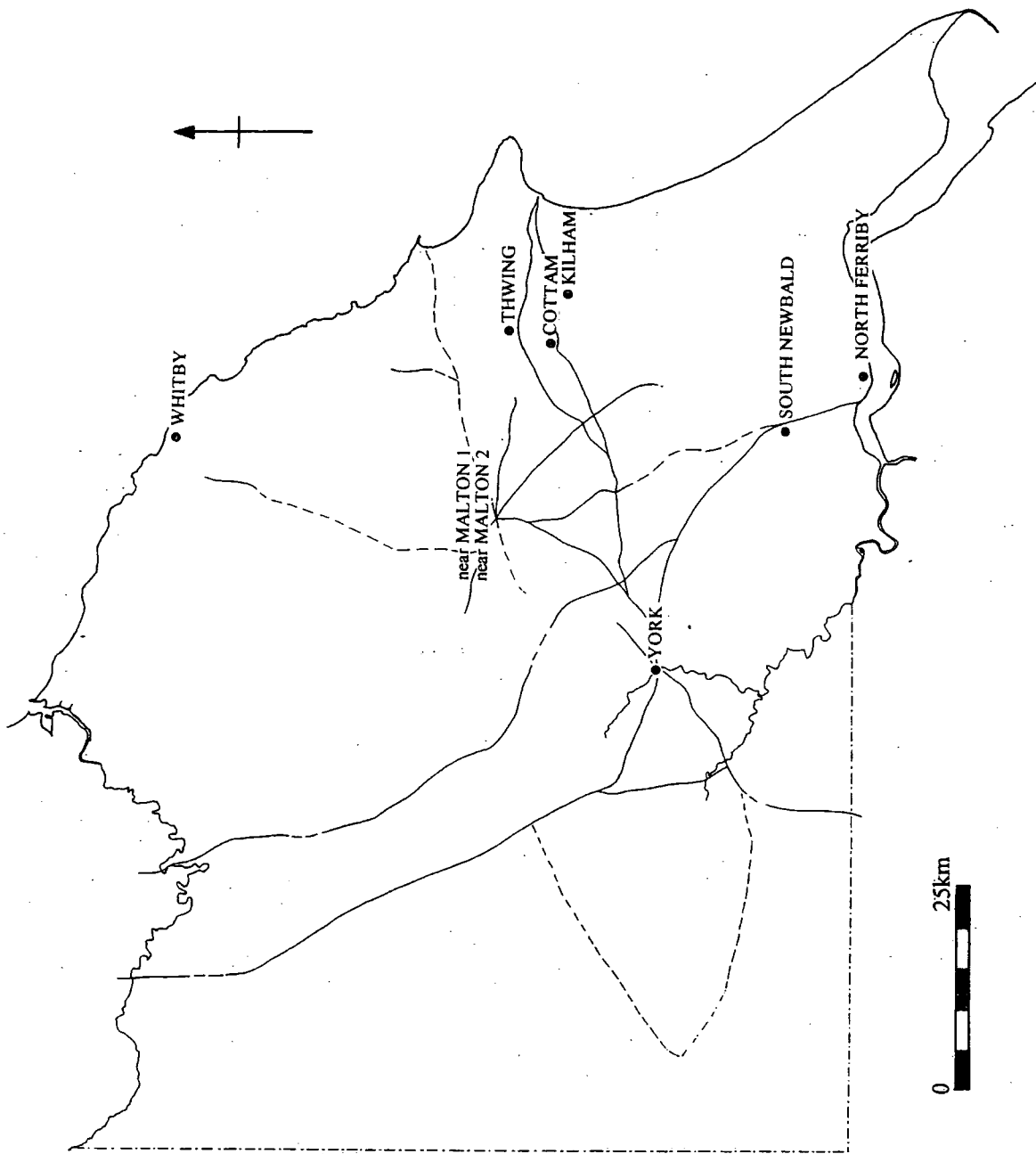
4.7 Area 1 - finds of later eighth century coinage, 740-796



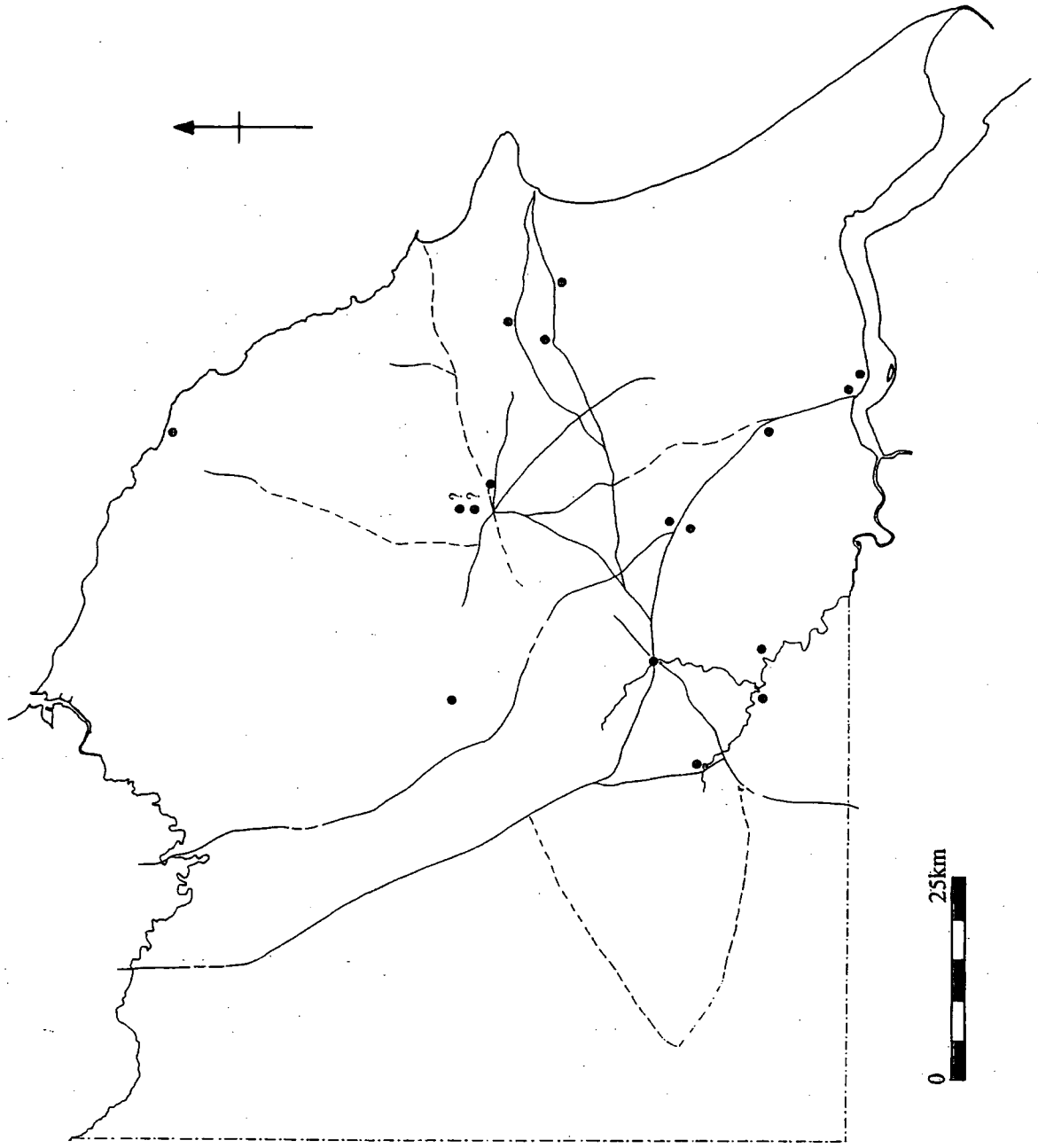
4.8 Area 1 - finds of early ninth century coinage, 796-840



4.9 Area 1 - finds of mid-late ninth century coinage, 840-900



4.10 Area 1 - distribution of numismatically rich sites



4.11 Area 1 - distribution of foreign coins

Fig. 4.12 Composition of coinage assemblages by date groups

Fig. 4.12a Area 1

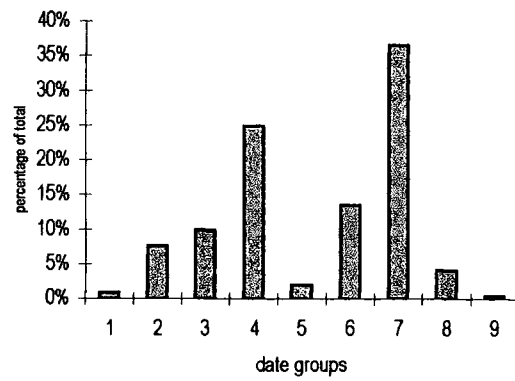


Fig. 4.12b Yorkshire, excluding South Newbald

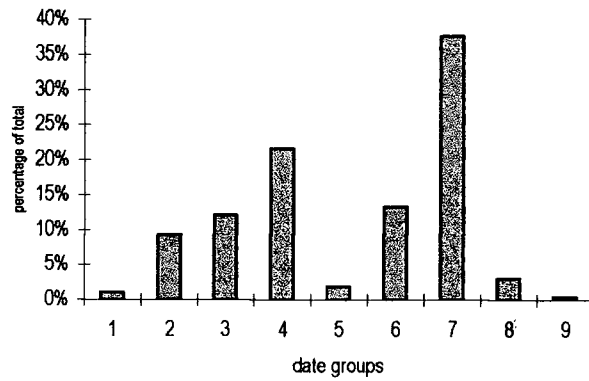


Fig. 4.12c Area 1, excluding Whitby

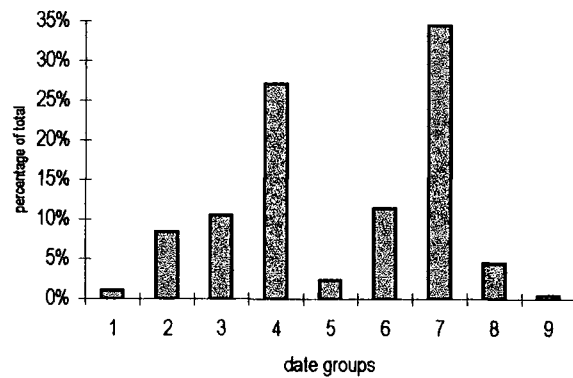


Fig. 4.12d Area 1, excluding S. Newbald, and Whitby

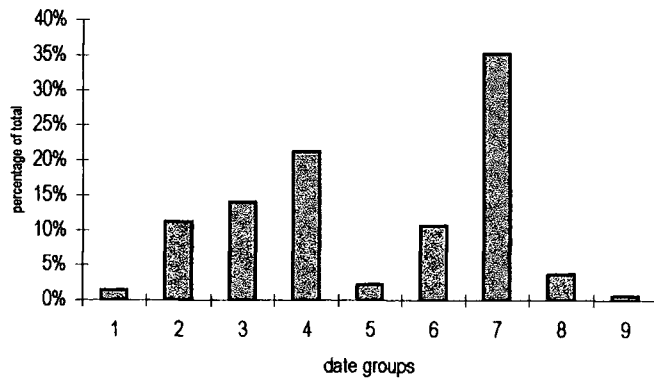


Fig. 4.12e Cottam

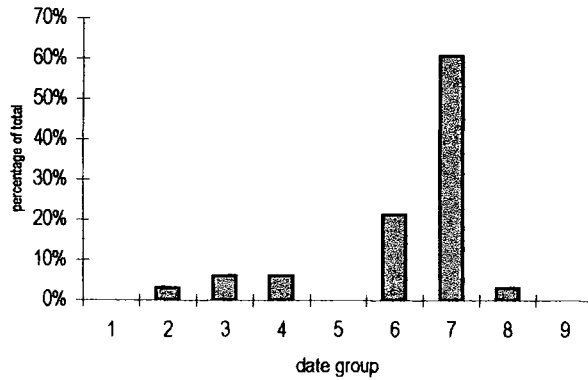


Fig. 4.12f Fishergate

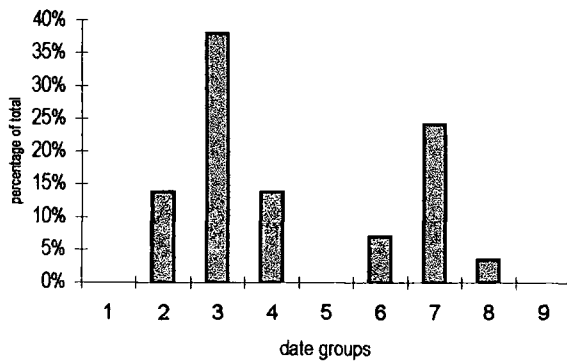


Fig. 4.12g Kilham

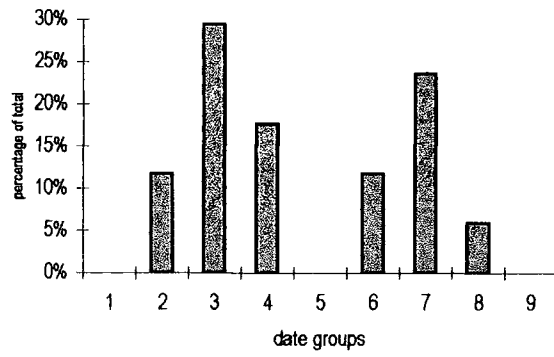


Fig. 4.12h near Malton 1

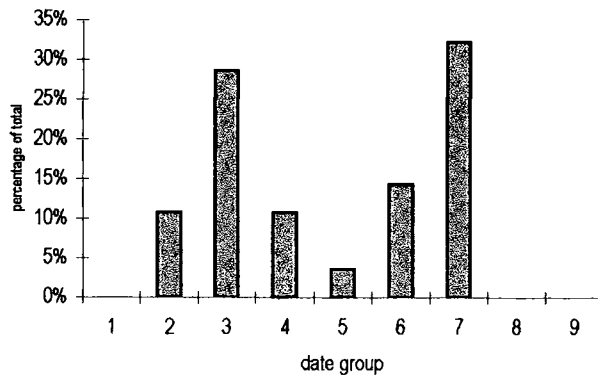


Fig. 4.12i near Malton 2

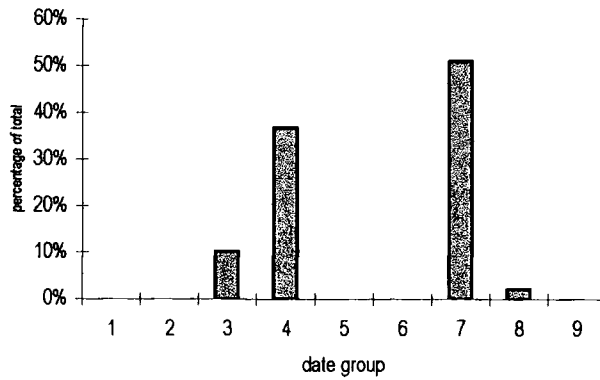


Fig. 4.12j North Ferriby

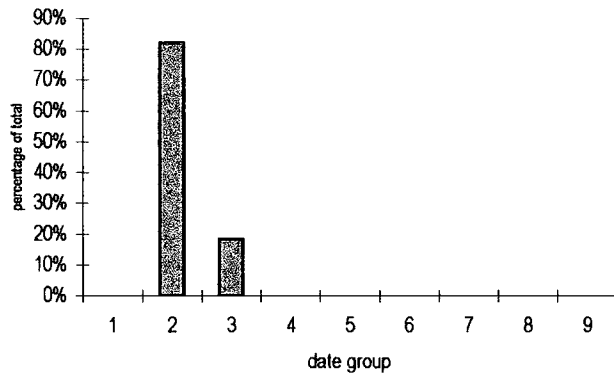


Fig. 4.12k South Newbald

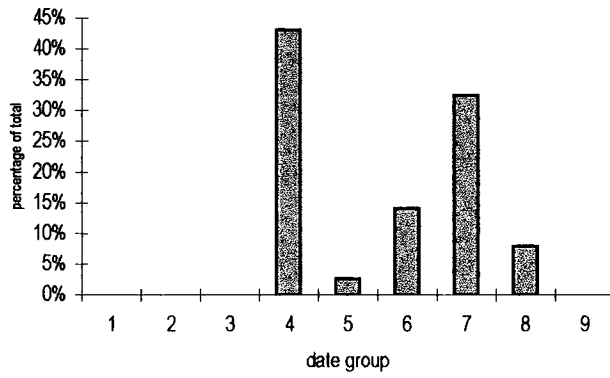


Fig. 4.12l Thwing

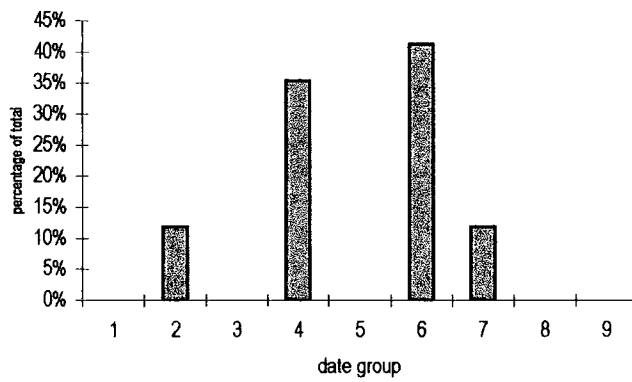


Fig. 4.12m Whitby

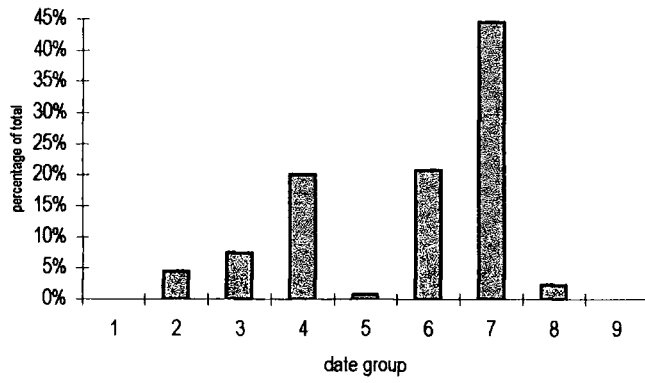
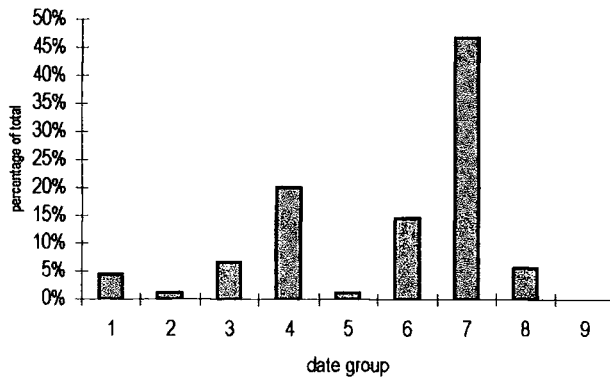
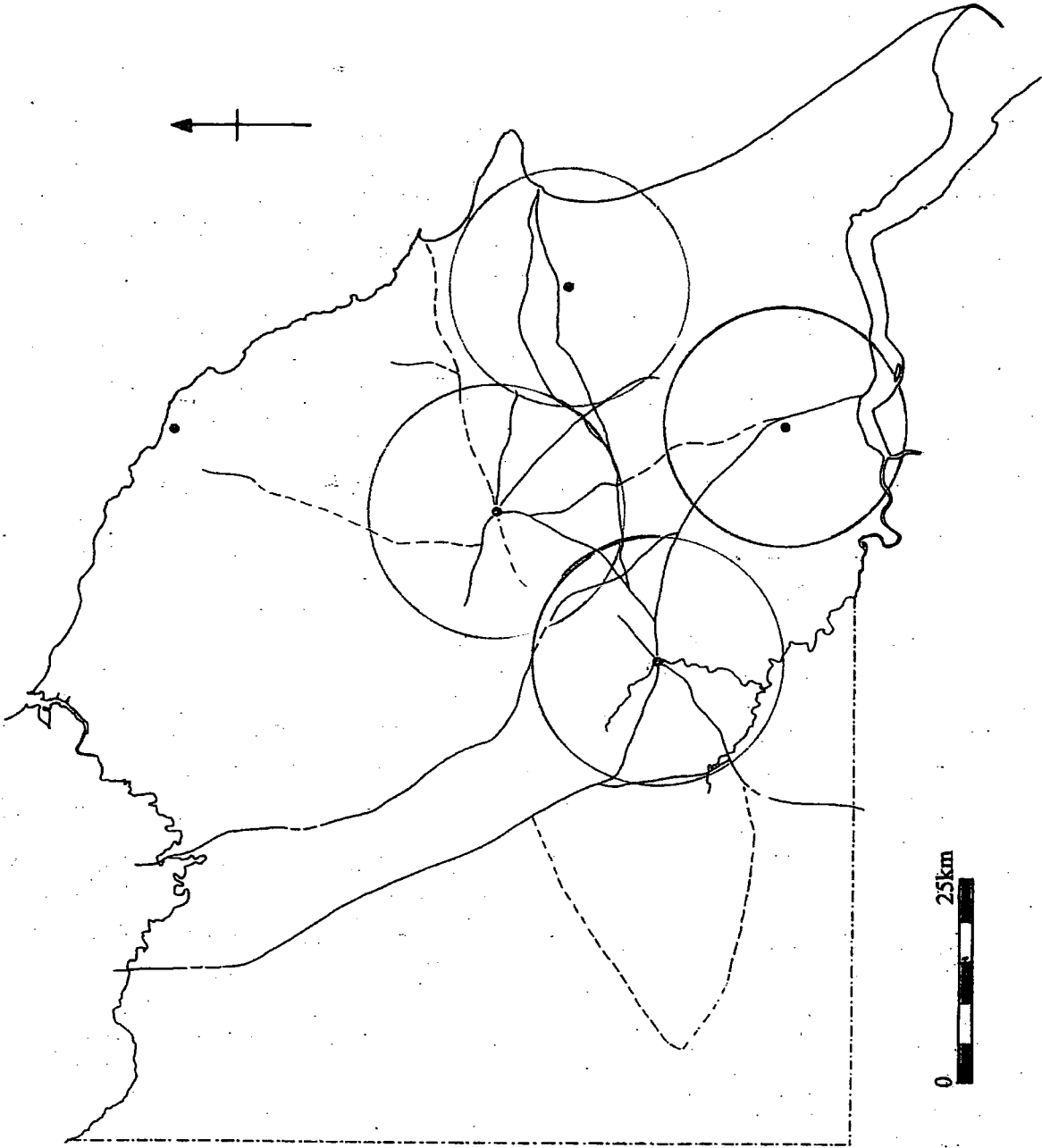
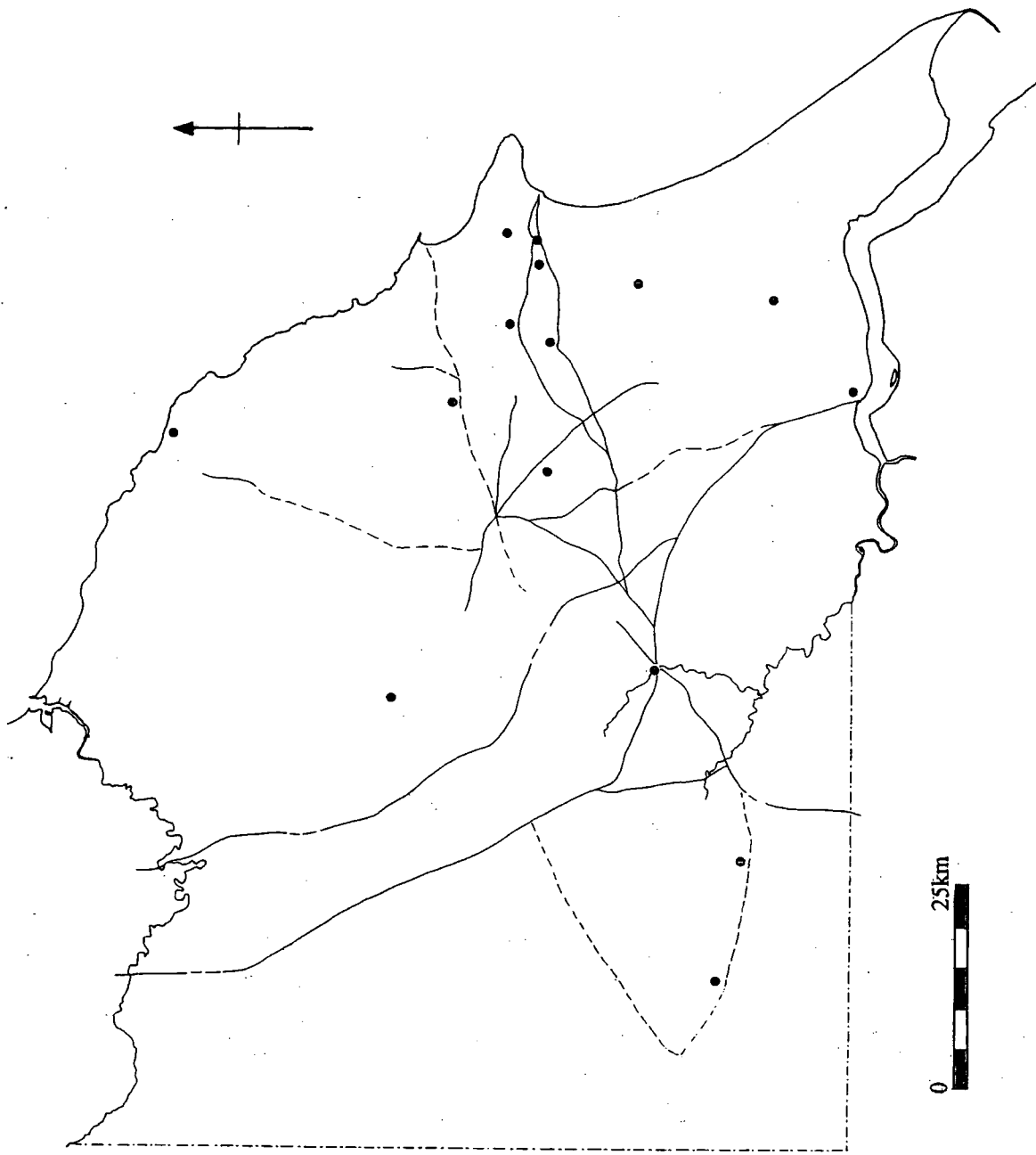


