

# RURAL SETTLEMENT, LIFESTYLES AND SOCIAL CHANGE

IN THE LATER FIRST MILLENNIUM AD

*Anglo-Saxon Flixborough in its Wider Context*



Christopher Loveluck

EXCAVATIONS AT FLIXBOROUGH VOL. 4

Rural Settlement, Lifestyles and Social Change  
in the Later First Millennium AD:  
Anglo-Saxon Flixborough in its wider context

## EXCAVATIONS AT FLIXBOROUGH

- Vol. 1 The Early Medieval Settlement Remains from Flixborough, Lincolnshire: The Occupation Sequence, c. AD 600–1000 *by Christopher Loveluck and David Atkinson*
- Vol. 2 Life and Economy at Early Medieval Flixborough, c. AD 600–1000: The Artefact Evidence *edited by D. H. Evans and Christopher Loveluck*
- Vol. 3 Farmers, Monks and Aristocrats: The Environmental Archaeology of Anglo-Saxon Flixborough *by Keith Dobney, Deborah Jaques, James Barrett and Cluny Johnstone*
- Vol. 4 Rural Settlement, Lifestyles and Social Change in the Later First Millennium AD: Anglo-Saxon Flixborough in its Wider Context *by Christopher Loveluck*

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Rural Settlement, Lifestyles and Social Change  
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**Anglo-Saxon Flixborough**  
in its wider context

by  
Christopher Loveluck

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*Front cover: Detail from an eleventh-century calendar illumination showing an aristocrat hunting cranes and wildfowl in a wetland habitat (British Library, BL, MS Cotton Tiberius BV, f. 7v)*

*Rear cover: Detail from an eleventh-century manuscript depicting feasting in the hall  
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# Abstract

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Between 1989 and 1991, excavations adjacent to the abandoned medieval settlement of North Conesby, in the parish of Flixborough, North Lincolnshire, unearthed remains of an Anglo-Saxon settlement associated with one of the largest collections of artefacts and animal bones yet found on such a site. The Anglo-Saxon settlement was situated on a belt of windblown sand, overlooking the floodplain of the River Trent, eight kilometres south of the Humber estuary. Analysis has demonstrated that the excavated part of the settlement was occupied, or used for settlement-related activity, throughout what have been termed the 'Mid' and 'Late' Anglo-Saxon periods. In an unprecedented occupation sequence from an Anglo-Saxon rural settlement, six main periods of occupation have been identified, with additional sub-phases, dating from the seventh to the early eleventh centuries; with a further period of activity, between the twelfth and fifteenth centuries AD.

The remains of approximately forty buildings and other structures were uncovered; and, due to the survival of large refuse deposits, huge quantities of artefacts and faunal remains were encountered, compared with most other rural settlements of the period. Together, the different forms of evidence and their depositional circumstances provide an unprecedented picture of nearly all aspects of daily life on a settlement which probably housed elements of the contemporary social elite amongst its inhabitants, between the seventh and eleventh centuries. Furthermore, and perhaps even more importantly, the detailed analysis of the remains also provides indications of how the character of occupation changed radically during the later first millennium AD, when the kingdom of England emerged.

The publication of the remains of the Anglo-Saxon settlement is achieved in four volumes, and will be supported by an extensive archive on the Archaeological Data Service (ADS) for the United Kingdom. The excavation, post-excavation analysis and publication phases of the project have been funded principally by English Heritage, and the project has been run through the Humberside Archaeology Unit – now the Humber Archaeology Partnership. This volume sets the evidence

in the wider context of other discoveries in the British Isles and, to a certain extent, Continental north-west Europe, for the period between the seventh and eleventh centuries AD.

Interpretation of the nature of the excavated settlement at Flixborough has been a subject of considerable speculation since the announcement of the discovery of the remains, in the early 1990s. Initial interpretations put forward by archaeologists and historians were conditioned by the prevailing, textually-led approach which had driven the development of 'Middle Saxon' settlement archaeology, between the 1940s and 1970s; namely, excavation at sites associated with Anglo-Saxon documentary labels, describing the nature of settlements at precise 'snapshots' in time. The settlements with by far the greatest number of documented labels were monasteries. Hence, they were the settlements that attracted most of the attention of archaeological pioneers researching the settlement archaeology of the period between AD 650 and 1000. The excavated remains from monastic settlements, such as Whitby (North Yorkshire), and Monkwearmouth and Jarrow (Co. Durham), seemed to corroborate textual descriptions of structures, activities, items and raw materials linked to monasteries, particularly those which enjoyed patronage from Anglo-Saxon royal families. Perhaps inevitably, therefore, the finds associated with these sites were viewed, and are still regarded as characteristic of monastic centres, often referred to as *minsters*.

Until the 1980s and 1990s, and an expansion in the number of excavations and publications, it was not possible to make even a preliminary assessment of whether the artefact and structural profiles from monastic sites were exclusive to them, or a function of a wider range of geographical and social influences. The discovery of undocumented settlements, such as Staunich Meadow, Brandon (Suffolk) and Flixborough, did, to some extent, open the debate over the wider occurrence of evidence for literacy, long-distance exchange and specialist craft-working on seventh- to ninth-century rural sites, but it has proved very difficult for archaeologists to escape the influence of textually-led interpretations of

their evidence. Indeed, some historians have taken an increasingly active role in the interpretation of archaeological data. Hence, John Blair has criticised archaeologists for having too narrow a concept of a 'monastery' or *minster*, in terms of how such a settlement might be reflected in archaeological remains, particularly in relation to artefact and structural evidence.

From an archaeologist's perspective, however, an awareness of the broad range of characteristics that might be found on 'monastic' settlements, as defined by historians, does not necessarily increase the resolution of archaeological interpretation using those broader criteria. Indeed, they are so broad that nearly all settlements at the top level of the rural settlement hierarchy could be interpreted as *minsters*. The key problem for the differentiation between complex ecclesiastical and secular settlements, as they are manifested archaeologically, is that we cannot be sure of the exclusivity of certain traits in the built environments, burial practices, activities, and artefact profiles on materially wealthy settlements, whether monastic or secular.

The exceptional occupation sequence at Flixborough, with its huge associated refuse deposits of artefacts and biological remains, has provided one of the first opportunities to explore the complexities of life on a seventh- to early eleventh-century rural centre comprehensively, through the combined filters of its structural, artefact and biological signatures. Limits of inference and the scale of interpretation based on the evidence have also been rigorously assessed with detailed study of site-formation processes, and deposit representativity. Thematic analysis of trends in structural character and the use of space, provisioning, craft-working, and trade and exchange have demonstrated dramatic changes through time. These changes could relate to a complex combination of factors: namely, transformations in settlement character; alterations in the territories linked to the settlement and estate management strategies; and changing relationships between the settlement and sites of exchange, accompanied by the emergence of new rural and urban elite identities. The timing of changes in lifestyles, identifiable within the occupation sequence, did not correlate with the threshold between the artificially defined chronological eras of the 'Mid Saxon' (mid seventh to mid ninth centuries), and 'Late Saxon' or Anglo-Scandinavian (mid ninth to mid eleventh centuries) periods. A series of transformations took place within the period between the late seventh and early to mid ninth centuries, as they also did between the mid ninth and late tenth centuries; and the ability to observe these changes was not influenced significantly by non-comparable refuse strategies in different phases.

When reviewing the way of life on the settlement from the later seventh to early ninth centuries, all the traits observable in the artefact and vertebrate assemblages point to a series of practices representative of an aristocratic lifestyle on a secular rural estate centre. There

was a general continuum in the use of space within the excavated area of the settlement during this period. Buildings were located on two sand spurs and also, intermittently, within the terminus of a shallow valley that lay between them. Refuse originating from both within and beyond the area of the excavations was discarded in middens outside buildings, and in larger refuse dumps in the shallow valley. Life was organised around the pursuit of ostentatious display and leisure pursuits, principally in dining (feasting) and hunting. These practices were enabled by the conspicuous consumption of the resources of the surrounding landscape and region, possibly including cattle renders from subordinate landholdings; and the centrifugal pull of imported luxuries, especially glass drinking vessels. There is nothing to suggest the necessity for a monastic element on the site.

This is not to say that a building or focus possibly serving an ecclesiastical function did not exist at this time. During the first half of the eighth century, building 1a, constructed on a gravel and dry-stone footing, was certainly used as a burial focus for part of its existence; and it possibly reflects a role as a mortuary chapel for a leading family on the settlement. Differentiation in burial zones is certainly evident with two known locations, one in building 1a, and the other in a larger grave group to the south. It is possible that a range of burial locations was available depending on social rank within the settlement and region. The presence of a building associated with burials has been one of the criteria used by some researchers to suggest that Flixborough was a monastic centre. Yet, increasingly if the scale of excavation is sufficiently large, buildings associated with burials, probably equating to mortuary chapels, oratories or churches, are found on most settlements: Yeavering (Northumberland), Thwing (East Yorkshire), Bramford (Suffolk), Whissonsett (Norfolk) and Brandon (Suffolk), to name a few, not including documented monastic centres. This pattern is also becoming apparent on most extensively excavated settlements in immediately neighbouring continental countries – particularly France and Belgium.

Patterns of life on the settlement from the early to middle decades of the ninth century (probably until at least the early 860s) represent a major change in a range of aspects of the material culture profile from the settlement. These are manifested particularly in the range and quantities of tools and debris from specialist craft-working; spectacular changes in animal husbandry and exploitation patterns; and the presence of styli and inscribed artefacts, reflecting a literate element within the population of the settlement. The lifestyles of the inhabitants undoubtedly show a great contrast with the pattern of life during the eighth century. During Period 4, the focus of activities changed to provisioning for the support of an increased level and scale of artisan activity, and the potential distribution of some of its products



within the immediate region linked by the Humber and East Midlands river systems, at the very least. Large-scale consumption of cattle, some of which may previously have arrived as food rents had ended, and evidence for exotic components of 'feast kits', such as glass vessels was far less abundant, in terms of indications of contemporary use. Exploitation of wild resources had also decreased substantially, especially in relation to wild birds, suggesting that hunting and falconry were no longer important for provisioning or leisure. Yet, the resources of the wetlands and their fringes, and the opportunities to harvest them, were certainly present in the immediate surroundings of the ninth-century settlement. In short, the trappings of what can be described as a 'secular' elite lifestyle, in terms of ostentatious display by conspicuous consumption and leisure, were no longer present.

A combination of traits amongst the artefact and bone assemblages could, therefore, be used to suggest an ecclesiastical or 'monastic' identity for the Flixborough settlement, during Period 4 of the occupation sequence. The extent of ecclesiastical influence, however, is extremely difficult to ascertain. A more intensive level of specialist production and commodity distribution, as a result of the increased use of certain products of the settlement's landholdings, is certainly demonstrated. This was associated with the presence of styli, possibly representative of greater attention to estate management. Furthermore, the faunal assemblage can also be viewed within an ecclesiastical context. Yet, the type of settlement suggested in the archaeological remains could represent an estate centre, linked to a monastic institution. It need not have become a monastery itself. Given the ambiguity of the evidence of styli as an indicator of 'monastic' or 'ecclesiastical' settlement character, it could be argued that the ninth-century settlement remained a secular centre, geared to the support of an elite who were more rarely resident. Thus, the dramatic decrease in the consumption of beef and wild species could be a reflection of increased absence of a secular elite household, rather than transformation to a religious settlement.

Nevertheless, the lifestyle witnessed at ninth-century Flixborough is certainly far more similar to that seen amongst the remains from documented monasteries in England and on the continent, rather than secular aristocratic or royal rural residences. It is perhaps more sensible, however, to view any transformation from a secular to ecclesiastical site within the context of change from a secular to ecclesiastical estate centre, where production and estate management for the benefit of a parent institution were the main functions of the settlement, possibly administered by a small number of clerics. It has to be admitted, however, that the difference in physical reality between an ecclesiastical estate centre with a small group of clerics, and a small monastery, may have been minimal and all but indistinguishable in their archaeological representations.

From the early to middle decades of the tenth century,

the lifestyle supported had again undergone a transformation, characterised by the return of ostentatious display and conspicuous consumption. Yet, there were some distinct differences with the period from the later seventh to early ninth centuries, relating to the trappings and material culture kits used for display. Feasting and hunting were again the key social activities in life on the settlement, but the use of portable, intrinsically valuable glass vessels, metalwork and other imported luxuries were not a feature of eating and drinking, as they had been in the eighth century. The alternative form of display to these luxury components of mobile material culture was provided by the built environment of the settlement; specifically, the large size of the buildings. In comparison with the leading household or households of the eighth century, the leaders of the tenth-century settlement put their emphasis on the size of the 'theatres' of consumption, rather than the 'props'. The buildings – the venues for consumption – were the largest in the occupational history of the settlement, and the diversity of animal species consumed reached its greatest extent. Hence, the means of social display of the tenth century were provided by local resources of the associated estate, in terms of conspicuous use of timber and both domesticated and wild animals.

The lifestyle exhibited at the tenth-century settlement, which was probably the manorial centre of North Conesby (*Kuningsr-by* – King's settlement in Old Danish), reflects considerable complexities and changes in society during the tenth century, with the development of rural and urban elite identities and the trappings associated with them. From the sparse number of identifiable imported products compared to the periods from the late seventh to mid ninth centuries, it appears that imported items played a very limited role, whether in everyday life or on special occasions. The elite lifestyle supported on the tenth-century settlement, and the means of social display were truly 'rural'. Imported luxuries do not appear to have reached the 'countryside' in northern Lincolnshire, in the way that they had in the seventh, eighth and earlier ninth centuries. It may be an illusion, however, to believe that lives on rural centres at some distance from towns were not influenced by them directly, whether in transactions to provision towns or in the passage of people between them, especially members of leading families. Intensive and specialist production of commodities by artisans, and their exchange, were focused on the towns during the tenth and eleventh centuries. Rural aristocrats increasingly held urban landholdings from this period, and if members of the regional aristocracy did travel to towns regularly, they could not, or chose not, to display the imported luxuries more evident in urban elite identity, at their rural centres. At Flixborough-North Conesby, the limited identifiable products of towns could have arrived indirectly via exchange transactions at rural markets, or via direct contacts with the waterborne traffic of the River Trent and Humber estuary.

The transformations seen in the character of the excavated settlement in Flixborough parish highlight the potential for dynamic change within individual settlement histories. This phenomenon is also illustrated more widely in continental western Europe, especially in textual evidence and in rare cases also in archaeological remains. On the continent, there is wider recognition of the take-over of existing aristocratic estate centres and their transformation into major monasteries. For example, the estate centre of *Sithiu* at Saint-Omer, Nord, was transformed into the monastery of St. Bertin, in AD 651. The reality of such settlement transformation from secular to monastic centre has rarely been given detailed attention in England, for the period between the seventh and ninth centuries. For the tenth and eleventh centuries, the likelihood of transformation of settlement character in England is a more accepted fact, often equated with the onset of the 'Late Saxon' or 'Anglo-Scandinavian' period. The changes of the late ninth and tenth centuries at Flixborough-North Conesby certainly reflect changes in this period; in this case likely 'secularization' of an

ecclesiastical estate centre or small monastery. The same is suggested through limited excavation at Kirkdale, North Yorkshire, where a possible monastic settlement had become an estate centre of the Anglo-Scandinavian aristocrat *Orm Gamalson*, by the mid eleventh century. Lessons from neighbouring Continental European countries also point to transformation from secular to ecclesiastical centres, as at Distré, Maine-et-Loire, in France, where the estate centre and its territory became a priory of the monastery of Saint-Florent de Saumur, between AD 1030 and 1040.

The growing body of north-western European evidence, as a whole, suggests that it is inescapable to avoid acceptance of the possibility that dynamic change and transformation of settlement character was a recurrent phenomenon associated with rural settlement, during the early Middle Ages. For the first time, the exceptional archaeological remains from Flixborough have allowed the comprehensive exploration of such dynamic, rural settlement history in England, during the later first millennium AD.

# Zusammenfassung

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Von 1989 bis 1991 fanden in der Nähe des aufgegebenen mittelalterlichen Dorfes North Conesby in der Gemeinde Flixborough, North Lincolnshire, Ausgrabungen statt, die eine angelsächsische Siedlung mit einem der umfangreichsten Spektren an Kleinfunden und Tierknochen, dass je an einem vergleichbaren Fundplatz entdeckt wurde, aufdeckten. Die angelsächsische Ansiedlung befand sich auf einer Anhöhe aus Flugsand in der Flussebene des Trent, ca. 8 km südlich des Humbermündungsgebiets. Dieses Projekt hat gezeigt, dass der ergrabene Teil der Siedlung von der „mittleren“ bis zur „späten“ angelsächsischen Zeit durchgehend besiedelt, bzw. für siedlungsähnliche Aktivitäten genutzt wurde. Anhand einer für eine ländliche angelsächsische Siedlung bisher einmaligen Nutzungsabfolge konnten sechs Hauptperioden mit mehreren Phasen identifiziert werden, die schwerpunktmäßig vom 7. bis zum 11. Jahrhundert, mit einer jüngsten Nutzung vom 12. bis in das 15. Jahrhundert, reichen.

Während der Ausgrabungen konnten die Reste von ca. 40 Gebäuden und anderen Strukturen, sowie Überreste von Abfallgruben, die im Vergleich mit ähnlichen Siedlungen erstaunlich große Mengen an Kleinfundmaterial und Tierknochen enthielten, identifiziert werden. Insbesondere wegen ihres guten Erhaltungszustands bieten die verschiedenen Gattungen von Fundmaterial einen einmaligen Einblick in fast alle Aspekte des täglichen Lebens einer Siedlung des 7. bis 11. Jahrhunderts, in der unter anderem Angehörige der damaligen sozialen Elite wohnten. Von größerer Relevanz ist jedoch, dass die detaillierte Analyse des Fundmaterials deutlich macht, wie drastisch sich die Nutzungscharakteristika der Siedlung im späten ersten Jahrtausend nach Christus, als das Königreich England entstand, veränderten.

Die Publikation der Ausgrabungen der angelsächsischen Siedlung umfasst vier Bände, und wird durch ein umfangreiches Archiv im digitalen *Archaeological Data Service* (ADS) Großbritanniens ergänzt. Ausgrabungen, Auswertung und Publikation des Projekts wurden finanziell hauptsächlich von *English Heritage* getragen und von der *Humberside*

*Archaeological Unit*, jetzt *The Humber Archaeology Partnership*, durchgeführt. Dieser Band enthält Besprechungen der Funde und Befunde aus Flixborough im weiterreichenden Vergleich mit zeitgleichen Fundplätzen in anderen Teilen der Britischen Inseln sowie dem nordwestlichen Kontinentaleuropa.

Seit Flixborough Anfang der 1990er Jahre als archäologischer Fundplatz bekannt wurde, wurden etliche Hypothesen zum Charakter der Siedlung aufgestellt. Die ersten Interpretationsvorschläge waren dabei sehr von einem stark literaturorientiertem Ansatz, der die Entwicklung der Siedlungsarchäologie der „mittleren“ angelsächsischen Zeit während der 1940er bis 1970er Jahre prägte, beeinflusst. Nach diesem Ansatz wurden archäologische Ausgrabungen auf Fundplätze, die man mit angelsächsischen Schriftquellen assoziieren konnte, konzentriert. Als solches wurden hauptsächlich Fundplätze ergraben, deren Charakter in bestimmten zeitlichen Abschnitten anhand schriftlicher Quellen schon bekannt war. Da Klöster mit Abstand die meisten schriftlichen Quellen produzierten, wurden solche Anlagen während der Anfangsphase der auf die Zeit von 650 – 1000 nach Christus spezialisierten Siedlungsarchäologie am häufigsten untersucht. Ausgrabungen in Klostersiedlungen wie Whitby in Nord-Yorkshire oder Monkwearmouth und Jarrow im County Durham schienen die literarischen Beschreibungen von Gebäuden, deren Nutzung, Gebrauchsgegenständen und –materialien zu unterstreichen. Dies galt insbesondere für Fundplätze, die in einem Klientelverhältnis zu angelsächsischen königlichen Familien standen. Das Fundmaterial aus solchen Siedlungen wurde generell als charakteristisch für monastische Zentren dieser Zeit, oft als „minsters“ angesprochen, gesehen; eine These, die teilweise noch heute vertreten wird.

Vor den 1980er und 1990er Jahren, in denen vermehrt Ausgrabungen stattfanden und folglich publiziert wurden, war es praktisch unmöglich zu belegen, ob die Gebäudestrukturen und Kleinfunde der ergrabenen Klosteranlagen charakteristisch für diese waren, oder aber geographisch und soziologisch größere Trends reflektierten. Durch Ausgrabungen an undokumentierten

Plätzen wie Staunch Meadow bei Brandon in Suffolk und Flixborough kam daher die wichtige Frage auf, in welchem Maße Lese- und Schreibfähigkeit, Fernhandel und Fachkenntnisse der Materialverarbeitung in ländlichen Siedlungen des 7. bis 9. Jahrhunderts wirklich verbreitet waren. Es scheint jedoch vielen Archäologen weiterhin schwer zu fallen, sich bei der Interpretation archäologischer Daten nicht von schriftlichen Quellen beeinflussen zu lassen. Einige Historiker nehmen sogar aktiv an der Interpretation von archäologischem Material teil. So kritisierte beispielsweise John Blair Archäologen wegen ihrer zu eingeschränkten Vorstellung, wie der Charakter von Klosteranlagen, bzw. „minsters“, durch deren Fundspektren und Befunde reflektiert wird.

Selbst wenn man sich als Archäologe des breiten Grades an Charakteristika, die unter eine von Historikern definierte monastische Ansiedlung fallen, bewusst ist, führt dies nicht immer zu einer klareren Interpretation der archäologischen Daten, da diese Kriterien so weit angelegt sind, dass beinahe alle hierarchisch höhergestellten ländlichen Siedlungen als „minster“ angesprochen werden könnten. Da weiterhin unklar ist, inwiefern bestimmte Gebäudestrukturen, Bestattungsriten, Nutzungsarten und Kleinfundspektren für reichere Siedlungen kirchlichen oder säkularen Charakters aussagekräftig sind, ist es nach wie vor problematisch, diese Siedlungen anhand ihres archäologischen Erscheinungsbildes zu unterscheiden.

Mit seiner außergewöhnlichen Nutzungsabfolge und assoziierten Abfalldeponien voller Kleinfunde und biologischer Überreste bietet Flixborough eine der ersten Möglichkeiten, das tägliche Leben einer ländlichen Siedlung des 7. bis 11. Jahrhunderts anhand von Kleinfundmaterial, Gebäudestrukturen und Analysen biologischen Fundmaterials umfassend zu erforschen. Die Entstehungsmechanismen der Nutzungsschichten, sowie die Aussagekraft einzelner Niederschläge, wurden kritisch erforscht, um festzustellen inwiefern archäologische Interpretationen und Schlüsse für diesen Fundplatz begrenzt sind. Thematische Analysen von Veränderungen der Bebauung und Raumnutzung, sowie der Versorgung, Handelsstrukturen und Materialverarbeitung, zeigten dramatische Umbrüche im Laufe der Zeit, die von einer Kombination verschiedenster Faktoren verursacht worden sein könnten: Veränderungen des Siedlungscharakters an sich, Umstrukturierungen des Umlands anhand neuer Siedlungs- und Landverwaltungsstrategien und veränderte Verhältnisse zwischen der Siedlung und Handelszentren, die sich im Rahmen neu entstehender ländlicher und städtischer Eliten ergaben. Die Veränderungen des täglichen Lebens, die anhand der Nutzungsschichten erkannt werden konnten, sind zeitlich nicht an die künstlich definierten Zeitabschnitte „mittelangelsächsisch“ (mittleres 7. bis mittleres 9. Jahrhundert) und „spätangelsächsisch“ bzw. „anglo-skandinavisch“ (mittleres 9. bis mittleres 11.

Jahrhundert) gebunden. So konnten sowohl vom späten 7. bis zum frühen/mittleren 9. als auch zwischen dem mittleren 9. und späten 10. Jahrhundert ganze Reihen von Veränderungen erkannt werden. Diese Veränderungen sind umso bedeutender, da sie nicht anhand von veränderten Abfallentsorgungsstrategien erkannt wurden.

Das Kleinfundmaterial und insbesondere die Knochenfunde des späten 7. bis frühen 9. Jahrhunderts weisen auf eine Reihe von Tätigkeiten hin, die typisch für einen aristokratischen Lebensstil auf einem weltlichen Landsitz sind. Während dieser Zeit verblieb die Raumnutzung des ergrabenen Bereichs relativ unverändert. Die Bebauung war auf ein Gebiet von zwei Sandrücken, zwischen denen ein flaches Tal lag, konzentriert. Im Tal selbst war die Bebauung eher sporadisch. Abfälle aus dem Grabungsbereich und aus weiterläufigen Arealen wurden in Gruben außerhalb der Gebäude und größeren Halden in dem flachen Tal deponiert. Zu dieser Zeit schien das tägliche Leben der Siedlung primär mit der ostentativen Darlegung von Reichtum und Vergnügungsaktivitäten wie Banketten und Jagden erfüllt zu sein. Diese basierten auf offensichtlichem Verbrauch von Ressourcen des gesamten Umlands und der Region, was möglicherweise Viehabgaben durch Pächter zur Folge hatte, und machten Flixborough zu einem Sammelpunkt für importierte Luxusgüter, insbesondere Trinkgefäße aus Glas. Es gibt jedoch keinerlei Hinweise auf monastische Elemente am Fundplatz.

Dies bedeutet jedoch nicht, dass es während dieser Zeit in Flixborough kein Kirchengebäude oder Zentrum sakraler Aktivität gab. Während der ersten Hälfte des 8. Jahrhunderts wurde das Gebäude 1a, das auf einem Fundament aus Kies und Trockenstein erbaut wurde, unter anderem sicher auch als Bestattungszentrum genutzt. Es könnte also als Grabkapelle für eine Familie der Führungsschicht der Siedlung gedient haben. Weiterhin ist eine klare Aufteilung in Bestattungszonen nachweisbar: neben der Gruppe von Bestattungen um Gebäude 1a gibt es noch eine weitere, größere Gruppe von Gräbern weiter südlich. Es ist wahrscheinlich, dass es verschiedene Bestattungsgebiete gab, die verschiedenen sozialen Schichten der Siedlung und Region zugänglich waren. Die Existenz mit Bestattungen assoziierter Gebäude haben einige Forscher als Nachweis für monastische Zentren gesehen. In den letzten Jahren lieferten allerdings immer mehr Ausgrabungen, die eine ausreichend große Fläche untersuchten, Nachweise für Gebäude mit assoziierten Bestattungen, die als Grab- und Hauskapellen bzw. Kirchen anzusprechen sind, an Fundplätzen, die nicht schriftlich als monastische Zentren belegt sind. Zu diesen gehören unter anderen Yeavering in Northumberland, Thwing in Ost-Yorkshire, Bramford in Suffolk, Whissonsett in Norfolk und Brandon in Suffolk. Ähnliche Beobachtungen konnten ebenfalls in benachbarten Ländern, insbesondere

Frankreich und Belgien, gemacht werden.

Das Fundmaterial aus Schichten, die von den frühen Jahrzehnten bis um die Mitte des 9. Jahrhunderts (wahrscheinlich bis in die frühen 860er Jahre) datieren, weist auf einen drastischen Umbruch im Nutzungscharakter Flixboroughs hin. Neben der Menge und Auswahl an speziellen Werkzeugen zur Materialbearbeitung fällt insbesondere auf, dass sowohl Viehzucht als auch Bodennutzung neu und nach anderen Parametern organisiert wurden. Das vermehrte Aufkommen von Schreibgriffeln und Funden mit Graffiti weist deutlich auf ein schreibkundiges Bevölkerungselement hin. All diese Anzeichen lassen darauf schließen, dass sich die täglichen Umstände der Einwohner Flixboroughs im Vergleich zum 8. Jahrhundert deutlich geändert hatten: Während der Nutzungsperiode 4 beschäftigte man sich schwerpunktmäßig mit der Versorgung und Unterstützung von Handwerk in größerer Menge und Qualität, sowie dem Aufbau und Unterhalt eines Vertriebsnetzes für die Endprodukte, das wenigstens die Flusssysteme des Humber und der East-Midlands umfasste. Viehkonsum im großen Maße, wie in früheren Perioden, scheint nicht mehr stattgefunden zu haben und einst häufig belegtes exotisches Tischgeschirr, wie Gefäße aus Glas, war wesentlich weniger in Gebrauch. Das Umland wurde deutlich weniger genutzt: Insbesondere der Rückgang an Wildvogelknochen scheint zu belegen, dass Jagen und Falknern ihre Rolle als wichtiger Teil der Versorgung und des Lebensstils verloren. Die Ressourcen der Marschen und ihrer Randgebiete, sowie die Möglichkeiten, diese zu nutzen, blieben jedoch auch für die Ansiedlung des 9. Jahrhunderts erhalten. Man muss also schließen, dass die Bevölkerungszusammensetzung Flixboroughs sich im 9. Jahrhundert so veränderte, dass der exzessive Lebensstil einer „weltlichen Elite“ mit ostentativem Verbrauch und auffallenden Vergnügungsaktivitäten, nicht mehr zu Unterhalten war.

Verschiedene Aspekte der Klein- und Knochenfunde aus Flixborough lassen also auf eine sakrale oder monastische Identität der Siedlung während der Nutzungsperiode 4 schließen. Es ist jedoch extrem schwierig, den Umfang dieses kirchlichen Einflusses abzuschätzen. Fest steht, dass spezialisierte Fertigungsarbeiten und Warenverteilung in größerem Maße und auf einem höheren Niveau stattfanden, was auf eine intensivere Nutzung gewisser Produkte der Ländereien der Ansiedlung zurückzuführen ist. Zeitgleich mit diesen Entwicklungen ist ein häufigeres Vorkommen von Schreibgriffeln zu beobachten, was auf eine enger kontrollierte Führung der Ländereien hinweist. Die Knochenfunde dieser Periode können ebenso in einem sakralen Kontext gesehen werden. Trotz alledem bleibt es möglich, dass es sich bei Flixborough in dieser Periode nur um eine mit einem monastischen Zentrum eng verbundene Ansiedlung handelt, nicht aber um eine Klosteranlage selbst. Da Schreibgriffel als einzige Hinweise auf eine monastische oder sakrale Ansiedlung

allein wenig aussagekräftig sind, ist es gleichfalls möglich, dass Flixborough im 9. Jahrhundert ein weltliches Zentrum blieb, dass aber darauf ausgerichtet war, eine nur selten ansässige Elite zu unterstützen und zu versorgen. Als solches wäre der auffallende Rückgang im Viehkonsum nicht als Resultat einer Umwandlung in eine sakrale Ansiedlung sondern als Folge der Abwesenheit einer säkularen Führungsschicht zu sehen.

Dennoch ähnelt der Fundniederschlag Flixboroughs im 9. Jahrhundert eher den Daten aus Grabungen gut dokumentierter Klosteranlagen in England und dem europäischen Festland als denen weltlicher aristokratischer oder königlicher Landsitze. Es scheint daher sinnvoll, die Umwandlung einer weltlichen Gründung in eine kirchliche Ansiedlung im Rahmen eines Übergangs von einem säkularen zu einem sakralen Verwaltungszentrum, in dem Produktion und Landwirtschaft des Ortes zugunsten einer übergeordneten Institution ausgerichtet waren und möglicherweise vor Ort nur von einer geringen Anzahl an Klerikern verwaltet wurden, zu sehen. Es muss dabei allerdings eingeräumt werden, dass der Unterschied zwischen einem Verwaltungszentrum kirchlicher Ländereien mit wenigen ansässigen Klerikern und einem kleinen Kloster minimal gewesen sein kann und als solches archäologisch kaum fassbar wäre.

Von Anfang bis Mitte des 10. Jahrhunderts weist Flixborough wiederum andere Nutzungscharakteristika auf. Während dieser Zeit war die Siedlung erneut von auffälligen Vergnügungsaktivitäten wie Jagen und sichtbarem Verbrauch wie Festmahlen geprägt. Im Vergleich zu der Nutzungsperiode vom späten 7. bis frühen 9. Jahrhundert gab es jedoch einige deutliche Unterschiede, insbesondere in Bezug auf genutzte und dargestellte Luxusgüter. Während Bankette und Jagden wiederum zu wichtigen Aktivitäten in der Siedlung wurden, war der Gebrauch wertvoller tragbarer Glas- und Metallgegenstände sowie anderer importierter Prestigeobjekte im Gegensatz zum 8. Jahrhundert nicht verbreitet. Anstatt dieser mobilen Luxusgüter wurde Reichtum nun durch die Bebauung der Siedlung, insbesondere die Größe einzelner Häuserkomplexe, dargestellt. Während die Eliten des 8. Jahrhunderts also die „Requisiten“ des sichtbaren Güterverbrauchs in den Vordergrund stellten, lag der Schwerpunkt im 10. Jahrhundert auf den „Bühnen“ dieses Verbrauchs. Die Gebäude dieser Periode – in denen dieser Güterverbrauch der Eliten stattfand – gehören zu den größten in der gesamten Siedlungsgeschichte Flixboroughs, und das Knochenfundspektrum ist umfangreicher als in allen anderen Nutzungsperioden. Als solches wurde sozialer Status während des 10. Jahrhunderts durch den ostentativen Verbrauch lokaler Ressourcen der umliegenden Ländereien, in Form von ausgiebiger Holznutzung und dem Verzehr von Haus- und Wildtieren, dargestellt.

Der Charakter der Nutzungsphase des 10. Jahrhunderts,

die wahrscheinlich den Landsitz North Conesby (= *Kuningrs-by*, Altdänisch für „Königssiedlung“) repräsentiert, liefert Hinweise auf etliche gesellschaftliche Veränderungen in der komplexen Sozialstruktur Flixboroughs, wie zum Beispiel die Entstehung ländlicher und städtischer Eliteidentitäten mit assoziierter Statussymbolik. Das im Vergleich zum späten 7. bis mittleren 9. Jahrhundert auffällig geringe Aufkommen erkennbarer importierter Luxusgegenstände zeigt, dass diese im 10. Jahrhundert sowohl im täglichen Leben als auch an Festtagen von geringer Wichtigkeit waren. Der Lebensstil der Elite des 10. Jahrhunderts und seine Symbolik waren somit im wahrsten Sinne des Wortes „ländlich“. Anders als im 7., 8. und frühen 9. Jahrhundert drangen importierte Luxusgüter nun nicht mehr bis ins „ländliche“ Lincolnshire vor. Der Eindruck, dass relativ isolierte ländliche Zentren so gut wie keinen direkten Kontakt mit Städten, sei es durch Handel oder persönliche Mobilität, insbesondere unter Familien der Führungsschichten, hatten und von diesen nicht beeinflusst wurden, mag jedoch täuschen. Die intensive Produktion von Spezialprodukten und Werkzeugen war auch im 10. und 11. Jahrhundert auf städtische Absatzmärkte ausgerichtet. Während dieser Zeit unterhielt der Landadel zunehmend auch städtische Besitzungen, was vermuten lässt, dass die Oberschicht sich regelmäßig zwischen Stadt und Land bewegte. Dies bedeutet jedoch, dass sie importierte Luxusgüter, die in städtischen Elitekontexten weit verbreitet sind, in ihren ländlichen Sitzen entweder nicht verwenden konnten oder wollten. Die wenigen erkennbaren städtischen Gegenstände aus Flixborough-North Conesby können nämlich leicht durch Austausch auf ländlichen Märkten oder direkten Kontakt mit Handelsverkehr auf dem Trent oder im Humbermündungsgebiet hierher gelangt sein.

Die Veränderungen innerhalb der ergrabenen Ansiedlung in der Gemeinde Flixborough zeigen klar, welches Potential für dynamische Wechsel selbst einzelne Siedlungsgeschichten bieten. Ähnliche Entwicklungen sind in Westeuropa weit verbreitet und können oft anhand literarischer Quellen, seltener durch archäologische Überreste, deutlich gemacht werden. Auf dem

europäischen Festland ist man sich der häufigen Übernahme existierende aristokratischer Zentren durch die Kirche und deren Umwandlung zu wichtigen Klosteranlagen weitgehend bewusst. So wurde zum Beispiel 651 nach Christus das weltliche Zentrum *Sithiu* in Saint-Omer, Dept. Nord, Frankreich, zum Kloster St. Bertin. In England ist solchen Charakterwechseln von weltlichen zu monastischen Zentren für das 7. bis 9. Jahrhundert bisher allerdings nur wenig Beachtung geschenkt worden. Derartige Veränderungen werden hier eher als Phänomen des 10. und 11. Jahrhunderts gesehen und mit der spätangelsächsischen bzw. anglo-skandinavischen Zeit in Verbindung gebracht. Die Entwicklung Flixboroughs, bzw. North Conesbys, im späten 9. und 10. Jahrhundert, zeigt, dass zu dieser Zeit deutliche Umbrüche stattfanden – in diesem Fall anscheinend die „Säkularisierung“ eines kirchlichen Verwaltungszentrums oder kleinen Klosters. Die kleiner angelegten Ausgrabungen in Kirkdale, Nord Yorkshire, wo eine möglicherweise monastische Ansiedlung Mitte des 11. Jahrhunderts in den Landsitz eines anglo-skandinavischen Adligen namens Orm Gamalson umgewandelt wurde, scheinen eine ähnliche Entwicklung zu belegen. Beispiele auf dem europäischen Festland zeigen jedoch, dass weltliche Zentren genauso in kirchliche Verwaltungszentren umgewandelt wurden. Dies geschah in Distré, Dept. Maine-et-Loire, in Frankreich, wo der Landsitz zwischen 1030 und 1040 nach Christus zum Priorat des Klosters Saint-Florent de Saumur umgewandelt wurde.

Da es in ganz Nordwesteuropa zunehmend mehr Beispiele für diese Art von Veränderungen im Charakter ländlicher Siedlungen gibt, bleibt es unerlässlich, derartige dynamische Wechsel als integrales Phänomen ländlicher Besiedlung des frühen Mittelalters zu akzeptieren. Die außergewöhnlichen Funde aus Flixborough machten dabei zum ersten Mal eine vollständige Untersuchung solcher Veränderungen einer ländlichen Siedlung des späten ersten Jahrtausends nach Christus auch in England möglich.

*Translation by Christoph Rummel*

# Résumé

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Entre 1989 et 1991, des fouilles adjacentes à l'établissement médiéval abandonné de North Conesby, dans la paroisse de Flixborough, North Lincolnshire, mirent au jour les vestiges d'un établissement Anglo-saxon associés à l'une des plus larges collections d'artefacts et d'ossements animaux jamais trouvée sur un tel site. L'établissement Anglo-saxon se trouvait sur une région de sablon, qui dominait la plaine inondable de la rivière Trent, située à huit kilomètres au sud de l'estuaire de la rivière Humber. Les analyses ont montré que la partie fouillée de l'établissement était occupée, ou utilisée pour des activités liées à l'établissement, pendant ce qu'on a appelé le « Milieu » et la « Fin » de l'époque Anglo-saxonne. Grâce à cet exemple sans précédent de séquence d'occupation d'un établissement Anglo-saxon rural, on a identifié six périodes d'occupation principales, avec des sous phases supplémentaires, qui vont du septième au début du onzième siècle ; avec une autre période d'activité située entre le douzième et le quinzième siècle après JC.

On mit au jour les vestiges d'environ quarante bâtiments et autres structures ; et, grâce à la présence d'importants dépôts de détritiques, on a découvert de grandes quantités d'artefacts et de restes animaux, contrairement à la plupart des autres établissements ruraux de la période. Les différentes formes de preuves, ainsi que les circonstances de leur déposition, fournissent une image sans précédent de presque tous les aspects de la vie quotidienne dans un établissement qui comptait certainement, entre le septième et le onzième siècle, des membres de l'élite sociale de l'époque parmi ses habitants. De plus, et peut-être surtout, les analyses détaillées des restes fournissent aussi des indications quant au changement radical du caractère de l'occupation pendant la fin du premier millénaire après JC, avec l'émergence du royaume d'Angleterre.

La publication des vestiges de l'établissement Anglo-saxon se compose de quatre volumes, et s'appuiera sur les nombreuses archives du Service de Données Archéologiques (*Archaeological Data Service*, ou *ADS*) du Royaume-Uni. Les fouilles, analyses post-fouilles, et les phases de publication du projet ont été financées

principalement par English Heritage (organisme Britannique de protection du patrimoine historique), et le projet fut mené à bien par l'Unité Archéologique du Humberside (Humberside Archaeology Unit), désormais connue sous le nom de Humberside Archaeology Partnership. Ce volume-ci situe les preuves dans le contexte élargi d'autres découvertes dans les Îles Britanniques, et dans une certaine mesure, dans le nord-ouest de l'Europe Continentale, pour la période allant du septième au onzième siècle après JC.

L'interprétation de la nature de l'établissement mis au jour à Flixborough a fait l'objet de spéculations considérables depuis l'annonce de la découverte des vestiges au début des années 1990. Les interprétations initiales avancées par les archéologues et historiens étaient conditionnées par l'approche textuelle toute-puissante qui avait guidé le développement de l'archéologie des établissements « Anglo-saxon Moyen » entre les années 1940 et 1970 ; c'est-à-dire la fouille de sites associés à des documents anglo-saxons, qui décrivaient les établissements à des moments précis, comme des « clichés » du passé. Les monastères étaient les établissements qui possédaient de loin le plus de documents écrits. Par conséquent, ils devinrent les établissements qui attirèrent le plus l'attention des premiers archéologues qui étudiaient l'archéologie des établissements de la période de 650 à 1000 après JC. Les restes fouillés de ces établissements monastiques, comme par exemple Whitby (Yorkshire Nord) et Monkwearmouth et Jarrow (Comté de Durham), semblaient confirmer les descriptions écrites des structures, activités, objets et matières premières liés aux monastères, en particulier ceux placés sous le patronage de familles royales anglo-saxonnes. Ainsi, et peut-être inévitablement, les découvertes associées à ces sites étaient considérées, et sont toujours ressenties comme caractéristiques des centres monastiques, souvent appelés églises abbatiales.

Avant les années 1980 à 1990, et l'augmentation du nombre de fouilles et de publications, il était impossible d'évaluer, même de manière préliminaire, si les artefacts et aspects structurels des sites monastiques étaient



exclusifs à ceux-ci, ou si ils n'étaient qu'un élément d'une gamme plus importante d'influences sociales et géographiques. La découverte d'établissements non documentés, comme Staunch Meadow, Brandon (Suffolk) et Flixborough a, dans une certaine mesure, ouvert le débat sur la présence plus répandue de preuves sur le degré d'alphabétisation, les échanges longues distances, et l'artisanat spécialisé dans les sites ruraux du septième au neuvième siècle, mais cela c'est avéré très difficile pour les archéologues d'échapper à l'influence des écrits de l'époque sur l'interprétation de leurs preuves. En effet, certains historiens ont joué un rôle de plus en plus actif dans l'interprétation des données archéologiques. Ainsi, John Blair a critiqué les archéologues pour leur concept trop limité d'un « monastère » ou d'une *église abbatiale*, en ce qui concerne la façon dont un tel site peut être représenté par les restes archéologiques, particulièrement par rapport aux artefacts et preuves structurelles.

Cependant, du point de vue d'un archéologue, avoir conscience du grand éventail de caractéristiques qui peuvent être trouvées sur un établissement monastique, selon la définition des historiens, n'augmente pas nécessairement la résolution de l'interprétation archéologique qui utilise ces critères plus larges. En effet, ils sont tellement larges que presque tous les établissements qui se situent au sommet de la hiérarchie des établissements ruraux pourraient être interprétés comme *églises abbatiales*. Le problème principal pour pouvoir différencier les établissements complexes ecclésiastiques des laïques, comme ils se manifestent dans les restes archéologiques, est que nous n'avons aucune certitude quant à l'appartenance exclusivement monastique ou laïque de certains aspects des constructions, des pratiques funéraires, activités, et profils d'artefacts dans des établissements riches en matériaux archéologiques.

La séquence d'occupation exceptionnelle à Flixborough, avec à ses énormes dépôts d'artefacts et de restes biologiques éliminés, a fourni l'une des premières occasions d'explorer complètement les complexités de la vie dans un établissement rural du septième au début du onzième siècle, à travers ses caractéristiques structurelles, matérielles, et biologiques. On a également déterminé de manière rigoureuse les restrictions dans les déductions et l'échelle de l'interprétation basées sur les preuves, grâce à une étude détaillée des procédés de formation du site, et de la représentativité des dépôts. Des analyses thématiques des tendances du caractère structurel et de l'utilisation de l'espace, de l'approvisionnement, de l'artisanat, et du commerce et des échanges ont révélé des changements considérables avec le temps. Ces changements pourraient être liés à une combinaison complexe de facteurs : à savoir, des transformations dans le caractère de l'établissement ; des modifications dans les territoires en relation avec l'établissement et dans les stratégies de gestion des terres ; et des changements dans les relations entre l'établissement et les lieux d'échange,

avec l'émergence de nouvelles élites rurales et urbaines. Le moment de l'évolution des styles de vie, identifiable dans la séquence d'occupation, ne correspondait pas à la frontière entre les époques chronologiques définies artificiellement sous le nom de « Anglo-saxonne Moyenne » (milieu du septième au milieu du neuvième siècle), et « Anglo-saxonne Tardive » ou Anglo-scandinave (milieu du neuvième au milieu du onzième siècle). Une série de transformations eurent lieu pendant la période allant de la fin du septième au début et milieu du neuvième siècle, ainsi qu'entre le milieu du neuvième et la fin du dixième siècle ; l'observation de ces changements a pu se faire sans être influencée de manière significative par des stratégies d'élimination des déchets non comparables, à des phases différentes.

Quand on examine la manière de vivre dans l'établissement de la fin du septième au début du neuvième siècle, on se rend compte que tous les aspects observables des artefacts et des ensembles osseux mettent en évidence une série de pratiques représentatives d'un style de vie aristocratique dans un domaine rural laïque. A cette époque, il y avait une continuité globale dans l'utilisation de l'espace de la zone fouillée de l'établissement. Les bâtiments se trouvaient sur deux éperons sableux, et aussi, par intermittence, au bout d'une vallée peu profonde située entre les deux. Les déchets provenant à la fois de l'intérieur et de l'extérieur de la zone de fouilles étaient entassés à l'extérieur des bâtiments, et formaient des amoncellements plus conséquents dans la petite vallée. La vie s'organisait autour de la recherche de faste et de loisirs ostentatoires, principalement sous la forme de festins et de chasse. Ces pratiques étaient rendues possibles grâce à la consommation manifeste des ressources de la campagne et de la région environnante, peut-être même y compris du bétail prélevé à des fermages ; et l'importation incontournable de produits de luxe, en particulier celle de vaisseaux à boire en verre. Rien ne suggère la nécessité d'un élément monastique sur le site.

Ceci ne veut pas dire qu'il n'existait pas un bâtiment ou un lieu qui remplissait peut-être une fonction ecclésiastique à cette période. Pendant la première moitié du huitième siècle, le bâtiment 1a, construit sur une assise de gravier et de pierre sèche, a été certainement utilisé comme un lieu de sépultures pendant une partie de son existence ; et il a peut-être rempli le rôle de chapelle mortuaire pour une des familles principales de l'établissement. Une distinction dans les zones de sépultures apparaît clairement avec deux emplacements connus, un dans le bâtiment 1a, et l'autre, plus au sud, dans un ensemble de tombes plus grand. Il est possible qu'une variété de lieux d'inhumation fût disponible selon le rang social au sein de l'établissement et de la région. La présence d'un bâtiment associé aux sépultures a été l'un des critères utilisés par certains chercheurs pour suggérer que Flixborough était un centre monastique. Pourtant, les bâtiments associés aux sépultures,

correspondant probablement à des chapelles mortuaires, oratoires ou églises, sont présents sur la plupart des établissements, et les chances de les trouver augmentent si l'étendue de la zone de fouilles est assez grande : Yeavinger (Northumbeland), Thwing (East Yorkshire), Bramford (Suffolk), Whissonsett (Norfolk) et Brandon (Suffolk), pour n'en citer que quelques uns, sans inclure les centres monastiques avérés par les écrits. Ce modèle se retrouve aussi dans les établissements fouillés de manière extensive dans les pays de voisinage immédiat d'Europe Continentale, particulièrement en France et en Belgique.

Les modes de vie dans l'établissement des premières décennies jusqu'à celles du milieu du neuvième siècle (probablement au moins jusqu'au début des années 860) présentent un changement important dans nombre d'aspects de profils de culture matérielle de l'établissement. Ceux-ci se manifestent en particulier par la gamme et la quantité d'outils et de débris issus d'artisanat spécialisé ; des changements spectaculaires dans les modèles d'élevage et d'exploitation agricole ; et la présence de styles et d'artefacts gravés, qui suggèrent un certain degré d'alphabétisation parmi la population de l'établissement. Les styles de vie des habitants diffèrent de manière prononcée et évidente d'avec les modes de vie du huitième siècle. Pendant la Période 4, les activités se concentrent sur l'approvisionnement pour le soutien du développement et de l'amélioration de l'artisanat, et de la distribution potentielle de certains de ses produits à la région voisine, au moins, accessible par la rivière Humber et les cours d'eau des East Midlands. La consommation à grande échelle de bovins, dont certains avaient pu servir de monnaie d'échange pour régler les loyers des fermages, avait cessé. Les preuves de pièces exotiques de « vaisselles à festins », tel que les vaisseaux à boire en verre, étaient bien moins abondantes, en tant qu'indications d'utilisation contemporaine. L'exploitation des ressources naturelles avait également diminué de manière substantielle, surtout pour ce qui était des oiseaux sauvages, ce qui suggère que la chasse et la fauconnerie n'étaient plus des activités importantes d'approvisionnement ou de loisir. Pourtant, les ressources des zones humides et de leurs alentours, et l'opportunité de les cultiver, se trouvaient dans la proximité immédiate de l'établissement du neuvième siècle. Bref, les signes extérieurs de ce qu'on peut décrire comme le mode de vie d'une élite laïque, en termes de faste avec consommation et pratique de loisirs ostentatoires, n'existaient plus.

Ainsi, une combinaison d'aspects parmi les ensembles d'artefacts et d'os pourrait être utilisée pour suggérer une identité ecclésiastique ou « monastique » dans l'établissement de Flixborough, pendant la Période 4 de la séquence d'occupation. Toutefois, l'étendue de l'influence ecclésiastique est très difficile à déterminer. On constate un niveau plus intense de production spécialisée et de distribution de produits de base, comme conséquence de l'augmentation de l'utilisation de certains

produits provenant des terres de l'établissement. Ceci était associé à la présence de styles, qui sont peut-être représentatifs d'une attention plus grande portée à la gestion des terres. De plus, les ensembles de restes animaux peuvent aussi être interprétés dans le cadre de contextes ecclésiastiques. Cependant, les restes archéologiques suggèrent que ce type d'établissement pourrait correspondre à un domaine seigneurial, lié à une institution monastique. Il n'était pas nécessaire qu'il devienne un monastère à son tour. Si l'on considère l'ambiguïté de la présence de styles en tant qu'indicateur du caractère « monastique » ou « ecclésiastique » de l'établissement, il est possible d'affirmer que l'établissement du neuvième siècle était resté un centre laïque, bénéficiant du soutien d'une élite qui y résidait plus rarement. Ainsi, la diminution notable de la consommation de bœuf et d'espèces sauvages pourrait témoigner de l'absence croissante d'une famille de l'élite laïque, plutôt qu'une transformation en établissement religieux.

Néanmoins, le style de vie observé à Flixborough au neuvième siècle est sans doute bien plus similaire à celui observé parmi les restes de monastères décrits dans les documents de l'époque en Angleterre et sur le continent, qu'au style de vie des résidences rurales royales ou aristocratique laïques. Cependant, il est peut-être plus sensé de considérer toute transformation d'un site laïque en un site ecclésiastique au sein du contexte de l'évolution des établissements laïques en établissements ecclésiastiques, où la production et la gestion des biens au profit d'une institution mère étaient les fonctions principales de l'établissement, et étaient peut-être gérées par un petit nombre d'ecclésiastiques. Toutefois, nous devons admettre que la différence physique entre un établissement religieux doté d'un petit groupe d'ecclésiastiques et un petit monastère devait être minimale et presque indiscernable dans leurs représentations archéologiques.

A partir des décennies du début jusqu'au milieu du dixième siècle, les styles de vie adoptés ont à nouveau connus une transformation, caractérisée par le retour du faste et de la consommation ostentatoire. Cependant, il y avait des différences marquées avec la période allant du septième au début du neuvième siècle, en ce qui concerne les signes extérieurs et les ensembles d'objets de culture matérielle utilisés, destinés à être exhibés. Les festins et la chasse étaient de nouveau les activités sociales principales de la vie de l'établissement, mais l'utilisation de vaisseaux à boire en verre, d'articles de ferronnerie, et autres objets de luxe importés, de valeur intrinsèque et portatifs, ne faisaient plus partie des objets associés à la table, comme ils l'avaient été au huitième siècle. L'alternative à cette forme d'étalage d'objets de luxe de la culture matérielle portative fut trouvée dans l'environnement immobilier de l'établissement ; en particulier, la taille imposante des bâtiments. Contrairement à la ou les maisons principales du huitième

siècle, les dirigeants de l'établissement du dixième siècle développèrent les « théâtres » de la consommation, plutôt que ses « accessoires ». Les bâtiments – lieux de consommation – étaient les plus grands de l'histoire de l'occupation de l'établissement, et la diversité des espèces animales consommées atteignit son point culminant. Ainsi, les moyens pour afficher un faste social au dixième siècle étaient fournis par les ressources locales de l'ensemble des domaines, en ce qui concerne l'ostentation dans l'utilisation de bois de construction et la consommation d'animaux domestiques ou sauvages.