Fig. 4.12n York

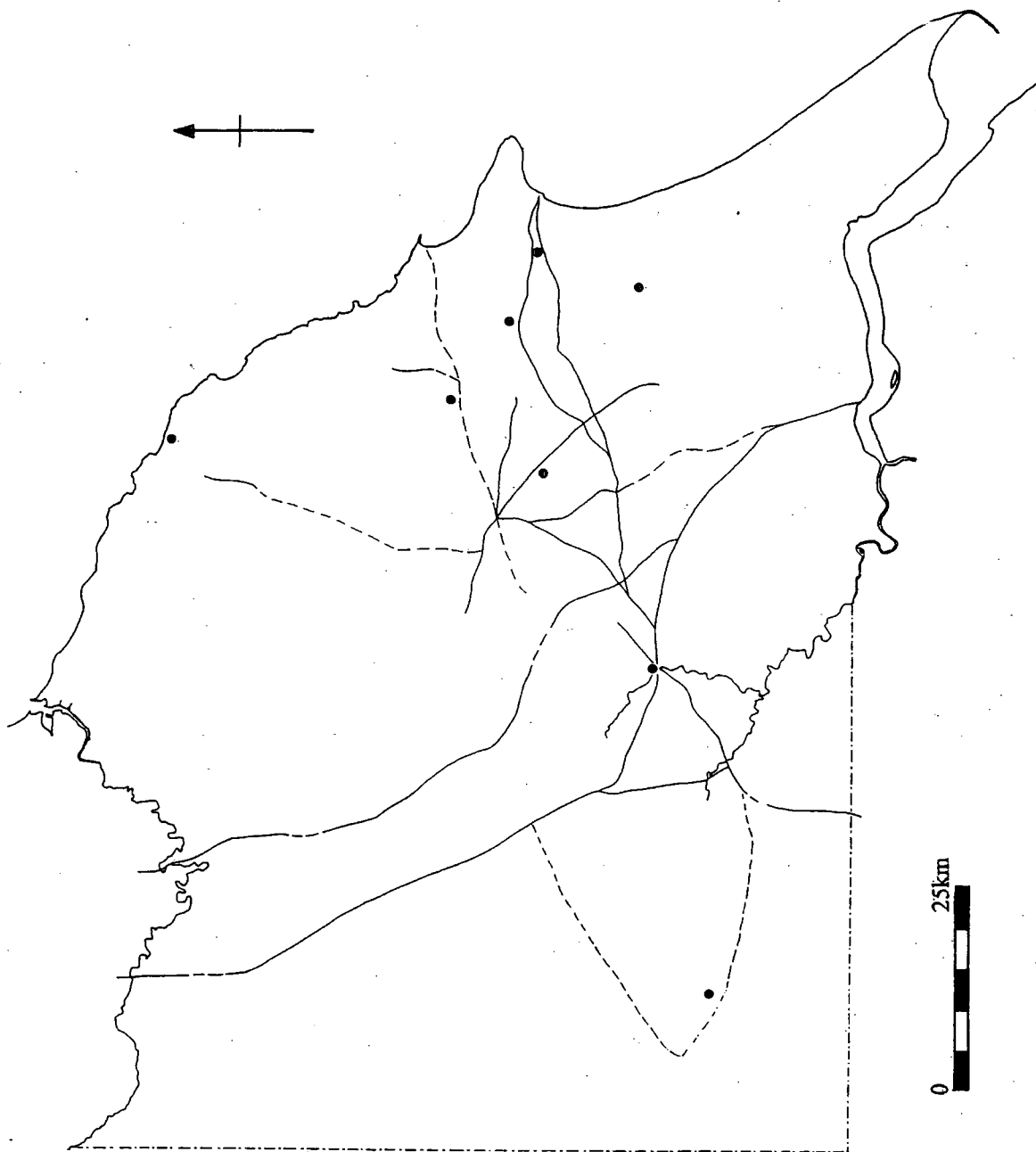




4.13 Area 1 - locations of numismatically rich sites with close correlation to calculated regional mean



4.14 Area 1 - distribution of all finds of pottery



4.15 Area 1 - quartz-tempered wares

Fig. 4.16 graphs of pottery assemblages in Area 1 by fabric type

Key:

1. Quartz-tempered wares
2. Calcite-tempered wares
3. Shell-tempered wares
4. Organic-tempered wares
5. Continental wares
6. Charnwood ware
7. Quartz/ calcite tempered wares
8. Ipswich ware
9. Later 9th century wares
10. unidentified other wares

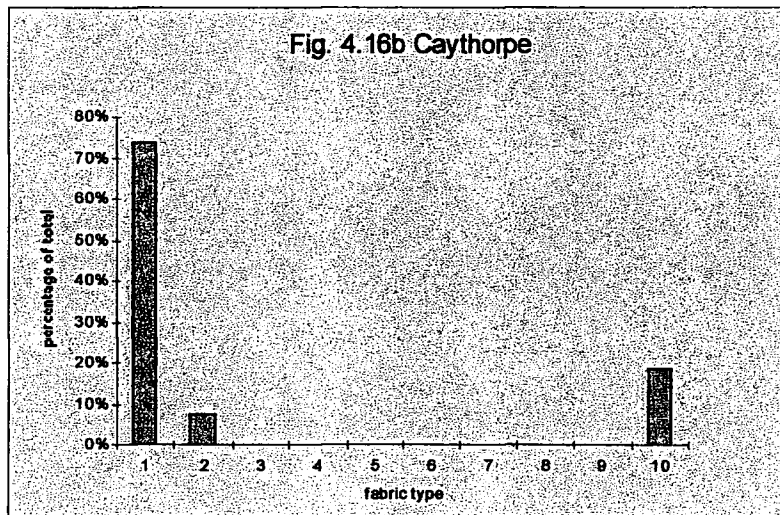
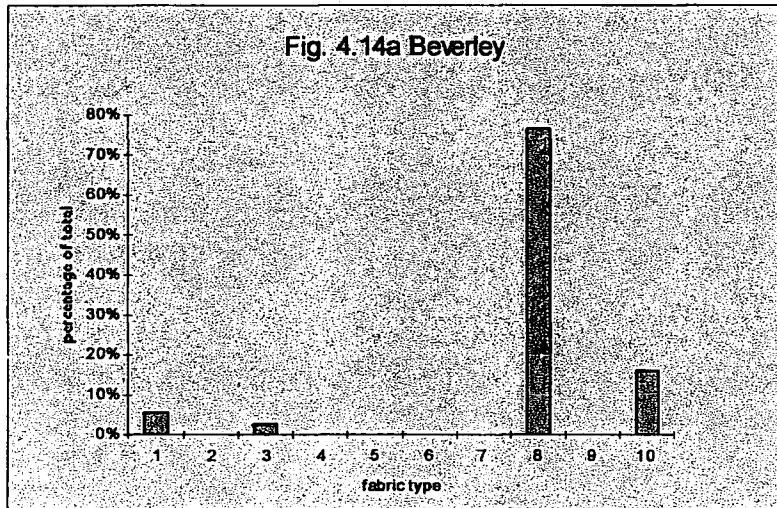


Fig. 4.16c Coppergate, excl. York Ware

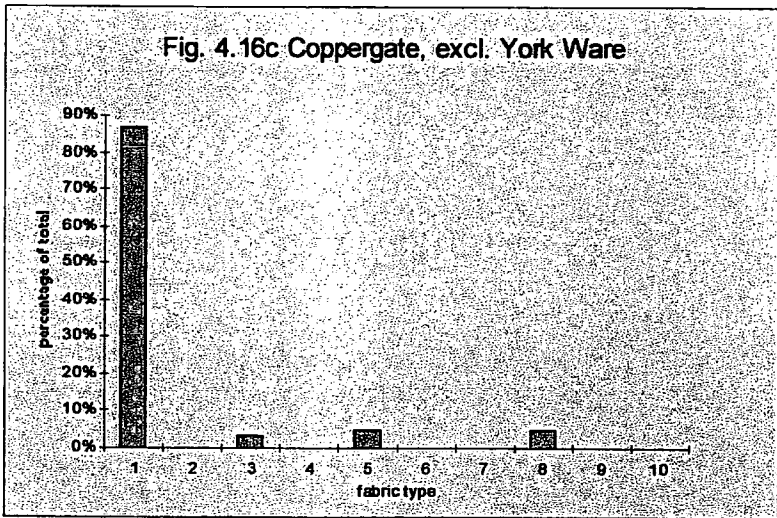


Fig. 4.16d Coppergate, incl. York Ware

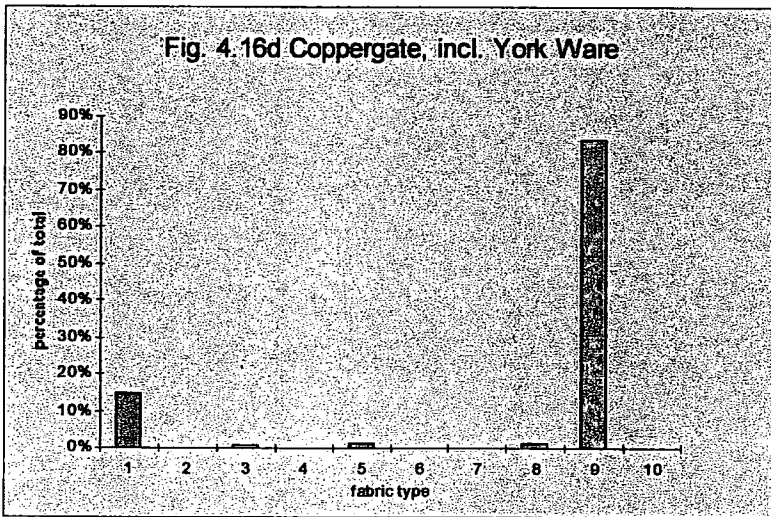


Fig. 4.16e Cottam

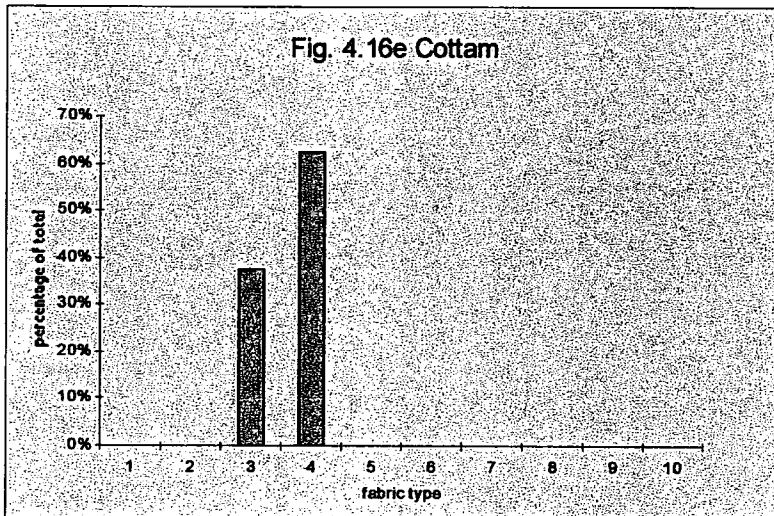


Fig. 4.16f Fishergate

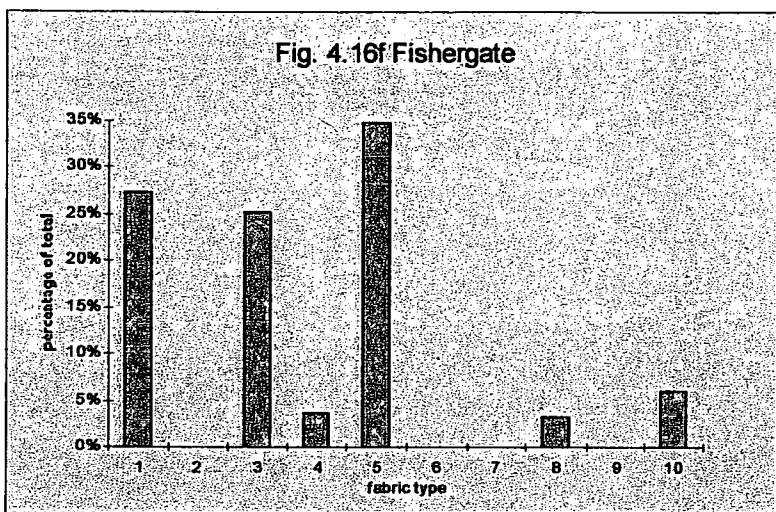


Fig. 4.16g Otley

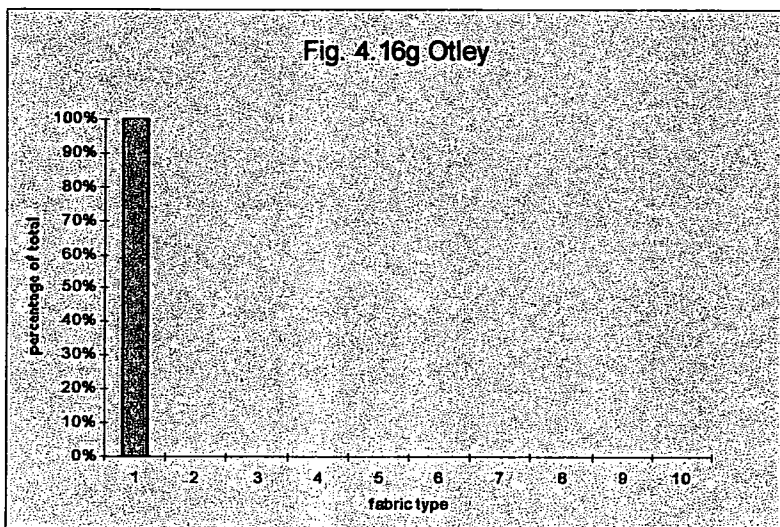


Fig. 4.16h Thwing

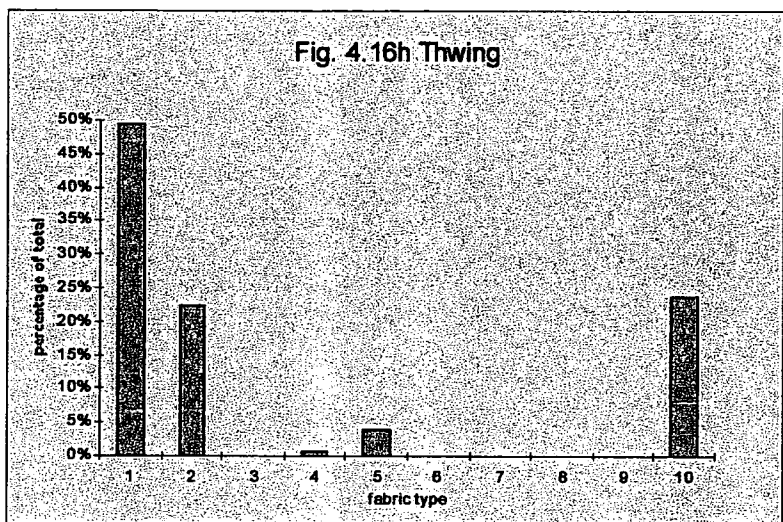


Fig. 4.16i Wharram Percy, site 39

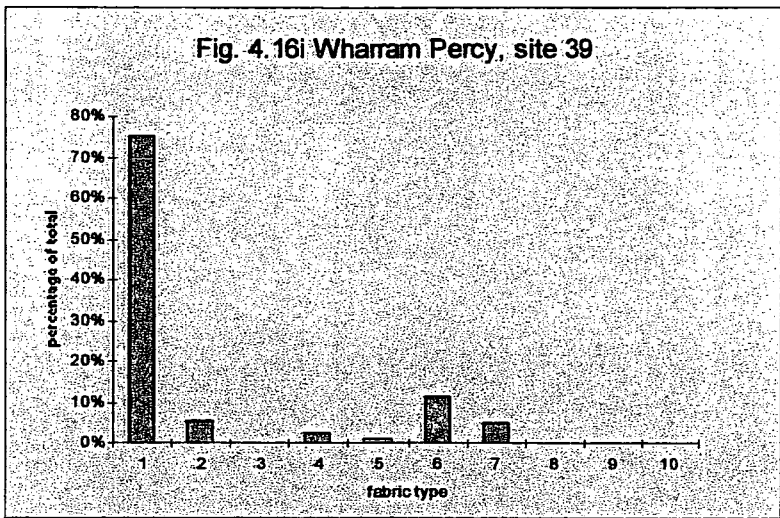


Fig. 4.16j Wharram Percy, site 94/95

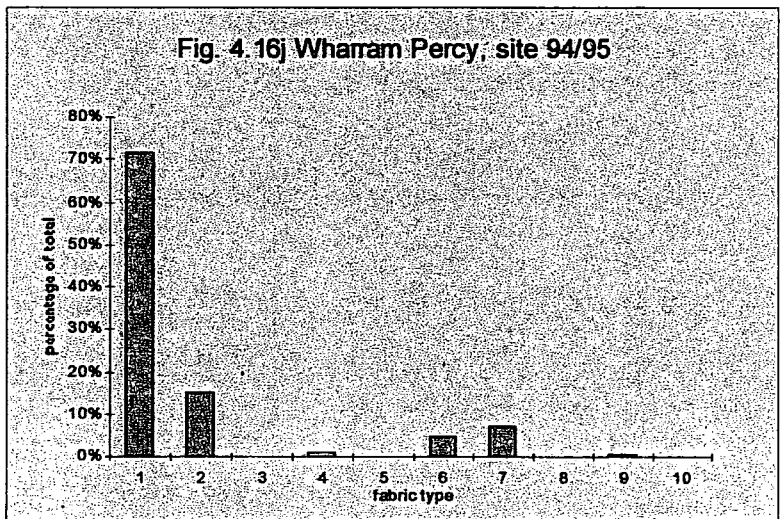


Fig. 4.16k Wharram Percy, south manor

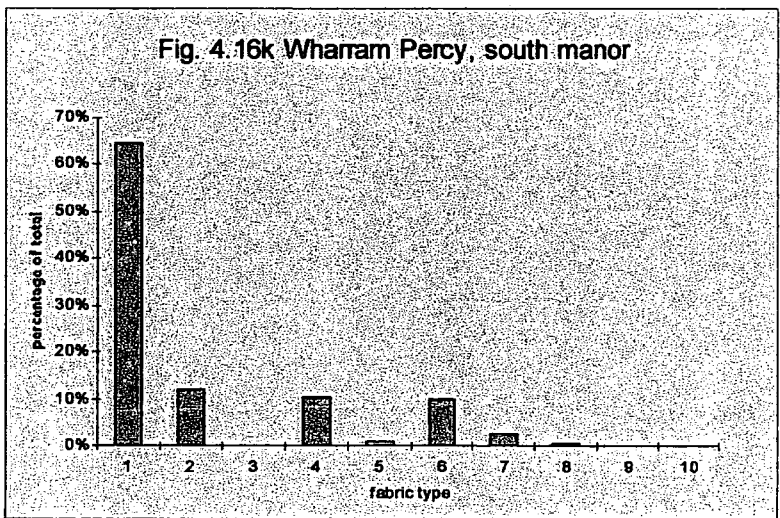
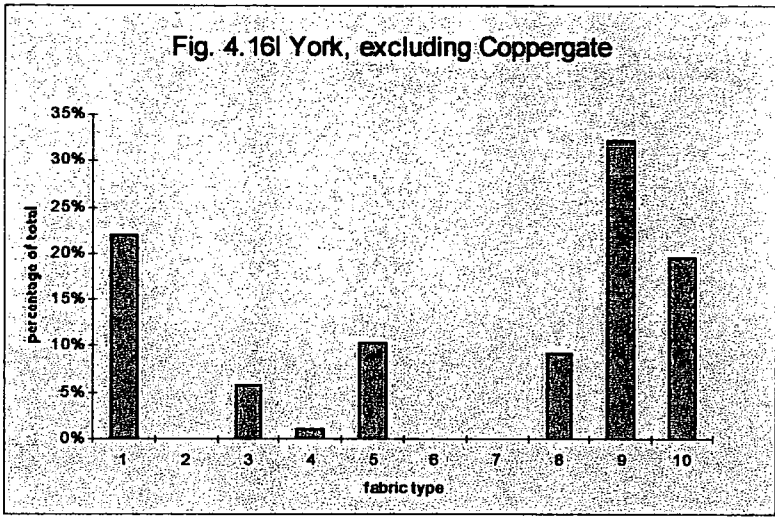
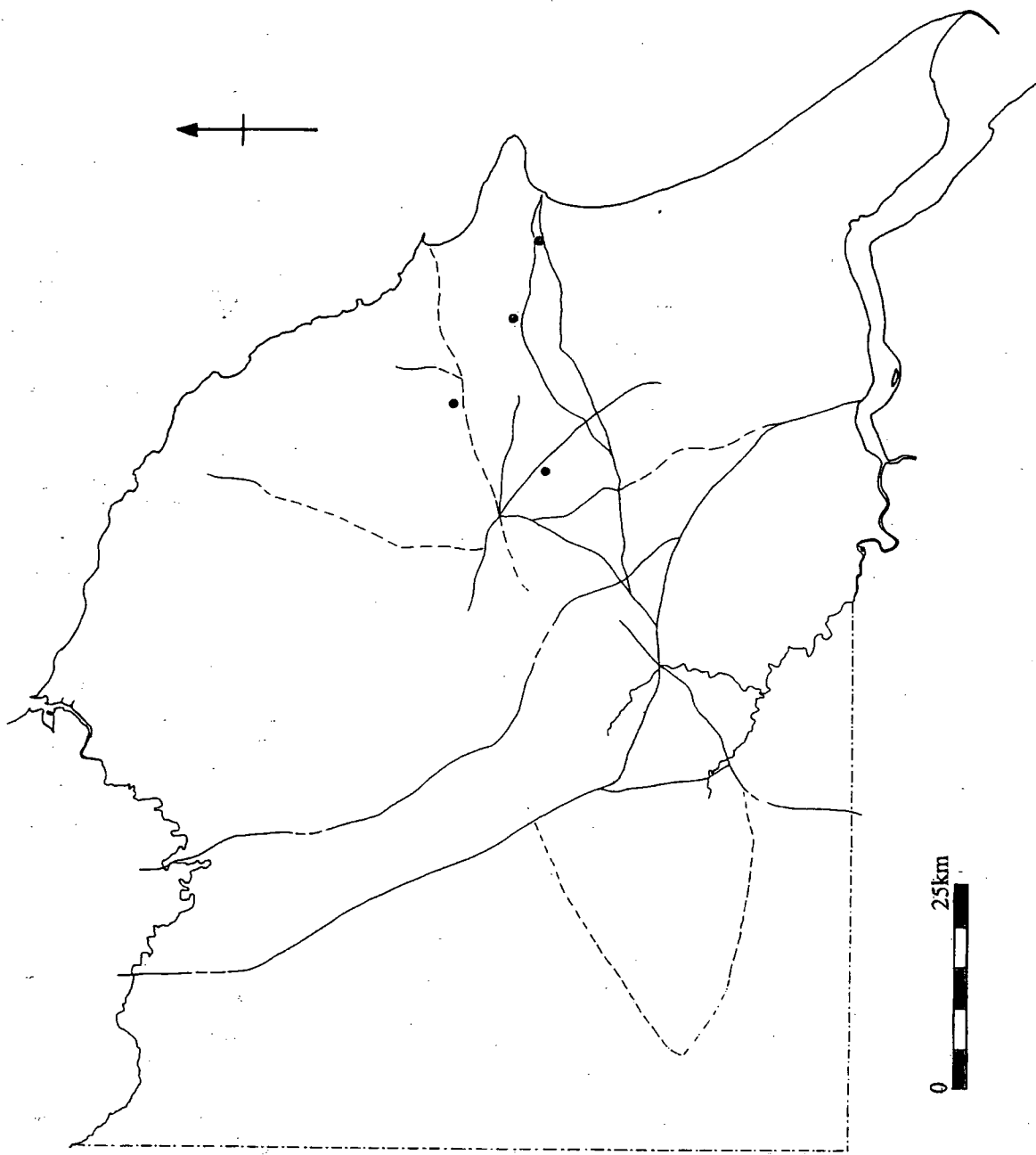
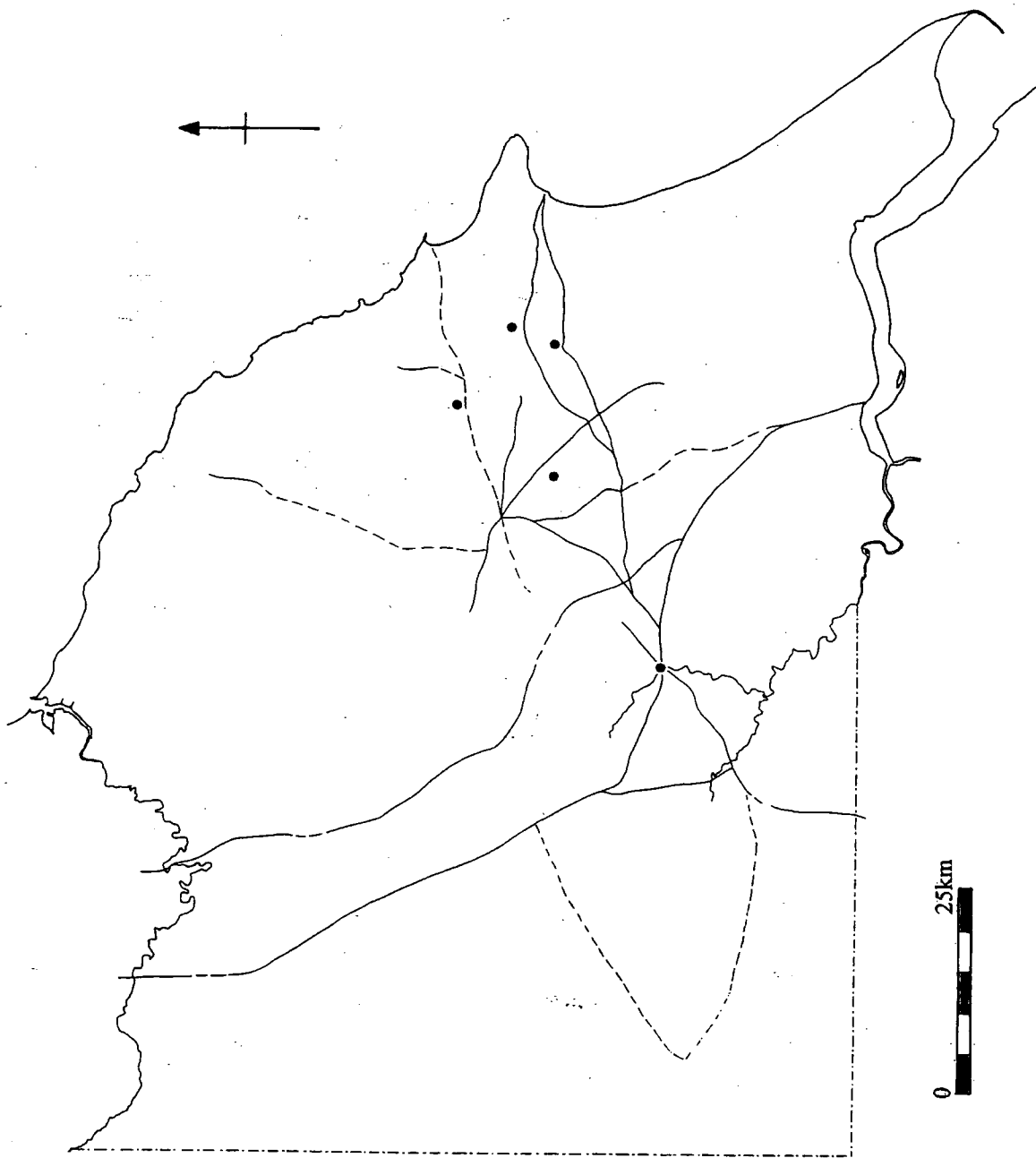


Fig. 4.16l York, excluding Coppergate

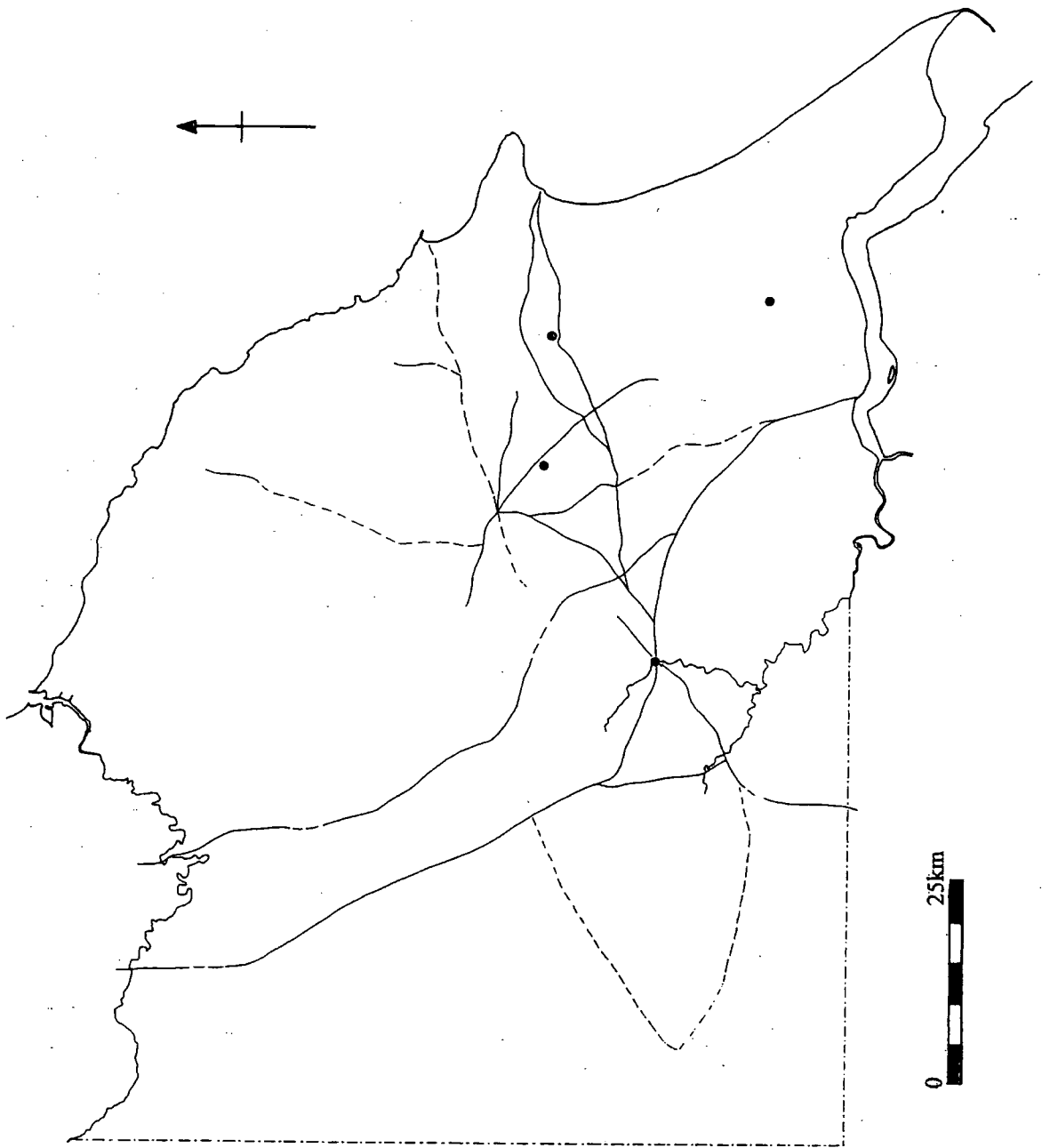




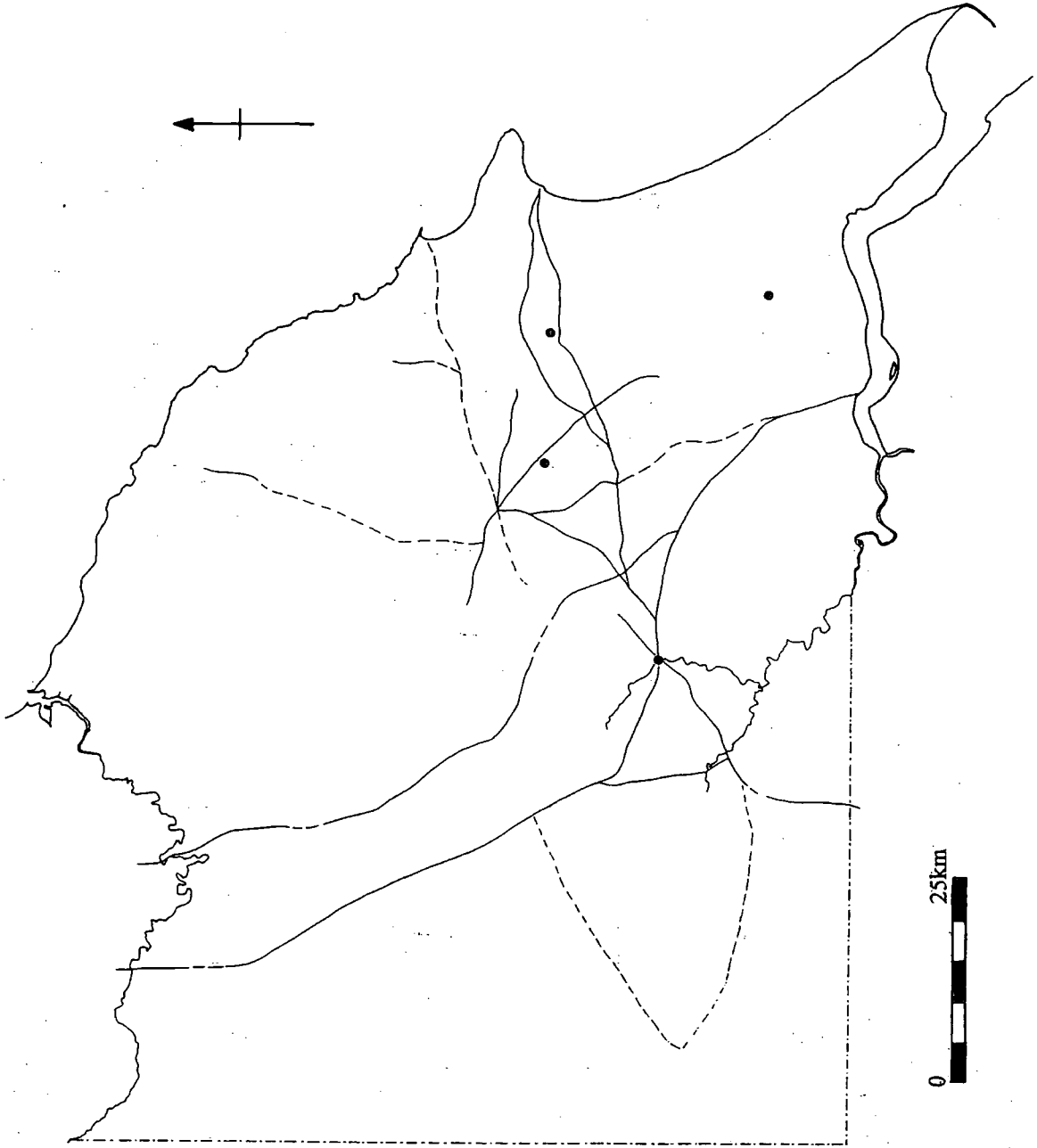
4.17 Area 1 - calcite-tempered wares



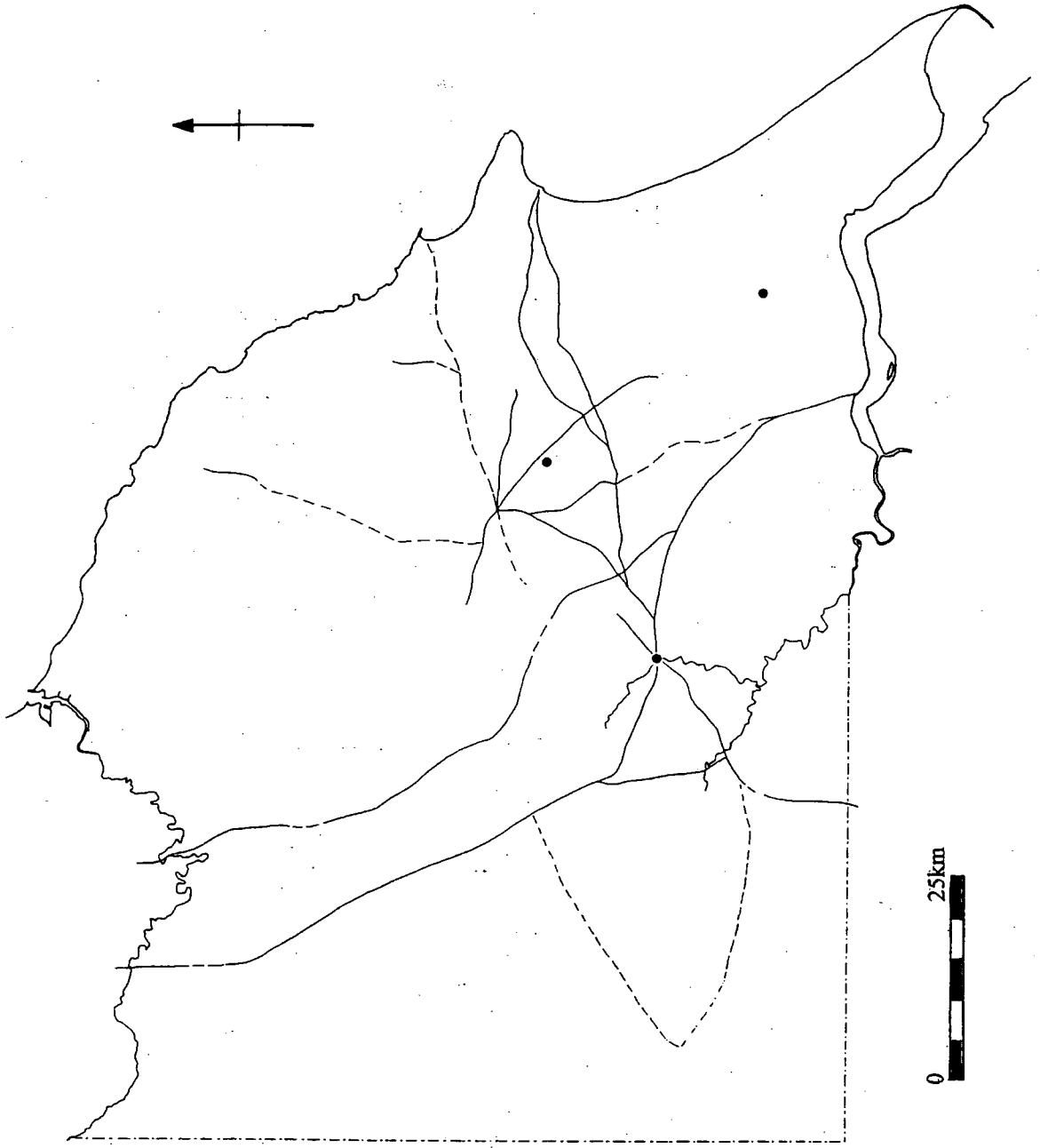
4.18 Area 1 - organic-tempered wares



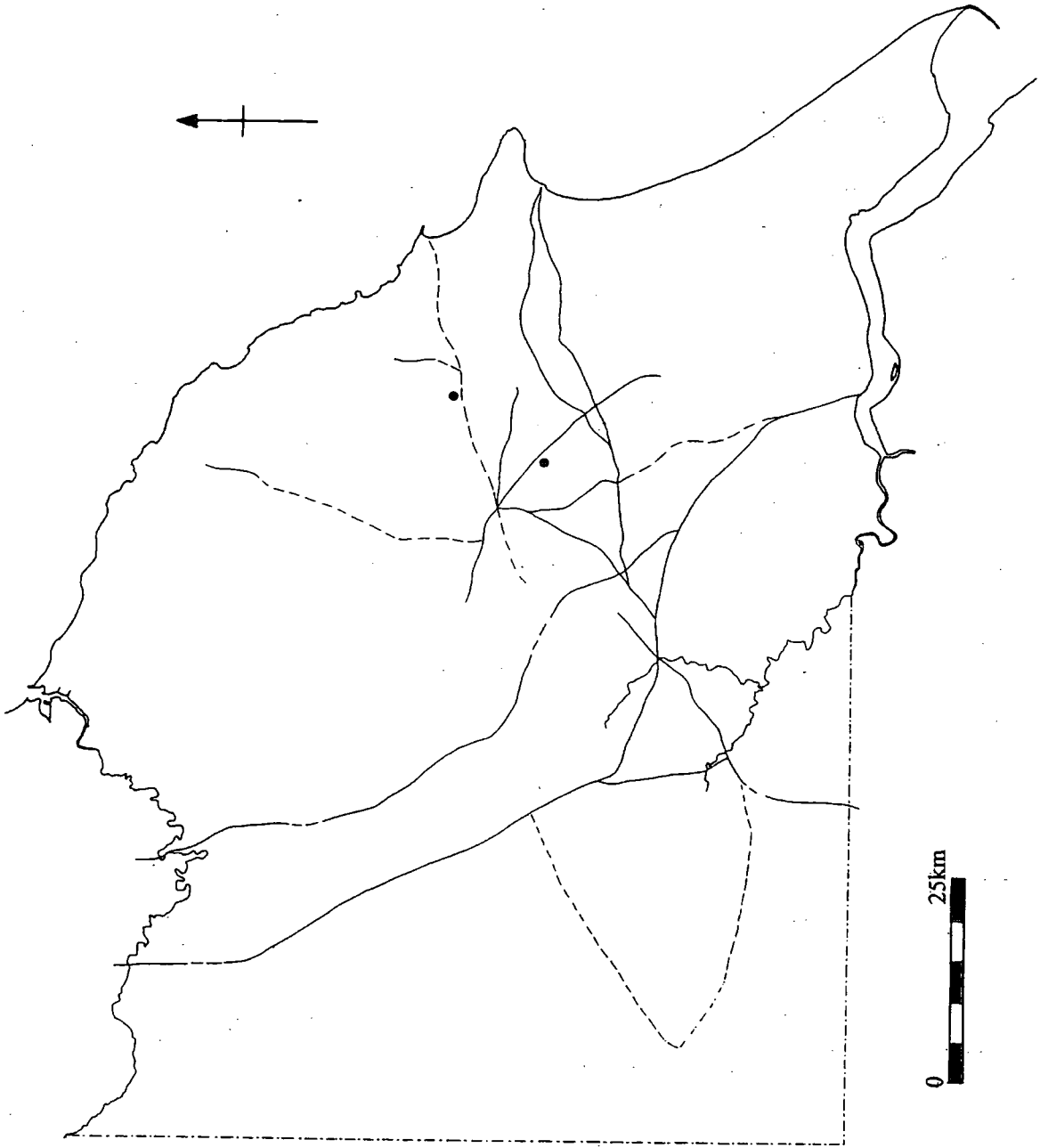
4.19 Area 1 - distribution of pottery produced elsewhere in Britain



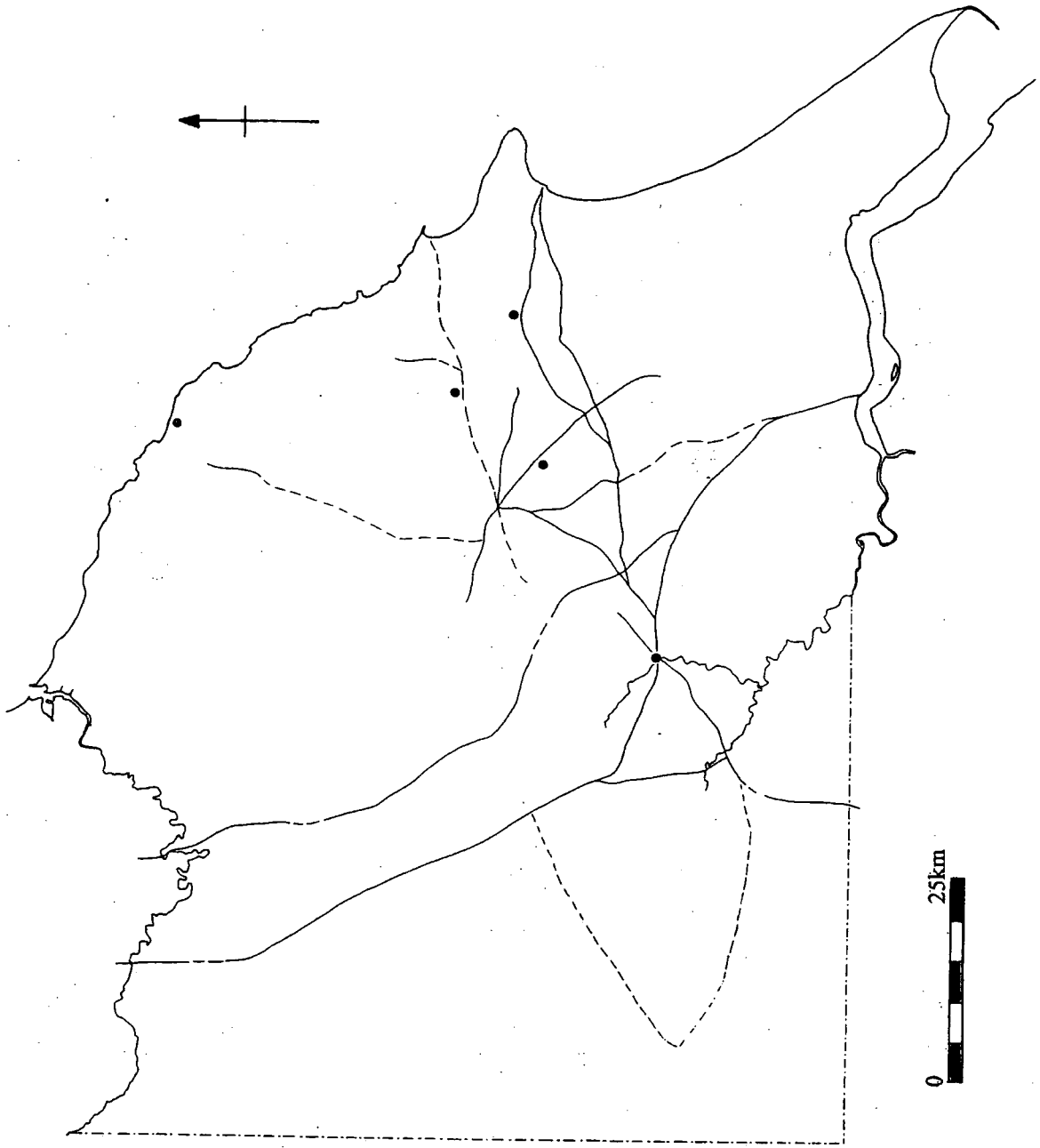
4.20 Area 1 - Lincolnshire shell-tempered ware



4.21 Area 1 - Ipswich Ware

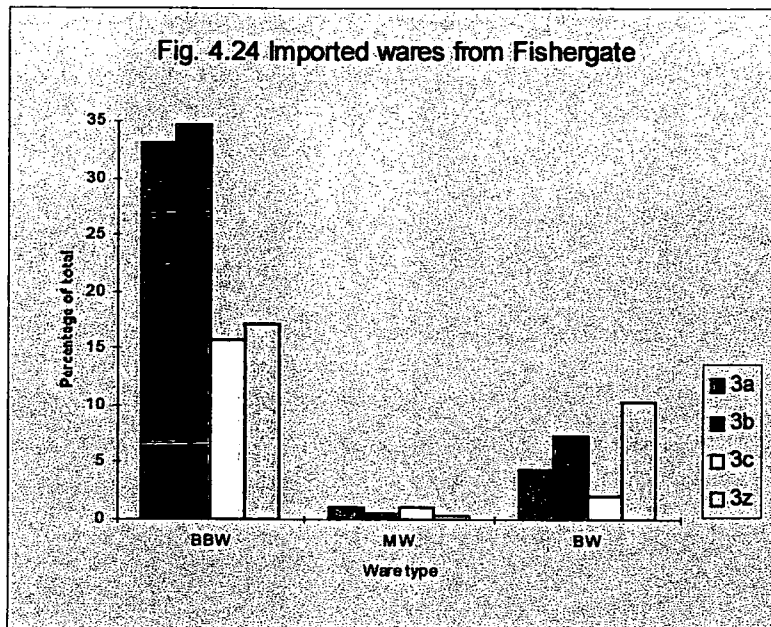


4.22 Area 1 - Charnwood ware



4.23 Area 1 - Continental wares

Fig. 4.24 Imported wares from Fishergate

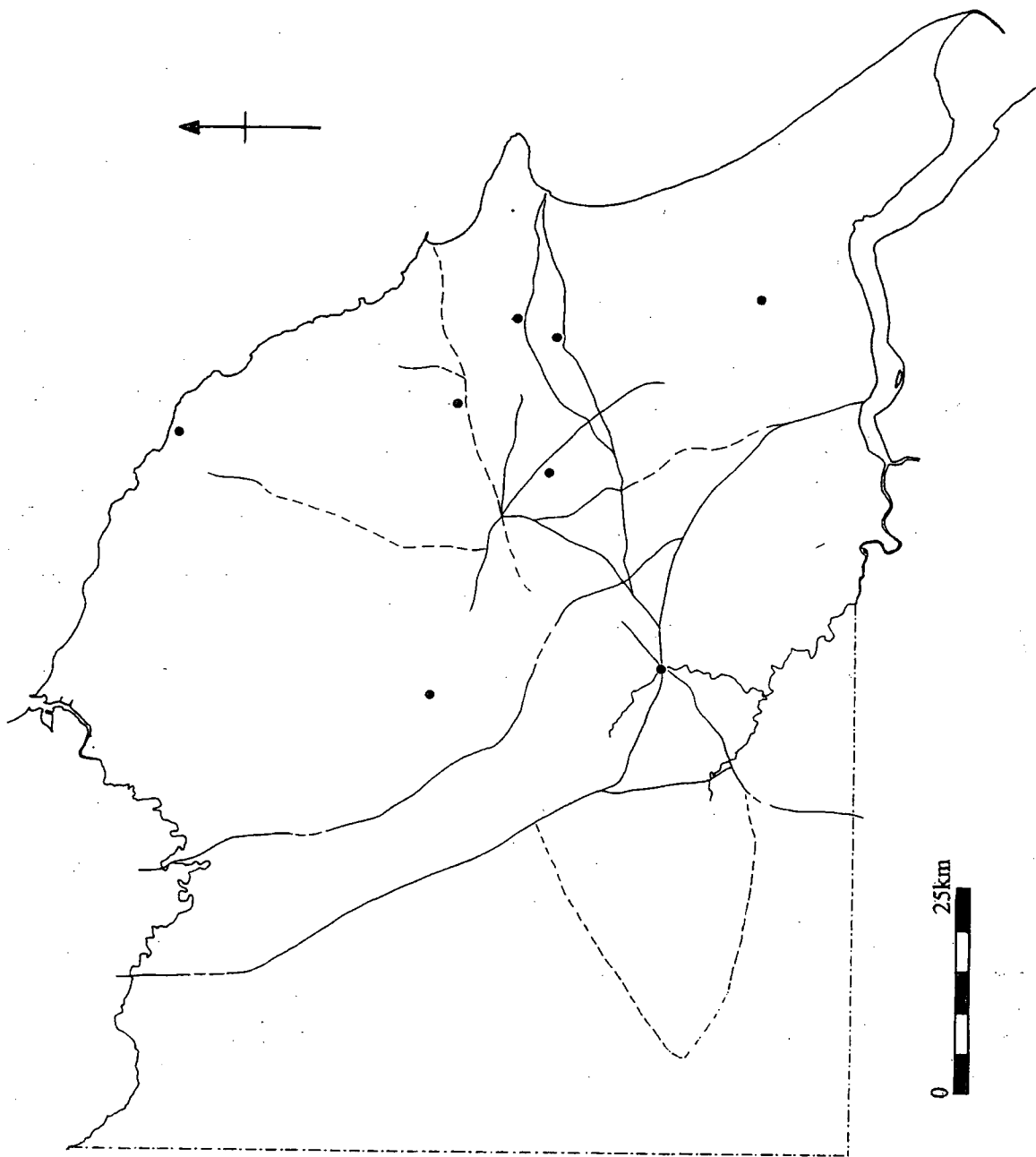


Key:

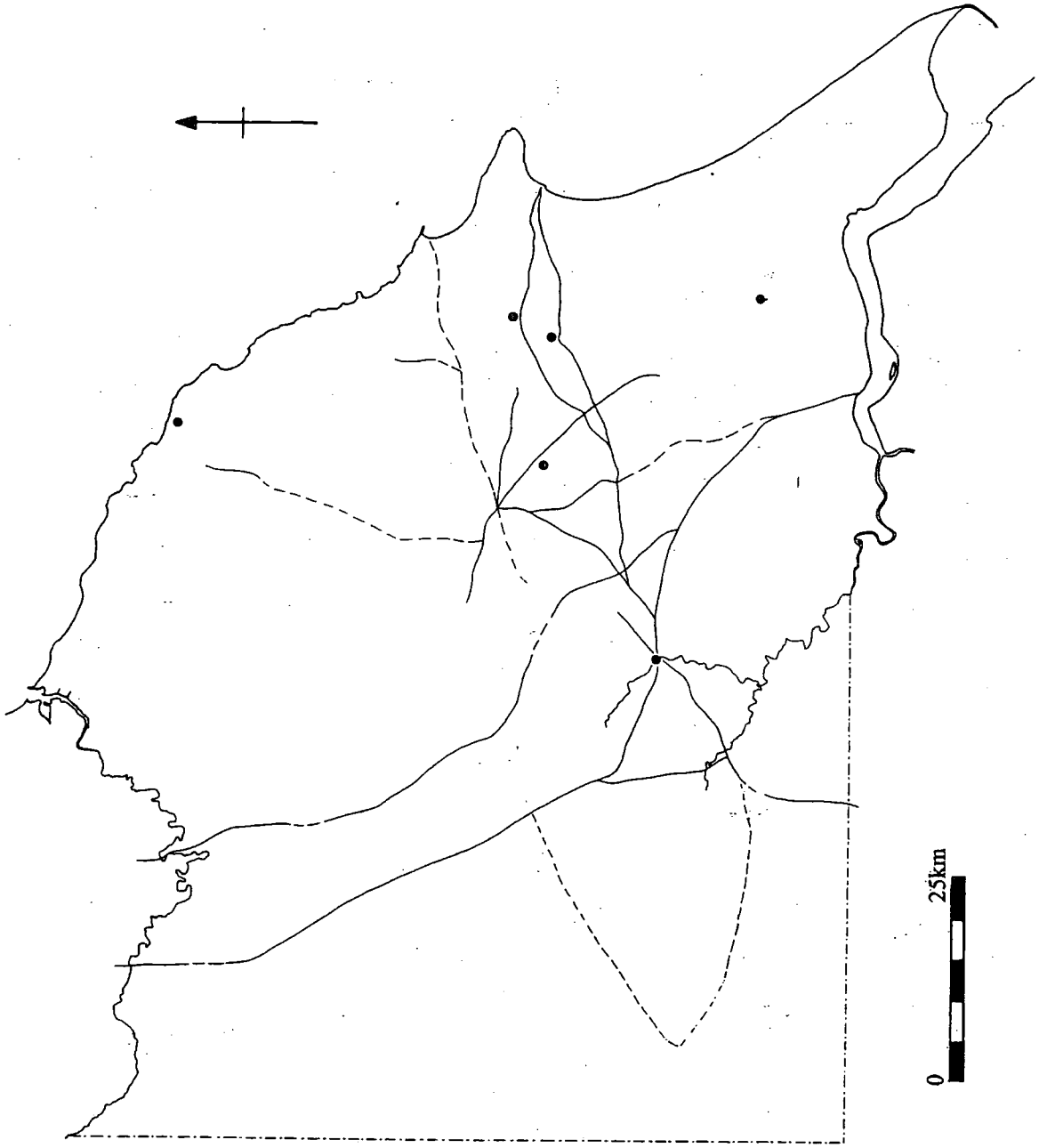
BBW- black burnished ware

MW- Mayen wares

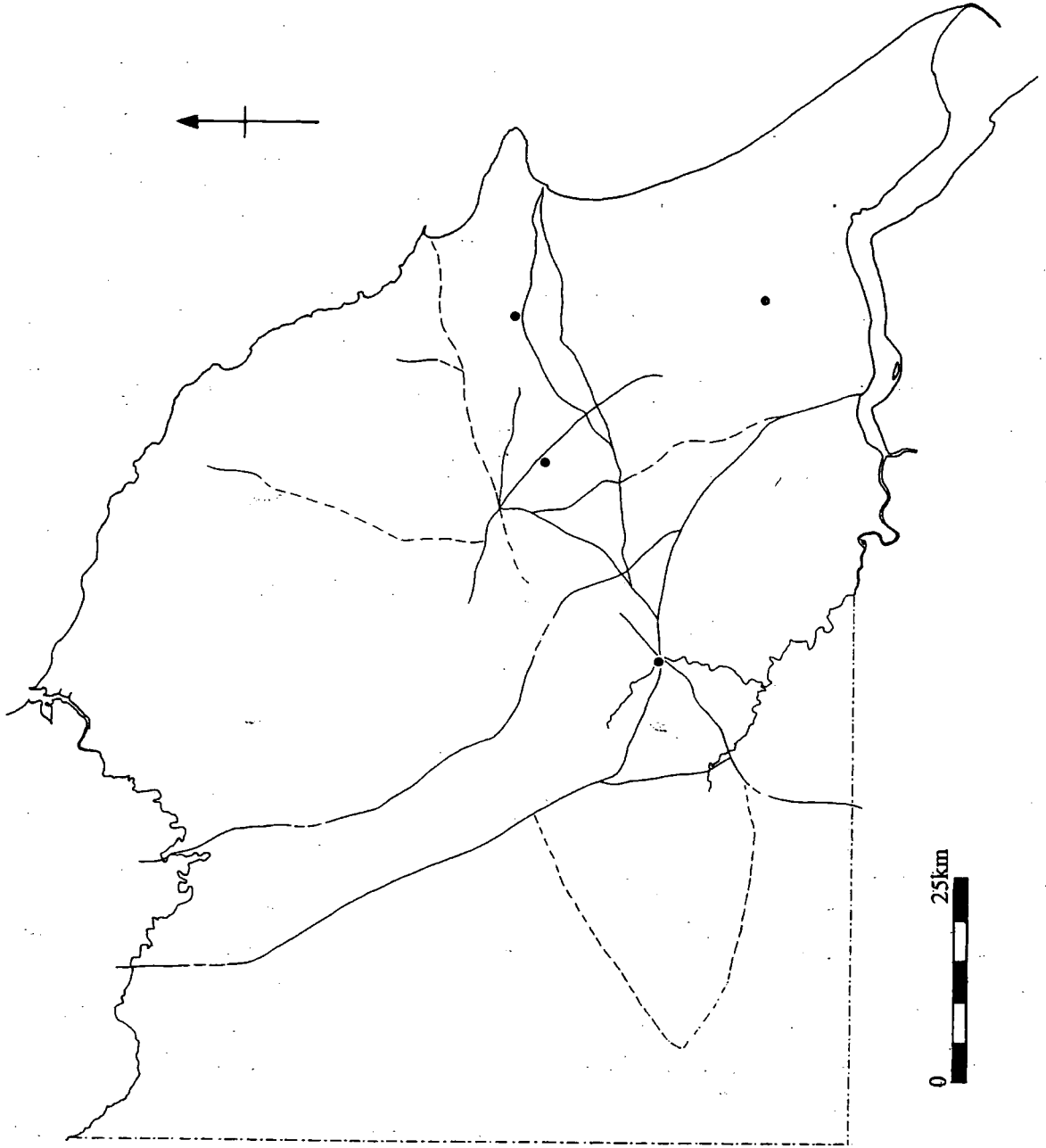
BW- Buff Wares



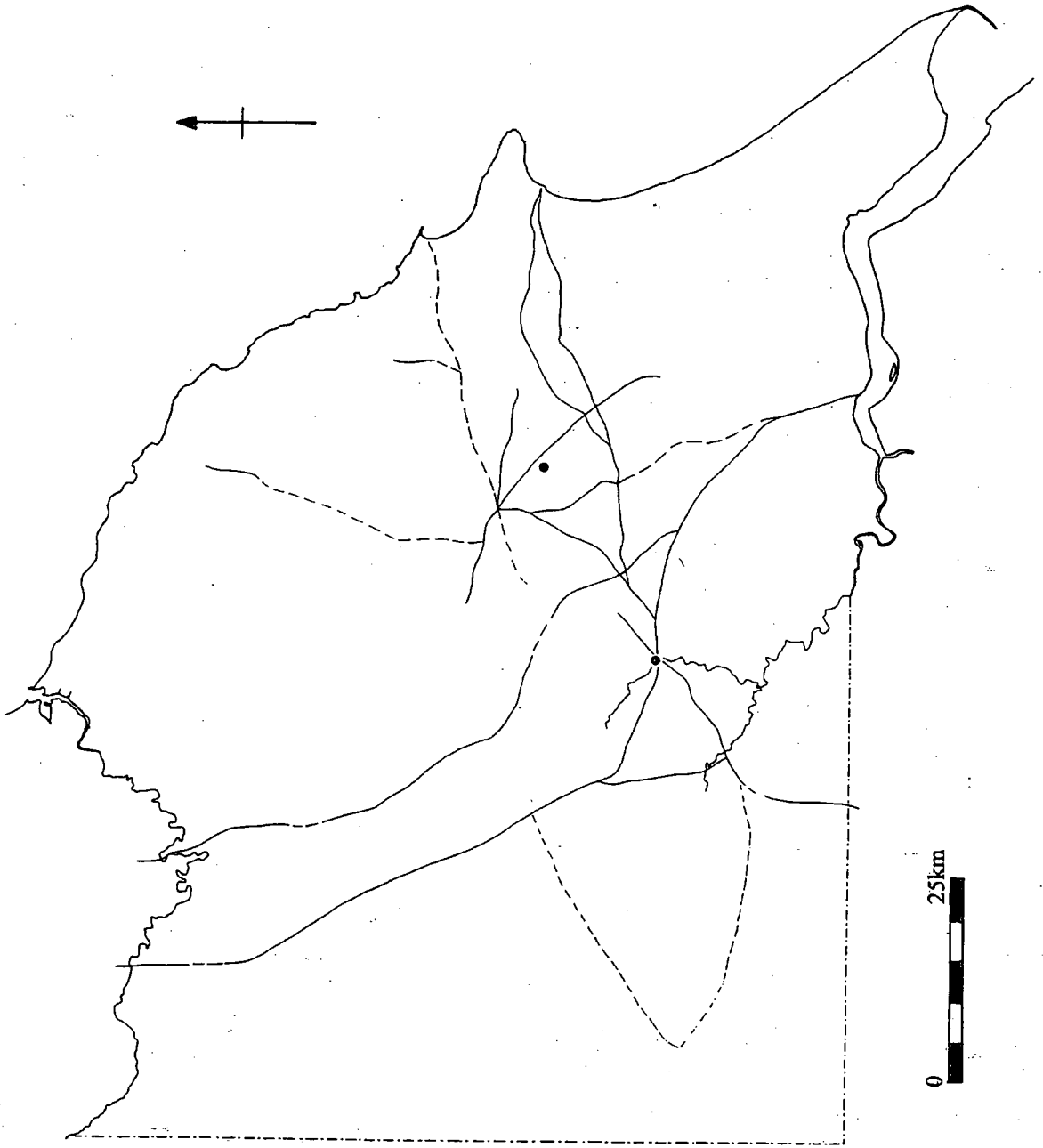
4.25 Area 1 - distribution of stone artefacts



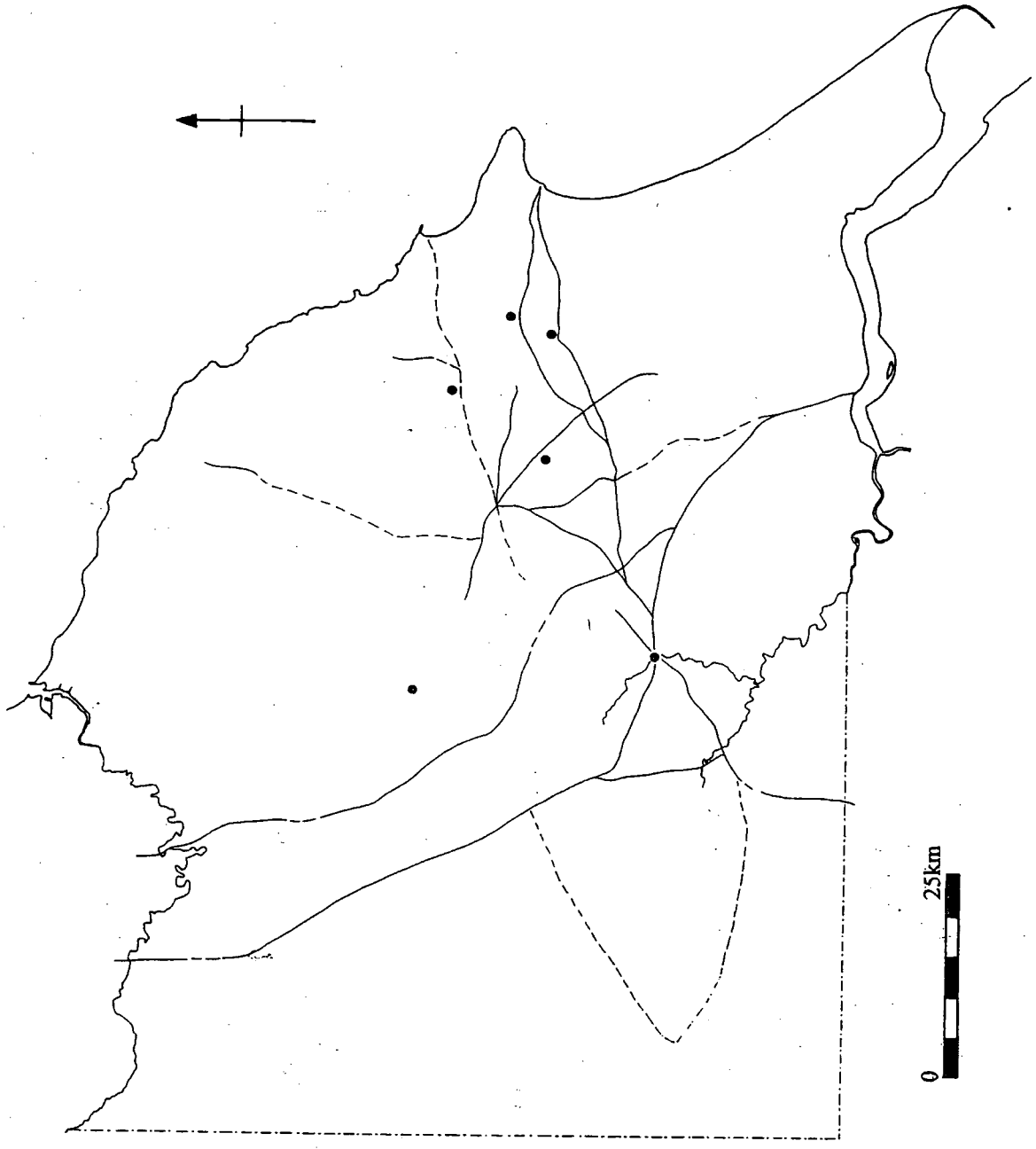
4.26 Area 1-stone artefacts with east/ north-east Area 1 provenance



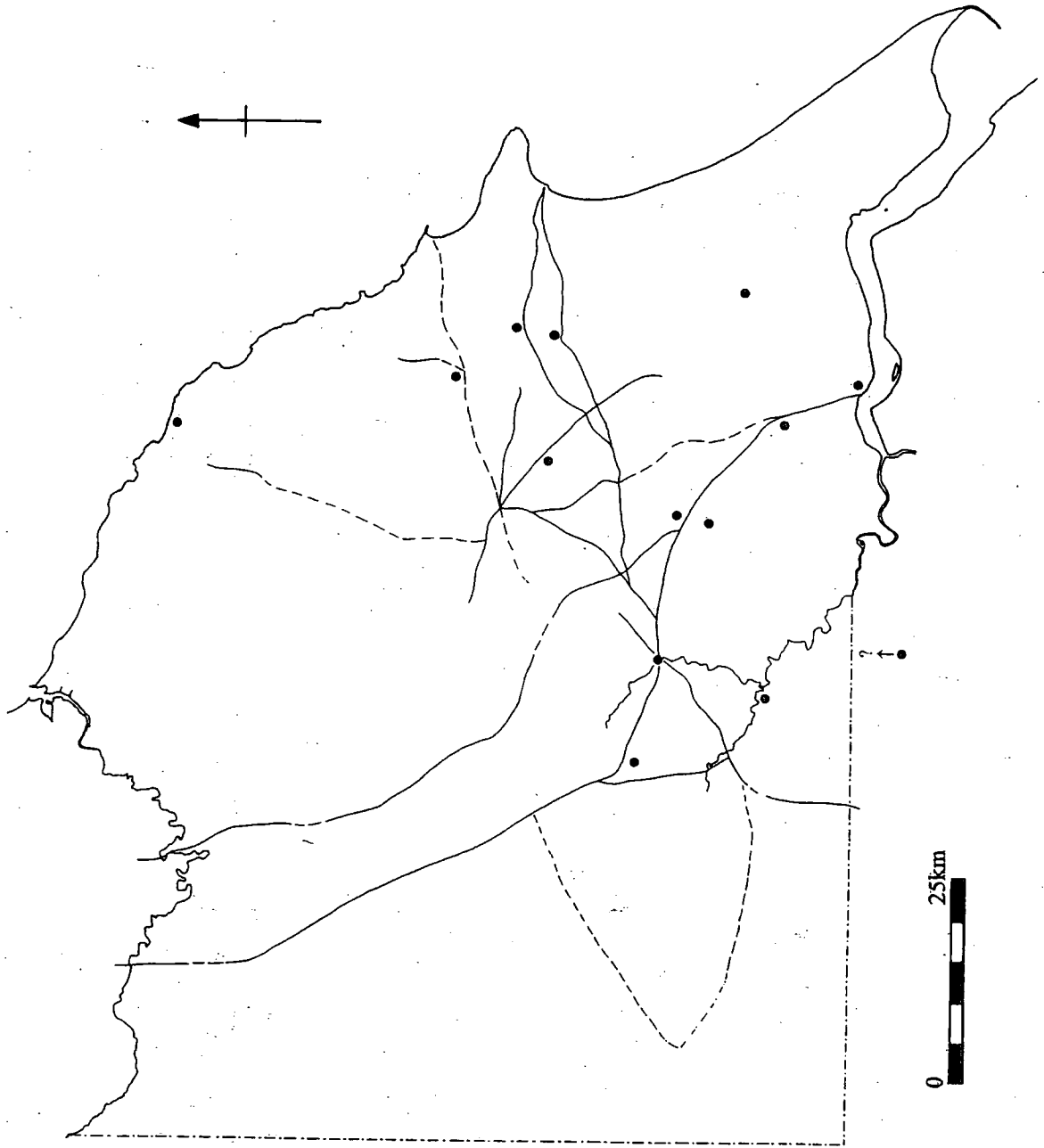
4.27 Area 1-stone artefacts with Pennines provenance



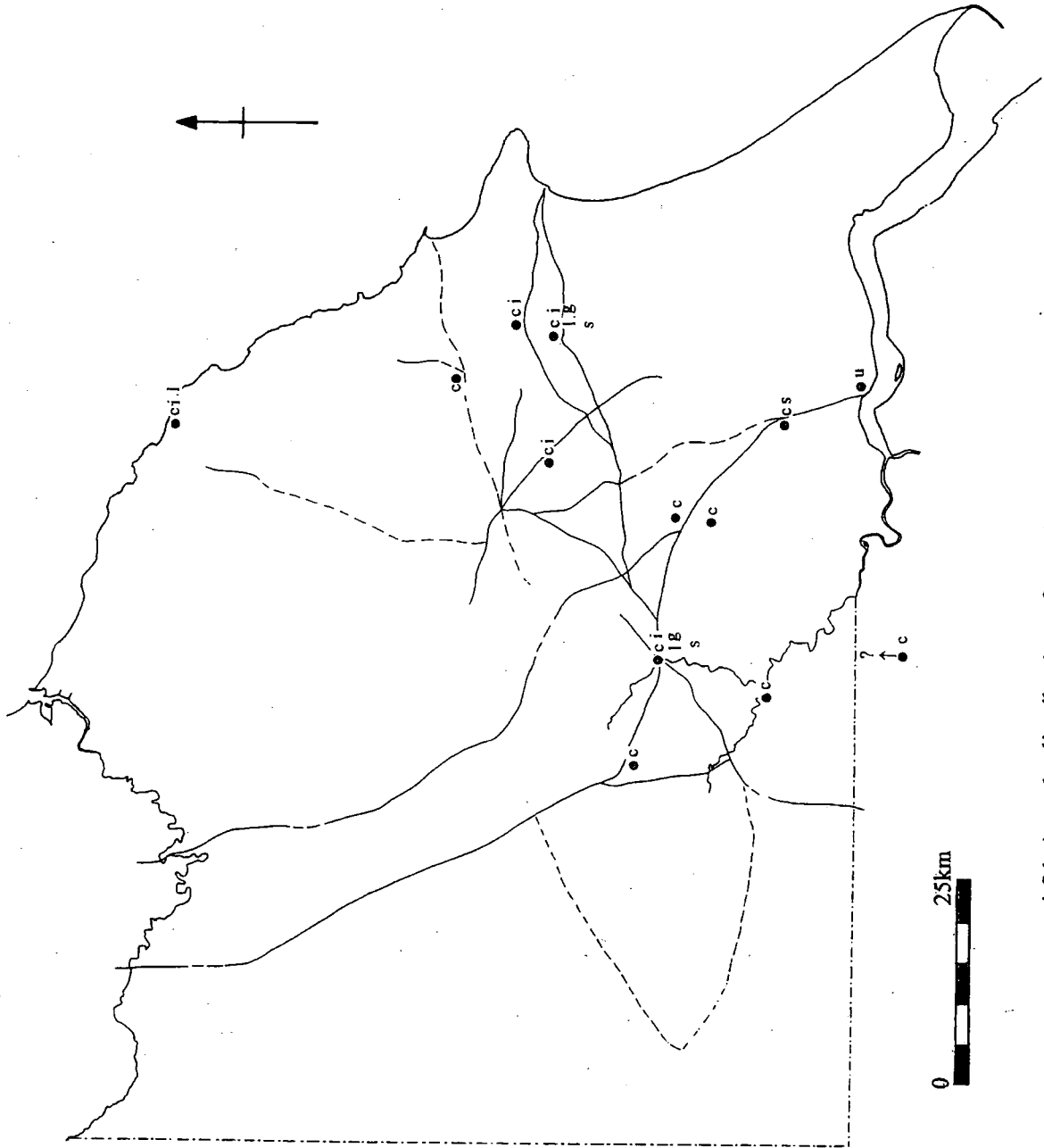
4.28 Area 1 -stone artefacts with southern Scotland/ Lake District provenance



4.29 Area 1 - stone artefacts with Continental European provenance



4.30 Area 1 - distribution of finds of metalwork



- c- Copper Alloy
- i- Iron
- l- Lead/ lead alloy
- g- Gold
- s- Silver
- u- unknown

4.31 Area 1 - distribution of metalwork by type of metal

Fig. 4.32 Graphs showing assemblages of finds from individual finds by metal type

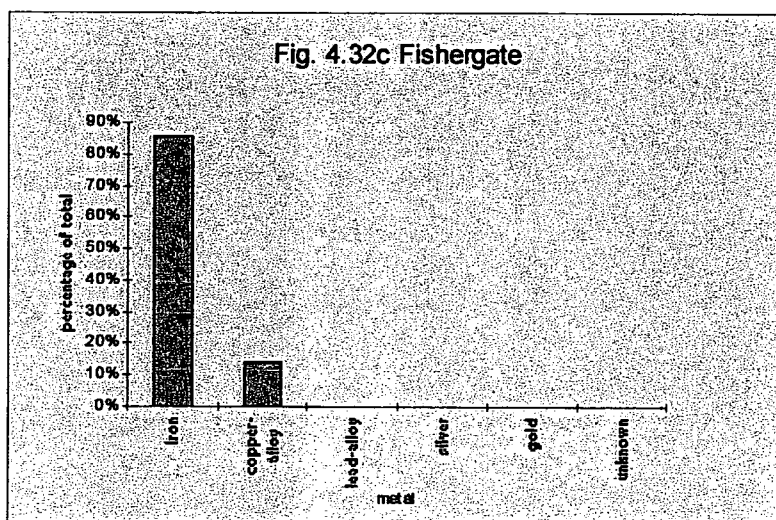
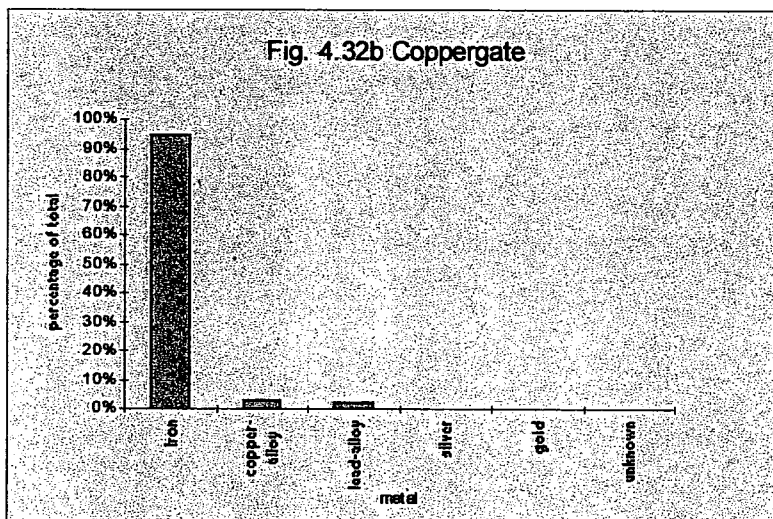
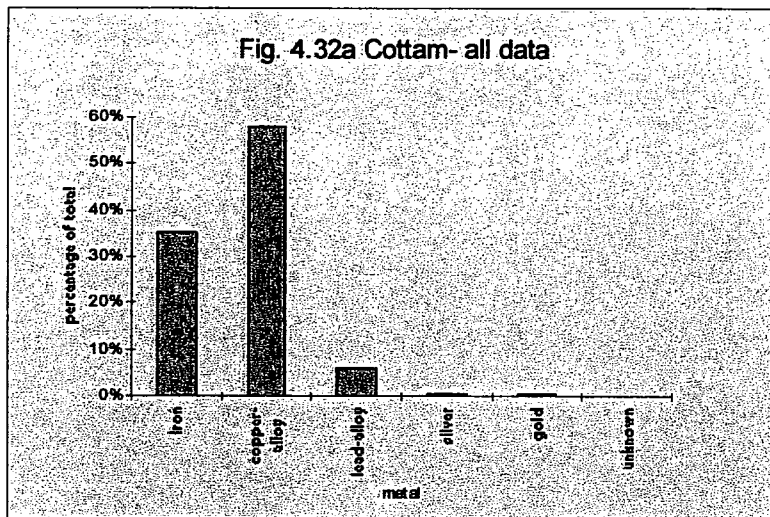


Fig. 4.32d Thwing

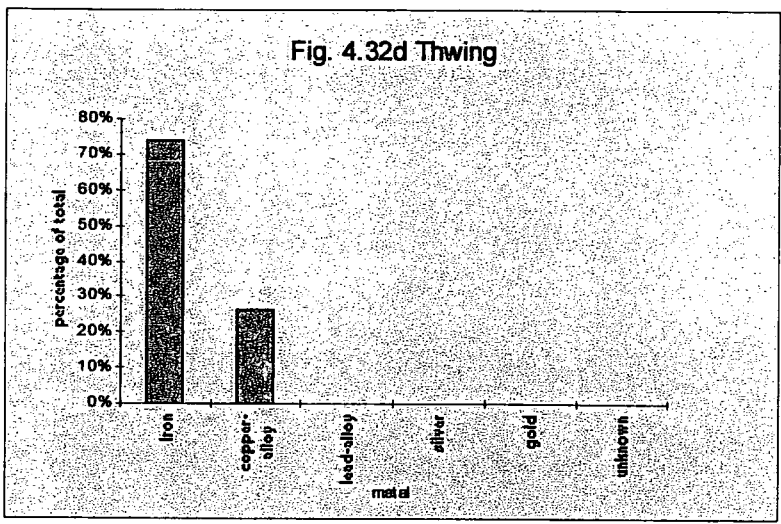


Fig. 4.32e Whitby

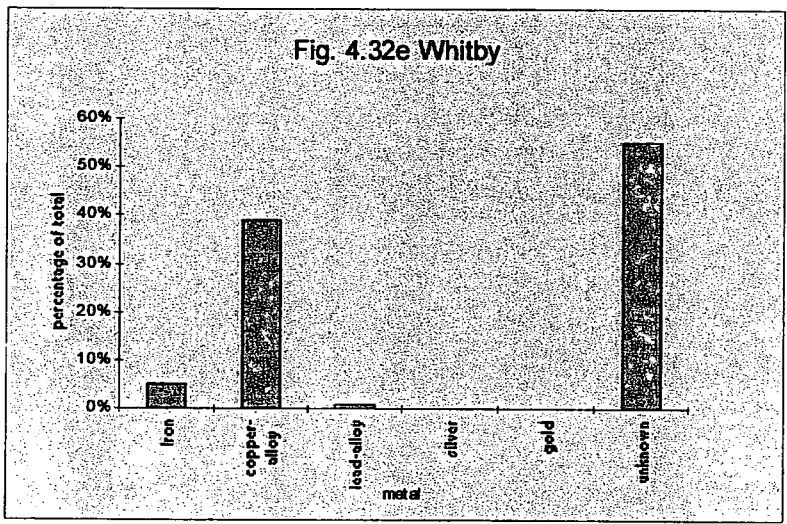


Fig. 4.32f Wharram Percy, south manor.