Les styles de vie affichés dans l'établissement du dixième siècle, qui était probablement le domaine seigneurial de North Conesby (*Kuningrs-by* – « habitat du Roi » en vieux danois), reflètent des complexités considérables et des changements dans la société pendant le dixième siècle, avec le développement d'élites rurales et urbaines, et les signes extérieurs qui les accompagnent. A cause du petit nombre de produits importés identifiables, contrairement aux quantités trouvées pour les périodes allant de la fin du septième au milieu du neuvième siècle, il semblerait que les objets importés jouaient un rôle très limité au dixième siècle, que ce soit dans la vie de tous les jours ou dans les grandes occasions. Le style de vie de l'élite dans l'établissement du dixième siècle, et les formes que prend le faste social étaient réellement « ruraux ». Les produits de luxe importés ne semblent pas avoir atteint « les campagnes » dans le nord du Lincolnshire, comme au septième, huitième et début du neuvième siècle. Il est pourtant peut-être illusoire de croire que les villes n'influençaient pas de manière directe la vie dans les centres ruraux éloignés, soit dans les échanges pour ravitailler les villes, ou dans les allées et venues des personnes entre les deux, surtout celles des familles dirigeantes. La production intensive et spécialisée de produits d'artisanat, et leur échange, étaient concentrés dans les villes au dixième et onzième siècle. A partir de cette période, les aristocrates des campagnes eurent de plus en plus de propriétés urbaines, et si des membres de l'aristocratie régionale se rendaient dans les villes de façon régulière, ils ne pouvaient pas, ou ne désiraient pas, exhiber dans leurs centres ruraux leurs produits de luxe importés, associés plus fréquemment à une élite urbaine. A Flixborough-North Conesby, la quantité restreinte d'objets identifiables aux villes aurait pu arriver de manière indirecte, par le biais de transactions sur les marchés ruraux, ou par contacts directs grâce aux transports fluviaux sur la rivière Trent et l'estuaire de la Humber.

Les transformations constatées dans le caractère de l'établissement mis au jour dans la paroisse de Flixborough mettent en évidence la capacité de changement dynamique au sein de l'histoire individuelle d'un établissement. Ce phénomène s'illustre également de façon plus générale en Europe continentale de l'ouest, surtout dans les archives écrites et dans de rares cas, grâce aux restes archéologiques. Sur le continent, il y a une conscience plus établie de la reprise de domaines seigneuriaux et de leur transformation en monastères importants. Par exemple, le domaine de *Sithiu*, à Saint-Omer, dans le Nord, devint le monastère de St Bertin en 651 après JC. La réalité de telles transformations d'établissements laïques en centres monastiques a rarement fait l'objet d'études approfondies en Angleterre, pour la période allant du septième au neuvième siècle. Pour ce qui est des dixième et onzième siècles, la probabilité de transformation du caractère d'un établissement est un fait plus accepté, souvent assimilé au début des périodes « Saxonne Tardive » et « Anglo-Scandinave ». Les transformations de la fin du neuvième et du dixième siècle à Flixborough-North Conesby mettent clairement en évidence les changements liés à cette période ; dans ce cas, la « laïcisation » vraisemblable d'un domaine ecclésiastique ou d'un petit monastère. La même chose a été suggérée par des fouilles restreintes à Kirkdale, North Yorkshire, où un possible établissement monastique était devenu le domaine seigneurial de l'aristocrate Anglo-scandinave *Orm Gamalson*, avant le milieu du onzième siècle. Des exemples provenant de pays d'Europe Continentale avoisinants suggèrent également une transformation de centres laïques en centres ecclésiastiques, comme à Distré, dans le Maine-et-Loire, en France, où le domaine et ses terres devinrent un prieuré du monastère de Saint-Florent de Saumur, entre 1030 et 1040 après JC.

La quantité croissante de preuves issues d'Europe du nord-ouest, dans son ensemble, suggère qu'il est impossible de nier la possibilité que le changement dynamique et la transformation du caractère d'un établissement aient été des phénomènes récurrents associés aux établissements ruraux, pendant le Moyen Age. Pour la première fois, les restes archéologiques exceptionnels de Flixborough ont permis d'explorer de manière approfondie le dynamisme de l'histoire de tels établissements ruraux en Angleterre, pendant la fin du premier millénaire.

*Traduit par Sterenn Girard-Suard*

# Acknowledgements

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Inevitably with any major project which has run for 16 years or more, there would be a myriad of people to credit for their help, support, and advice; as Flixborough also produced an abundance of finds and raised all sorts of tantalising research questions, the number of individuals and organisations whom we need to thank is substantial. The names of the 67 individuals who have contributed directly to the production of the final text and illustrations for these four volumes can be found in the List of Contributors, and we should like to extend our grateful thanks to each of them; however, in addition to these, many others were involved in the discovery and excavation of the site, and seeing through this project to its conclusion.

As described in Section 1.3 (below), the first indications of settlement on this site were recognised in 1933, but it was unfunded field-walking in 1988 by Irene McGrath and Phil Lings which suggested the presence of a Middle Saxon settlement; and it was the excavations conducted by Dr Kevin Leahy during that summer which were to uncover not only part of a cemetery, but also to suggest the proximity of an adjacent enclosure. Kevin was involved closely in this project for the best part of the next decade, and has done much to publicise the site; we have continued to liaise closely with him, as he will be the recipient curator of the archive. The excavations would not have been possible, without the support of the landowners, Sir Reginald Sheffield, and his tenant, Mr Peter Ogg; we are also grateful for the support of the Sheffield family during the post-excavation process, and for allowing us access to this material during the last 14 years. The main reason for excavating the site was that it was threatened with destruction by sand quarrying; Messrs G. S. and J. Jewitt Estate Development Co. helped us throughout the process, by rescheduling their extraction programme around our requirements, and offering help in kind by supplying us with earthmoving machinery and operators, whenever they were needed.

Another key person who was involved in this project from its inception was the former County Archaeologist, Dr Ben Whitwell. This was a project which was very close to Ben's heart, and he poured an enormous amount

of energy into trying to raise local consciousness about the site, and to secure funding for its investigation and study; right up until his retirement in early 1995, he did much to champion the importance of this project. Thanks to his efforts, not only was substantial funding secured from English Heritage, but significant contributions were also given during the excavations of 1989 to 1991 by Humberside County Council, Scunthorpe Borough Council, British Steel, Glanford Borough Council, Clugstons, and Rugby Cement; our grateful thanks are due to all of these, and we should also like to acknowledge the support of the late Mike Symmons and the late Bob Hallas (who were respectively the County Council's Chief Property Services Officer and his deputy), who did much to raise political support for this project.

The excavations were supervised by David Tomlinson, and were undertaken by a small team consisting of the following: David Atkinson, Kath Crooks, Andrew DesForges, Gail Drinkall, Richard George, Tony German, Phil Lings, Irene McGrath, Lousie Muston, and Jon Watt. They were supplemented at various times by Ian Beck, Michael Cressey, Mike Frankland, John Tibbles, and Dawn Briggs; the volunteers included Anthony Martinson, and were assisted at various times by members of our ET scheme, Lorraine White, Simon Small, and Jim Firmage. Peter Fox, Dawn Dickinson and Mathew Sallis (of the County Surveyors team) helped to tie in the site survey grid.

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The support of key figures such as Professor Rosemary Cramp, Dr Richard Morris and Dr Geoff Wainwright was invaluable in securing English Heritage grant aid. Over the last 15 years many people in that organisation have helped to steer the project through to publication; in addition to the specialist contributors, the support of Geoff Wainwright, Tim Williams, Chris Scull and Barney Sloane has been invaluable. We should also like to thank the successive Regional Inspectors of Ancient Monuments for this area for their continued interest and support – Andrew Davison, Dr David Fraser, Jon Etté, and Keith Miller. Sarah Jennings and Sebastian Payne gave of their expertise in matters concerning, respectively, ceramics and environmental science. Throughout the last 14 years our Project Officer has been Fachtna McAvoy, who has

patiently coaxed the team through its paces. The interpretation of the Flixborough remains within their wider context, involving comparative analysis with evidence from other parts of the British Isles and Continental Europe, was achieved primarily during a British Academy postdoctoral fellowship awarded to Dr Chris Loveluck, and in his academic posts at the Universities of Southampton and Nottingham.

Special thanks are extended to Frans Verhaeghe, Dries Tys, Elisabeth Zadora-Rio, Henri Galinié, Elisabeth Lorans, Anne Nissen-Jaubert, François Gentili, Isabelle Catteddu and Alain Ferdière for discussions on published work and research in progress in France and the Low Countries, relating to early medieval rural settlement.

Many of the photographs are by Bill Marsden, who has also been responsible for producing many prints over the years for exhibitions and interim publications. Administrative support was provided successively by Zena Ahmed, Claire Hampshire and Georgina Richardson. Lastly, we should like to thank the Departments of Archaeology at Southampton and Nottingham Universities for allowing Dr Chris Loveluck to finish these reports.

# 1 Introduction

*Christopher Loveluck*

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## ***1.1 Background***

Between 1989 and 1991, excavations adjacent to the former settlement of North Conesby, in the parish of Flixborough, North Lincolnshire, unearthed remains of an Anglo-Saxon settlement associated with one of the largest collections of artefacts and animal bones yet found on such a site (FIG. 1.1; FIG. 1.2\*). Analysis has demonstrated that the excavated part of the settlement was occupied, or used for settlement-related activity, throughout what have been termed the 'Mid' and 'Late' Anglo-Saxon periods. In an unprecedented occupation sequence from an Anglo-Saxon rural settlement, six main periods of occupation have been identified, with additional sub-phases, dating from the seventh to the early eleventh century; with a further period of activity, between the twelfth and fifteenth centuries AD.

The remains of approximately forty buildings and other structures were uncovered; and due to the survival of large refuse deposits huge quantities of artefacts and faunal remains were encountered, compared with most other rural settlements of the period. Together, the different forms of evidence and their depositional circumstances provide an unprecedented picture of nearly all aspects of daily life on a settlement which probably housed elements of the contemporary social elite amongst its inhabitants, between the seventh and eleventh centuries. Furthermore, and perhaps even more importantly, the detailed analysis of the remains also provides indications of how the character of occupation changed radically during the later first millennium AD, when the kingdom of England emerged. The reasons for these changes are a subject for detailed debate in this volume.

The quality of the overall archaeological data contained within the settlement sequence is particularly important for both the examination of site-specific issues, and also for the investigation of wider research themes and problems currently facing settlement studies in England, for the period between AD 600 and 1050. For

example, with regard to site-specific research, the remains provide an exceptional opportunity for examining local dynamism in settlement evolution, and for reconstructing the changing lifestyles of the inhabitants and their changing relationships with the surrounding locality, the trans-Humber region, and the wider world. At a broader level, amongst other themes, the wider comparison of the material culture traits evident at Flixborough enables a re-assessment of the problems of defining the character and social complexity of rural settlements, dating from the seventh to eleventh centuries AD.

## ***1.2 Structure and inter-relationship of the Flixborough publications***

The publications of the Flixborough settlement remains aim to present the evidence in a way that will enable readers to understand the process of analysis and interpretation, from the micro-level of the excavated deposits themselves, to the macro-level of appreciating their importance for our knowledge of seventh- to eleventh-century England, and to a certain extent neighbouring areas of Continental Europe. The presentation, analysis and interpretation of the archaeological evidence are divided into four volumes, with the ultimate goal of a fully integrated understanding of the lifestyles of the inhabitants of the settlement. This entailed complex interweaving and interpretation of stratigraphical, structural, biological and artefact remains, within the chronological occupation sequence in the excavated area. It also required assessment of the representativity of the evidence for the scale of interpretation possible from the data.

The different volumes within the series of publications serve slightly different purposes. Volume 1 presents an integrated analysis of the stratigraphic and chronological sequence of activity on the excavated site, with analysis of the contents of the archaeological deposits in prepara-

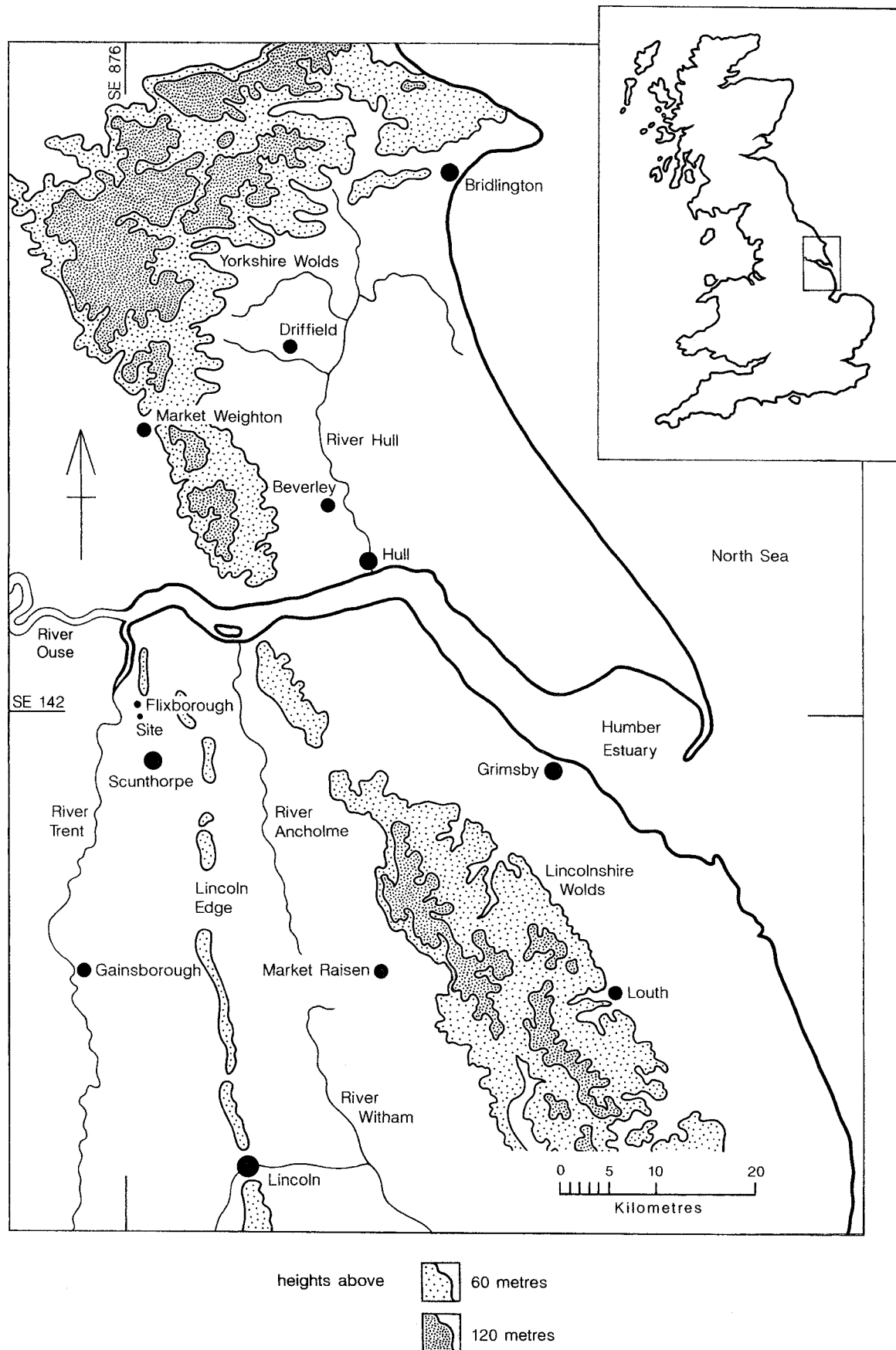


FIG. 1.1. Location Map – Flixborough within the trans-Humber region (M. Frankland).



tion for wider interpretation. The reasoning is also presented for judging whether the remains are representative of the excavated area alone, or a wider settlement area. Thus, volume 1 provides the analytical narrative of the nature of occupation and the use of space through time, integrating the results from all the forms of data. This narrative does not, however, discuss approaches to wider interpretation of the settlement remains from the seventh to eleventh centuries AD. These are informed by comparative analysis and assessment of different contemporary influences on interpretation of archaeological evidence, and are presented in volume 4 (this volume).

Detailed presentation of the many thousands of artefacts recovered from the archaeological deposits, and discussion of comparisons is presented in volume 2 of the series. Presentation of the artefact, and also the biological remains, in separate volumes is a reflection of the scale and importance of the different types of data by themselves, and as an integrated assemblage. Both the discussion in volumes 1 and 4 is cross-referenced to the material-specific analyses in volumes 2 and 3.

Volume 3 presents the nature of the biological remains from the site, above all represented by animal bones. Due to the exceptional circumstances of the occupation sequence and the unprecedented size of the assemblage represented by the faunal remains, volume 3 is designed to present the evidence both in its site-specific and wider comparative context, with integrated interpretation of the contribution of the animal bones for understanding aspects of the settlement's economy, status and character.

This book, volume 4, offers a series of thematic analyses, integrating all the forms of evidence to reconstruct the lifestyles of the inhabitants. These comprise settlement-specific aspects and wider themes. The former include relations with the surrounding landscape and region, trade and exchange, and specialist artisan activity. Whereas the wider themes consider approaches to the interpretation of settlement character, the social spectrum of its inhabitants, changing relationships between rural and emerging urban centres, and the importance of the excavated remains within contemporary studies of early medieval settlement and society in western Europe.

In certain instances, primarily in volumes 1, 2 and 3, cross-referencing links to the digital archive of the research on the Flixborough remains are also presented. This digital archive is to be housed in the Archaeological Data Service (ADS) for the United Kingdom. It contains most of the principal data-bases relating to the stratigraphic data, artefacts, and environmental samples from the excavations, together with much graphical information, including certain sections and feature plans not presented in the reports, and also detailed artefact distribution plots for all the main artefact types. The latter have not been produced in the printed publications due to the sheer number of distribution plots by period and phase, and the huge quantity and density of finds by

deposit, which renders printed distributions illegible except when produced at large scale. The digital archive also contains much of the data on the vertebrate remains. The four-volume series of publications, in conjunction with the ADS digital archive, and the original excavation and post-excavation research archives will then allow ongoing re-interpretation of the early medieval settlement and its context in future years.

### ***1.3 Topographical setting of the settlement and the circumstances of discovery***

The Anglo-Saxon settlement was situated on a belt of windblown sand, overlooking the floodplain of the River Trent, eight kilometres south of the Humber estuary. The windblown sand had built up against the Liassic ironstone escarpment, to the east of the excavated area (FIG. 1.3; Gaunt, volume 1, Chapter 1). Until the seventeenth and eighteenth centuries, this belt of sand was located on the interface between two environmental zones. These comprised the wetlands of the lower floodplain and delta areas of the River Trent, situated to the west and north; and the well-drained soils of the Lincoln Edge, on the escarpment to the east (FIG. 1.4\*; Gaunt 1975, 15; Gaunt, Chapter 4, this volume; Lillie and Parkes 1998, 51–52). Descriptive impressions of this landscape, with its marshes, sand belts of pasture and arable land, and occasional woodland, can be gleaned to a certain extent from the Domesday survey of 1086 (Foster and Longley 1924; Darby 1987, 103–108). They can also be visualised more fully from John Leland's account of his journey of 1544, from Gainsborough through to the Isle of Axholme (Chandler 1993, 294–297).

The excavated part of the Anglo-Saxon settlement was located upon and adjacent to two spurs on the sand belt, with a shallow valley extending into the central part of the site (FIG. 1.5\*). Derrick Riley first identified settlement remains in this area in 1933, following the recovery of Maxey-type pottery and loom weights. Unfortunately, this type of pottery was not identified as 'Mid' Saxon in date until Addyman's excavations at Maxey, in Northamptonshire (Addyman *et al.* 1964, 20–73). Consequently, Riley concluded that the settlement was Romano-British (Riley's unpublished notebook). Harold Dudley also referred to his recovery of Anglo-Saxon remains from nearby Conesby, although the exact geographical relationship of these finds to the excavated settlement evidence is unclear (Dudley 1931, 44).

Prior to the quarrying of sand on the site, the settlement was confirmed as dating from the Anglo-Saxon period, during an archaeological evaluation in 1988, by Mr Kevin Leahy, then Principal Keeper of Archaeology and Natural History, at Scunthorpe Museum. This evaluation uncovered the remains of eleven east-west aligned inhumation graves, without grave-goods. Some of the burials were interred in coffins or chests, with iron fittings identical to those from other Anglo-Saxon cemeteries in the

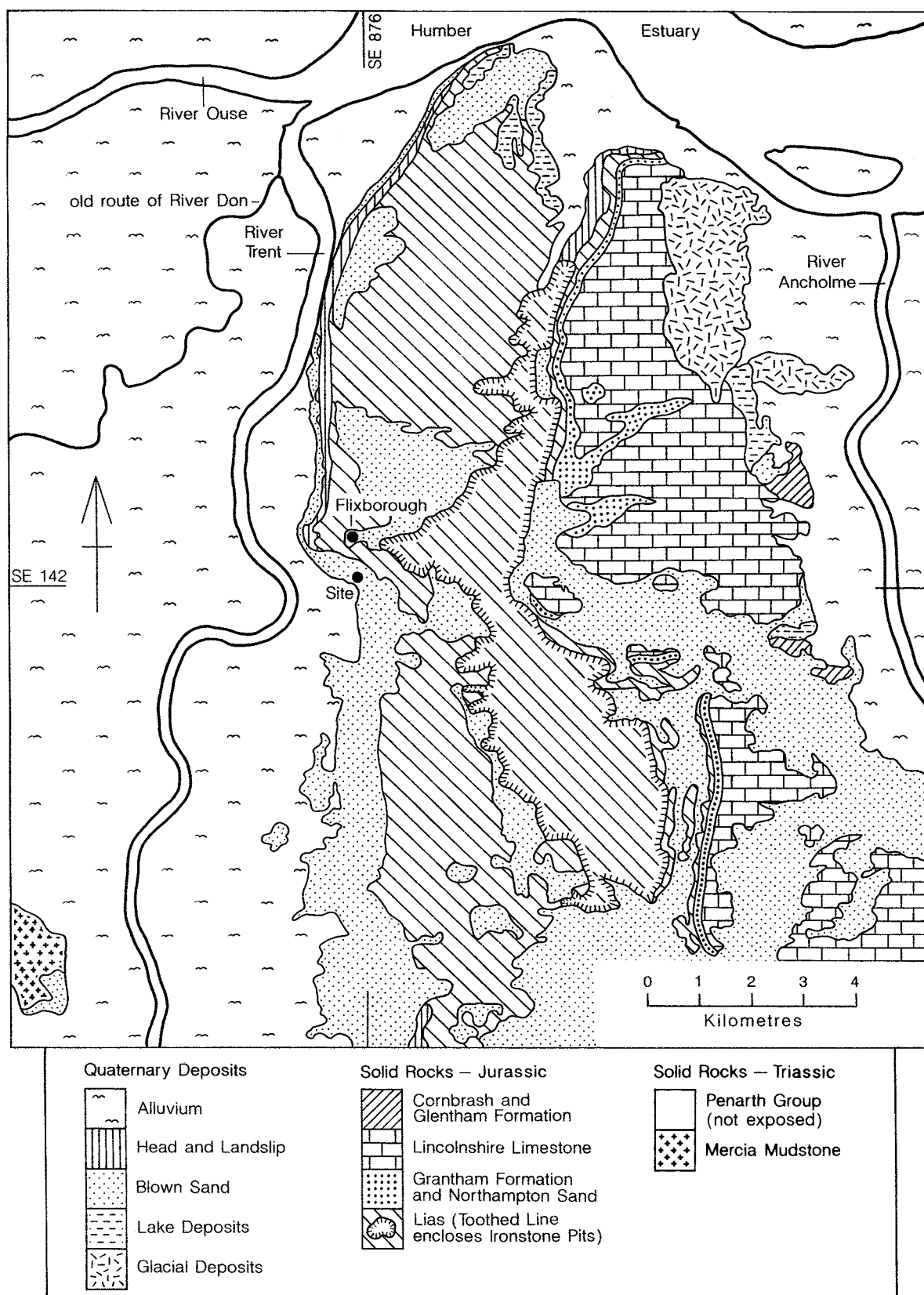


FIG. 1.3. Map of the solid-rock and Quaternary geology of parts of northern Lincolnshire and the Humber estuary, after G. Gaunt (M. Frankland).

surrounding region, dating from the period between the seventh and ninth centuries AD (Mortimer 1905, 254–257; Ottaway 1996, 99–100; *et al.*). The partial foundations of possible buildings were also uncovered during this evaluation. As a consequence, English Heritage funded the Humberside Archaeology Unit (now Humber Field Archaeology) to conduct further evaluations, which resulted in a two-year programme of excavations on the settlement, from 1989 to 1991 (Fig. 1.6).

Between 1991 and 1995, further geophysical, magnetic susceptibility and surface collection surveys were undertaken, and additional evaluation trenches were excavated. They demonstrated that ‘Mid’ and ‘Late’ Saxon archaeological evidence, as well as scatters of Romano-British and medieval artefacts, extended to the north and south of the excavated site. Remains also continued to the east towards the ironstone escarpment and the church of All Saints’, variously referred to in the past as North Conesby church or Flixborough *Old church* (Coppack 1986, 51). Iron slag heaps, to the east of the church, are also known to have covered a moated enclosure between 1922 and 1924. They subsequently covered the intervening area between the latter feature and All Saints’ church, between the 1940s and 1970s (Foster and Longley 1924, liii; Loveluck and McKenna 1999). A map of Flixborough parish produced by Snape in 1778, and the Ordnance Survey map of 1907 both show the moated enclosure, the site of the medieval manor house of North Conesby, in relation to the church (Fig. 1.7). Their positions are likely to reflect the two extremities of the medieval settlement of North Conesby. Medieval tenements may have been situated between the religious and secular foci of the settlement, in an area formerly known in 1778 as ‘Church Field’. At present, archaeological evaluation immediately to the east of All Saints’ church has been too limited to confirm this hypothesis, but recent trial excavation of the moated site and its environs has confirmed medieval and post-medieval settlement activity, between 300 and 400m to the east (Duggan, Fraser and Steedman 2001; Bradley 2005). The remains from the Flixborough excavations, therefore, probably represent only a sample of the multi-period settlement and occupational history of the vicinity (Loveluck and McKenna 1999; Loveluck 2001, 81).

#### ***1.4 Approaches to the interpretation of the settlement remains***

The aim of this particular volume is to provide a detailed synthetic and comparative analysis of all the evidence from the settlement at Flixborough, setting the approaches to interpretation and the results in their wider British, and to a certain extent, their western European context. It provides a summary of the occupational history, and the structural, artefact and biological remains, through detailed discussion of specific themes relating to different aspects of life and wider problems of interpretation.

Discussion in this work begins with an analysis of the changing patterns seen in the organisation of space in the excavated area through time, with reference to structures and the character of the archaeological deposits. The specific focus is on the organisation of refuse strategies, the extent of deposit re-working, and the taphonomic influences on the presence and condition of artefacts and bones. The consideration of these issues is undertaken to examine in detail the archaeological filtering factors which influence our ability to draw conclusions on aspects of life on the settlement and the social make-up of its inhabitants. Such a critical assessment of the limits of inference from the archaeological evidence is essential prior to wider comparison with data from other sites, where very different depositional circumstances and survival conditions do not allow comparison of like with like.