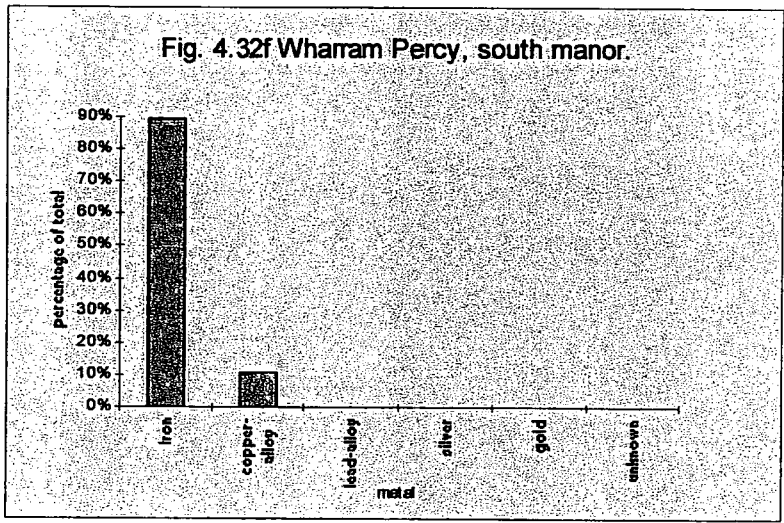


Fig. 4.32g Wharram Percy, site 94/95

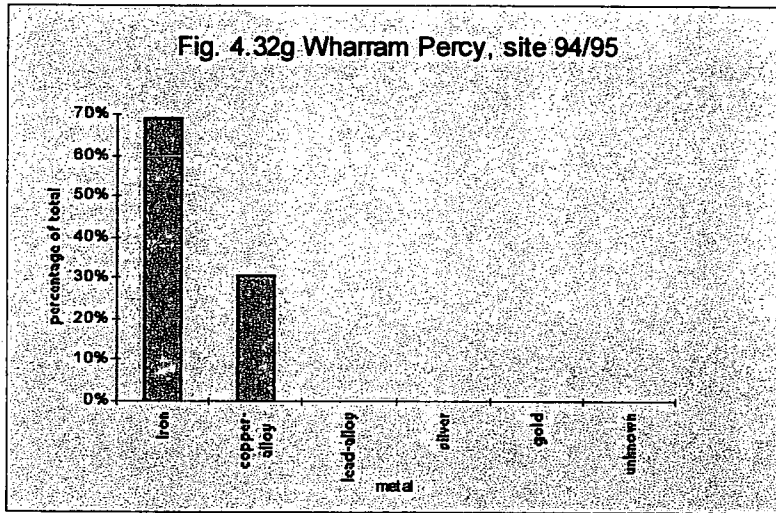


Fig. 4.32h Wharram Percy 39

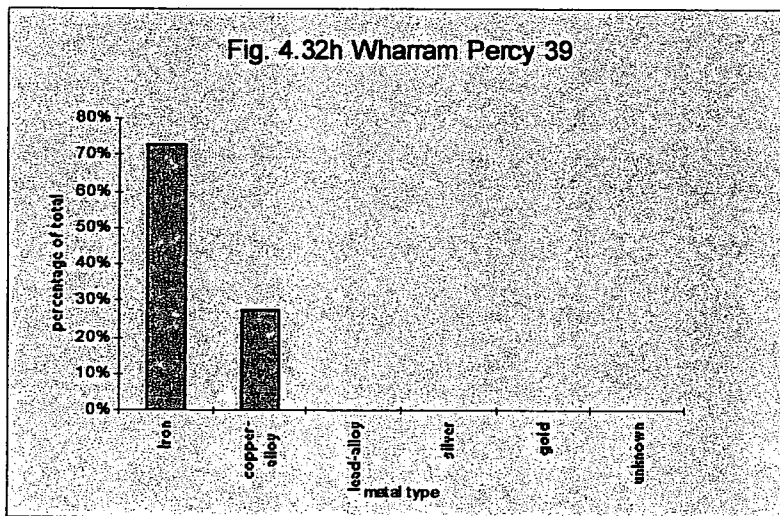


Fig. 4.32i York

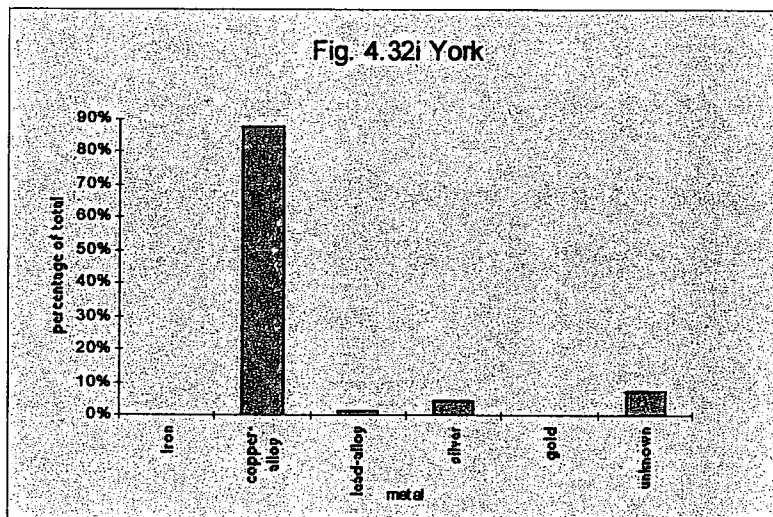


Fig. 4.32j South Newbald

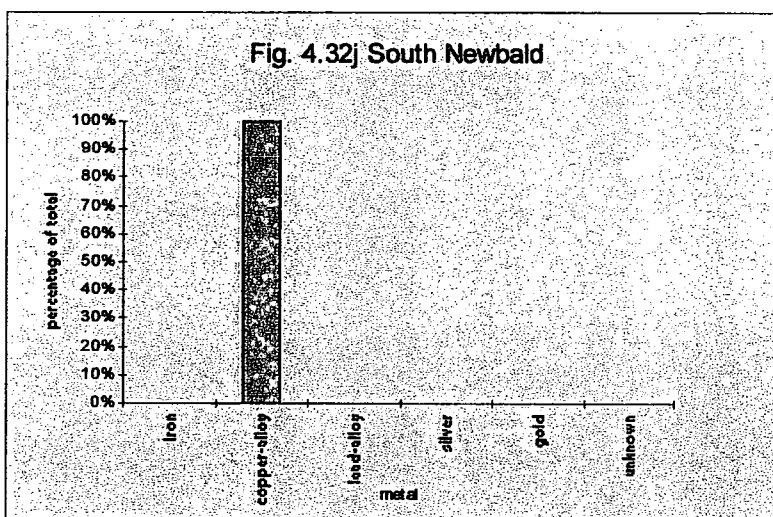


Fig. 4.33 Finds from Cottam by metal type: metal-detected vs. excavation

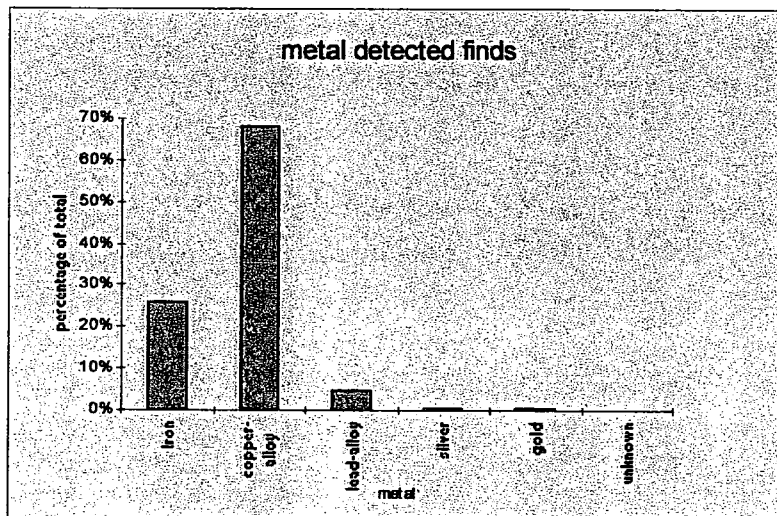
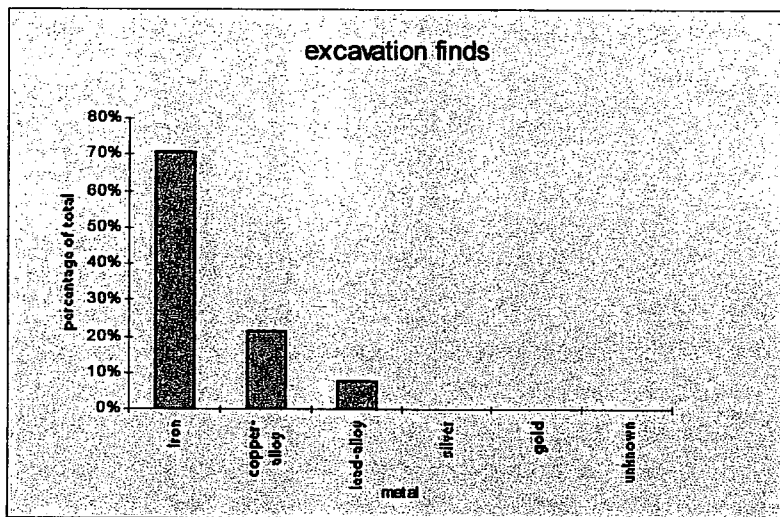


Fig. 4.34 Graphs showing assemblages of finds from individual finds by artefact type

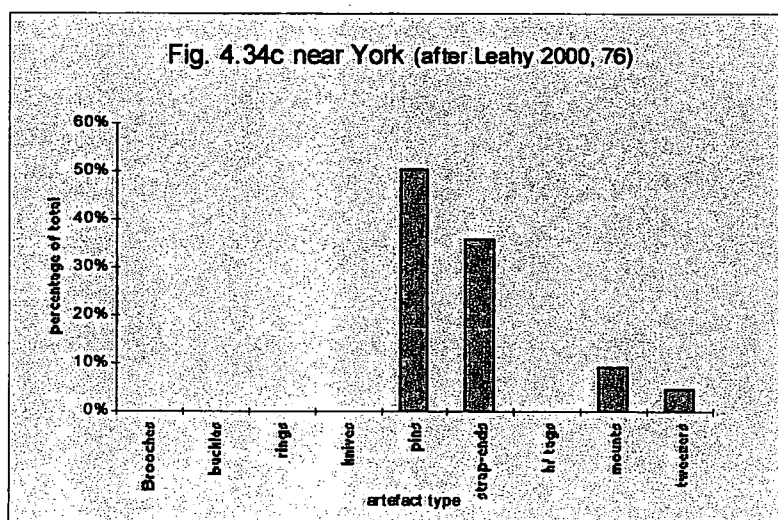
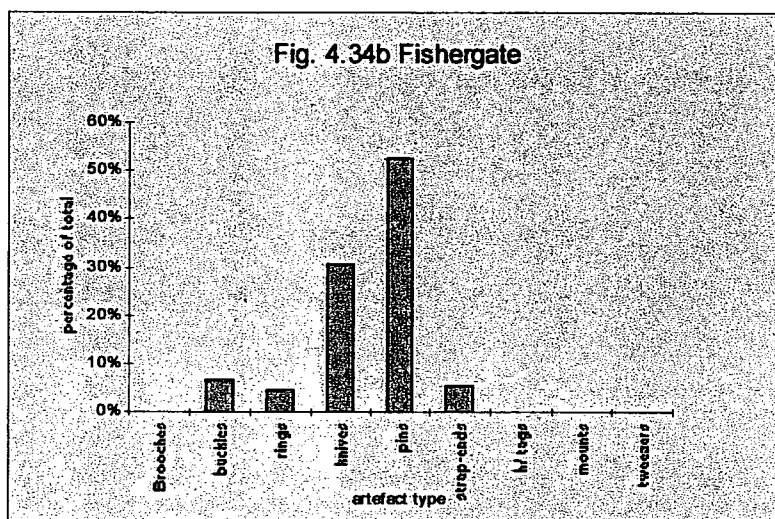
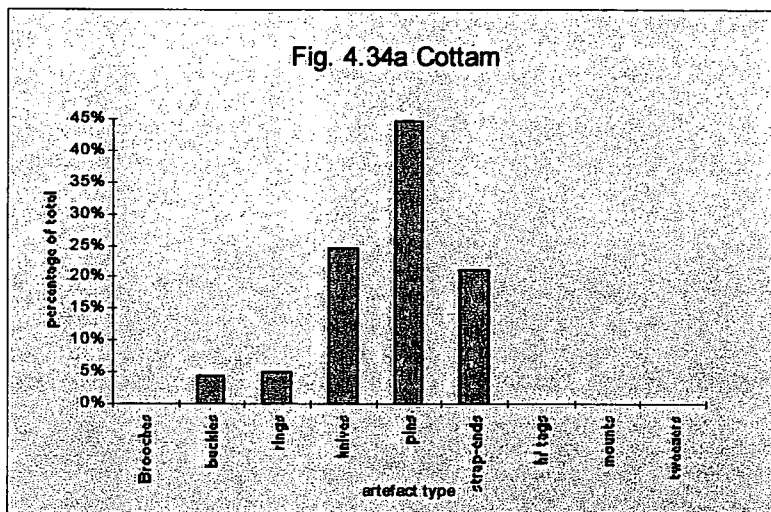


Fig. 4.34d South Newbald

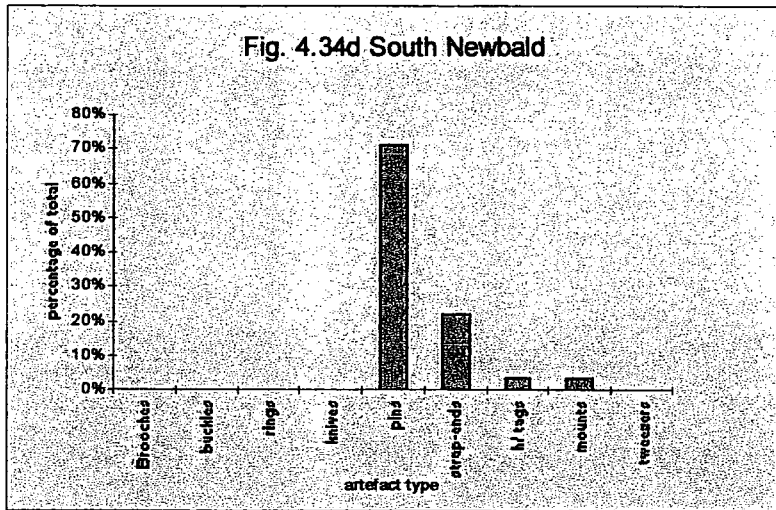


Fig. 4.34e Thwing

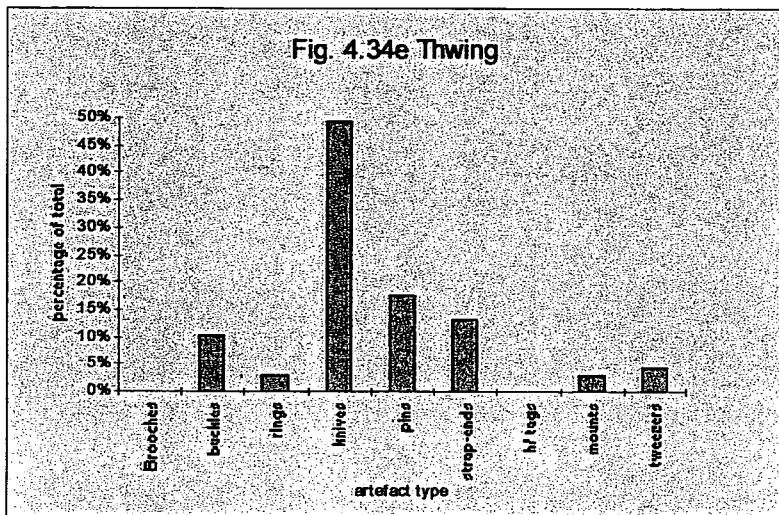


Fig. 4.34f Wharam Percy, south manor

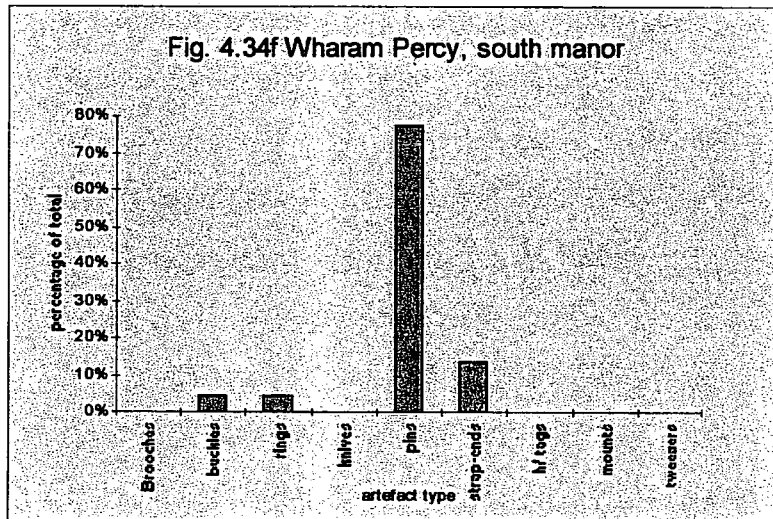


Fig. 4.34g Wharram Percy 39

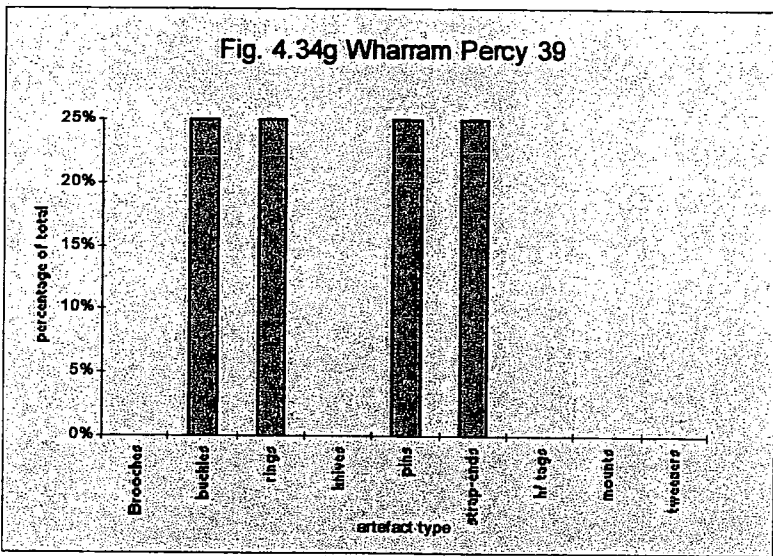


Fig. 4.34h Wharram Percy 94/95

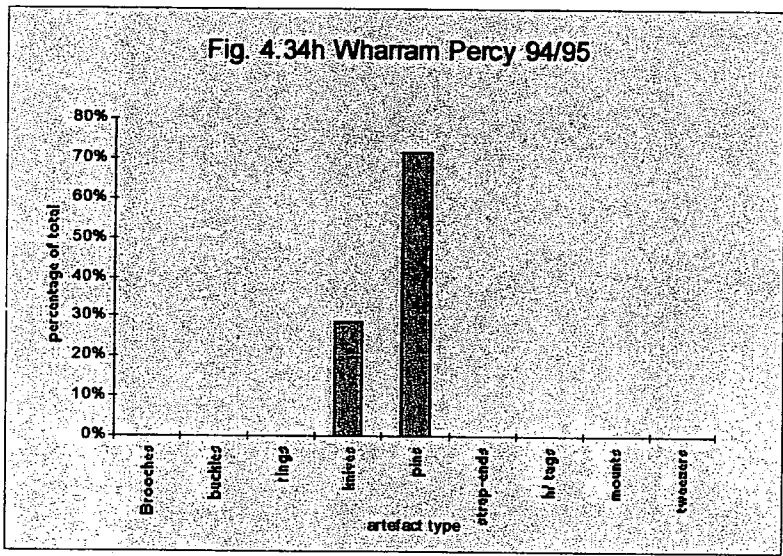


Fig. 4.34i Whitby

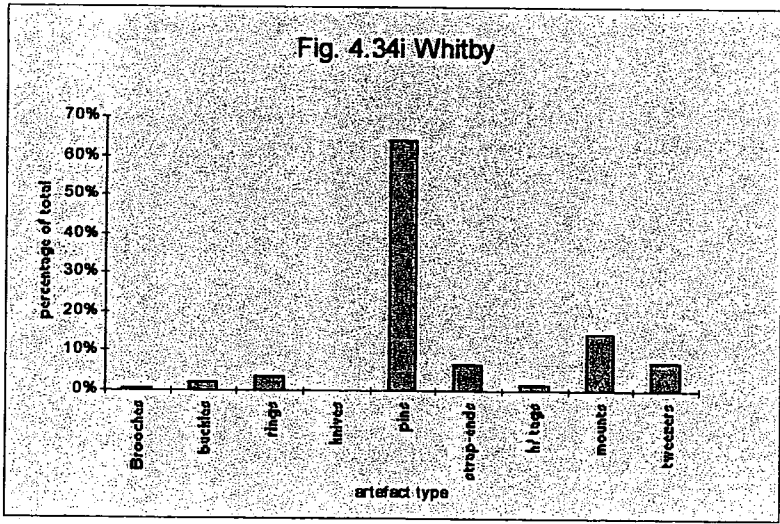
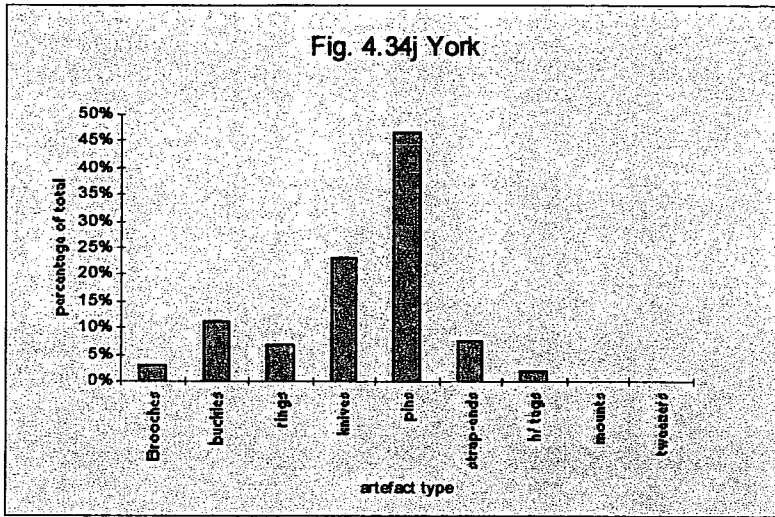
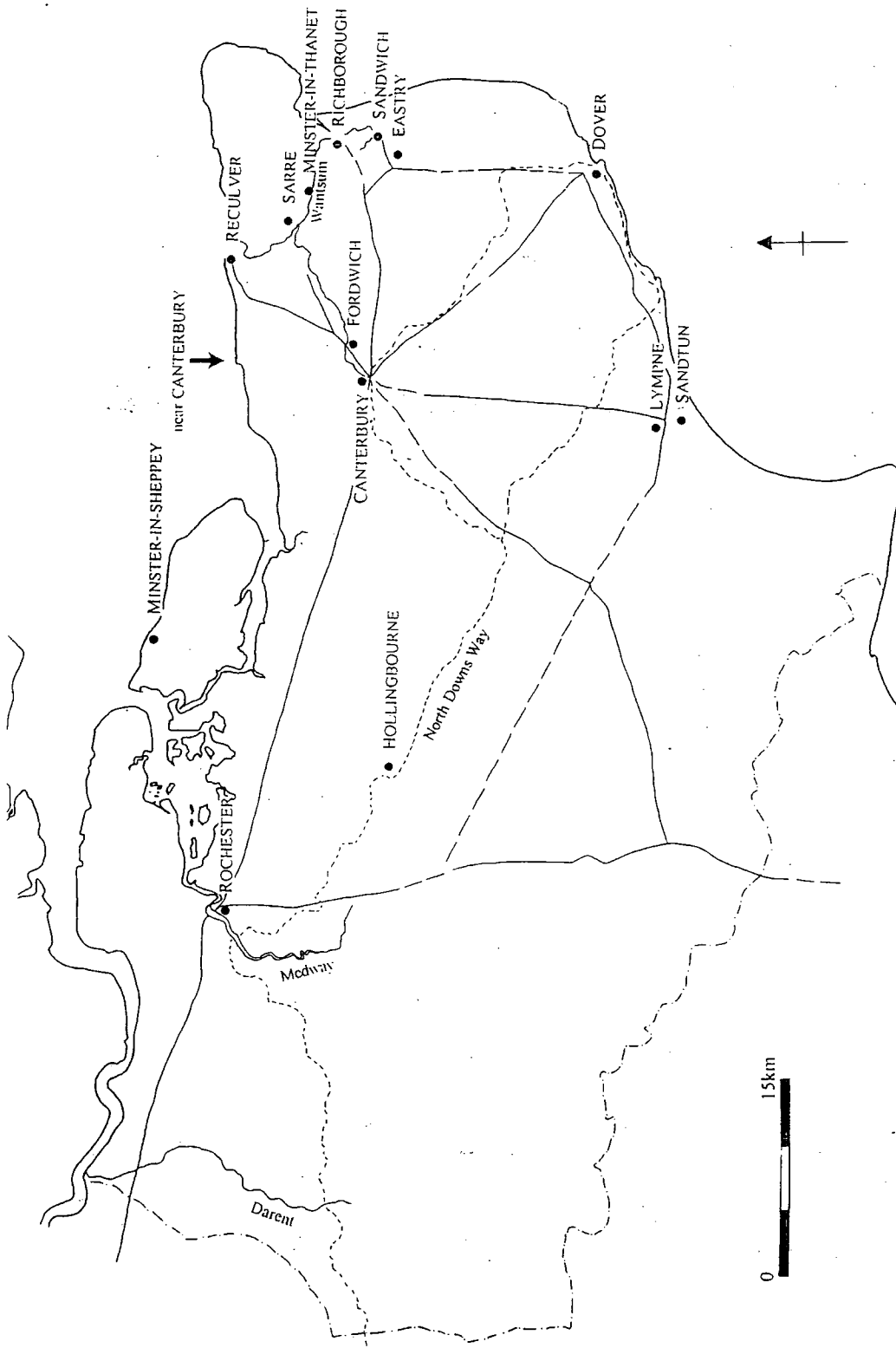
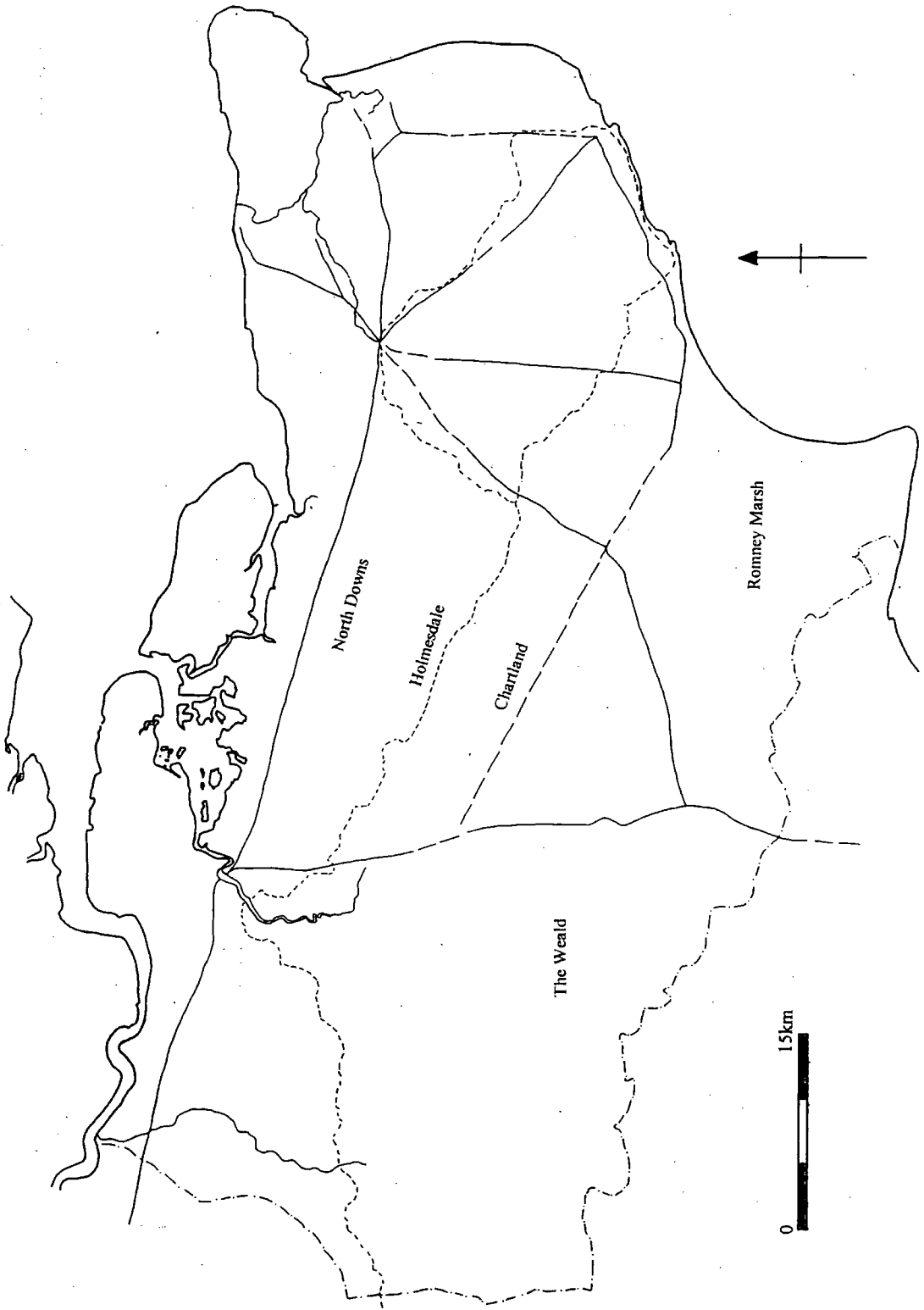