Having examined the factors influencing the use of the Flixborough evidence for comparative purposes, the volume proceeds to compare the evidence from the built environment with other Anglo-Saxon settlements, and continental counterparts. The character of the buildings and the architectural techniques reflected are discussed at two levels. The buildings are analysed through a comparative study of their foundation plans, within the context of the wider corpus of known seventh- to tenth-century buildings from England, southern Scotland and, when appropriate France, Belgium, the southern Netherlands and Germany. Knowledge of Anglo-Saxon woodworking techniques and woodland management also allows observation of architectural features, and limited reconstruction of buildings. Finally, the use of space for residential, ecclesiastical and funerary purposes is evaluated on an English and western European basis.

A range of themes is then considered examining the relationship of the settlement and its inhabitants to their immediate landscape, the wider region and beyond. Subjects covered include a reconstruction of the Anglo-Saxon topography and ecological habitats in the vicinity of the settlement; the provisioning strategies of the inhabitants; patterns of craft-working and exchange, and the social relations that they might reflect; and also the historical setting of the settlement within Anglo-Saxon Lindsey. This is achieved through different multi-disciplinary analyses of archaeological, geological, botanical, zoological, and textual sources of evidence.

Finally, detailed attention is paid to the importance of the Flixborough remains for our wider understanding of certain issues relating to settlement studies, and the changing nature of societies in England, during the later first millennium AD. Patterns visible in the archaeological data from the settlement are examined in the light of past and current fashions in the interpretation of rural settlement evidence, from the seventh to eleventh centuries. Approaches to interpretation reviewed include the influence of the textually-led origins of ‘Mid’ Saxon settlement studies on site interpretation, developing as it

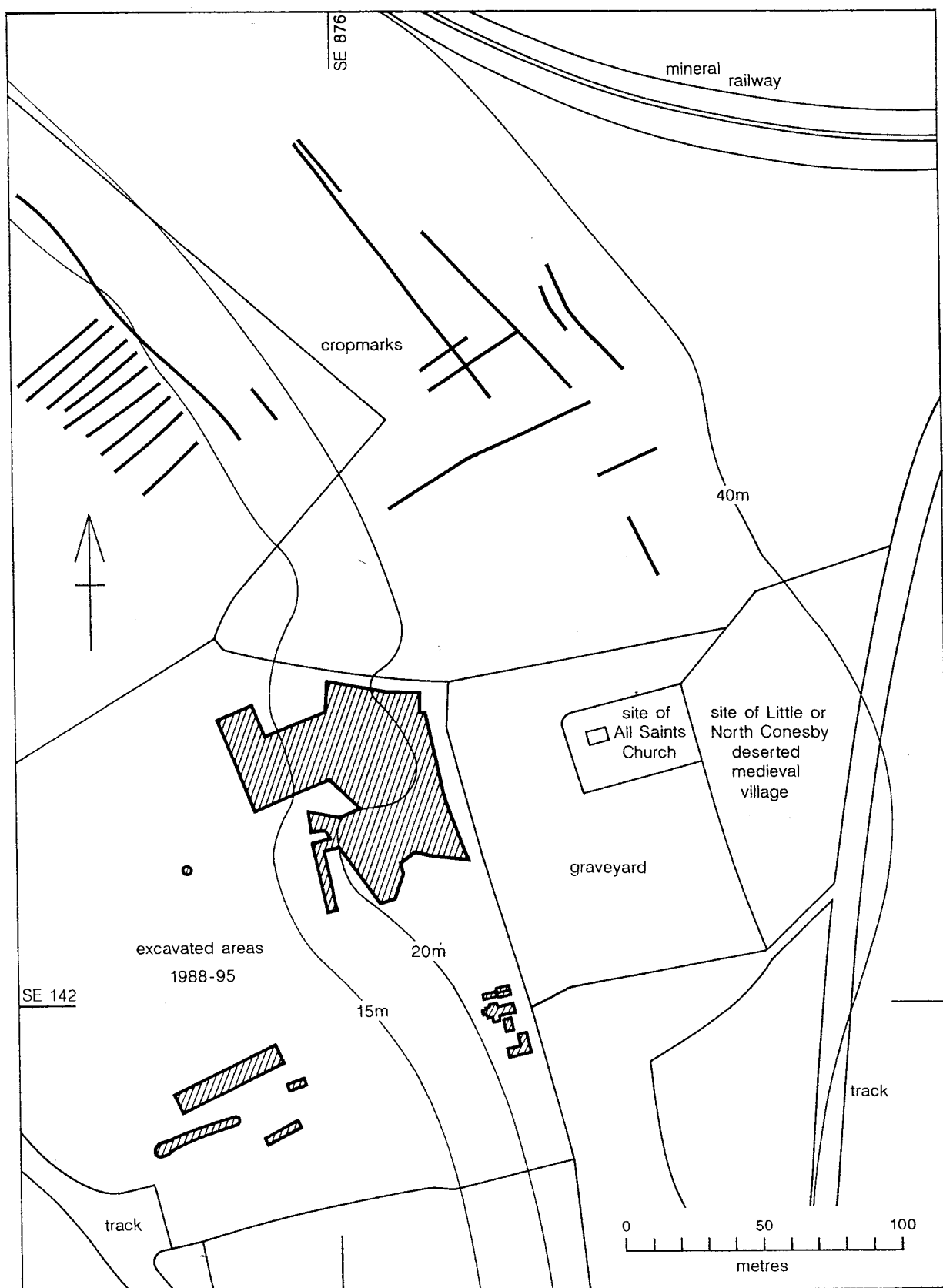


FIG. 1.6. Plan of the excavated areas and adjacent settlement features (M. Frankland).

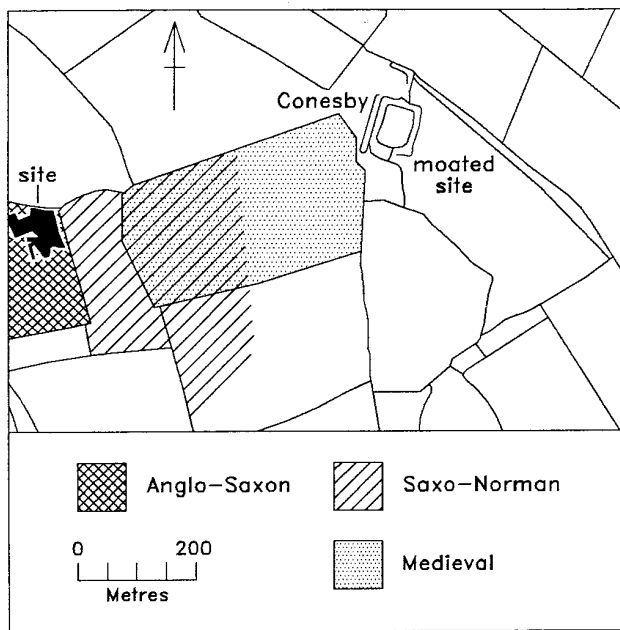


FIG. 1.7. Schematic plan of the development of the settlement of North Conesby, within the modern parish of Flixborough (D. Atkinson and M. Frankland).

did from the targeting of documented settlements for excavation. Attention is also given to the use of anthropological models of social evolution, and their impact on interpretation of the nature of settlements, the social status of their inhabitants, and their wider relations within contemporary Anglo-Saxon society. Using the Flixborough remains as a basis for comparative interpretation, integrated profiles of archaeological and biological remains are then discussed with a view to establishing how lifestyles can be reconstructed. In the case of the Flixborough evidence, analysis of lifestyles throughout the occupation sequence also demonstrated considerable changes, between the late seventh and the late tenth centuries. The implications of these changes are discussed in relation to how archaeologists assign notions of settlement character and social identity. The latter themes are placed within both their English and western European contexts, and against the background of wider social changes in the later first millennium AD.

## 2 The Excavated Anglo-Saxon Settlement Remains and their Potential for Wider Interpretation

*Christopher Loveluck*

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### ***2.1 The excavated Anglo-Saxon occupation sequence – a summary***

The excavated Anglo-Saxon settlement remains were sealed by windblown sand, up to two metres deep in places. Below this sand inundation lay evidence of six broad periods of settlement activity, with definable phases within them, dating from at least the early seventh century AD until the mid fourteenth century. The overall stratigraphic sequence can be summarised as a series of phases of buildings and other structures, associated at different periods with refuse dumped around them in middens and yards, or with a central refuse zone in a shallow valley that ran up into the centre of the excavated area (Fig. 2.1). Several of the main structural phases were also separated by demolition and levelling dumps, and it is this superimposition that has resulted in the exceptional occupation sequence (Fig. 2.2\*). The majority of the recovered finds, approximately 15,000 artefacts and hundreds of thousands of animal bone fragments, were found within these refuse, levelling and other occupation deposits. The high wood-ash content of a significant number of the dumps, their rapid build up, and the constant accretion of sand within them, formed a soil micro-environment which was chemically neutral – the alkalinity of the wood-ash and sand accretion preventing acid leaching (Canti 1992, 18; Canti, Volume 1, Chapter 2). It was this fortuitous burial environment that ensured the excellent preservation conditions for the artefact and vertebrate skeletal assemblages.

The earliest period of activity, ascribed to the seventh century, comprised the remains of three buildings on two building plots. The two phases of buildings are shown in Figs 2.3 and 2.4. These early buildings in the south of the site had post-hole foundations, although ghosts of posts or planks were absent. The fills of the post-holes from the southern buildings contained predominantly mid to late fourth-century Romano-British pottery, Early Saxon local wares, and Early Saxon Charnwood-type ware from

Leicestershire (Young, Volume 2, Chapter 12; Williams and Vince 1997, 219–220). The post-hole fills of the demolished buildings of Phase 1b also contained the first Maxey-type ware from the settlement sequence (Loveluck below). The spout of an oxidised (red-orange) pottery pitcher, possibly imported from northern France during the seventh century, was also recovered from a post-hole of the latter phase (Vince, Volume 2, Chapter 12). The location of the earliest buildings in the south-eastern part of the excavated area suggests that they represent the periphery of an Early Anglo-Saxon settlement focus in the immediate vicinity. The recovery of fragments of small-long brooches, annular brooches, and a mid sixth-century great square-headed brooch, as residual finds also hints at the presence of an Early Saxon settlement focus, and possibly a cemetery nearby (Hines, Volume 2, Chapter 1; Rogers, Volume 2, Chapter 1).

Between the late seventh and mid eighth centuries (Periods 2 to 3a), most of the excavated area was utilised as a habitation zone, with buildings located to the north and south of the shallow valley, in the centre of the site. The new buildings were constructed on different alignments from those of Phase 1b, the majority of them on new building plots, aligned on variations between approximate east-west and north-east to south-west axes (Fig. 2.5). The end of Period 1 and the re-planning of activity in the excavated area upon the onset of Period 2 also coincided with the first occurrence of Maxey-type pottery ware at Flixborough, as noted above; and the earliest production of this type of pottery in the East Midlands is dated between the late seventh and early eighth century (Young, Volume 2, Chapter 12; Vince and Young, Volume 2, Chapter 12). Sometime between the late seventh and mid eighth centuries, a large boundary ditch was also dug, running on an east-west alignment approximately, from the shallow valley straight down the slope towards the Trent floodplain. It is extremely difficult, however, to date the creation of this feature prior to its filling-in with material, which

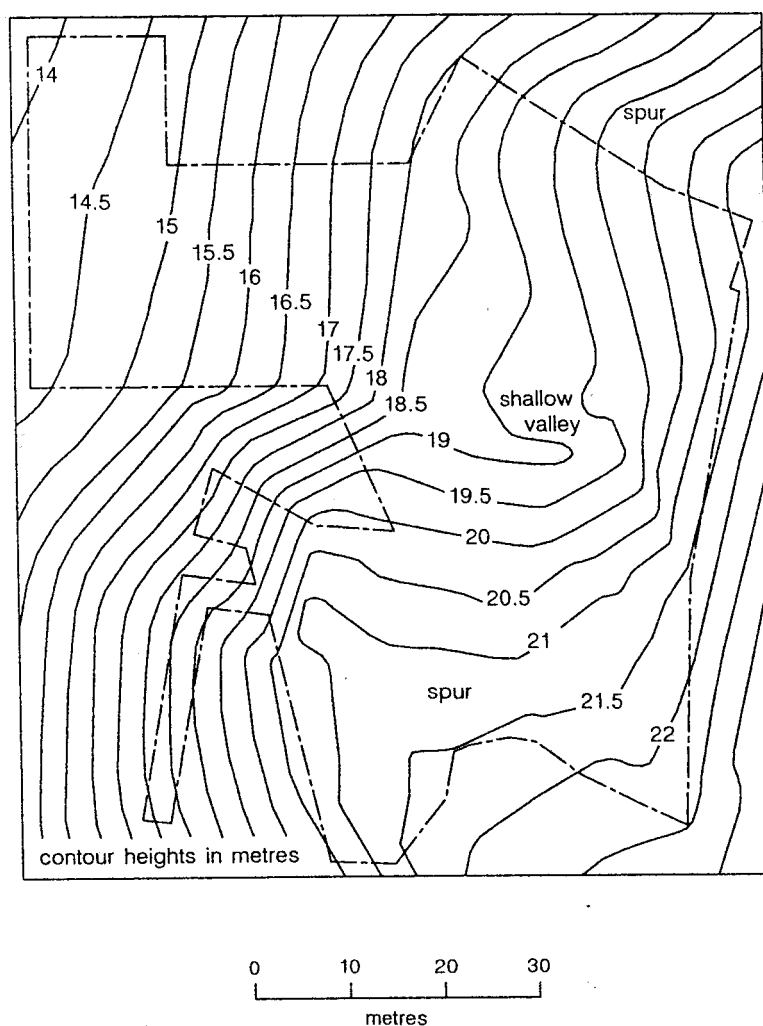


FIG. 2.1. Contour map of the excavated area, 1989–1991, showing the sand spurs and the central shallow valley (M. Frankland).

provided *termini post quos* of the early to mid ninth century (see below). By that time, the ditch had been re-cut at least once.

Two buildings and their associated archaeological features are particularly noteworthy from the late seventh to mid eighth century, namely buildings 6 and 21. These structures had post-hole foundations, and external, stone-lined 'soakaway' gullies which ran from the central post along one of the short-walls of each of these buildings. Both seem to have had a drainage function, taking water into the shallow valley, presumably prior to the construction of building 11 – stratigraphically the earliest building in the central part of the site. As a consequence, certain materials such as small pottery sherds, and especially small vertebrate remains, seem to have been carried in suspension and eventually collected in these features. Refuse dumping strategies in this period comprised the deposition of rubbish immediately outside the buildings.

Sometime in the first half of the eighth century, building 20 was replaced by an exceptional building amongst those from the Anglo-Saxon settlement, constructed on what appears to be a gravel foundation for a base-plate at ground level, and a timber superstructure. This building (1a) was divided into two halves by an internal division, with a fired-clay hearth at its eastern end (FIG. 2.6). The 'soakaway' gullies were also filled during this period, and both buildings 6 and 21 were rebuilt or renovated on the same plots. The fills of the post-holes of these buildings yielded pieces of decorated glass vessels imported from the continent, dated to between the seventh and ninth centuries (Evison, Volume 2, Chapter 2). Sherds of two wheel-thrown pottery vessels were also recovered, dating from the seventh, and seventh-to-eighth centuries AD respectively. One of the pots had been made in the Vorgebirge region of the Rhineland, near Cologne, and the other probably in northern France or Belgium (Vince, Volume 2, Chapter



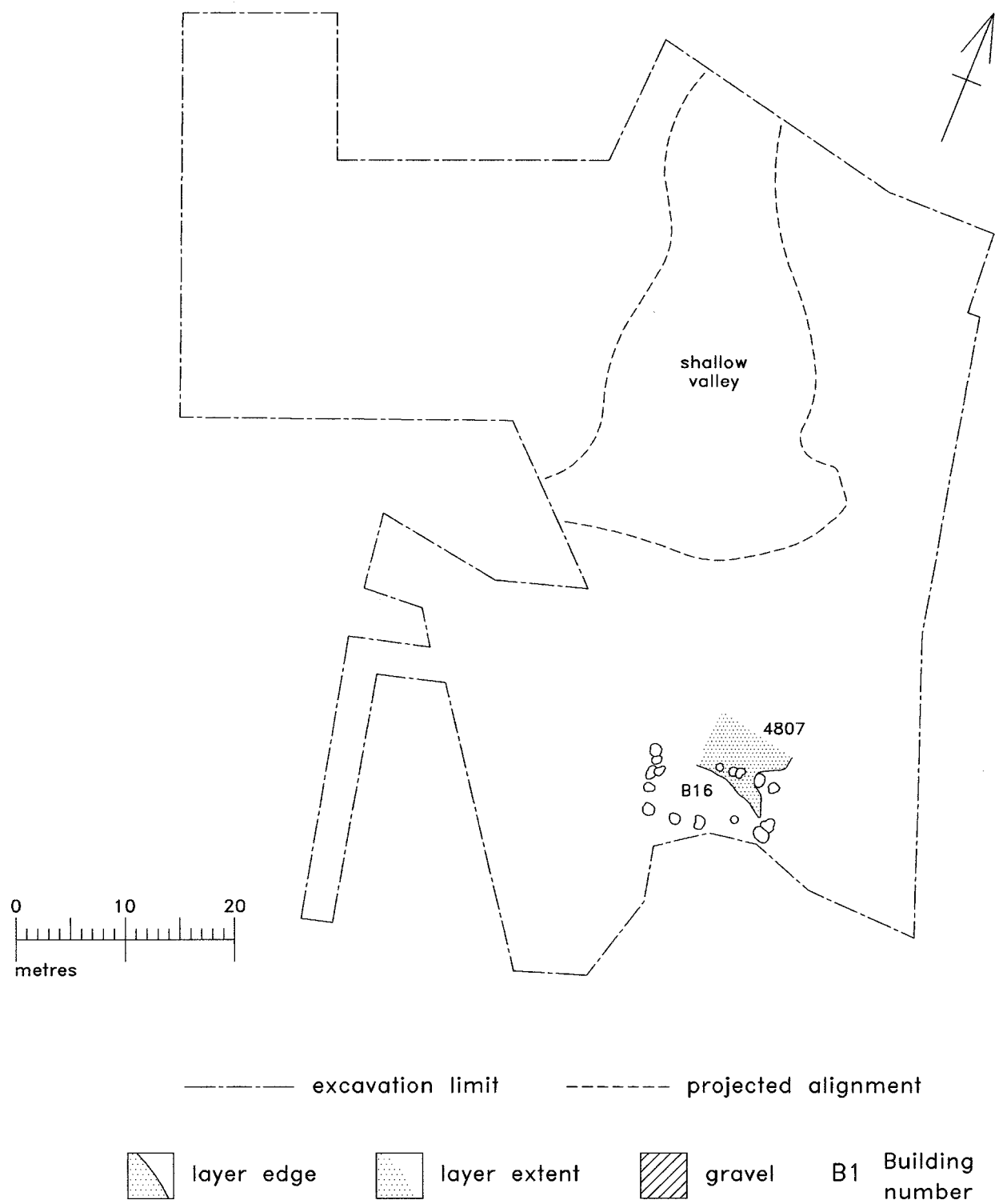


FIG. 2.3. Plan of the excavated area, Period 1, Phase 1a, seventh century; plus convention key (M. Frankland).

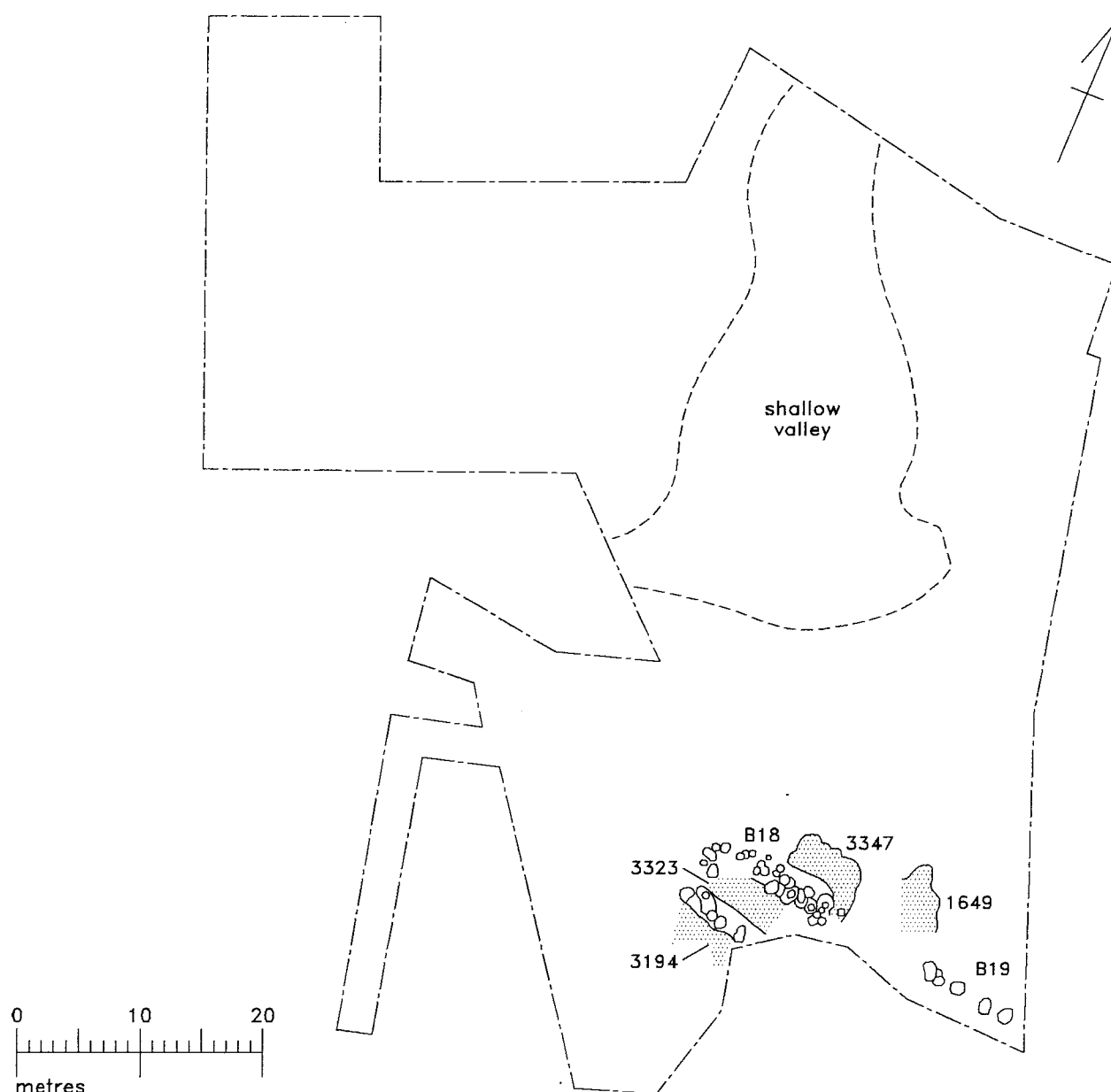


FIG. 2.4. Plan of the excavated area, Period 1, Phase 1b, seventh century (M. Frankland).

12). Although it is difficult to be certain, at some point during the first half of the eighth century, building 11 – represented by its partial foundations – was built in the central part of the site. A collection of post-holes to its west may also reflect a building. Refuse organisation also changed slightly, in that material was dumped to the north of the southern buildings, extending northward down a slope of the spur, into the central shallow valley bottom.

Exceptionally amongst the excavated structures, building 1a also contained the graves of four individuals, buried along its long-walls, on an east-west alignment. Two additional burials were also placed outside the

building to the south and south-east. Examination of the skeletal remains has shown that with one exception all of the burials were juveniles, between the ages of three and twelve years old. The exception was the skeleton of a woman, aged between twenty and thirty years, who had been buried in close association with the skeleton of a peri-natal infant, possibly reflecting the death of mother and infant in childbirth (Mays, Volume 1, Chapter 8).

During the middle decades of the eighth century, the buildings on either side of the shallow valley were replaced, most on the same or broadly similar plots as those of the first half of the eighth century (FIG. 2.7). Notably, however, new buildings were also constructed

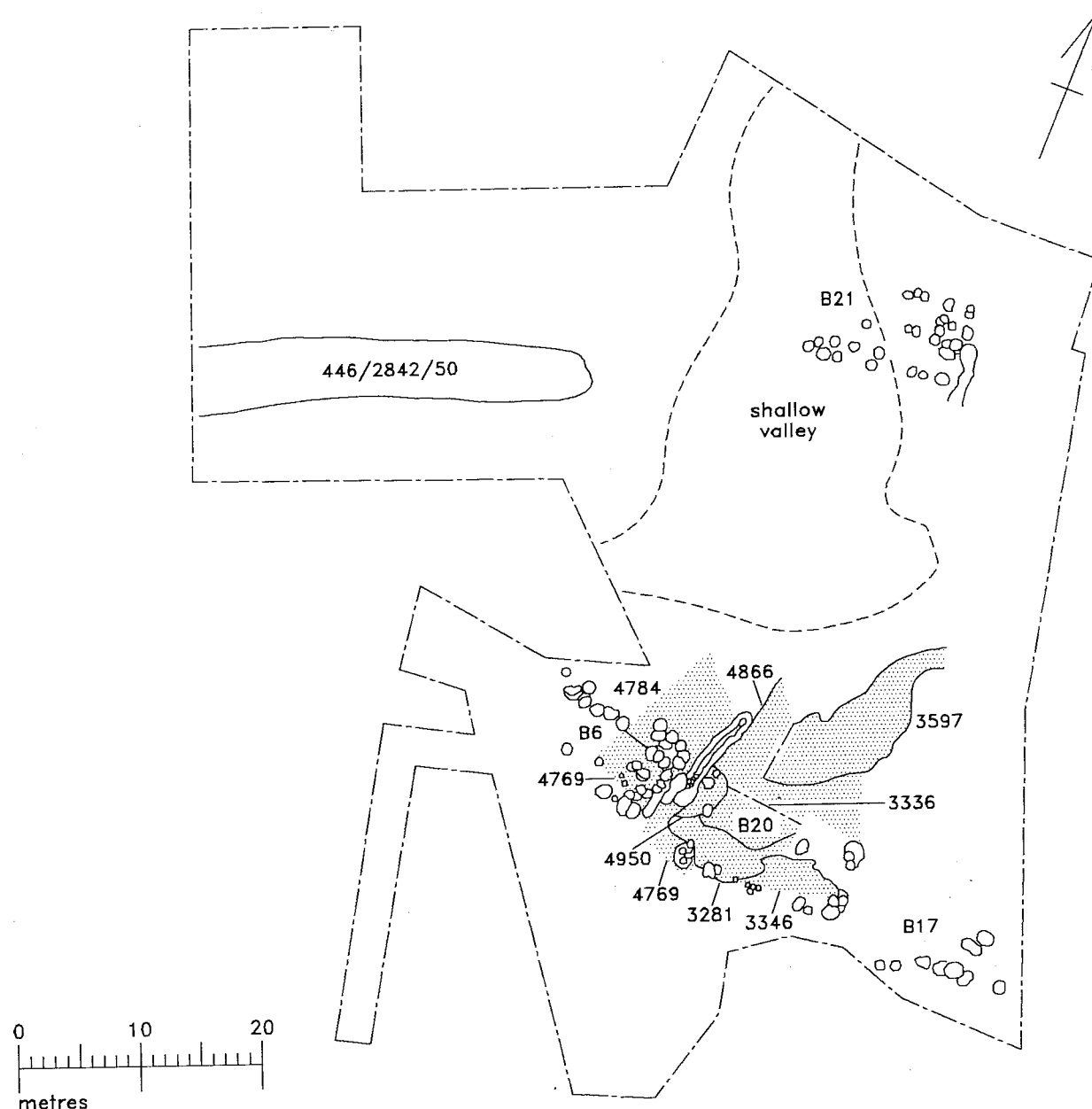


FIG. 2.5. Plan of the excavated area, Period 2, late seventh to early eighth century (M. Frankland).

on previously unused plots: for example, buildings 13 and 23. The former building was a substantial structure, built on the gently inclining northern slope of the shallow valley. It was constructed immediately in front of the plot used by the former building 21, and the replacement of the latter structure – building 8 – was set further back to allow sufficient space from building 13. It is also possible that the three buildings represent a linear chronological succession, in that building 8 replaced 13 which replaced 21, in that order (the earliest building being 21 and the latest 8). The buildings themselves were earth-fast constructions, predominantly within mixed continuous trench and post-hole foundations, although buildings with

post-hole foundations also existed, in the form of building 13. Several also contained internal fired-clay hearths, such as buildings 1b and 2. The former of these buildings represented a complete rebuilding of building 1a, without any obvious reference to the locations of the burials within it (FIG. 2.8\*).

Between the mid eighth and the early decades of the ninth century, the central part of the excavated site became the focus for cyclical episodes of construction and refuse disposal around buildings (FIG. 2.7), followed by the accumulation of demolition deposits prior to episodes of larger-scale refuse dumping, suggesting that the shallow valley was being used as a possible communal

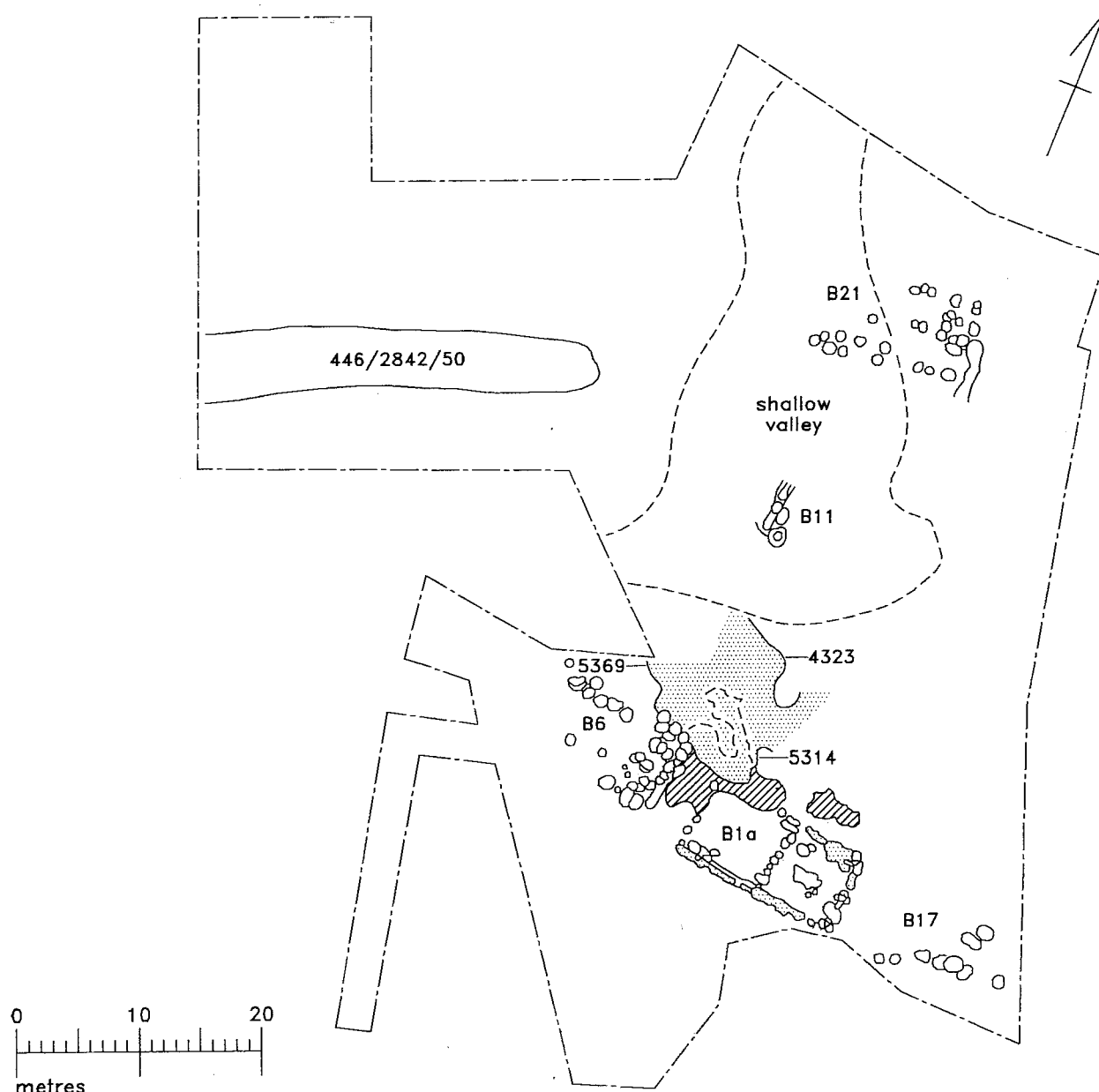


FIG. 2.6. Plan of the excavated area, Period 3, Phase 3a, early to mid eighth century (M. Frankland).

refuse zone (Figs 2.9, 2.10 and 2.11). It is also possible that the later episodes of large-scale dumping represent levelling and site clearance, prior to re-planning and new phases of building. Although, they do appear to have been dumped up against and around the 'footprint' of building 9, which was probably standing when much of the refuse was deposited in Phases 3biv and 3bv (Loveluck and Atkinson, Volume 1, Chapter 4). Significant quantities of imported glass vessel fragments were recovered, together with several sherds of continental pottery vessels; and the earliest stratified coin was recovered from deposit 8200 (Phase 3biii) in this period, an imported silver sceat (a series E 'porcupine' type) thought to have been minted

in the Rhine mouths area of Frisia, between AD 700 and 730 (Archibald, Volume 2, Chapter 13). Overall, however, the majority of finds comprised craft-working debris, domestic utensils, and Maxey-type pottery, and a small number of dress accessories. The deposits defined within the depositional Phases 3biv and 3bv also contained large quantities of vertebrate remains.

At some point between the early and mid ninth century, the physical character of occupation within the excavated area was altered, with the construction of three lines of buildings (Period 4; FIG. 2.12). This was accomplished by the broad re-use of former building plots and construction on new sites. Refuse dumping around

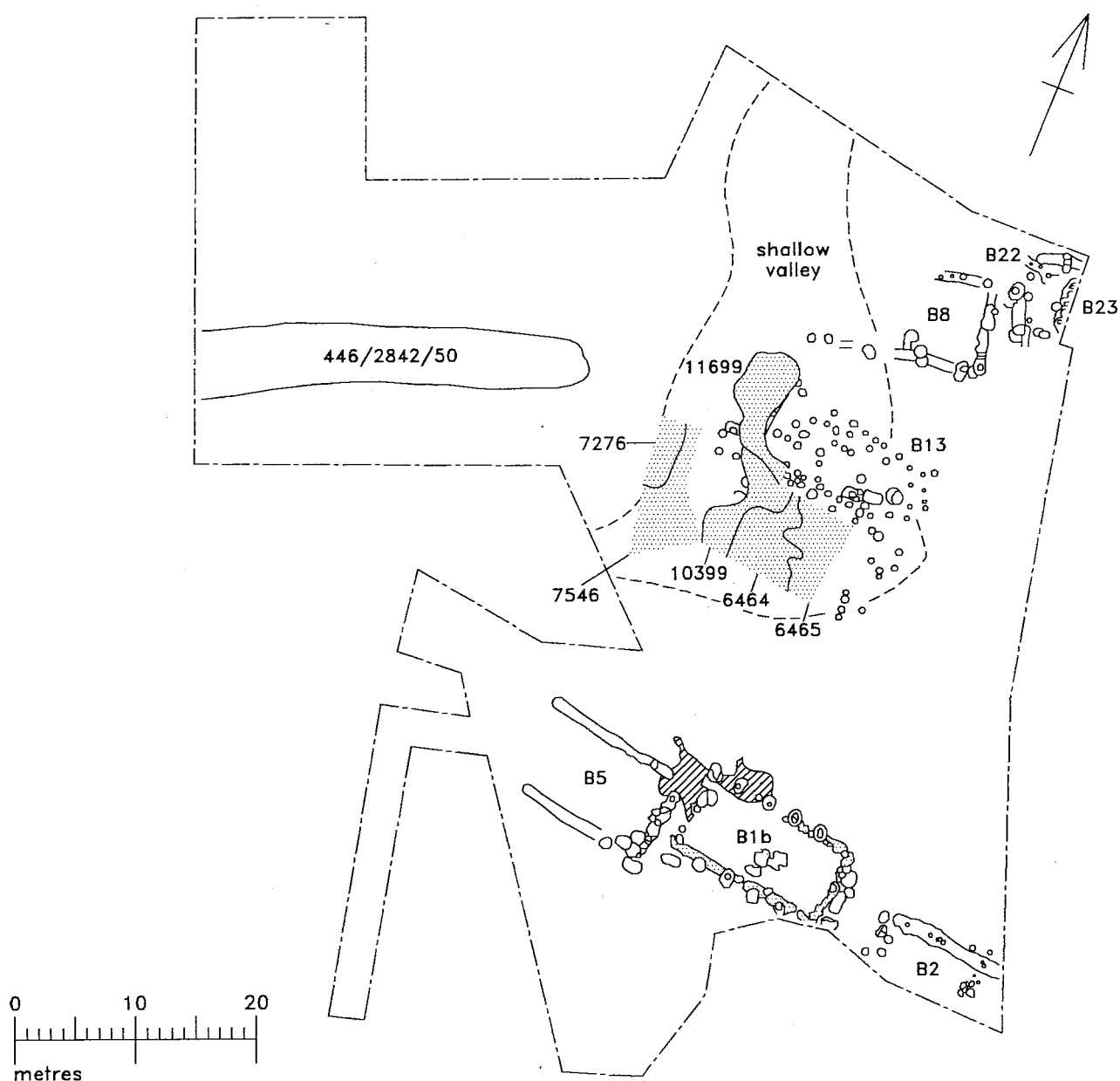


FIG. 2.7. Plan of the excavated area, Period 3, Phase 3bii, mid to late eighth century (M. Frankland).

these buildings seems to have been limited, although there are indications that some material was discarded and became incorporated into the uppermost demolition and levelling dumps of Phase 3b, which formed the activity surface around the buildings during Period 4. New types of artefact deposited for the first time during the early to mid ninth century included several styli, a piece of window glass, two lead window comes, sherds of Ipswich ware imported from the emporium in Suffolk, and a local pottery ware (Early Lincolnshire Fine-shelled ware), which appears to have been made from the early decades of the ninth century (Loveluck and Atkinson, Volume 1,

Chapter 5; Blinkhorn, Volume 2, Chapter 12; Young, Volume 2, Chapter 12).

Subsequently, during the middle decades of the ninth century the buildings in the centre of the site were demolished, and both the central shallow valley and the ditch became foci for large-scale refuse dumping. These deposits contained the largest quantities of craft-working evidence from the settlement sequence, relating especially to textile manufacture (FIG. 2.13). The central dumps contained over 200 unfired clay loom-weights and other weaving debris; and large numbers of animal bones, all shielded from acid leaching by the highly alkaline wood

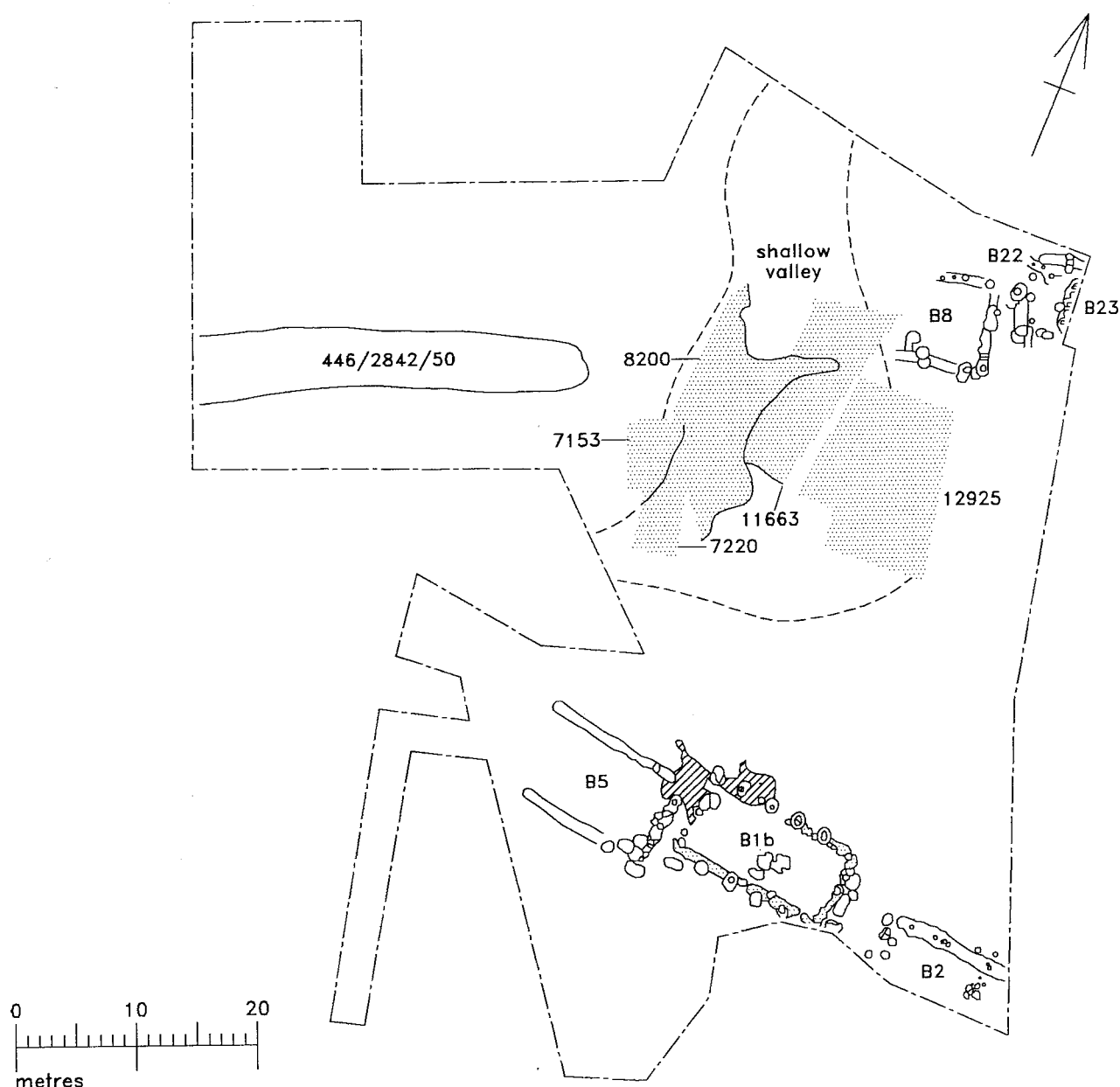


FIG. 2.9. Plan of the excavated area, Period 3, Phase 3biii, mid to late eighth century (M. Frankland).

ash content of the dumps. The broadly datable artefacts included Early Lincolnshire Fine-shelled ware pottery; and a late eighth- or early ninth-century gilt-silver disc brooch (see FIG. 2.22\*: Rogers, Volume 2, Chapter 1). Both demonstrably residual and potentially contemporary sherds of continental pottery and vessel glass were also present, as were imported continental sceattas, minted between the early and mid eighth century. The ditch also contained residual artefacts, in the form of coins and pottery, alongside dress accessories and coins datable to the period between the early and middle decades of the ninth century within both its lower and uppermost fills.

In the latter, two silver pennies of Æthelberht, King of Wessex, were recovered, minted between AD 858 and 865 (Archibald, Volume 2, Chapter 13). Like the central dumps, the ditch also contained significant quantities of animal bones (FIG. 2.14\*). Again, several styli and pieces of window glass and lead came were found in these refuse or site clearance deposits, in increased numbers in comparison with the earlier ninth century.

Following the site clearance possibly reflected by Phase 4ii, the building plots of the previous period were abandoned. In their place, small buildings with post-hole foundations were constructed in the southern part of the

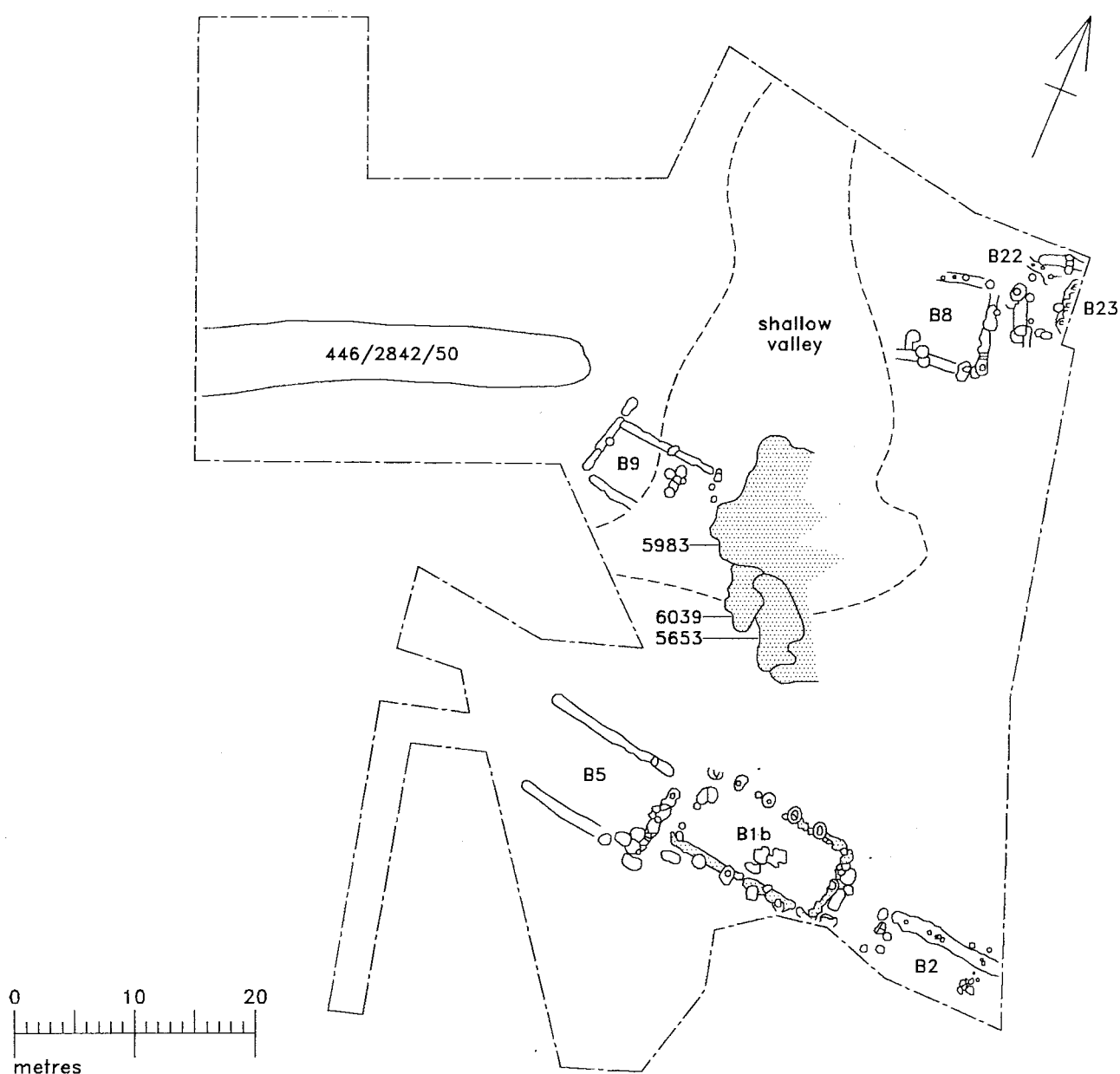


FIG. 2.10. Plan of the excavated area, Period 3, Phase 3biv, mid to late eighth century (M. Frankland).

excavated area, during the mid to late ninth century (Period 5), one of which had internal fired-clay hearths (FIG. 2.15). The former shallow valley in the centre of the site was again used as a refuse-dumping zone, whilst several structures were constructed cutting the line of the former ditch. On the basis of parallels with similar structures in Mid to Late Saxon phases on other settlements, these groups of post-holes probably represent granaries or haylofts (see Loveluck, this volume, Chapter 3). To the north of the refuse dumping area was a zone of domed fired-clay ovens. These ovens were linked with the buildings to the south by gravel paths, which crossed

the central refuse dumps (FIG. 2.16\*). The presence of the paths and the varying characteristics of the dumps themselves suggest that the central part of the site acted as an open midden for an extended period, and that refuse was not deposited in one episode of levelling.

Between the late ninth and early tenth century, some of the small buildings were replaced and others were constructed over the central midden area, cutting through the former gravel paths (Phase 5b; FIG. 2.17). Parts of both the southern and northern sectors of the site were then used as refuse dumping zones. Features and deposits of the latter phase contained small quantities of pottery

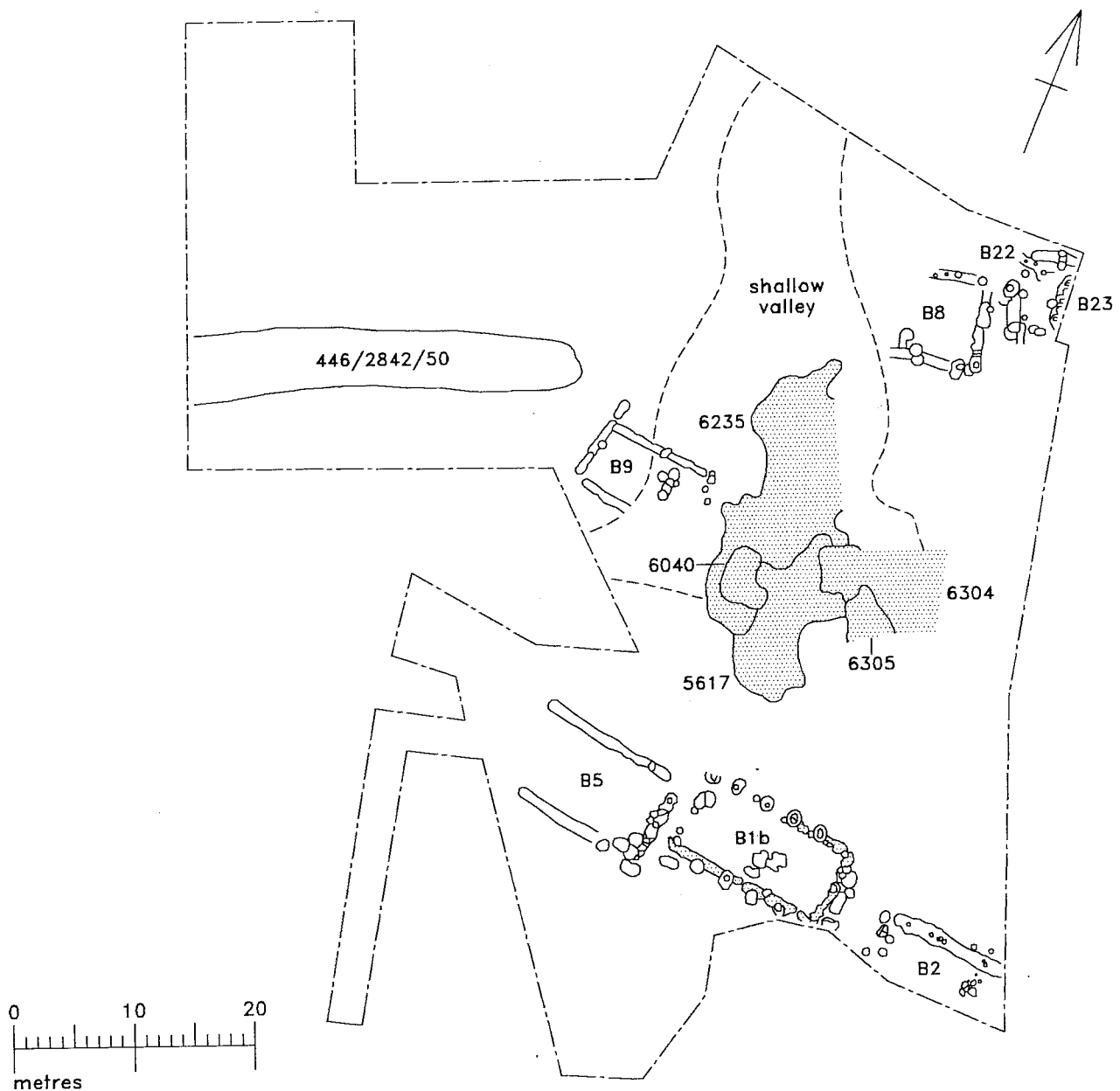


FIG. 2.11. Plan of the excavated area, Period 3, Phase 3bv, mid to late eighth century (M. Frankland).

wares produced in the East Midlands from the late ninth or early tenth centuries: namely, Torksey ware, Lincoln Kiln-type ware and Late Saxon local wares (Young, Volume 2, Chapter 12; Vince and Young, Volume 2, Chapter 12). Significant quantities of animal bones were also recovered from the dumps of Phase 5a, although very few were retrieved from the deposits of Phase 5b.

At some point between the early and mid tenth century, the small buildings and possible granaries or haylofts were completely demolished, and were replaced by the largest buildings seen within the occupation sequence, all of which had predominantly continuous trench

foundations (FIG. 2.18). None of the new buildings was positioned to respect earlier building plots. The largest structure, building 7 – almost 20m by 6.5m in size – cut across the central part of the site; and building 12 cut through the demolished ovens and dumps of Phases 5a and 5b. The other buildings of this phase are noteworthy for the fact that they all continued under the eastern edge of the excavations. The latest buildings (numbers 32 and 33) also had different alignments, having been placed on a north-south axis.