Fig. 4.34j York

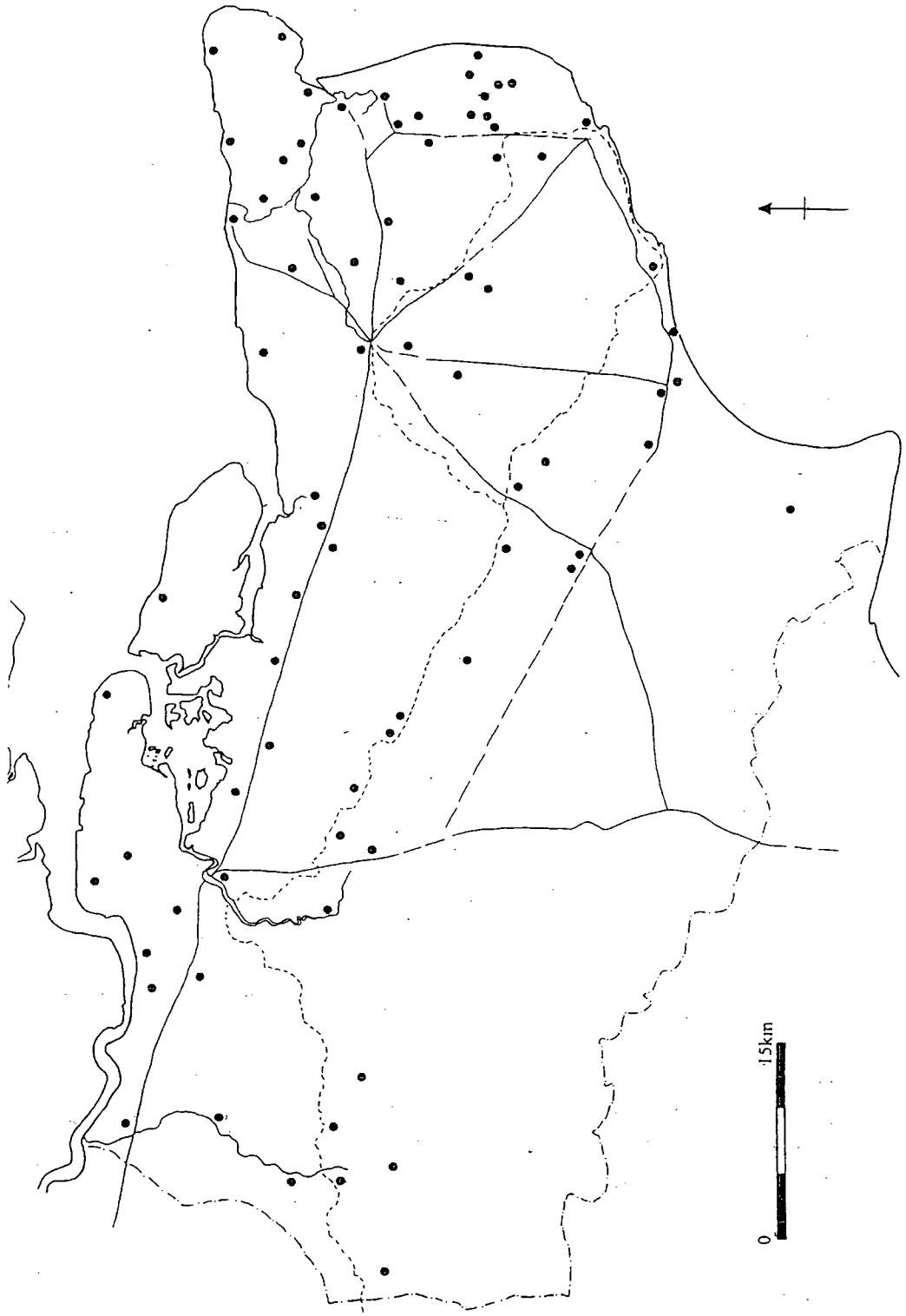




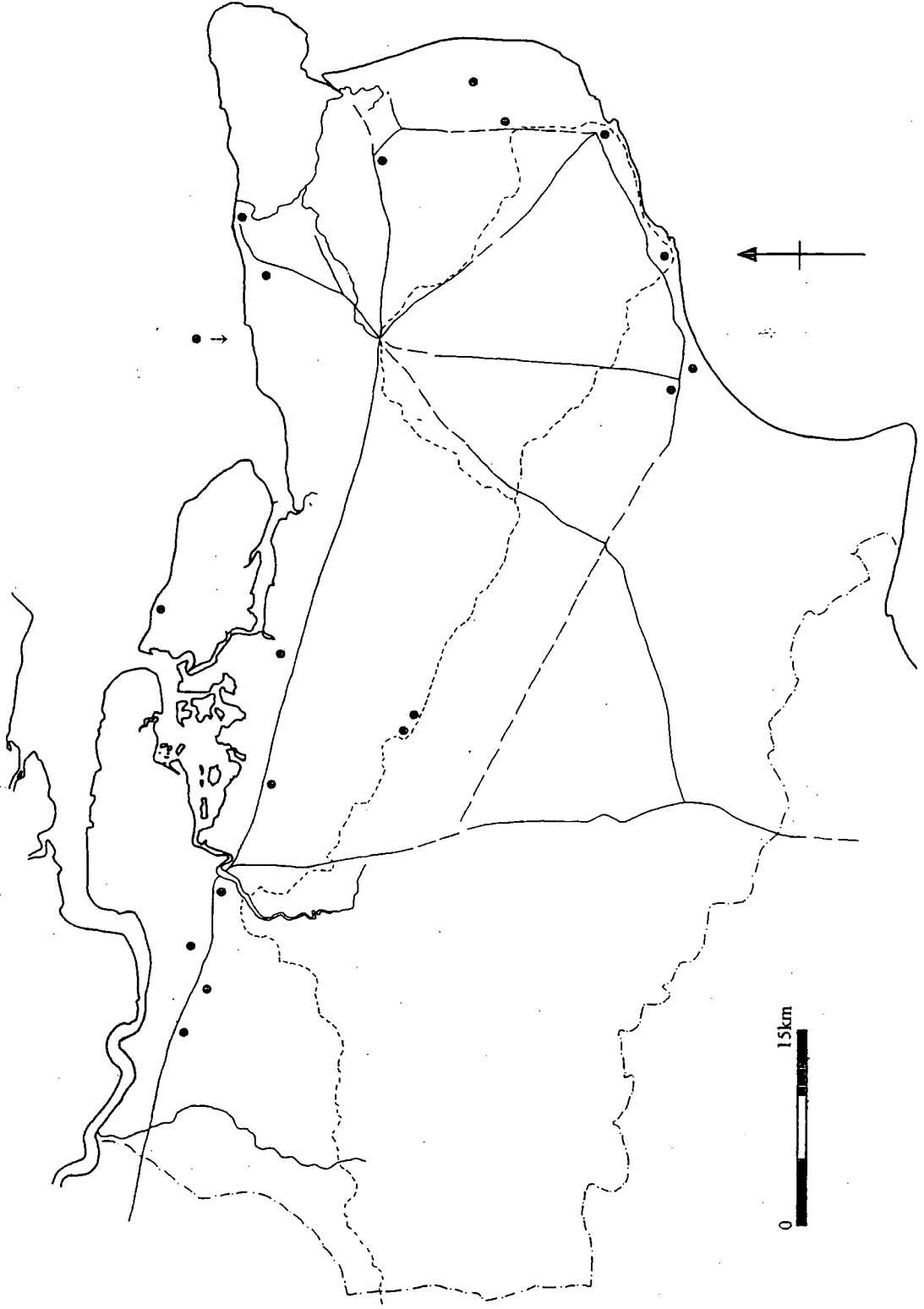
5.1 Area 2- main sites discussed in text



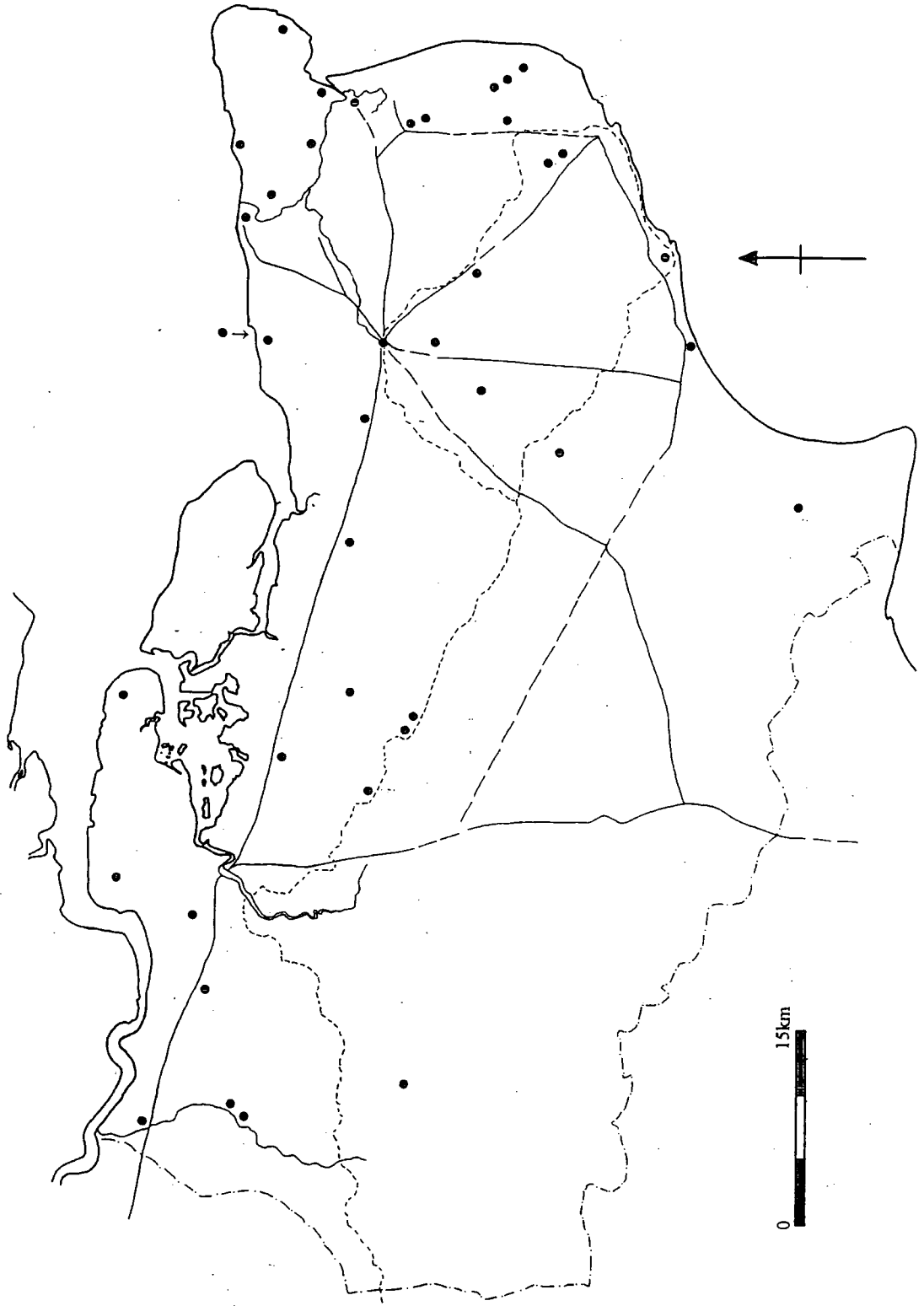
5.2 Area 2- geographical sub-regions



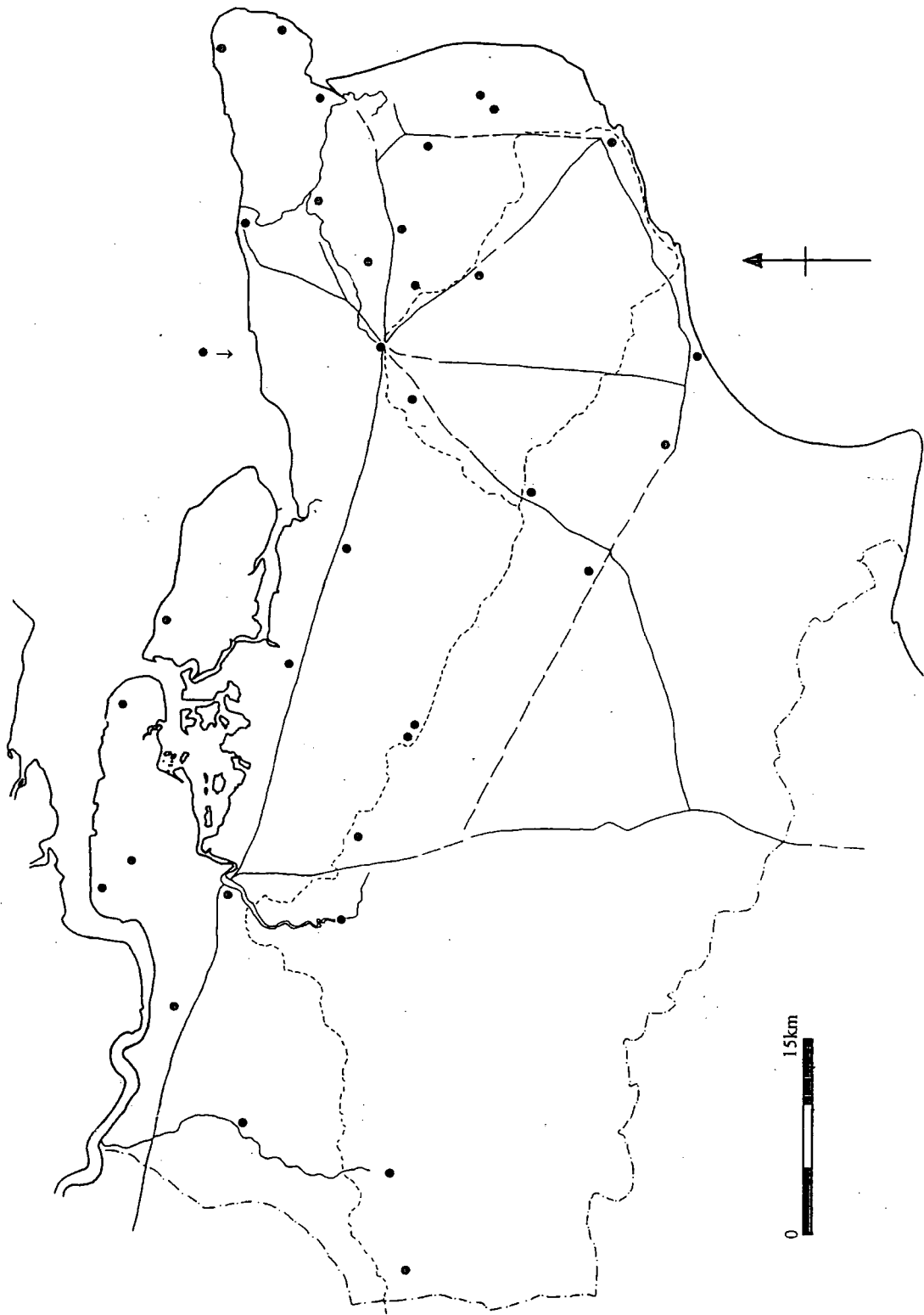
5.3 Area 2- all finds of coinage



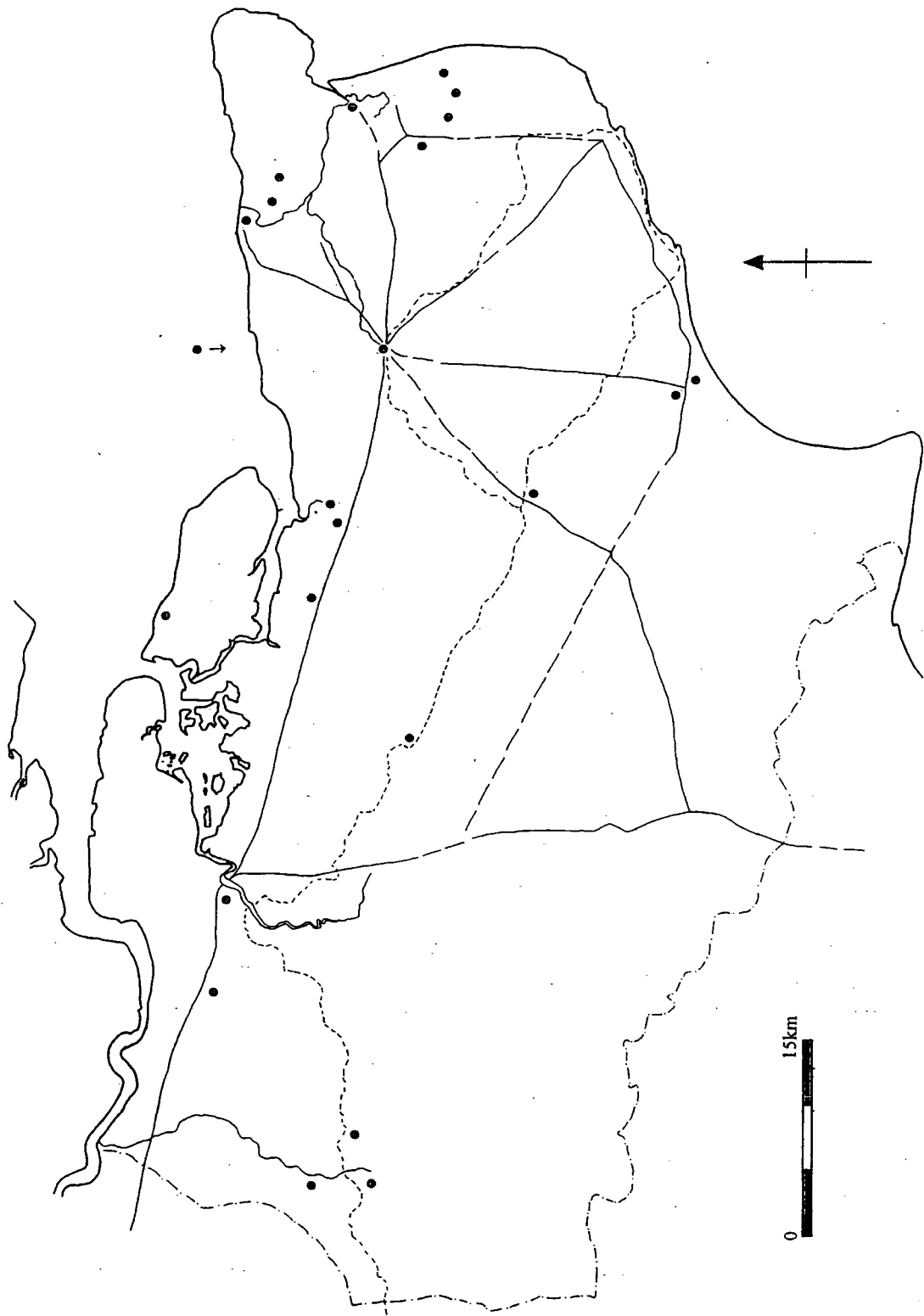
5.4 Area 2- finds of gold coinage



5.5 Area 2- finds of Primary and early Intermediate phase scattas, 680-710

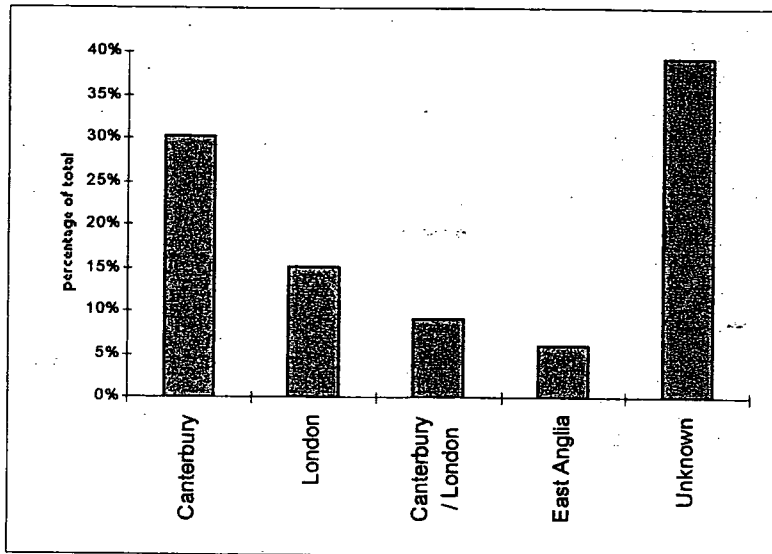


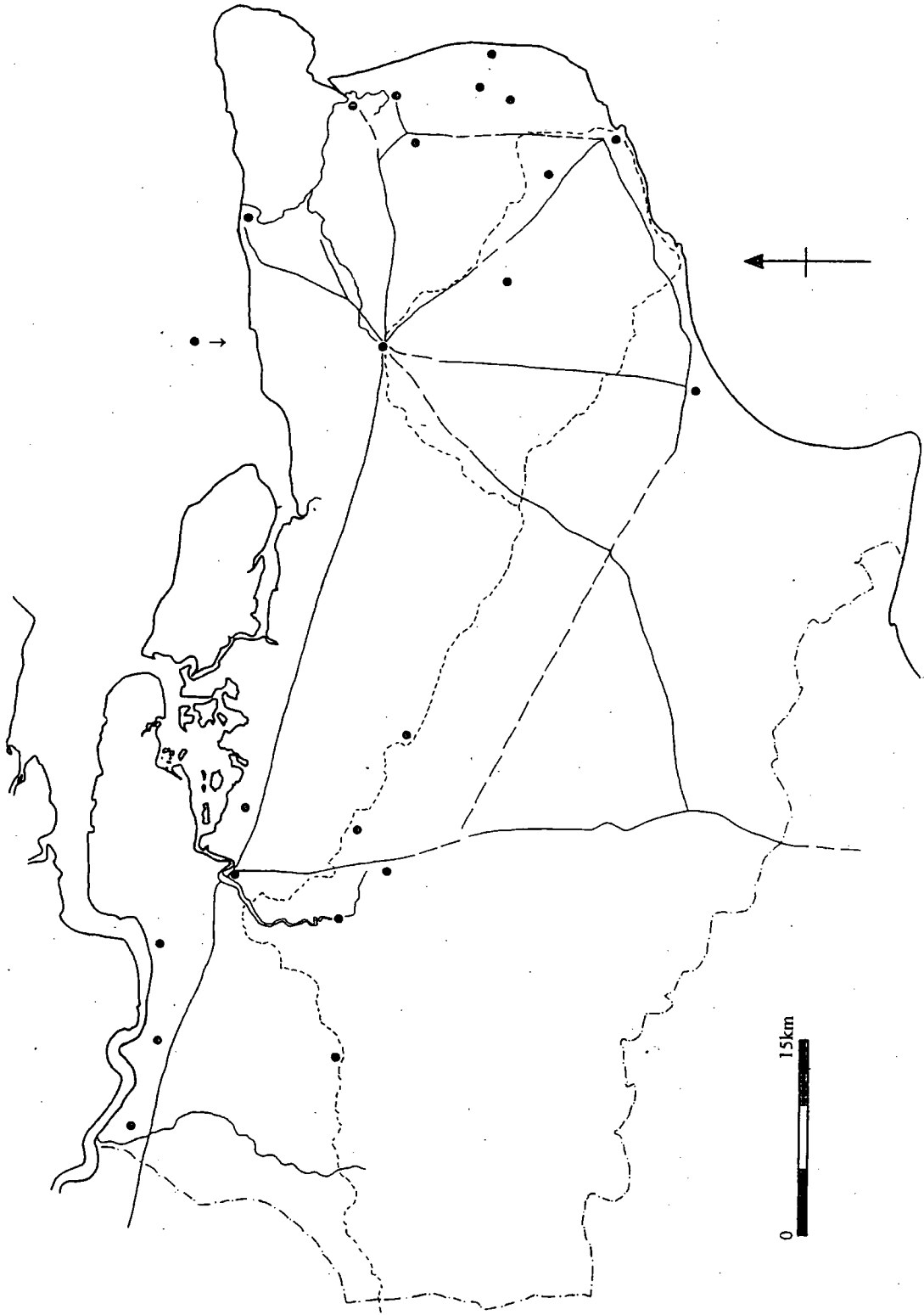
5.6 Area 2- finds of later Intermediate and Secondary phase sceattas, 710-740