During the mid tenth century, building 7 was also demolished, and was covered by refuse dumps, one of



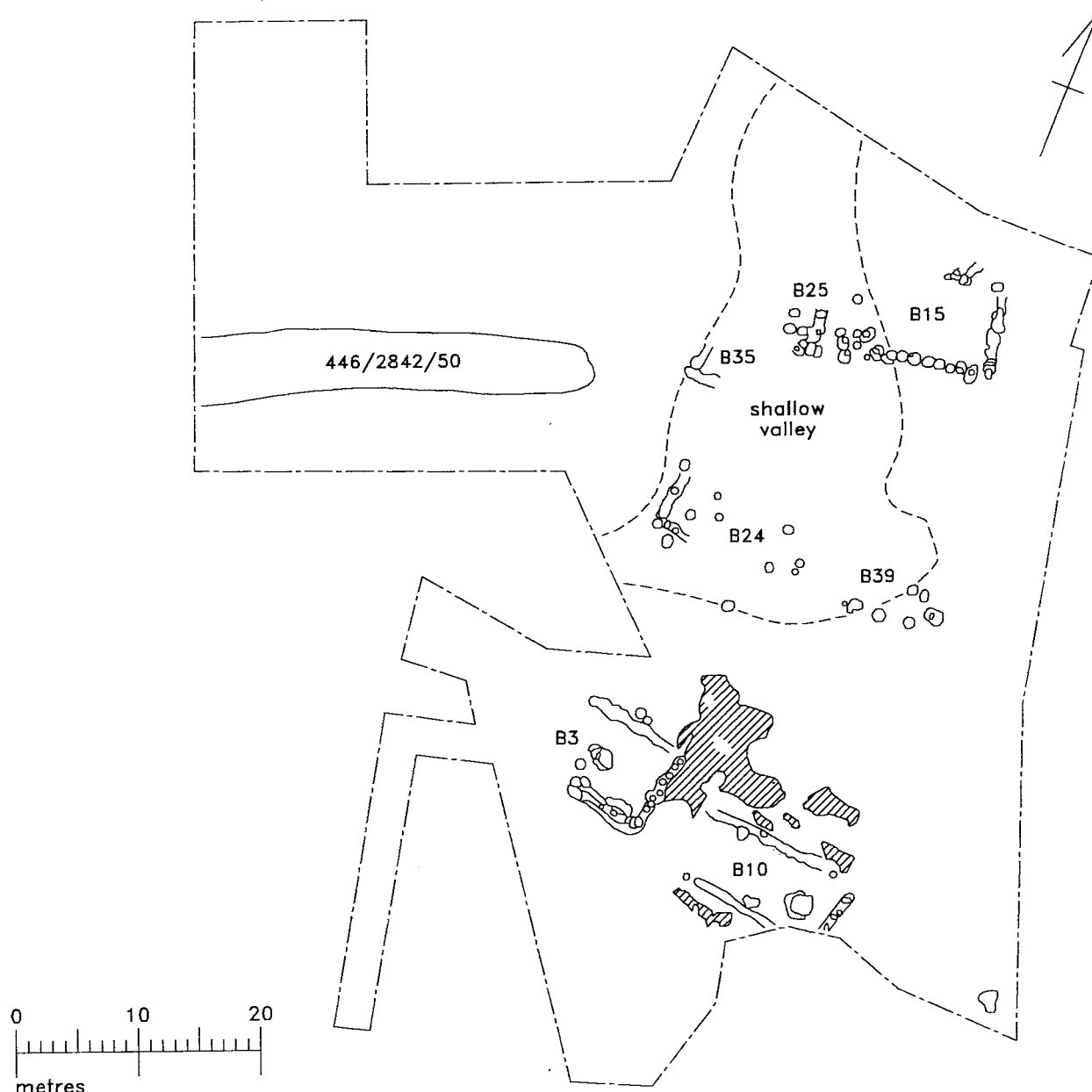


FIG. 2.12. Plan of the excavated area, Period 4, Phase 4i, early to mid ninth century (M. Frankland).

which (3891) was comprised of a vast quantity of animal bones (FIG. 2.19). A small range of tenth-century pottery types was also recovered from the refuse deposits, again comprising Torksey, Torksey-type and Lincoln pottery wares. Alongside the pottery fragments, significant numbers of a new heavier form of loom-weight were found, which had first appeared in Phase 5b; and the largest collection of iron-working debris from the Flixborough sequence was retrieved, including the first major collection of iron-smelting evidence. The dumps, such as 3610 and 3891, may have accumulated at the same time as building 33 was in use, although deposits

such as 6300, running down the eastern edge of the excavated area were created after the latter building had been demolished (FIG. 2.20).

The impression given by the evidence, therefore, is that during the tenth century the habitation area of the settlement was moving slightly eastwards, towards the limestone escarpment. Between the mid tenth and early eleventh century, the whole of the excavated area was then used as a refuse-dumping zone, and consequently large quantities of artefacts and animal bones were recovered from these deposits (Phase 6iii). This change of land-use from a settlement zone associated with

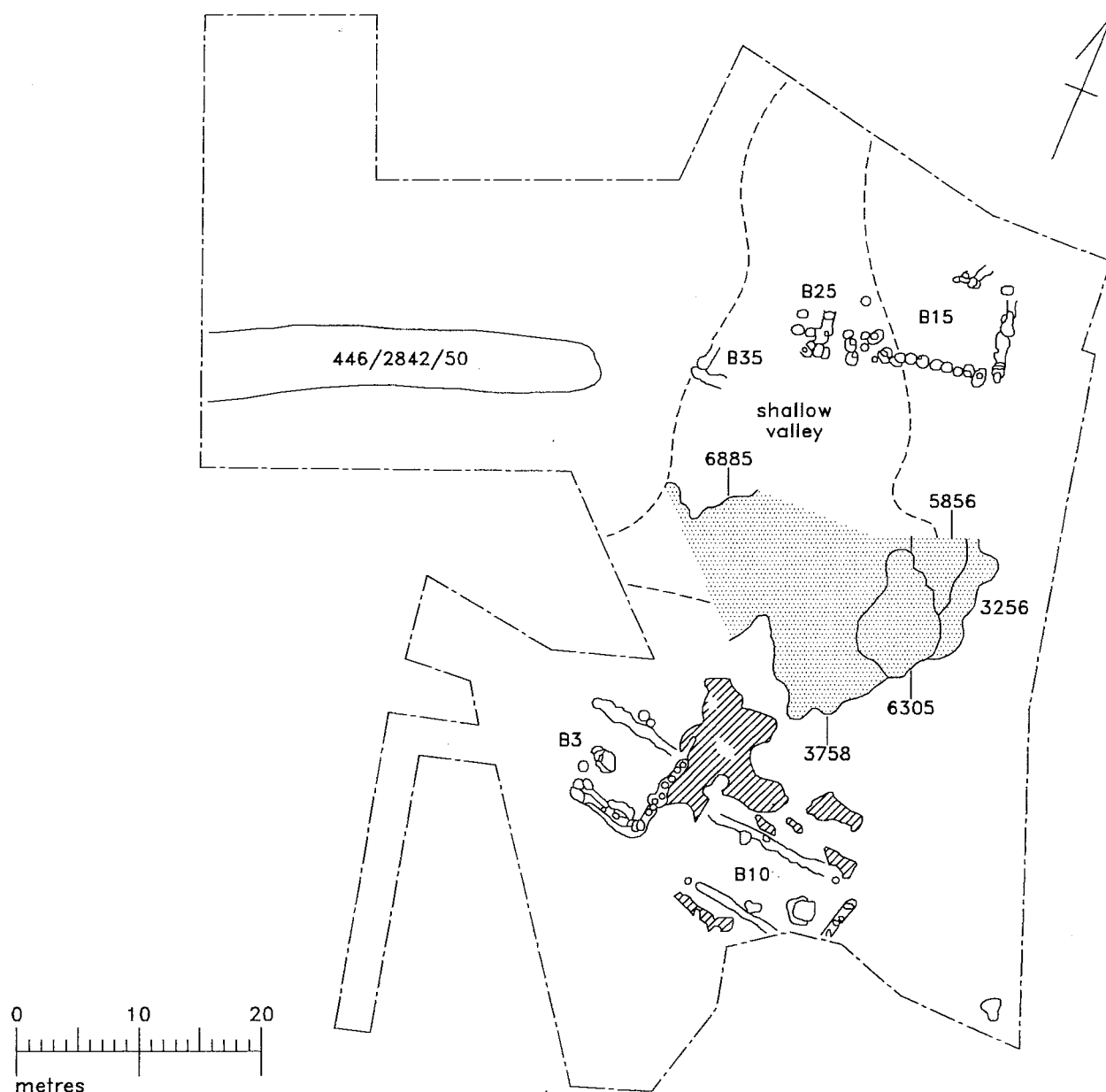


FIG. 2.13. Plan of the excavated area, Period 4, Phase 4ii, mid ninth century (M. Frankland).

habitation, craft-working and dumping, to an area associated only with refuse disposal is consistent with the view that the settlement had shifted slightly to the east, and that the excavated area was henceforth on its periphery.

This slight movement immediately eastward would place the late tenth- and eleventh-century settlement in the vicinity of All Saints' church and the deserted medieval settlement of North Conesby. The church is documented from the thirteenth century (Roffe this volume, Chapter 8); and it was also known both as North Conesby and Flixborough Old church (Coppack 1986,

51). The place-name 'Conesby' is particularly interesting since it comes from the Old Danish *Kunungsby*, meaning 'King's Farm or settlement' (Cameron 1998, 33; Cameron this volume, Chapter 4); and like Flixborough, North Conesby was also mentioned in the Domesday survey (Foster and Longley 1924, liii and 149). The place-name Conesby may have been associated with the excavated Anglo-Saxon settlement from the tenth century, if not slightly earlier. The gradual eastward shift of the settlement would account for the linkage of the name with the deserted medieval site, which may have been defined by the church and Anglo-Norman manor

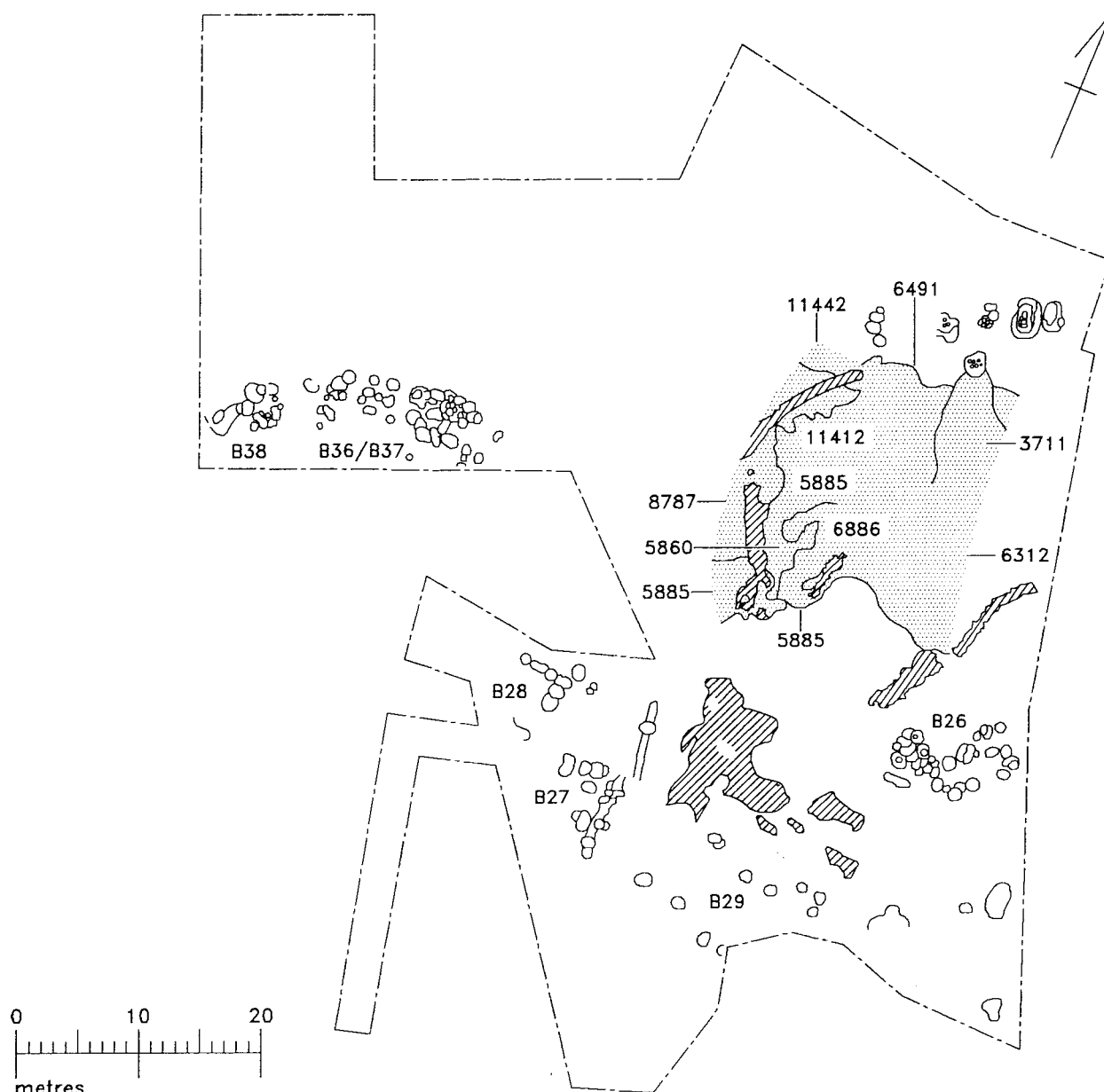


FIG. 2.15. Plan of the excavated area, Period 5, Phase 5a, mid to late ninth century (M. Frankland).

house, at the two extremities of the settlement. Indeed, had the name 'Flixborough' not been attributed to the excavated site from its discovery, the label 'North Conesby' would probably have been a more appropriate place-name for the Anglo-Saxon settlement remains.

An explanation for the settlement movement could relate to the church. During the mid to late tenth century, the first stone churches were built on other nearby settlements in North Lincolnshire, such as Burnham, suggested to have been linked to aristocratic proprietors and estate centres (Coppack 1986, 47–50). It is possible that a Late Saxon stone pre-cursor also exists below All

Saints' church, as at Burnham. Interestingly, however, the Domesday survey does not mention any churches either at Flixborough, North Conesby or Burnham (Foster and Longley 1924, 148–151). The construction of a new stone church on the stable foundation of the Liassic escarpment, rather than on the unsuitable windblown sand, could provide one reason for the eastward shift of the main settlement during the second half of the tenth century. Subsequent, peripheral settlement features such as an oven, pits and a drainage ditch, in use between the twelfth and fourteenth centuries, also suggest that the heart of the medieval settlement focus lay to the east of

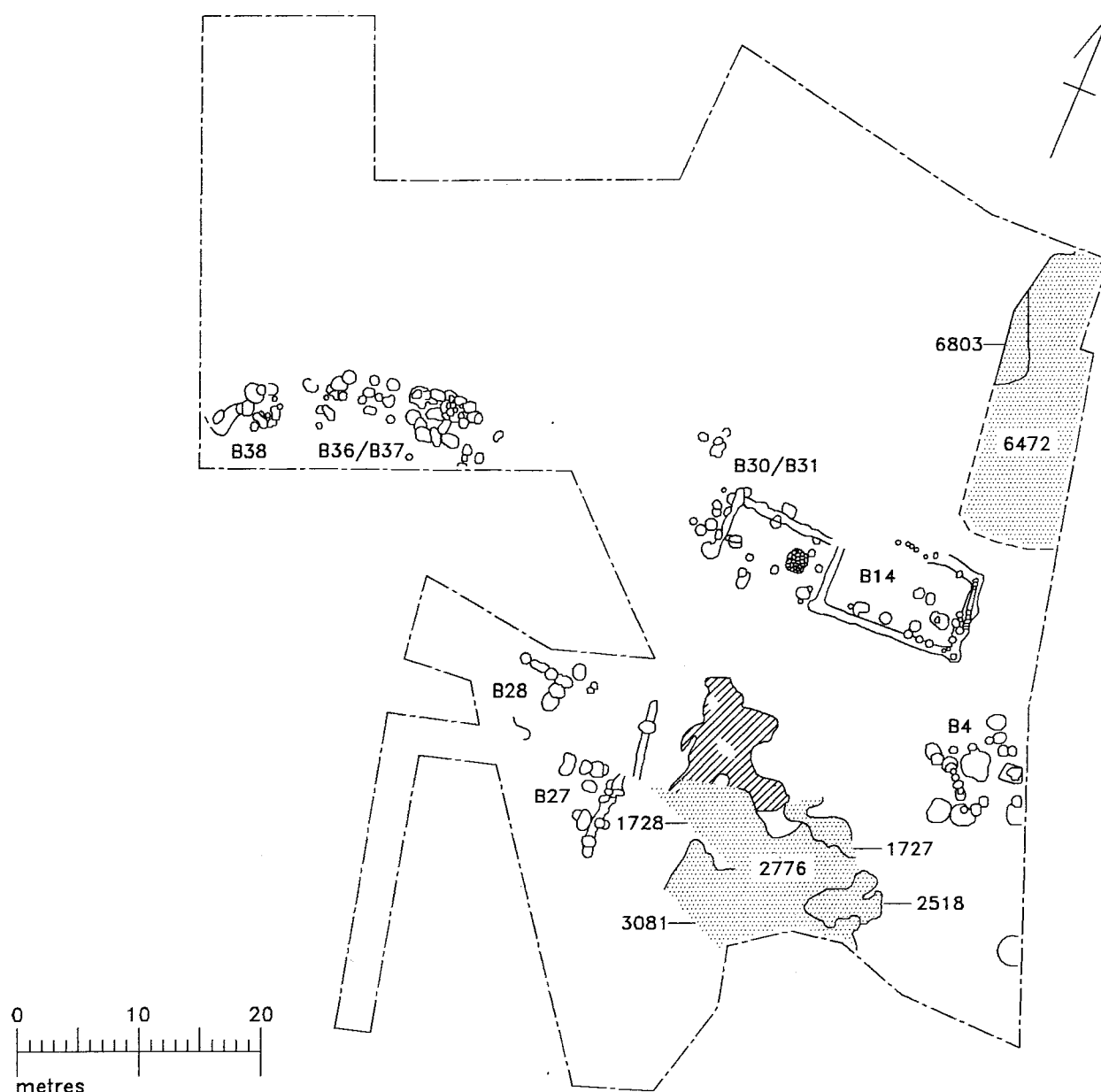


FIG. 2.17. Plan of the excavated area, Period 5, Phase 5b, late ninth to early tenth century (M. Frankland).

the excavated area. Subsequently, between the fourteenth and sixteenth centuries much of the excavated area was covered by windblown sand.

## 2.2 To what extent are the excavated remains representative of the Anglo-Saxon settlement and its inhabitants?

Before any attempt can be made at synthetic analysis, it is first necessary to establish the limits of inference from the evidence. That is to say, it is necessary to assess

whether material from deposits of different periods can be used as a basis from which to draw conclusions on the settlement as a whole or merely the excavated area, through the course of the occupation sequence. In order to achieve this goal the character of the varied deposits must be examined, together with the circumstances of their formation and the derivation and date of material within them. The following analysis examines the integrity of deposits for the purposes of wider interpretation and provides a summary description of overall trends amongst the archaeological remains, on which the thematic discussion of later chapters is largely based.

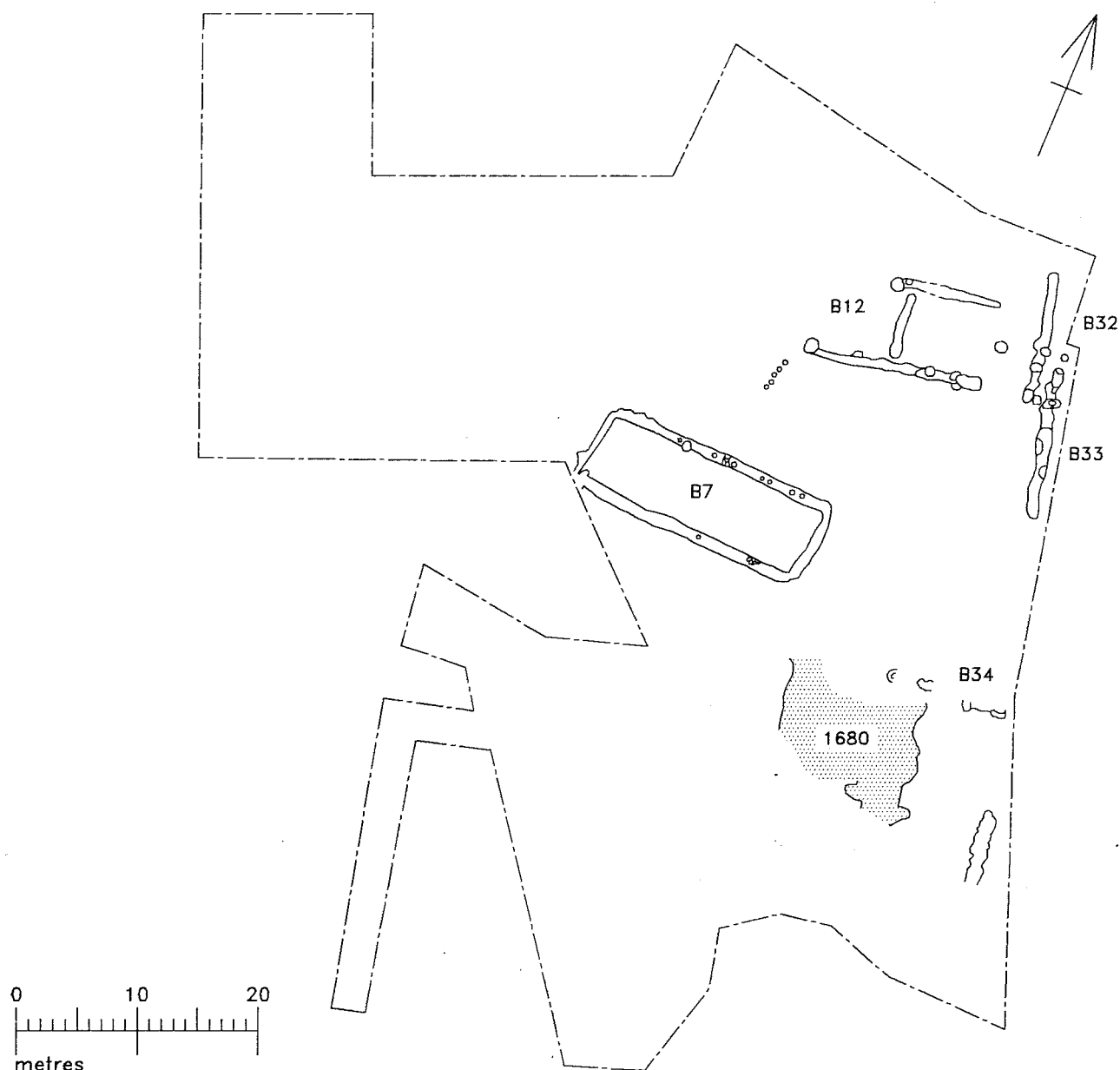


FIG. 2.18. Plan of the excavated area, Period 6, Phase 6i, early to mid tenth century (M. Frankland).