5.7 Area 2- finds of later eighth century coinage, 740-796

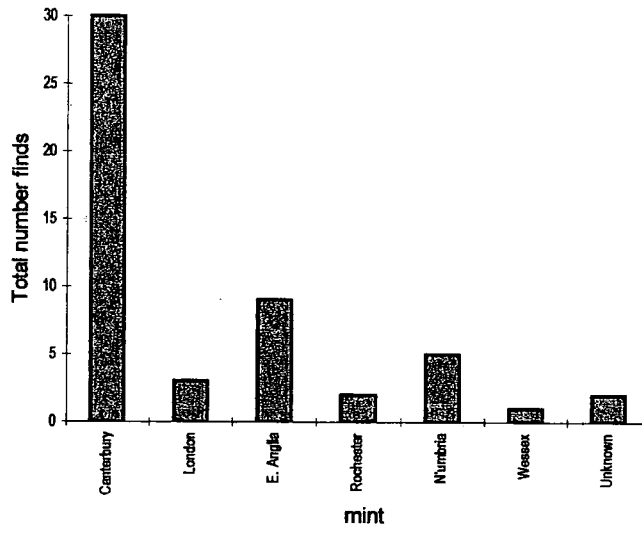
Fig. 5.8 Graph of Offan pennies by mint place

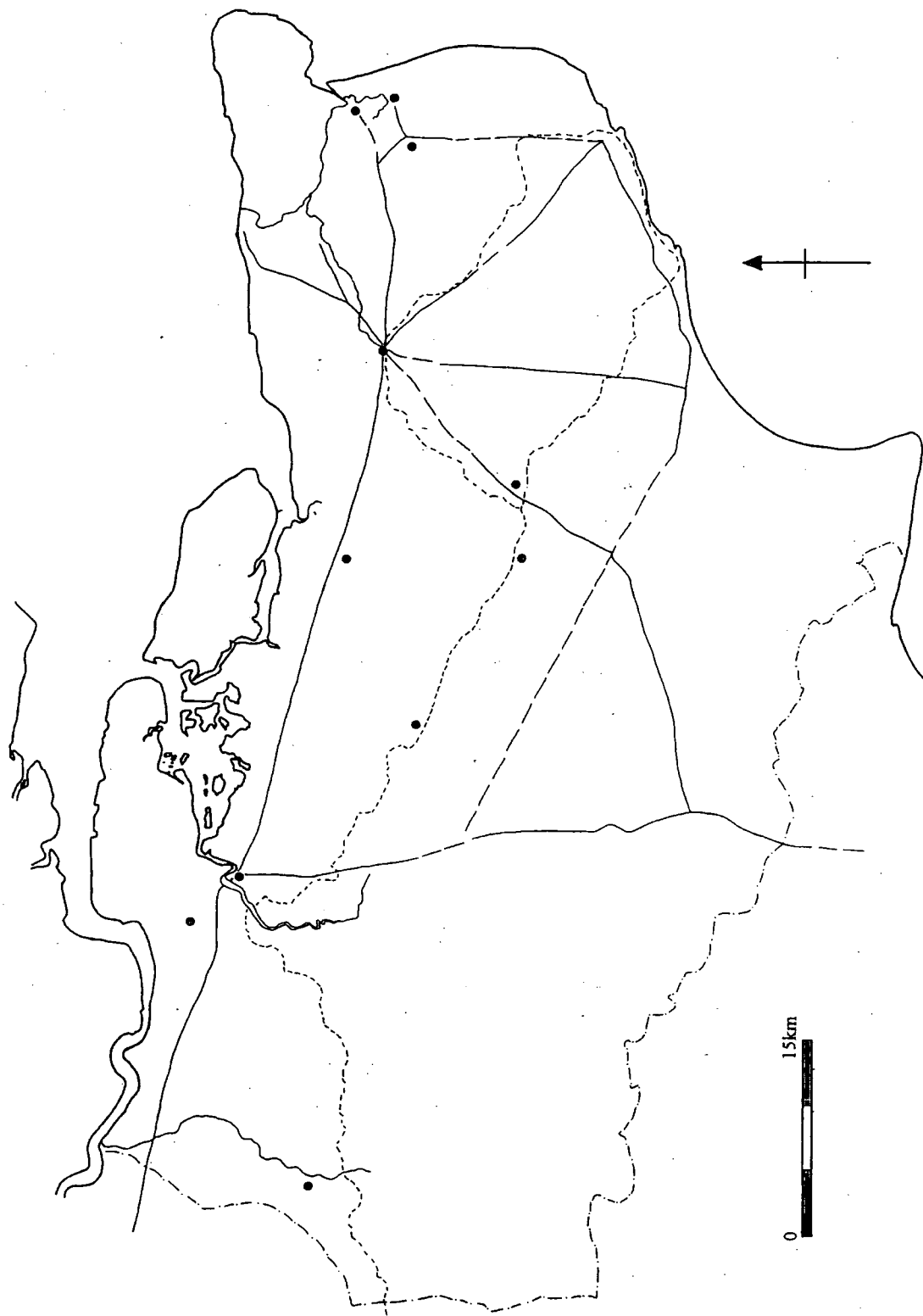




5.9 Area 2- finds of early ninth century coinage, 796-840

Fig. 5.10 coin finds by mint, c.796-c.840





5.10 Area 2- finds of mid-late ninth century coinage, 840-900

Fig. 5.12 Finds of late ninth-century coinage (c.840-c.900) by issuer

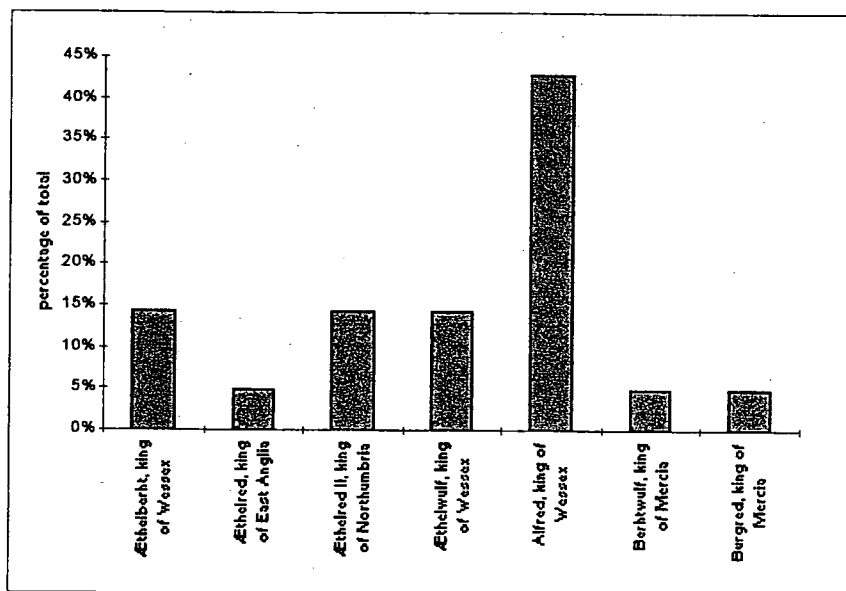


Fig. 5.13 Composition of coinage assemblages by date groups in Area 2

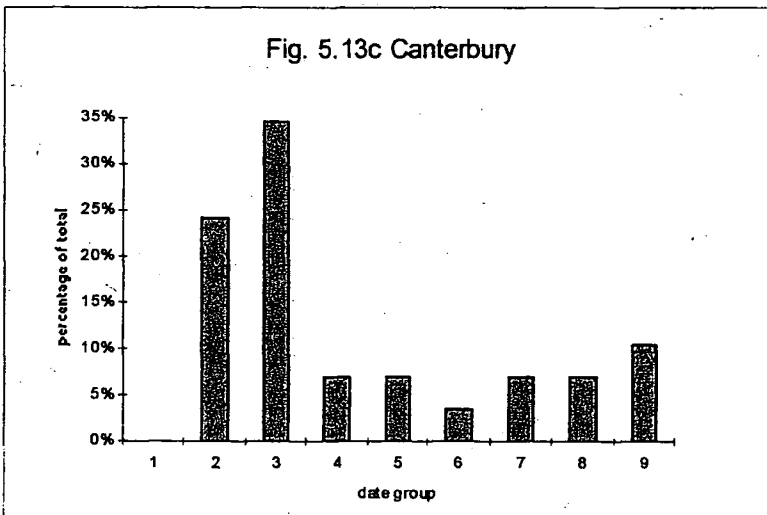
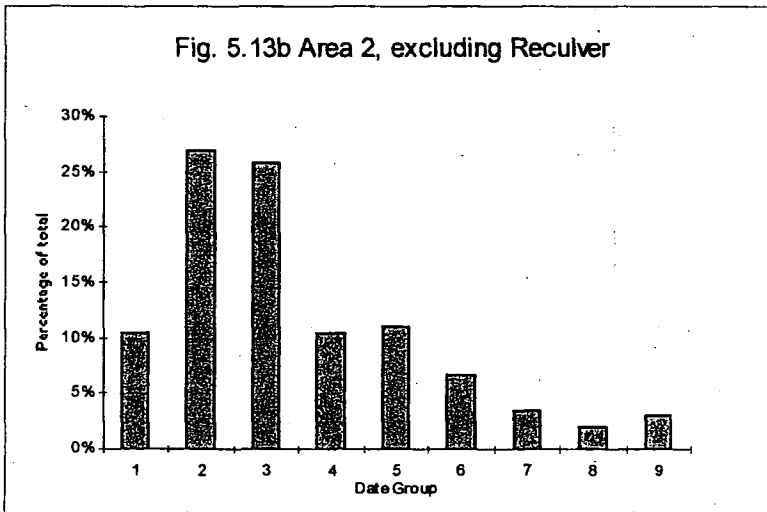
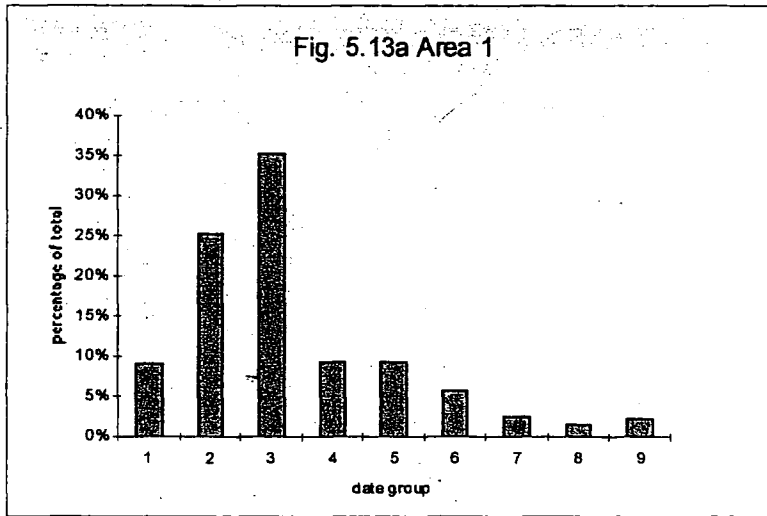


Fig. 5.13d Eastry

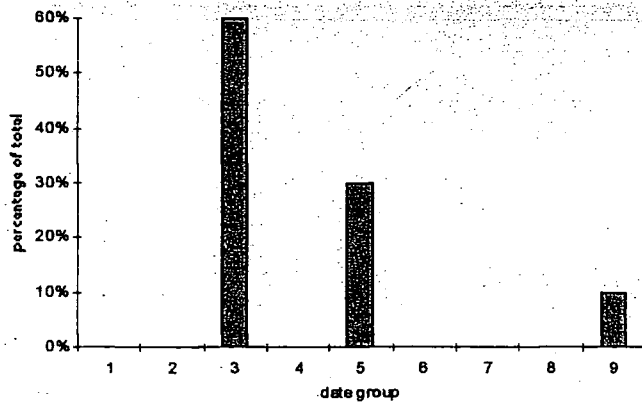


Fig. 5.13e Hollingbourne

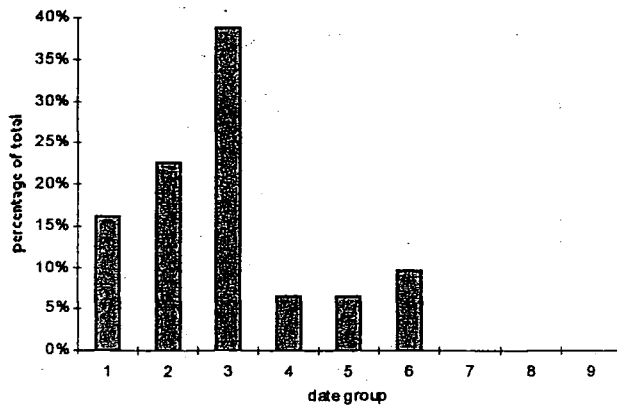


Fig. 5.13f near Canterbury

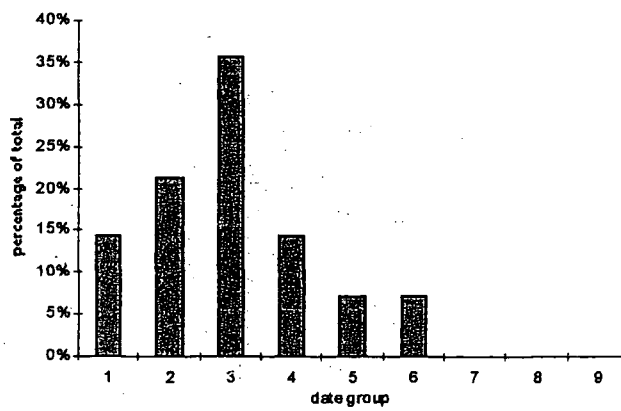


Fig. 5.13g Reculver

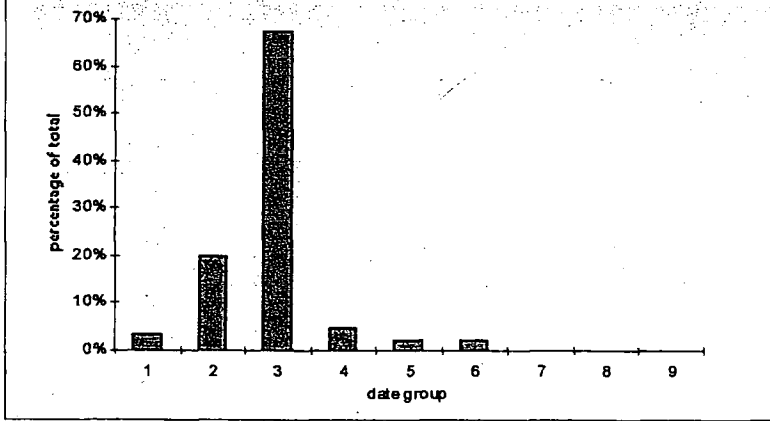


Fig. 5.13h Richborough (all finds)

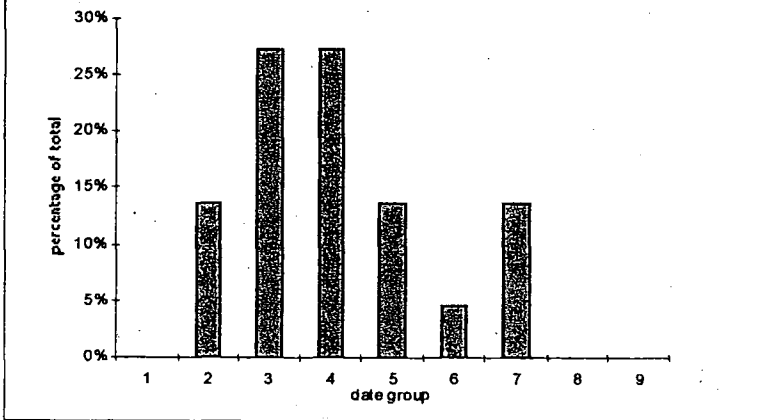
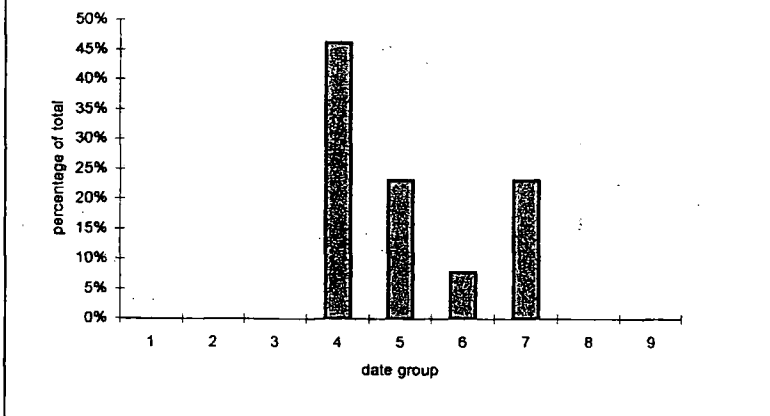
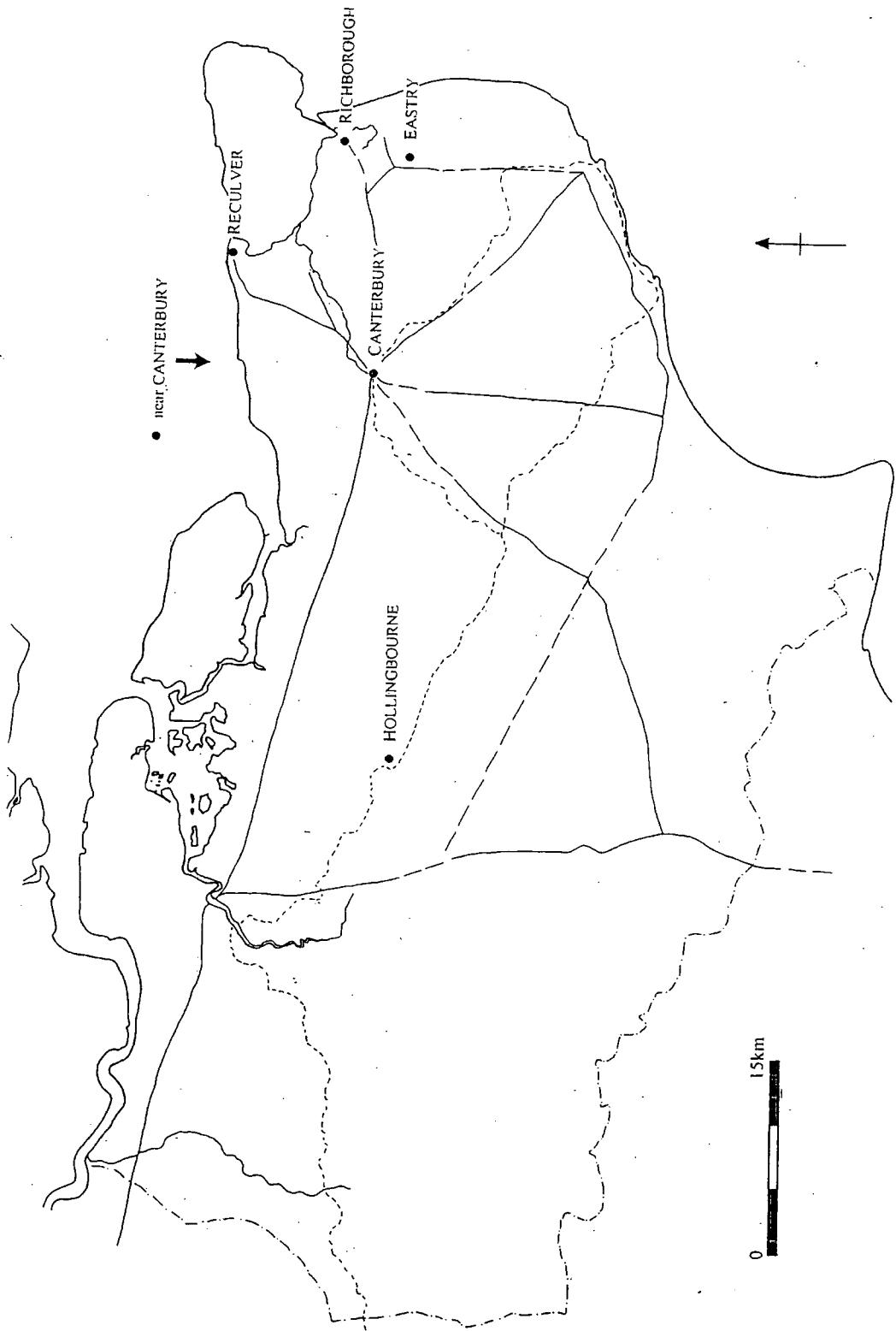
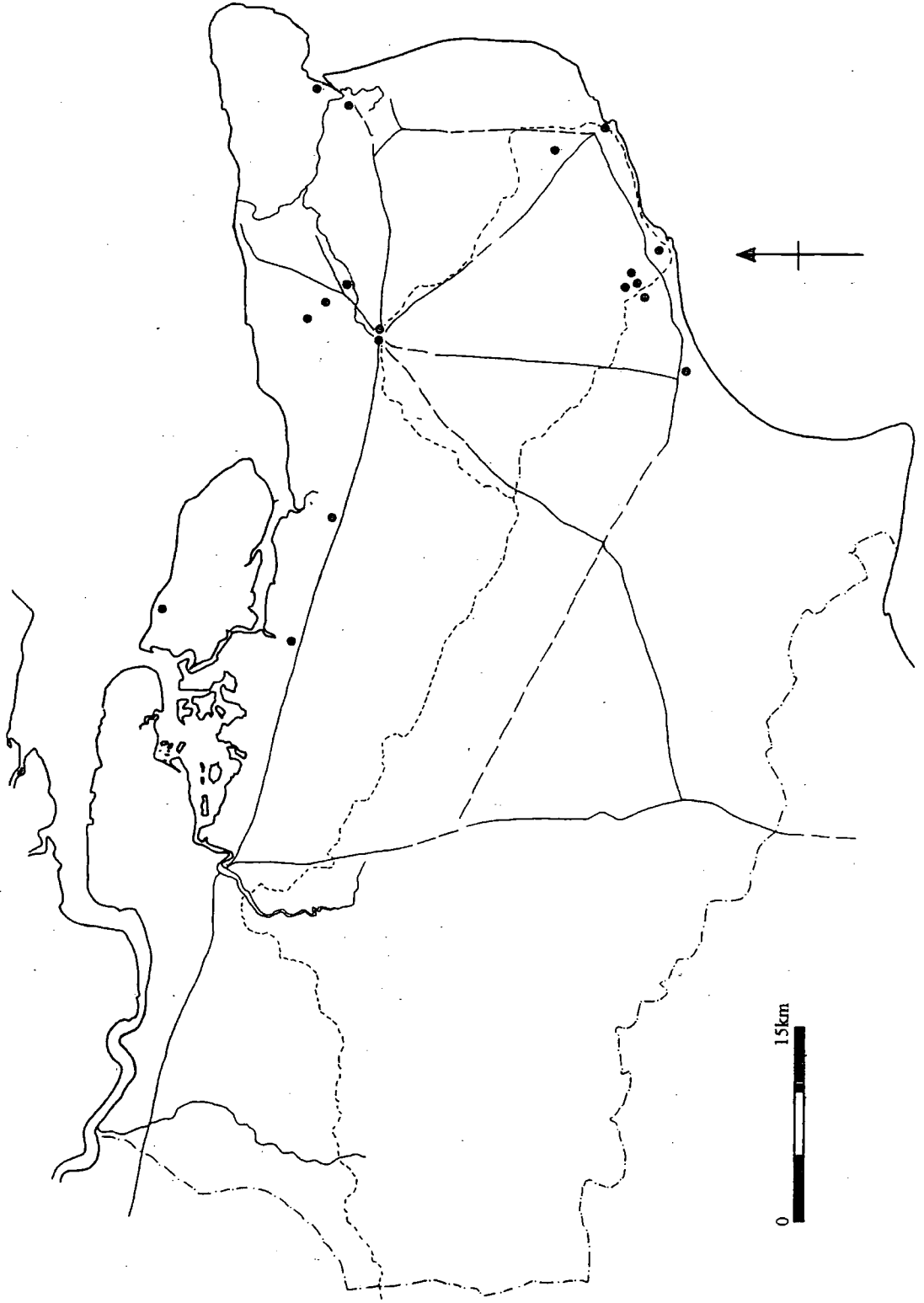


Fig. 5.13i Richborough (excluding possible grave finds)