### 2.2.1 The seventh century (Period 1)

The deposits from the seventh century (Period 1) comprised relatively clean floor deposits and external yard dumps around the buildings, and the excavated area may represent the edge of an earlier fifth- to seventh-century focus, possibly to the south-east. The material within the deposits included hand-made local pottery wares and imported pottery types (e.g. igneous rock tempered 'Charnwood' ware), probably from the sixth and seventh centuries, as well as fragments of late fourth-century Romano-British lid-seated jars. Relatively few animal bones were recovered,

and most of the small number of artefacts retrieved came from post-hole fills, and the external yard surfaces (FIG. 2.4). A series of Maxey-type pottery sherds and the spout of an oxidised ware pitcher (DR 345), probably imported from the continent, were also found in the filled in post-holes of buildings 16 and 18. This suggests demolition of the buildings from Phase 1b in the later seventh century, with the sherds either being contemporary with their demolition or incorporated from subsidence of later material into earlier features (Loveluck and Atkinson, Volume 1, Chapter 3; Young and Vince, Volume 2, Chapter 12; Didsbury, Volume 2, Chapter 14). Other

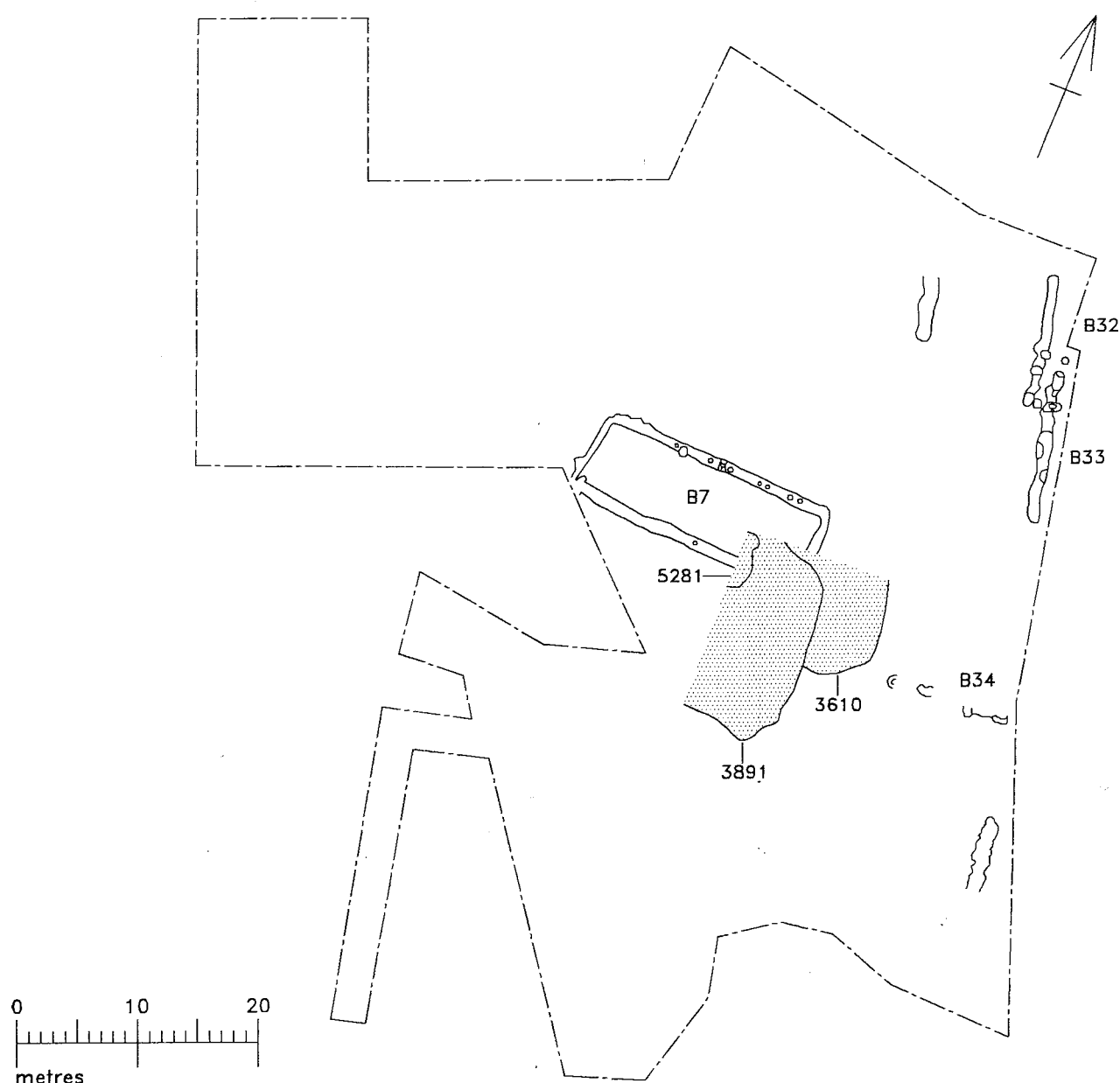


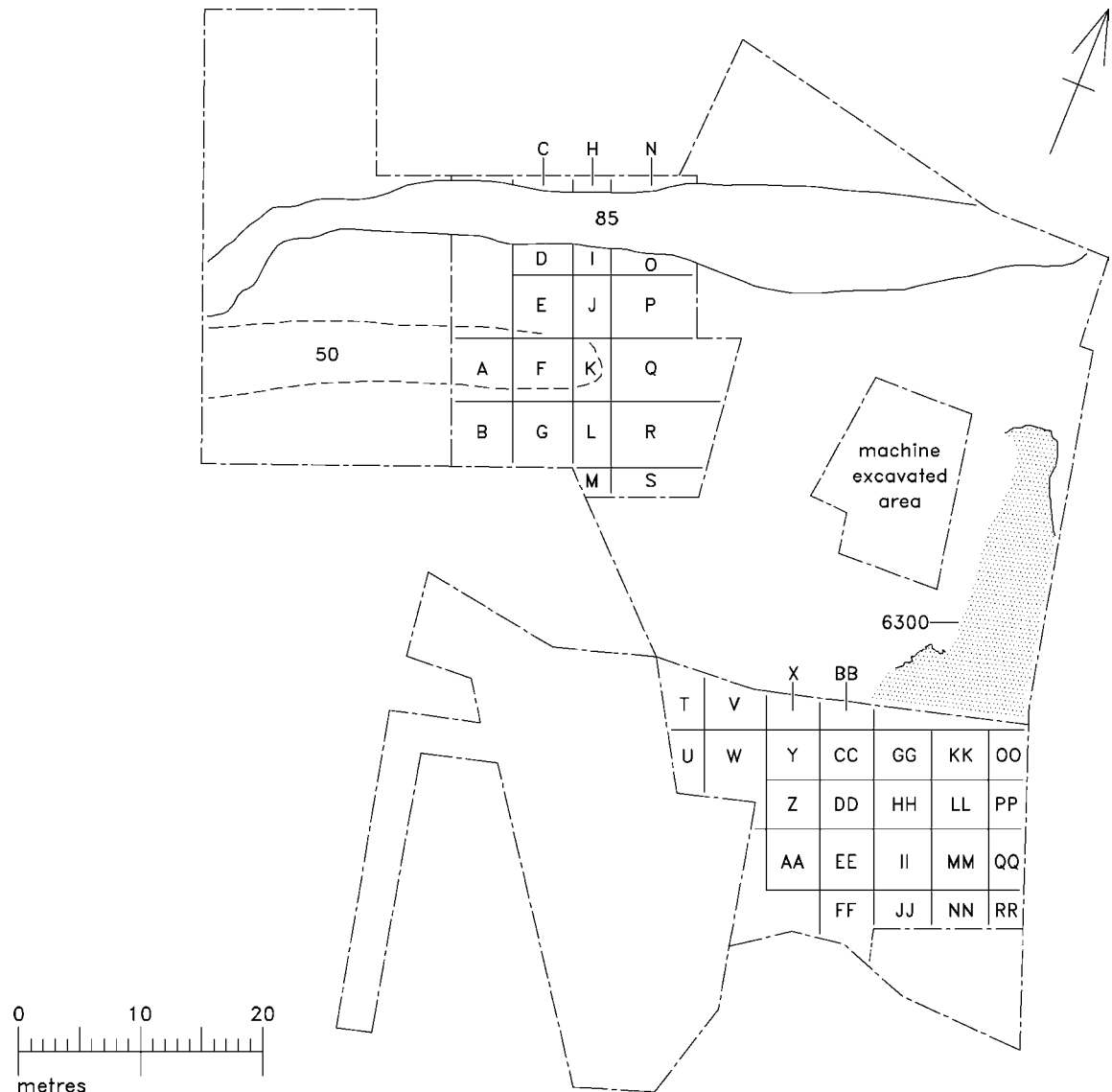
FIG. 2.19. Plan of the excavated area, Period 6, Phase 6ii, mid tenth century (M. Frankland).

finds of Early Anglo-Saxon material were dispersed throughout the occupation sequence, such as the sixth-century great square-headed brooch (FIG. 2.21\*) and the fragmentary annular and small-long brooches. Overall, within the context of the structural evidence and deposits from Period 1, all the evidence suggests the dumping and subsequent re-working of refuse, specific to the locality of the buildings.

#### 2.2.2 Late seventh to mid eighth century (Periods 2 to 3a)

During the later seventh or early eighth century, there

was a greater concentration of activity within the excavated area, exemplified by the construction of buildings 6, 17, 20 and 21, and the possible digging of the Middle Saxon boundary ditch (FIG. 2.5). The patterns of discard from this phase were broadly similar to those of that preceding it (Phase 1b), in that refuse deposits accumulated outside the buildings – particularly in the southern part of the site. Re-working of sherds of the Late Roman lid-seated jars (vessels 1 and 2), already seen in earlier phases, demonstrates the local derivation of much of the material in the southern sector of the site at this time. Yet, the importation of material from other



A 10394	L 1832	W 1168 above 1459	HH 1284 above 1456
B 10393	M 1841	X 1186 above 1450	II 1285 above 1269
C 1839	N 1893	Y 1246 above 1480	JJ 1288 above 1439
D 1837	O 1892	Z 1282 above 1458	KK 1244 above 1454
E 1835	P 1891	AA 1587 above 1588	LL 1182 above 1455
F 1833	Q 1890	BB 1280 above 1449	MM 1170 above 1270
G 1831	R 1889	CC 1289 above 1479	NN 1155 above 1440
H 1840	S 1888	DD 1283 above 1457	OO 1243 above 1461
I 1838	T 1145 above 1452	EE 1286 above 1427	PP 1183 above 1462
J 1836	U 1147 above 1460	FF 1287 above 1307	QQ 1173 above 1464
K 1834	V 1167 above 1451	GG 176 above 1453	RR 1154 above 1465

FIG. 2.20. Plan of the excavated area, Period 6, Phase 6iii, mid tenth to early eleventh century. The gridded squares show the method of excavation of the 'dark soil' deposits for this phase (see Volume 1, Chapter 7 for details); the key shows relevant context numbers (M. Frankland).

parts of the settlement is also reflected in the occurrence of a sherd of the Walberberg jar (vessel 13) from the Rhineland, in a post-hole fill of building 2, together with a sherd of continental grey-burnished ware (vessel 42) and decorated, imported glass vessel fragments from post-hole fills of building 6.

The 'soakaway' gully features, associated with buildings 6 and 21, also reflect washing down of earlier material, such as the Roman lid-seated jars; and they acted as particularly good collection points for small vertebrate bones (especially the southern soakaway – feature 3967/970). Unlike the earlier seventh-century phases, more animal bones were also deposited within the refuse around the buildings, as were other tools and artefacts – although numbers were still smaller than for the later eighth, ninth and tenth centuries. In summary, therefore, it is possible to conclude that the majority of the material in the deposits from Period 2 reflects activity in the excavated area, although significant elements in the finds assemblages also reflect links beyond the settlement, as well as aspects of craft-working, animal husbandry and exploitation of the landscape around the settlement.

In character, the deposits from the first half of the eighth century hold many similarities with those of the preceding phase (Period 2). Indeed, with the exception of the construction of building 1a on its gravel foundation, and the use of the building as a selective burial focus for an element of the settlement's population, the rebuilding of buildings 6 and 21 reflects considerable continuity in the use of space. Refuse dumping, however, extended further into the centre of the site (FIG. 2.6). The re-working of sherds of the Romano-British lid-seated jars (vessels 1 and 2) probably reflects the cutting of earlier deposits, during the renovation of buildings. It is also possible that the Walberberg vessel fragment may have arrived in this part of the site during the re-modelling of buildings 6 and 21, in this period.

Further craft-working evidence was recovered from the refuse dumps and fills of post-holes – mainly textile manufacturing tools, and further fragments of imported, trail-decorated glass vessels were deposited within the floor deposits and post-hole fills of buildings 1a and 17. The vessel glass found in the fill of a post-hole from the earlier incarnation of building 6 may also have become incorporated at this time. This occurrence of imported luxuries in association with particular buildings is a key feature of the early to mid eighth-century, in the southern part of the site (Loveluck and Atkinson, Volume 1, Chapter 4; Evison, Volume 2, Chapter 2; ADS archive, vessel glass distribution plot). Later, finds such as glass vessel fragments were recovered predominantly from refuse dumps.

During Period 3a, the refuse dumps to the north of buildings 1a and 6 provided the majority of the animal bones. The filling in of the earlier 'soakaways' with gravel resulted in the removal of optimum conditions for the

build up of small vertebrate remains, e.g. bones of small waders from the wetlands below the site. Consequently, the absence of certain types of deposition context no doubt affects the archaeological visibility of certain provisioning strategies to a certain extent (Chapter 5, this volume).

Overall, therefore, structural Phases 2 and 3a form a coherent period of like discard strategies, between the late seventh and mid eighth centuries. The majority of the dumped refuse immediately outside the buildings contained re-worked material from the same broad building plots, primarily in the form of the Romano-British vessels 1 and 2 (Didsbury, Volume 2, chapter 15). This suggests that the vast majority of animal bone and craft-working detritus was derived from consumption and processing activities in the adjacent buildings. However, small quantities of iron smithing debris and one possible fired-clay mould or crucible fragment do indicate the importation of some high-temperature manufacturing residues into the excavated area, since no *in situ* indications of iron or non-ferrous metalworking were recovered (Wastling, Volume 2, Chapter 11). The glass vessels also reflect consumption of imported luxuries, and together with the small number of imported continental pottery vessels they demonstrate the integration of elements of the settlement's population within exchange networks with northern France, the Low Countries and the Rhineland. In this sense, the material from the late seventh to mid eighth centuries holds a complex mix of traits linked to the immediate excavated zone, and the settlement as a whole.

### 2.2.3 *Mid eighth to early ninth century* (Period 3, Phase 3b)

Between the middle of the eighth century and the early decades of the ninth century (Period 3, Phase 3b), patterns of refuse dumping became more centralised within the shallow valley, as discussed earlier. This progressed initially from the continued practice of dumping around standing buildings – particularly buildings 13 and 8, prior to the formation of central middens to the east of building 9. Artefacts in the refuse, and debris from high temperature manufacturing, reflect a complex mix of material derived from both within and beyond the excavated area. The quantities of refuse from this period are also much larger than for the preceding phases of activity, reflecting the onset of the use of the shallow valley as a communal midden zone, possibly for the settlement as a whole.

Elements of the deposits around building 13 were certainly heavily re-worked, and probably imported from outside the excavated area. For example, deposit 6465 contained small, highly fragmented pieces of fired clay moulds, together with a possible crucible fragment (Wastling, Volume 2, Chapter 11); and no signs of non-ferrous metalworking were found locally in the excavated area. Deposit 6465 also contained a large number of loom weight fragments (weighing over three kilos and including over fifty recorded weights), in large and small pieces,



possibly reflecting both locally derived and transported elements (FIG. 2.7). Furthermore, the latter refuse deposit also contained a sherd of samian ware of the mid to late second century, whilst a sherd of an Iron Age pot (vessel 20) was also discovered in a post-hole of building 8. These pottery sherds probably reflect the importation of material from an un-excavated part of the settlement, which had disturbed early Romano-British settlement evidence. Only fourth- to early fifth-century Romano-British pottery had been deposited in the excavated area before this time (Loveluck and Atkinson, Volume 1, Chapter 4; Didsbury, Volume 2, Chapter 15).

Subsequent dumping around building 8, after the demolition of building 13, saw the first occurrence of coinage within the stratified deposits. This took the form of an imported continental series E 'porcupine' sceat, from the Rhine mouths area of Frisia, minted in the early decades of the eighth century, and deposited in the refuse dump 8200 (FIG. 2.9; Archibald, Volume 2, Chapter 13). A local derivation for some of the dumped material was still reflected by a sherd of the late fourth-century lid-seated jar (vessel 1), found within the occupation/ refuse deposit 7220. During the larger-scale dumping of material in sub-phases 3biv and 3bv the re-organisation of some existing refuse from within the excavated area is again reflected, alongside the further importation of finds from other parts of the settlement (FIGS 2.10 and 2.11). Material disturbed from earlier deposits and found within these dumps included sherds of Walberberg vessel 13, and the greensand-tempered vessel 21. Large quantities of vertebrate remains were also deposited in these refuse deposits, and separate refuse pits were also dug in certain instances. One of these pits – feature 6709 – contained a fill (6710) consisting almost entirely of animal and bird bones. Between the mid eighth and the early decades of the ninth century, therefore, the organisation of refuse disposal, its scale, and the indicators of the derivation of material make it possible to advance tentative suggestions on the character of life on the settlement as a whole.

#### 2.2.4 Early to mid ninth century (Period 4)

In some ways, the refuse patterns associated with the three lines of buildings in Period 4 (FIG. 2.12), constructed sometime between the end of the eighth and the mid ninth century, exhibited some similarities with those current between the late seventh and mid eighth century (Periods 2–3a). Significant finds were found in apparent association with buildings or within their floor deposits at both points in the occupation sequence. In Period 4, fragments of imported glass vessels were recovered from within buildings 3 and 10, and a stylus was found in a deposit to the north of building 3 (Evison, Volume 2, Chapter 2; Pestell, Volume 2, Chapter 3). Artefacts such as styli and a small number of window glass and lead window came fragments were deposited from the early to middle decades of the ninth century onwards; and they have a particular concentration in Period 4, with the

fewer later examples probably representing residual finds. One piece of window glass and two lead came fragments were also recovered from the latest central refuse deposits, formed at the end of Phase 3b (Cramp, Volume 2, Chapter 4). These deposits formed the activity surfaces around the buildings of Period 4.

The presence of several artefacts that seem to have made their appearance between the early and middle decades of the ninth century, within two of the uppermost sandy refuse contexts of Phase 3b, could reflect two possible scenarios of deposition. They were either discarded at the end of Phase 3b, during site re-modelling; or they were thrown away during Period 4, and hence were incorporated within contemporary surface deposits by trampling and deposit truncation, in this case worked into the uppermost dumps of Phase 3b (Loveluck and Atkinson, Volume 1, Chapter 5). Trampling in of the material into the sand-suspended refuse of Phases 3biv and v seems most likely, as these deposits formed the activity surface for Period 4. Trampling in of material into earlier deposits is a consistent feature of archaeological sites on windblown sand, also observed at Sandtun, West Hythe, Kent (Gardiner *et al.* 2001, 267). Limited disturbance of earlier deposits, probably through renewed building in the central part of the site, is also suggested by the occurrence of a sherd of the earlier hand-made, greensand-tempered vessel 21, within a fill of post-hole 6324 from building 39.

Overall, however, during the main structural phase of Period 4, with its three lines of buildings, the excavated area seems to have been kept relatively free of refuse, with only limited occupation and refuse deposits accumulating around the buildings. Such a pattern of discard provides a stark contrast to the picture of large-scale refuse disposal, possibly associated with the demolition of all the buildings within the excavated area, sometime during the middle decades of the ninth century (FIG. 2.13). This phase of refuse dumping, or even site clearance, produced two main foci for disposal. These comprised the shallow valley in the centre of the site, and the large ditch in the western extremity of the excavated area. Together, the deposits from these two areas provided the densest concentrations of artefacts recovered from the occupation sequence, together with large quantities of animal bones. Considerable differences are evident between the components of the central dumps and the fills of the ditch, especially in relation to the character of artefacts and craft-working debris recovered (Loveluck and Atkinson, Volume 1, Chapter 5). At the same time, the condition of the different artefact and biological constituents of the deposits also provided indications of the extent to which the material within them can be regarded as broadly contemporary with Period 4, or residual from earlier phases in the settlement's history.

Within the large central refuse dumps, particularly deposits 3758 and 5503, there is superficially a significant level of contradiction between finds which might be

interpreted to reflect extensive deposit disturbance and re-deposition, and those which could indicate relatively 'pristine' refuse deposits, representing activities of the early to mid ninth century. The pottery evidence included a single but undoubtedly residual sherd of the seventh-century Walberberg pottery jar (vessel 13); but significantly, sherds of a new pottery type – Early Lincolnshire Fine-shelled ware – were also present, which appears to have been produced from sometime in the first half of the ninth century (Young, Volume 2, Chapter 12; Vince and Young, Volume 2, Chapter 12). At the same time, three imported silver coins (*sceattas*), minted during the early decades of the eighth century, and the late eighth- to early ninth-century gilt-silver disc brooch, RF 5467 (FIG. 2.22\*), also represent residual artefact elements in addition to the pottery sherd. Although small in number, these finds do reflect a degree of deposit re-working (Loveluck and Atkinson, Volume 1, Chapter 5). Yet significantly, the newly occurring types of artefact, found for the first time, indicate that the major components of these deposits were probably broadly contemporary with their phase of deposition, between the early and middle decades of the ninth century.

For example, Penelope Walton Rogers has noted that Phase 4ii saw the deposition of the largest number of loom-weights within the Flixborough sequence, with over 200 weights represented from dumps 3758 and 6885 alone, weighing over thirteen kilos. These loom-weights were also smaller and lighter than those from earlier or later periods in the settlement's history, and they are suggested to represent the production of a finer quality cloth at this time, possibly for export (Walton Rogers, Volume 2, Chapter 9; Walton Rogers, this volume, Chapter 6). The large size of the loom-weight fragments and the relatively complete nature of a significant number were also apparent, especially from the central dumps 3758 and 6885. At the same time, Alan Vince has demonstrated that they were unfired, and probably manufactured from local clays (Vince, Volume 2, Chapter 9). If the entire dump deposits had been comprised of extensively re-worked constituents, a greater degree of fragmentation would have been expected amongst the unfired loom-weights, and the occurrence of such a large concentration of weights of a very similar character would have been highly unlikely, unless they were contemporary.

In summary, therefore, the loom-weights and the sheer number of other textile-manufacturing artefacts from the central deposits, together with patterns in the deposition of animal remains (Chapter 5, this volume), suggest their discard at a time relatively contemporary to their use or consumption, between the early and mid ninth century. Consequently, when the large numbers of these finds are compared to the much smaller, demonstrably residual artefact component, it can be concluded that dumps such as 5503 and 3758 were not primarily composed of residual material. Furthermore, the distinctive and more extensive ash and charcoal components of their soil matrices,

compared to other sampled dumps, may also indicate the limited extent of re-working and mixing with other deposits (Canti 1992, 18; Canti, Volume 1, Chapter 2). The exact origins of the ash are unknown, although burning wood in domestic hearths and ovens seem most likely. The ash does not appear to derive from significant industrial activity, although small quantities of smithing slag and hammerscale were present in the dumps, as they were in most deposits from the site (Canti, Volume 1, Chapter 2; Starley, Volume 2, Chapter 10; ADS archive of hammerscale presence).

Although the continental *sceattas* and the Walberberg pottery sherd were re-worked from earlier periods of activity, not all the imported material from these large deposits need have been residual. The majority of the glass vessel fragments recovered could have been contemporary with the weaving refuse, as could the four fragments of the imported white-ware pottery vessel DR345, thought to originate from northern France. All the recovered sherds from this vessel were found only in dump 3758 (Vince, Volume 2, Chapter 12). Other finds from the central dumps included craft-working tools not related to textile manufacture (Loveluck, this volume, Chapter 6), a considerable quantity of dress pins, a small number of window glass fragments, a silver stylus, and pottery probably in use between the early and middle decades of the ninth century, such as Early Lincolnshire Fine-shelled ware, Ipswich ware, and possibly late Maxey wares (Loveluck and Atkinson, Volume 1, Chapter 5; Young, Volume 2, Chapter 12; Blinkhorn, Volume 2, Chapter 12).

The material dumped in the ditch, filling the feature during Phase 4ii, was significantly different from the central refuse deposits in a number of respects. This may well reflect derivation of the material from a different part of the settlement, outside the excavated area. For example, although the number of vessels represented is small, the ditch deposits contained a significantly larger number of Ipswich ware sherds, compared with the one sherd of this ware from the dumps. Similarly, a larger number of imported continental vessels, including grey-burnished ware vessels 56 and 58, and a possible red-burnished ware sherd were present in the ditch. The recovery of these sherds in the ditch deposits represented the first occurrences of fragments of these vessels within the occupation sequence, also suggesting a derivation from another part of the settlement. Sherds of Early Lincolnshire Fine-shelled ware were also recovered from the ditch, again suggesting deposits of the early to mid ninth century. Amongst the dress accessories encountered, smaller numbers of pins were recovered in comparison with the central dumps; whilst strap-ends, hooked tags and buckles were only found in the ditch.

A similar exclusivity to the ditch deposits is also displayed in the occurrence of fibre-processing spikes, potentially relating to flax preparation, and imported Eifel quern fragments. Unfortunately, due to the fact that many

of the ditch deposits were machine-excavated, it is not possible to say whether flax preparation was carried out in the vicinity of the ditch, or whether the spikes were imported into this part of the site with the other components of the deposits. Nevertheless, clear zoned discard of textile-manufacturing debris is evident, with processing debris all but absent from the central dumps and loom-weights absent from the ditch deposits (Walton Rogers, Volume 2, Chapter 9). The character of the artefact material from the ditch deposits is certainly significantly different from the contemporary central dumps, to the extent that the importation of much of the ditch material from outside the excavated area is likely (Loveluck and Atkinson, Volume 1, Chapter 5). The analysis of the large animal bone assemblages recovered from the ditch fills and the central dumps also offers an interesting comparative study, as the material may well have been derived from different parts of the settlement (Fig. 2.14).

The filling in of this boundary feature over a relatively short period, between the early and middle decades of the ninth century, is suggested by the recovery of diagnostically datable artefacts from all its major fills. These included strap-ends with early to mid ninth-century, Trewhiddle zoomorphic decoration from its lower fills, alongside Ipswich ware; and two silver pennies of Æthelberht, King of Wessex, minted between AD 858 and 865 from its uppermost fills, together with Ipswich and Early Lincolnshire Fine-shelled wares (Thomas, Volume 2, Chapter 1; Archibald, Volume 2, Chapter 13). Hence, it can be suggested with some certainty that the ditch had been completely filled-in sometime after AD 858.

In relation to the deposits from Period 4, therefore, it is appropriate to conclude that the vast quantities of material recovered probably reflect the overall nature and range of activities undertaken on the settlement as a whole, between the early and mid ninth century. The extent of artefact discard, the nature of the deposits, and the potentially contemporary demolition of the buildings are suggestive of the levelling and clearance of the excavated area over a short period, sometime during or after the 860s, on the basis of the coin evidence.

### *2.2.5 Mid to late ninth to early tenth century (Period 5)*

The re-organisation of the settlement within the excavated area, between the depositional Phase 4ii and the structural Phase 5a, could reflect activities over a matter of weeks (Fig. 2.15). Yet, there are both significant similarities and differences in the composition of the deposits, to be set alongside the major change in the structural character of the settlement. The pottery from the dumps around the paths and the oven area provides indications of the re-working of material that had long been deposited in the excavated part of the settlement. Several dumps had sherds of greensand-tempered vessel 21, pieces of which had first appeared in broken form during the mid eighth

century; and further sherds of vessel 21 and Walberberg vessel 13 were also recovered from the fill of post-hole 10336, possibly from a structure screening the ovens (Loveluck and Atkinson, Volume 1, Chapter 6). At the same time, the occurrence of an Iron Age pottery sherd, and two Iron Age fired-clay slingshots may constitute outside elements, deposited alongside contemporary or near-contemporary Maxey-type wares, Early Lincolnshire Fine-shelled ware and Ipswich ware (Wastling, Volume 2, Chapter 6).

It is not possible to identify any newly imported Continental luxuries which were necessarily contemporary, and not residual in this phase. Two Frisian type E 'porcupine' sceattas were certainly residual, having been minted during the early decades of the eighth century; and a series of glass vessel fragments could date from the seventh, eighth or ninth centuries. The remainder of the finds from the dumps consisted primarily of animal bones, again chemically protected by wood ash, and debris related to all aspects of textile production, without the zonation in deposition of the preceding period. In comparison with Period 4, the quantities of textile manufacturing remains were small. They could have been residual from earlier in the ninth century since the character of the material deposited was identical, in the use of the smaller loom-weight type etc.

Overall, the central deposits dumped around the gravel paths, during the mid to late ninth century, probably reflect the use of the area as a communal refuse area. A significant proportion of the material was derived from activities within the excavated area, or its immediate vicinity. This is suggested by the continued residual movement of sherds of pottery vessels 13 and 21; and is shown by the direct relationship of dump 3711 with oven 6488, which seems to comprise ash sweepings from this oven (Fig. 2.15). Nevertheless, the anomalous Iron Age finds and additional Romano-British pottery sherds also suggest the further importation of refuse from parts of the Anglo-Saxon settlement, which had disturbed Iron Age and early Roman deposits. This presents a distinct contrast with the excavated area, where late fourth-century pottery was recovered in its early occupation phases, which is suggestive of late Roman habitation in the immediate vicinity.

Refuse strategies during Phase 5b represented a change from those practised for much of the previous century at Flixborough, in the sense that the former northern building plot recently used as an oven zone, and the central southern building plot in the vicinity of building 29 were used for refuse dumping. As in Phase 5a, the material deposited between the late decades of the ninth and the early decades of the tenth century had a demonstrably residual component, in the form of a range of seventh-, eighth- and ninth- century artefacts, including the inscribed lead plaque from the site (Loveluck and Atkinson, Volume 1, Chapter 6; Brown and Okasha, Volume 2, Chapter 3; Fig. 2.23\*). Yet, new pottery wares

were certainly imported into the settlement at this time, in small quantities: for example, Torksey ware, from further up the Trent valley; wares from Lincoln; and Late Saxon local wares (Young, Volume 2, Chapter 12). Other innovations included the adoption of a new heavier loom weight for the production of a coarse (probably woollen) textile on a small scale (Walton Rogers, Volume 2, Chapter 9). In comparison to the periods with large central refuse dumps, however, the discard of animal bones was very limited during Phase 5b.