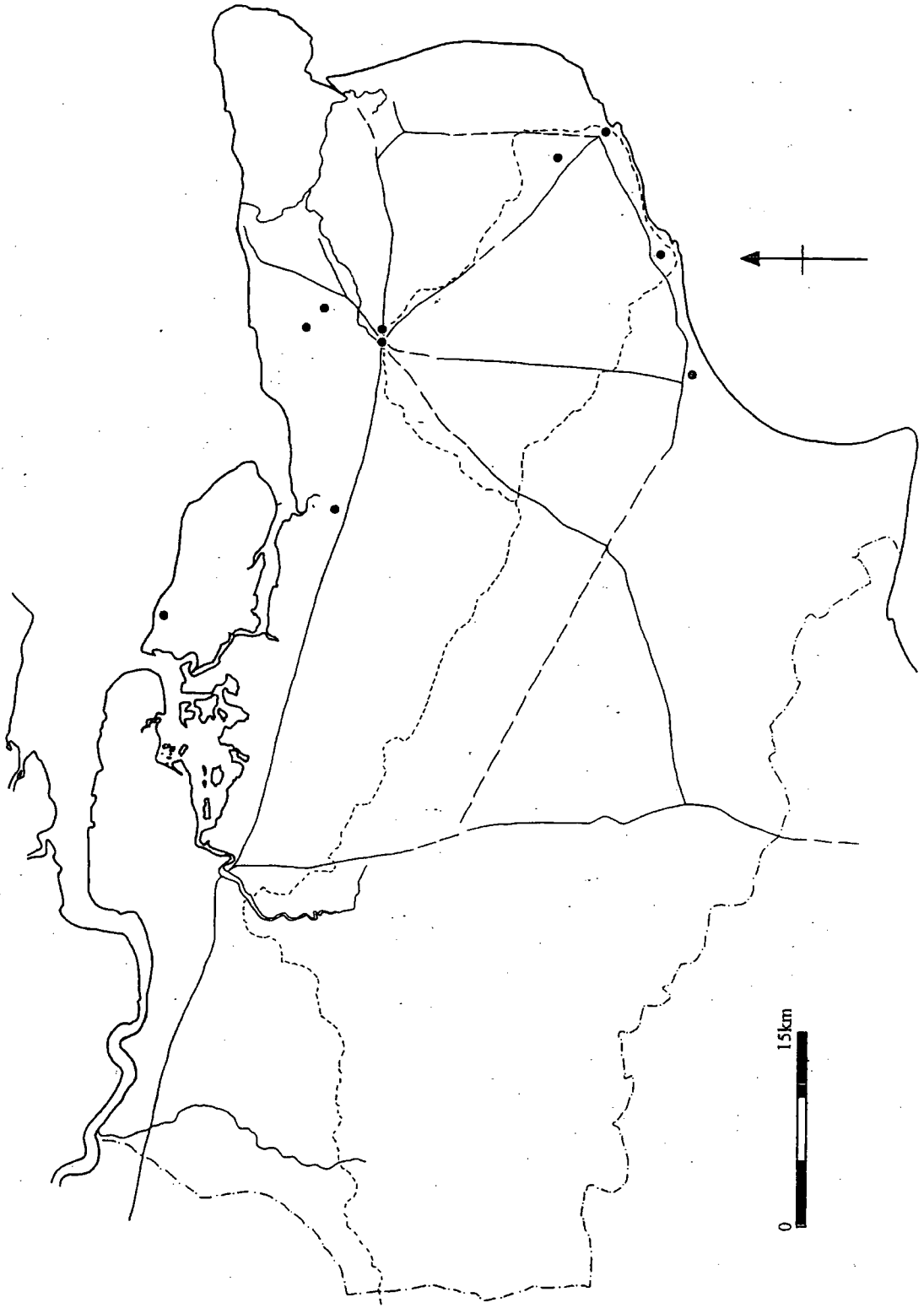




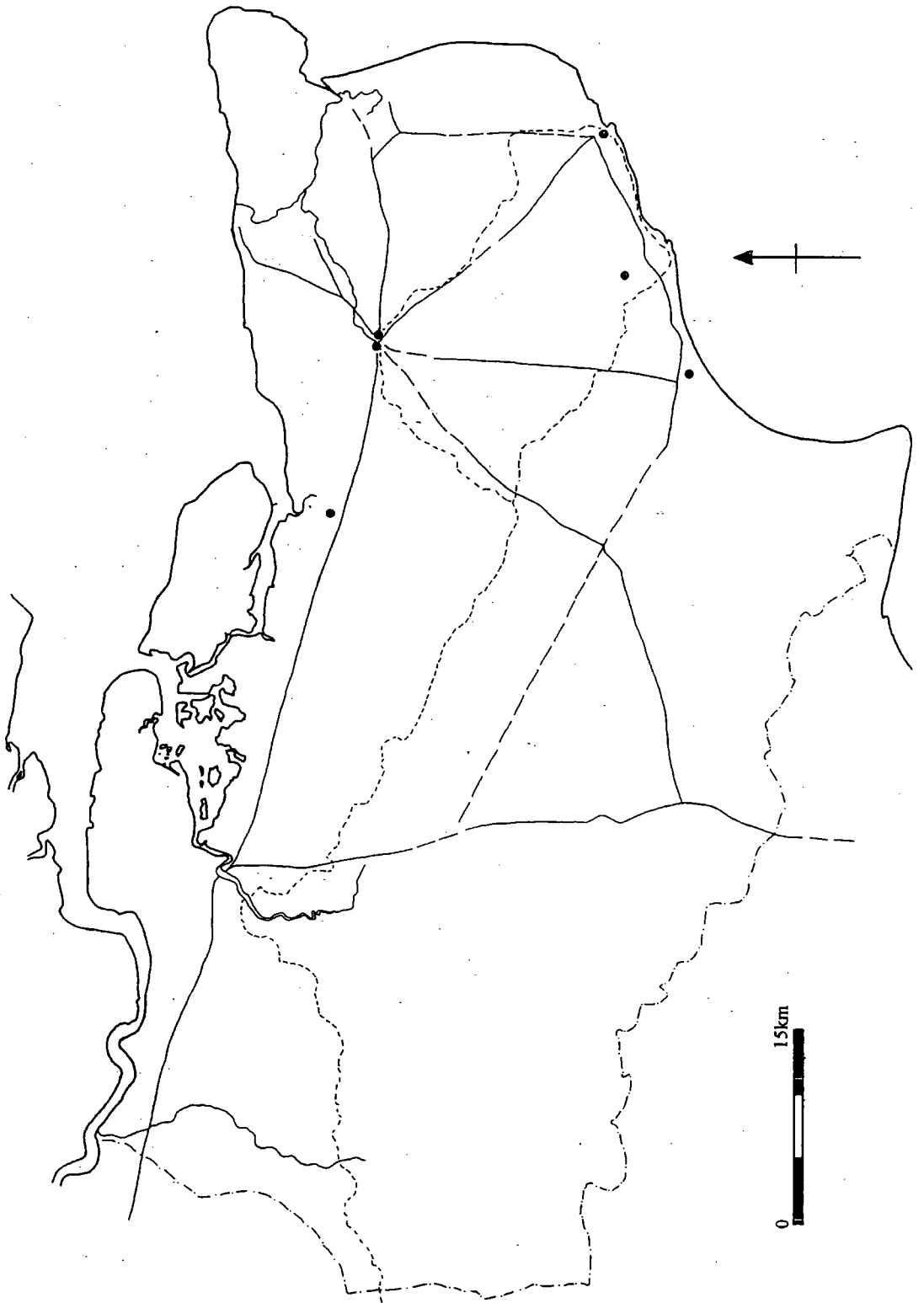
5.14 Area 2- distribution of numismatically rich sites



5.15 Area 2- distribution of all finds of pottery

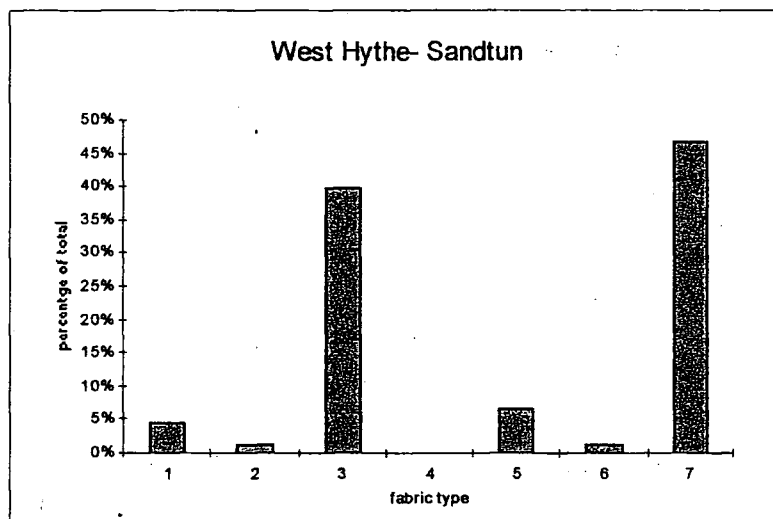
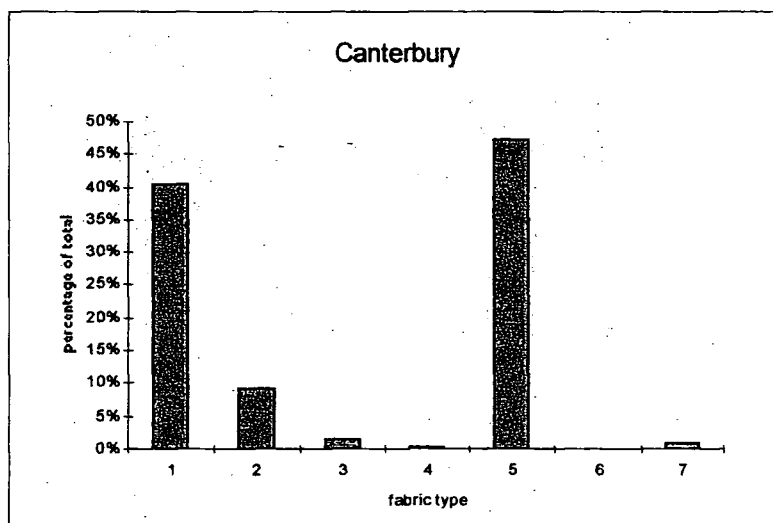


5.16 Area 2- quartz-tempered wares



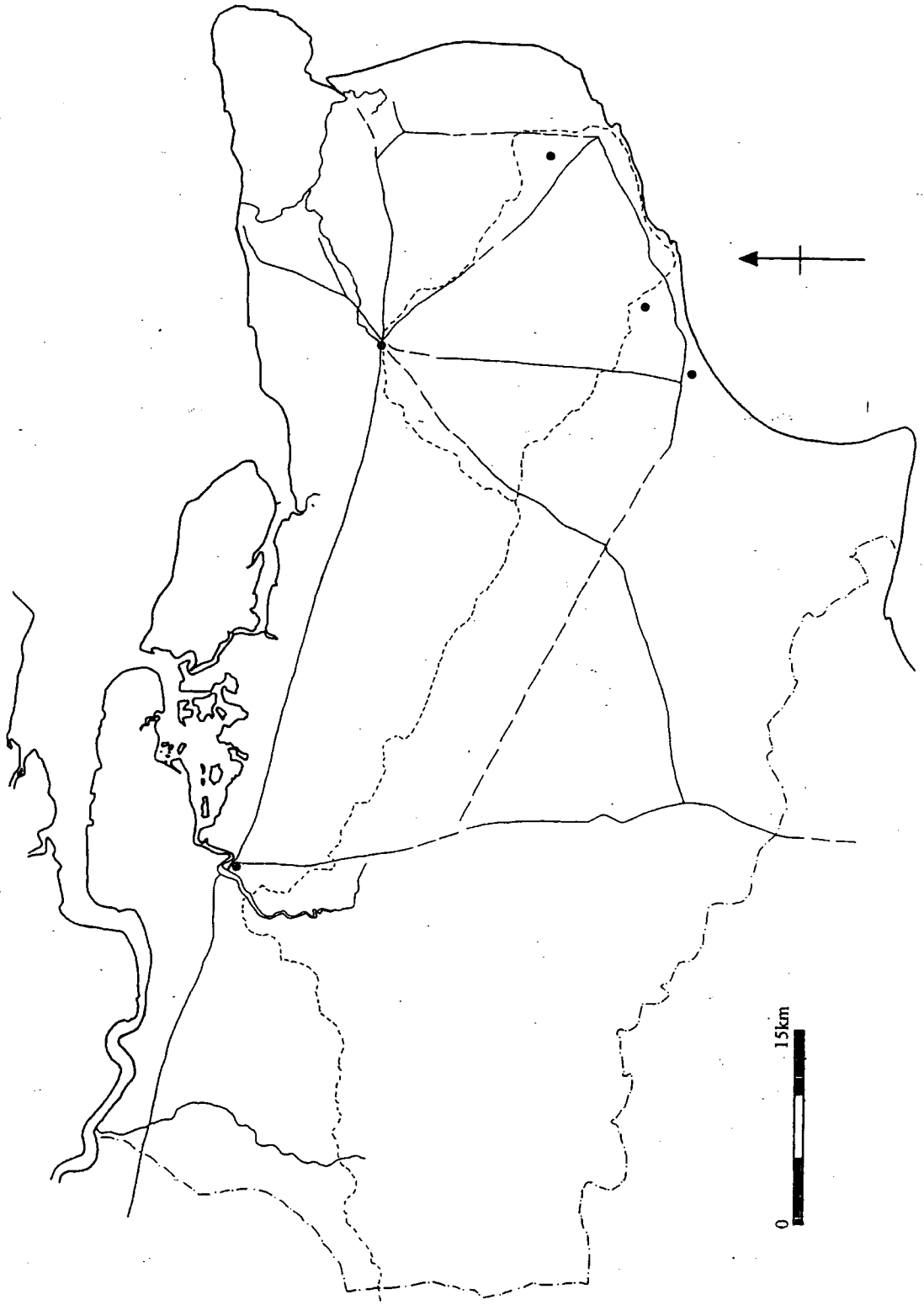
5.17 Area 2- shell-tempered wares

Fig. 5.18 Composition of middle Saxon pottery assemblages at Canterbury and West Hythe (Sandtun)



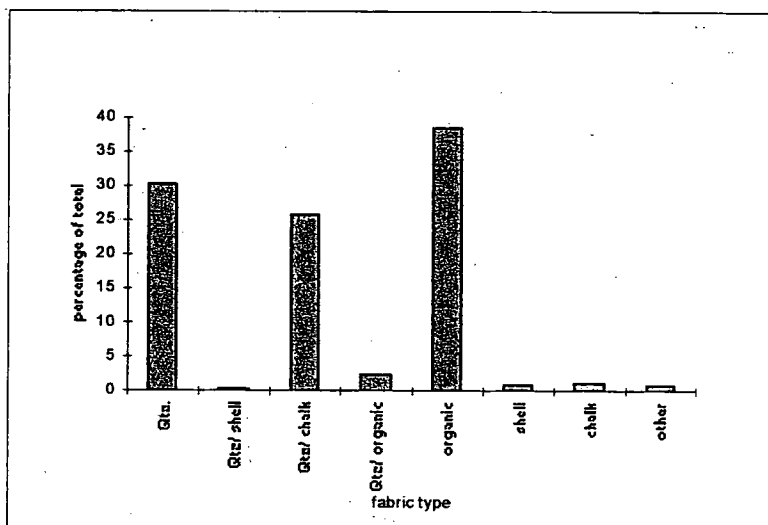
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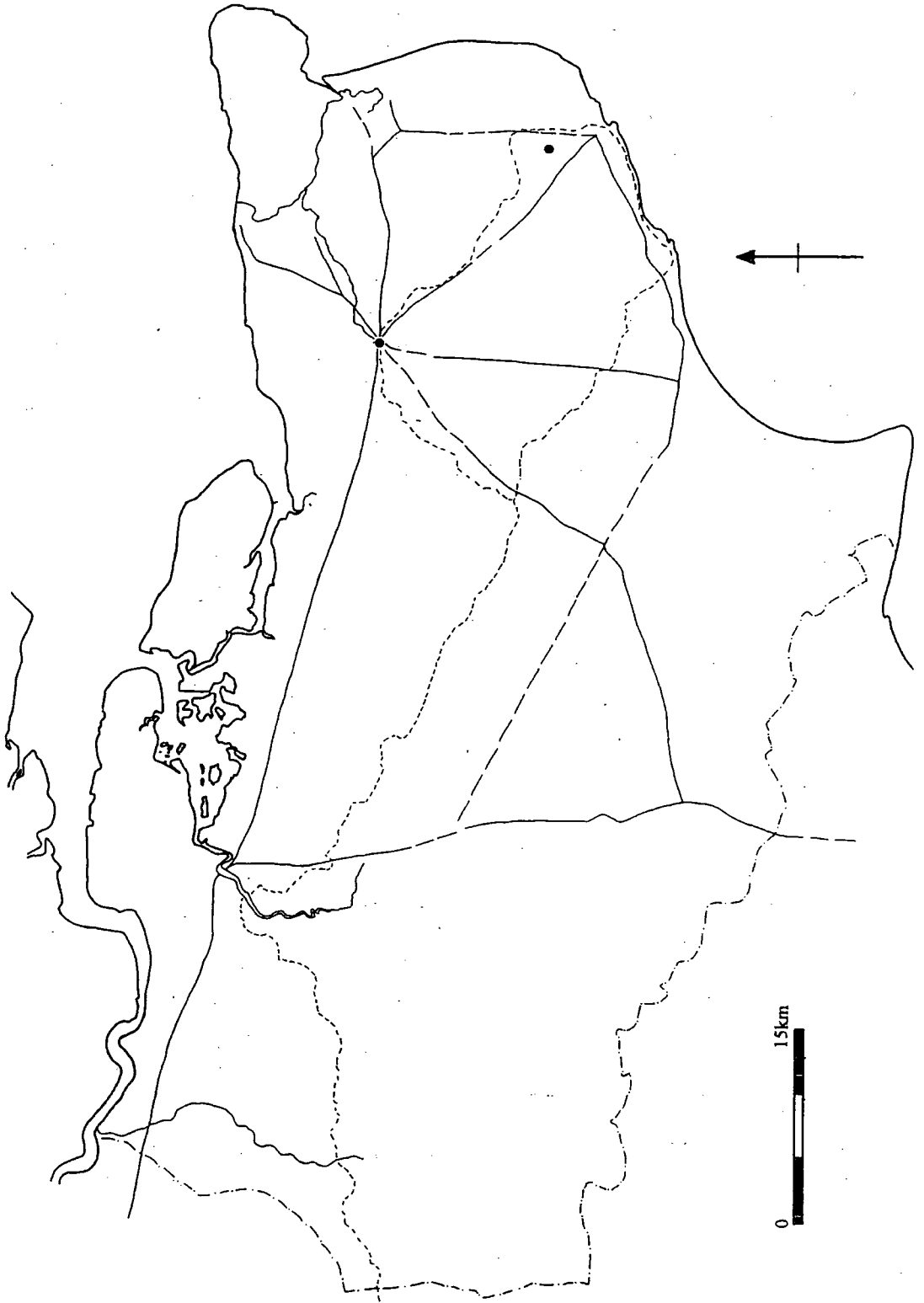
1. Quartz-tempered wares
2. Organic-tempered wares
3. Shell-tempered wares
4. Chalk-tempered wares
5. Ipswich ware
6. East Sussex shelly wares
7. Continental wares



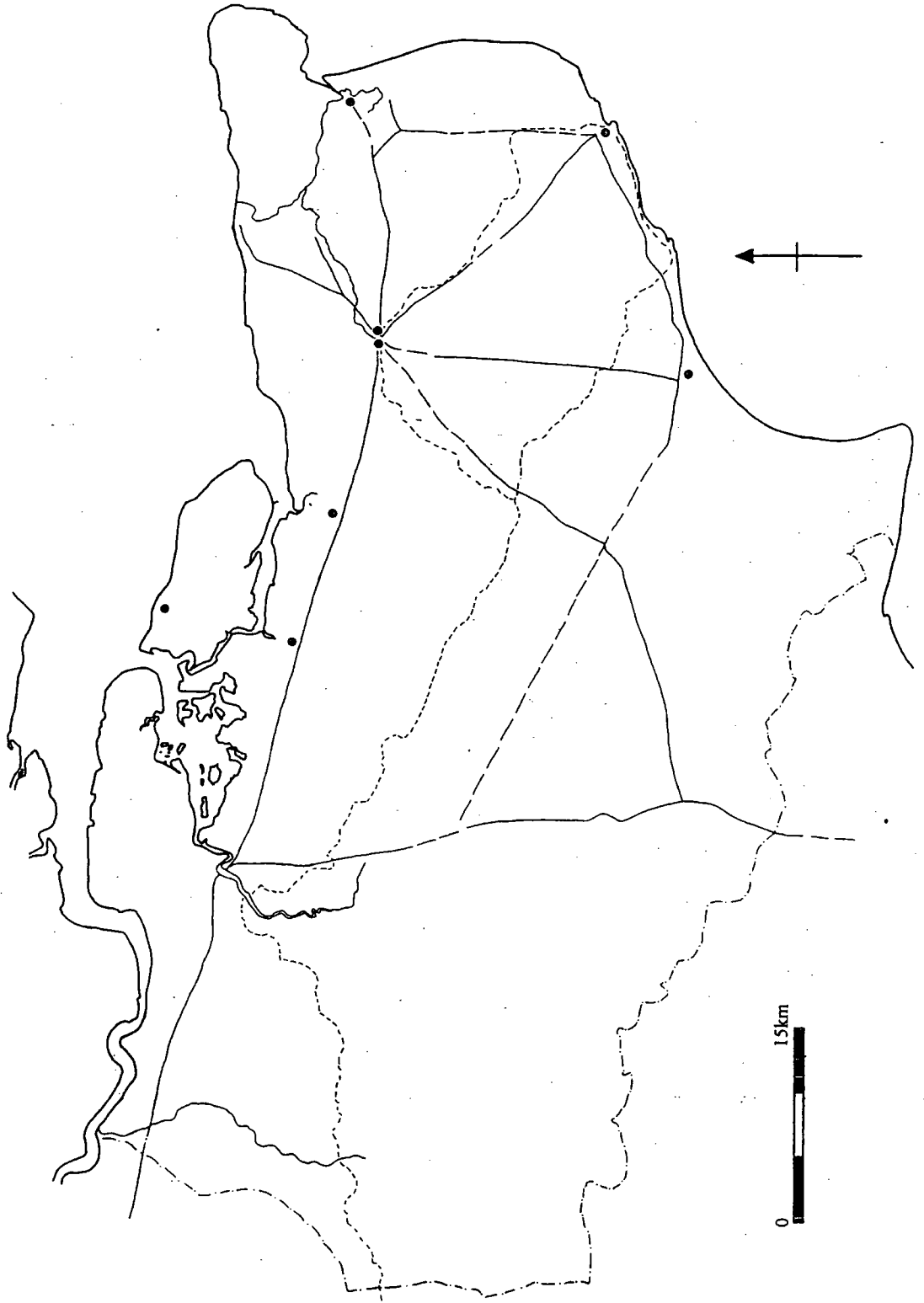
5.19 Area 2- organic-tempered wares

Fig. 5.20 graph showing composition of seventh century pottery assemblage from Canterbury

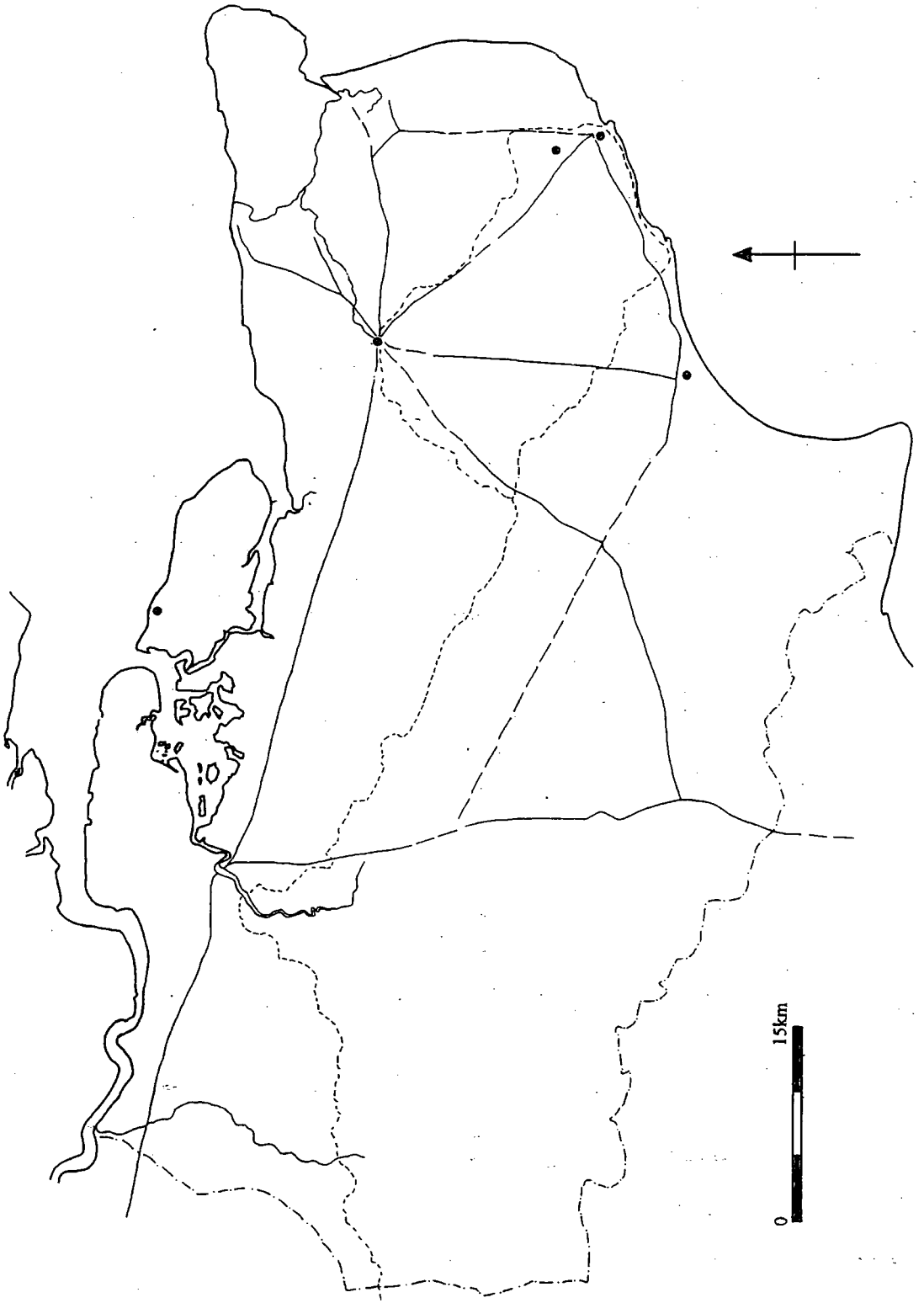




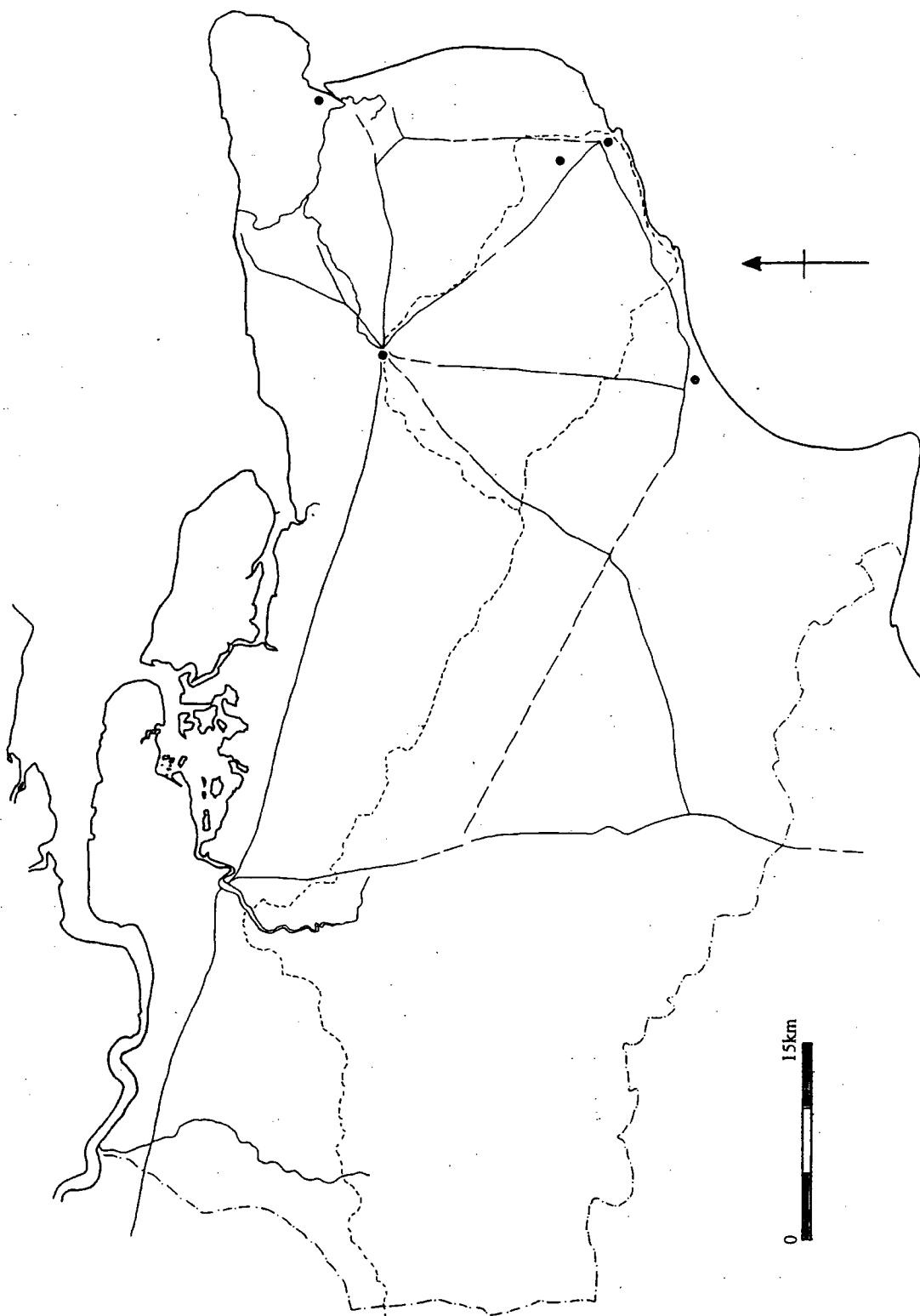
5.21 Area 2 - chalk-tempered wares



5.22 Area 2- Ipswich ware



5.23 Area 2- Continental wares



5.24 Area 2 - distribution of stone objects