### 2.2.6 The tenth century (Period 6)

By the early to mid tenth century much of the excavated area was used for new large buildings, probably reflecting part of the residential focus of the settlement. Contemporary refuse deposits seem to have been limited to the area south and west of buildings 7 and 34, for example dump 1680 (FIG. 2.18). The refuse material from this period reflects the continued importation of contemporary, regionally produced commodities in small quantities, such as Torksey, Torksey-type and Lincoln pottery wares. Following the demolition of building 7, vast quantities of well-preserved animal bones were deposited over the former building area in dumps 3891 and 3610, which also contained Torksey and Lincoln pottery wares (FIG. 2.19). There were certainly re-worked elements from earlier deposits within these dumps. For example, a fragment of the imported seventh- to ninth-century grey-burnished ware vessel 56, first seen in the ditch refuse deposits, could have been derived from within the excavated area or from outside it. Further sherds of second- and third-century Romano-British pottery suggest continued importation of material from other parts of the settlement. However, the largest residual pottery element consisted of sherds of Maxey-type wares. Some deposit disturbance and re-working are also reflected in the occurrence within dump 3255 of an imported silver penny of Alfred the Great, minted between AD 871 and 875 (Archibald, Volume 2, Chapter 13).

Nevertheless, a significant number of fragments of the new, heavier 'bun-shaped' loom-weights were also recovered from dumps 3610, 3891, 6797 and others (Walton Rogers, Volume 2, Chapter 9). Lead weights related to bullion exchange transactions were also found for the first time in the occupation sequence, and are directly paralleled in tenth- to eleventh-century contexts on settlements (Kruse 1992, 67–95). These artefacts were found in association with the vast animal bone deposits and the largest collection of iron-working debris from the entire occupation sequence, together with fragments of Torksey and Lincoln Kiln-type pottery wares (Lovelluck and Atkinson, Volume 1, Chapter 7). The iron-working evidence is particularly notable for the first significant presence of smelting debris, alongside smithing detritus. These industrial residues were found in large fragments, suggesting limited post-depositional re-working or fragmentation.

If the material from the massive dumps 3891 and 3610 had all been re-worked, a greater degree of fragmentation of the large, unfired clay loom-weight pieces and the iron-working waste would have been expected, together with a much more abraded and fragmented animal bone assemblage. Since a high degree of fragmentation was not evident, a greater proportion of material from the dumps of Phase 6ii is likely to have been a product of the early to mid tenth century, than of earlier periods. In addition, the material deposited during the period between the early and mid tenth century seems to have resulted from activities both within and beyond the excavated area, since the sheer quantity of animal bones alone probably reflects organised, communal disposal.

During the second half of the tenth century, the continued importation of material, now presumably from the new habitation zone of the settlement, around a possible Late Saxon precursor to All Saints' church, demonstrates the use of the excavated area as a communal refuse zone. At the same time, there is also evidence for some disturbance and re-organisation of remains from earlier deposits. Furthermore, zones are also evident amongst the refuse material from this depositional phase (Phase 6iii, FIG. 2.20), in relation to the location of the latest datable Anglo-Saxon material in contrast to predominantly residual finds.

The latest Anglo-Saxon finds tended to be located in the south of the site, and along its eastern margins. For example, the discrete dump 6300 accumulated along the eastern edge of the site; and in its abundant textile manufacturing, iron-working debris and animal bones, it was very similar to deposits 3610 and 3891 from Phase 6ii. Torksey-type ware predominated amongst the later Saxon pottery wares, together with Late Saxon local ware, although the number of residual Maxey-type, Ipswich and early Lincolnshire Fine-shelled ware sherds outnumbered the later types. Later Saxon 'bun-shaped' loom-weights also predominated, as did wool-comb teeth and heavier pin-beaters for producing the heavier woollen cloth of the tenth century, at Flixborough (Walton Rogers, Volume 2, Chapter 9; Walton Rogers, this volume, Chapter 6). Both residual and intrusive coinage was also present in the form of a penny of Æthelwulf of Wessex, minted between AD 855 and 859, and a thirteenth-century penny of Henry III.

Further south, the deposits contained small numbers of late tenth- to early eleventh-century pottery sherds, amongst residual finds. They also contained occasional twelfth- to fourteenth-century pottery sherds, usually retrieved from their upper excavation 'spits' during excavation. This reflects the use of these refuse layers as the High Medieval activity surface, associated with the oven and other features; and again the later medieval pottery sherds had been worked into the deposits through trampling and deposit churning. The diagnostically datable Anglo-Saxon finds, therefore, enable some tentative suggestions to be made on the nature of certain

aspects of life on the settlement in its latest Anglo-Saxon phase, although caution has to be exercised due to the incorporation of some later material by trampling, and sometimes by rabbit burrowing.

### ***2.3 Summary: limits of inference for comparative analysis***

The discussion above indicates that it may be possible to produce broad comparative profiles of the character of life on the Anglo-Saxon settlement, during four chronological segments of the occupation sequence. These comprise Period 3 – Phase 3b, and Periods 4, 5, and 6 respectively. With regard to the animal bone evidence, however, availability and integrity of data make it more appropriate to examine the animal bones from Periods 4 and 5 (the ninth century approximately) as an integrated whole. This is due to the likelihood that material from Phase 5a could reflect remains broadly contemporary with Phase 4ii, and to the paucity of bones from Phase 5b. It can be suggested, therefore, that the finds profiles discussed may be representative of the settlement as a

whole between the mid eighth and the mid to late tenth centuries AD. Most of the site-specific thematic studies of this volume, relating to different aspects of life on the settlement, are based primarily on trends observed in deposits from the above periods.

Quantities of finds prior to the late seventh century (Period 1) are too small to act as a basis for drawing wider conclusions on the nature of the settlement. Similarly, the practice of dumping refuse outside houses between the late seventh and mid eighth centuries (Periods 2 and 3a) makes it difficult to be sure that the finds are representative of the settlement as a whole. Nevertheless, the nature of the evidence in the latter periods for exchange, craft-working and certain animal husbandry and provisioning regimes is too important to ignore for comparative discussion. As a result, consideration is also given to the evidence from the late seventh to mid eighth centuries for the light it may shed on aspects of settlement character, not least because much of the identifiably residual material in later contexts was produced and re-worked from that time.

# 3 The Built Environment: The buildings, aspects of settlement morphology and the use of space

*Christopher Loveluck and Richard Darrah*

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## **3.1 Introduction**

*by Christopher Loveluck*

In this first chapter examining evidence from Flixborough against wider contemporary trends, the remains of the buildings and aspects of settlement morphology are discussed set against other discoveries from other seventh- to eleventh-century settlements from England, southern Scotland and neighbouring regions of Continental Europe. The discussion is structured under three themes: the first compares features of the buildings as represented by their foundations; the second discusses the possible architectural characteristics of the buildings; and the final theme examines trends in settlement morphology between the seventh and eleventh centuries AD.

## **3.2 The buildings, their parallels and functions, based on foundations and associated deposits**

*by Christopher Loveluck*

The excavations revealed traces of over thirty buildings and other structures. Yet, the nature of settlement layout with significant superimposition of structures, and the chemically hostile soil environment (if not ameliorated with wood-ash) resulted in poor preservation of the architectural elements of buildings. Foundations, whether cut into the earth or at ground level, provide the main source of data for comparison with other excavated settlement evidence. Approximately two-thirds of the buildings and other structures have yielded foundation plans of sufficient extent to estimate building dimensions and aspects of their morphology. Trends in the character of buildings as represented by their foundations are compared on a chronological basis, between the seventh and eleventh centuries, enabling some conclusions to be drawn on affinities, possible reflections of social status, and function. Nevertheless, despite similarities in layout,

dimensions and foundation technique, it is also recognised that significant differences in ‘above-ground’ architectural features could be reflected by otherwise, nearly identical building ‘footprints’ and foundation types (see Darrah below).

### *The seventh- and eighth-century buildings*

The buildings from the seventh and eighth centuries excavated at the North Conesby site in Flixborough parish exhibit a range of foundation types and building sizes, with some evident chronological trends. All buildings were rectangular in these centuries (Periods 1, 2 and 3 of the occupation sequence), and until the mid eighth century all structures, with one exception, were constructed using individual post-hole foundations. The most complete building plans from these periods in the development of the settlement are represented in Figs 3.1 to 3.4. Buildings 16 and 18 are the earliest structures from the excavated area, which have provided reasonably comprehensive plans. Both were built using post-hole, earth-fast foundations and have dimensions, estimated from the approximate centres of the post-holes, of 11m by 6m and 10m by 5.50m respectively (Fig. 3.1). No hearths were present to indicate a floor surface, although an organic-rich deposit was present within the interior of building 18, mirroring the interior of the ‘foot-print’ of the rectangular building, and could reflect the floor level or an organic deposit which had collected below floor boards or mats. It was also impossible to locate door positions from the foundation plans.

Similar, contemporary parallels to these buildings in general design, size and foundation type have been regularly encountered in excavation from seventh- and eighth-century phases of settlements. For example, from Portchester Castle, Hampshire (Cunliffe 1976, 121–123); Hamwic-Southampton (Andrews 1997, 76–80 and 87–93); West Heslerton, North Yorkshire (Powlesland 2000, 22–23); Cottam, East Yorkshire (Richards 1999a, 28–32); Thwing, East Yorkshire (Manby forthcoming; Fig.

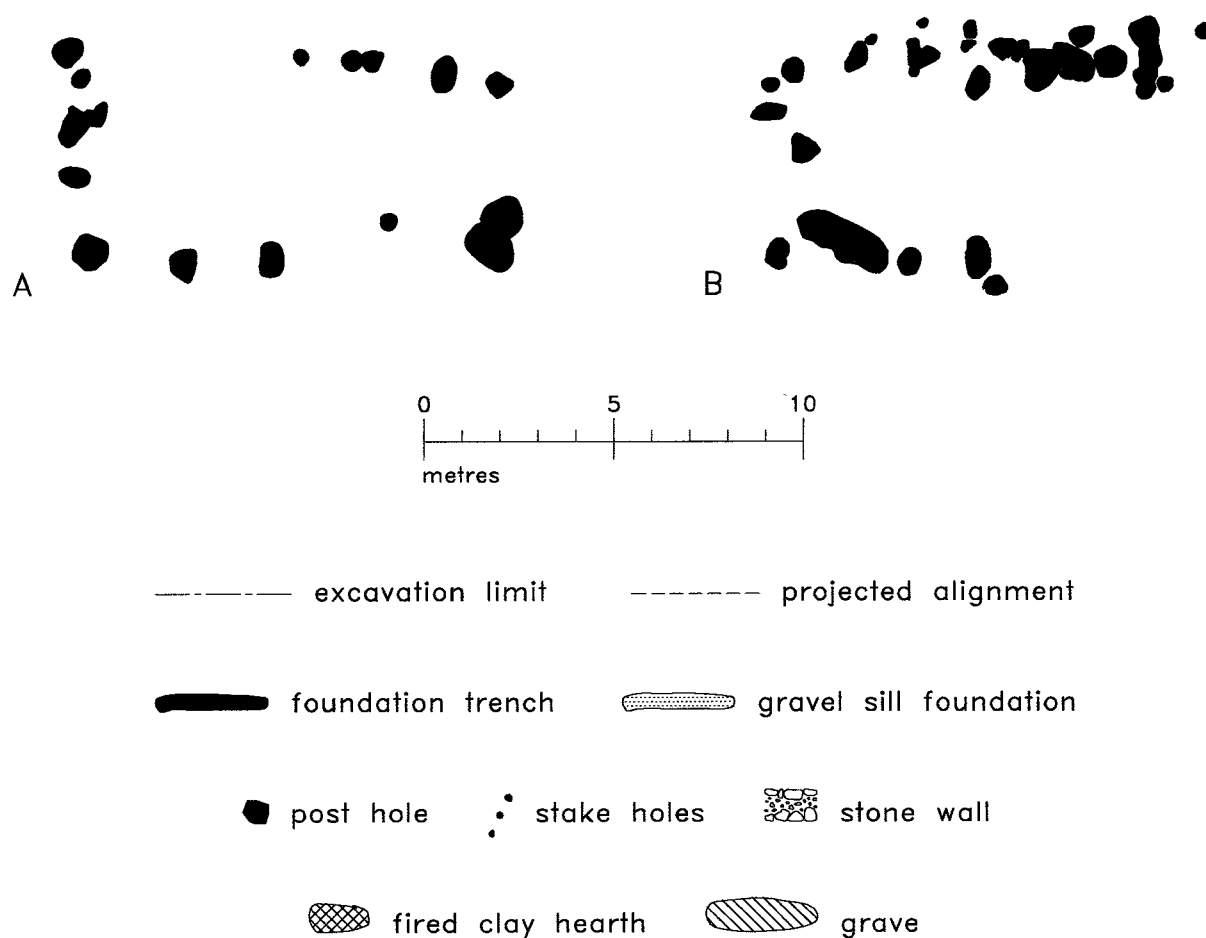


FIG. 3.1. Selected building plans from Period 1, plus convention key. A. Building 16; B. Building 18. (P. Copeland).

3.28 below); Staunch Meadow, Brandon, Suffolk (Carr *et al.* 1988, 373); Bramford, Suffolk (Reynolds 1999, 144) and others (FIGS 3.8 and 3.9). The Flixborough buildings are significantly larger than mid- to late-seventh-century buildings excavated at the documented monastic site of Hartlepool, Co. Durham (Daniels 1988, 161–162, fig. 3; FIG. 3.9). Although, they are significantly smaller than the large contemporary buildings, with annexes and post-in-trench foundations at the Northumbrian ‘royal palace’ site, at Yeavering, Northumberland; and the undocumented settlement at Northampton (Hope-Taylor 1977, 164–168; Williams *et al.* 1985, 28–31; FIG. 3.8).

The widespread use of post-hole foundations, and the relatively ‘average’ dimensions of the Flixborough structures from the seventh-century phases, does not suggest anything extraordinary in terms of expression of high-status identity through buildings at this time. This observation, however, may hold true only for the excavated part of the seventh-century settlement. Only its edge was encountered during the excavations, and the remainder may be concentrated immediately to the south-east of the excavated area.

The finds associated with the post-hole buildings from Period 1 were limited in comparison to later phases at Flixborough. This may reflect a concerted desire to keep the houses clean, rather than an absence of discard. The floor or sub-floor deposit (3332) within building 18 contained very limited finds, although the external yard deposits contained more finds, consistent with tipping of refuse outside the houses. The majority of finds from these post-hole buildings came from the fills of post-holes and were considerably fragmented, indicating that they reflect the filling-in of the post-holes after the demolition of the buildings in the majority of cases. It is, therefore, difficult to be certain whether they reflect activities associated with the buildings. Nevertheless, the occurrence of a bead, a wool-comb tooth, a piece of imported lava quern from the Eifel region, and a small assemblage of pottery and animal bones suggest that the buildings were domestic dwellings (Loveluck, this volume, Chapter 2).

With one exception, the buildings from the end of the seventh to mid eighth century (Periods 2 and 3a) were also constructed using post-hole foundations, although more diversity in foundation and drainage features is

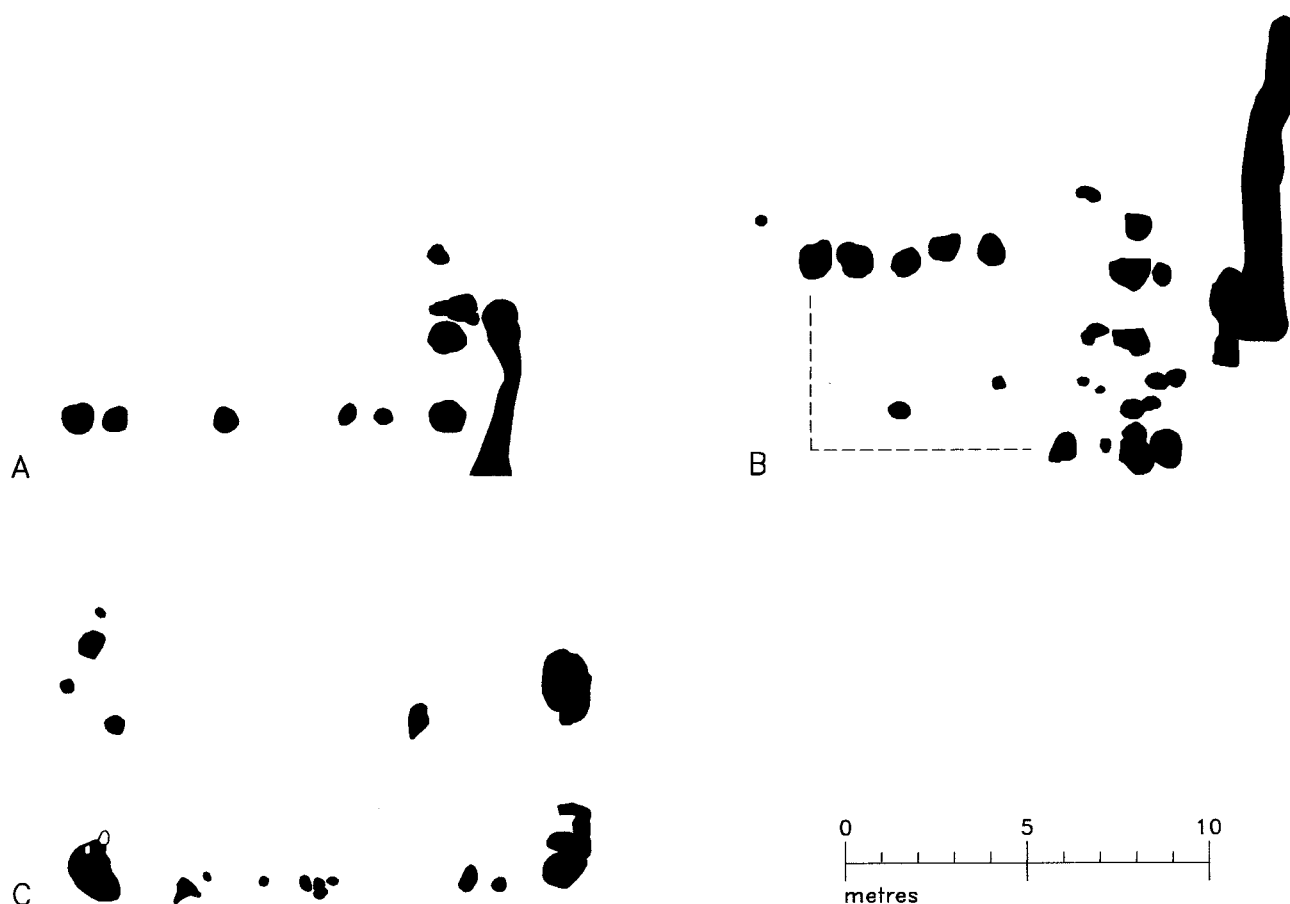


FIG. 3.2. Selected building plans from Period 2. A. Building 21a. B. Building 6a; C. Building 20. (P. Copeland).

evident. Growing diversity in building layout and architectural features has also been identified by Philip Andrews, with reference to eighth- and ninth-century Hamwic-Southampton (Andrews 1997, 50); and by Helena Hamerow, in a general review of changing building trends from the Early to Mid Saxon periods (Hamerow 2002, 47). Buildings 6 and 21 were rebuilt at least once, and their earlier incarnations (6a and 21a) both possessed drainage gullies or 'soakaways', located in the middle of the short walls on the eastern sides of the buildings (FIG. 2.5; FIG. 3.2).

The way the drainage features functioned is uncertain, although they do seem to have been directly concerned with draining water into the shallow valley, and the example associated with building 6a had stone lining on its upper extent. The only vaguely similar parallel from another contemporary site comes from a seventh-century phase of the Northumbrian royal centre at Dunbar, East Lothian. There, a stone-lined drain was constructed in association with buildings, with earth-fast foundations, dating from the seventh century (Perry 2000, 47–48). Although the foundations of both buildings 6a and 21a had suffered from erosion prior to excavation, it is

possible to estimate their size at approximately 11m in length and between 6 and 6.5m in width. The foundations of building 20 were more ephemeral, and were marked by large corner post-pits and very small post-holes along the long-walls, having the dimensions of 13m by 6m approximately.

Again, all the deposits associated with the post-hole buildings from the end of the seventh to early eighth century (floor or sub-floor deposits, external middens, drainage gully fills and post-hole fills) reflected domestic habitation (Loveluck, this volume, Chapter 2). Furthermore, the buildings are not extraordinarily large, although portable material culture associated with the built environment suggests inhabitants with access to imported luxury items, such as glass vessels, alongside other imports, such as *sceatta* coinage, lava querns and a limited number of pottery vessels.

During the first half of the eighth century (Phase 3a approximately, at Flixborough), buildings 6a and 21a were rebuilt, although the drainage features were filled in, and a door was constructed in the centre of the eastern short-wall of 6b (FIG. 3.3). This door opened on to an area of gravel 'yard' facing a new building (1a). Building



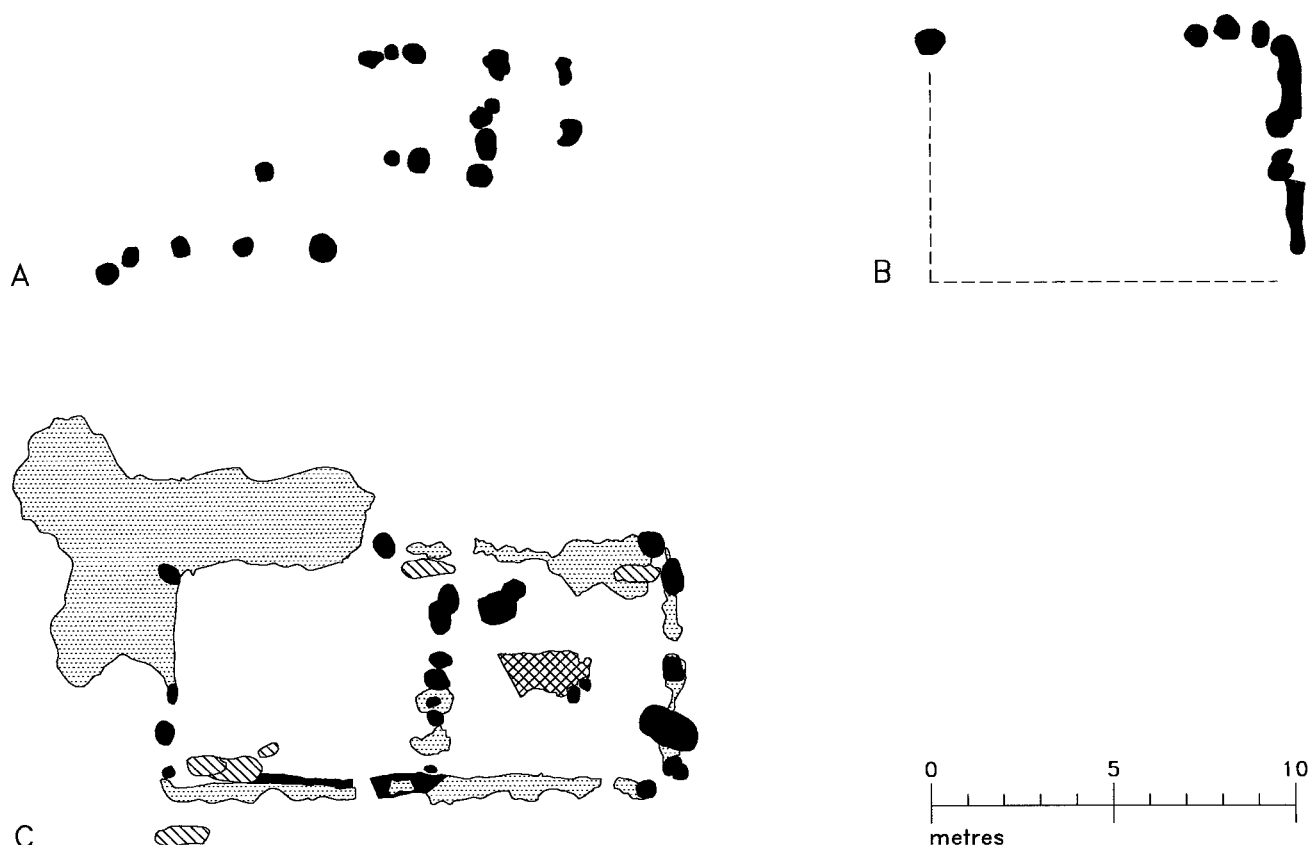


FIG. 3.3. Selected building plans from Period 3, Phase 3a. A. Building 21b; B. Building 6b; C. Building 1a. (P. Copeland).

1a had replaced building 20, and was the first building with ground level foundations in the excavated part of the Flixborough settlement (FIG. 3.3). It was rectangular, 14m long and 7m wide, and the entire superstructure of the building rested on a gravel foundation, presumably for an above-ground base-plate and sill, with some posts driven through the latter (see Darrah below). No door location was evident from the gravel footing.

Parallels for these ground-level building foundations, on the scale of building 1a, are exceptionally rare from seventh- to ninth-century England. Although gravel and, more often, dry-stone footings are seen in some instances (Gardiner 2004). For example, several much smaller examples with gravel footings were uncovered in a monastic context at Hartlepool (Daniels 1988, 178–181; FIG. 3.11); as were small buildings with dry-stone footings at the monastery at Whitby, North Yorkshire (Rahtz 1976, 461; Cramp 1993, 65). A series of buildings constructed on dry-stone footings, as well as a mortared and plastered stone building, have also been found at the Northumbrian, royal fortified settlement – the documented *urbs regis* – at Dunbar, dating from the eighth to ninth century (Perry 2000, 73–75; FIG. 3.10).

The rebuild of building 1a in the second half of the eighth century (1b) also used a ground-level foundation,

this time using dry-stone footings laid on the pre-existing gravel foundation to support an above-ground base plate. This was interspersed with major, paired roof-supporting posts along the long-walls (see Darrah below). Parallels for the above-ground, gravel and dry-stone footings are found more commonly in parts of continental Europe than in England, for the period between the sixth and tenth centuries.

Examples are becoming most frequent in France, but they also occur in Belgium and Rhineland Germany. Amongst others, at Rigny-Ussé (Indre-et-Loire), they formed a group around earlier, sixth- to early seventh-century mortared buildings, including a church. They are thought to represent the heart of an estate centre linked to the monastery of St. Martin of Tours (Zadora-Rio and Galinié 2001, 223–226). At Serris (Seine-et-Marne) a large rectangular building (30m by 9m) and several ancillary buildings, all with dry-stone footings, lay at the heart of a secular aristocratic settlement complex, dating from the late seventh to tenth centuries (Foucray and Gentili 1995, 139–143; Foucray 1996, 204; FIG. 3.14). A dry-stone-founded burial chapel and associated cemetery were also sited in a different zone of the same settlement agglomeration at Serris, which covered an area of 16 hectares (Foucray and Gentili 1998,

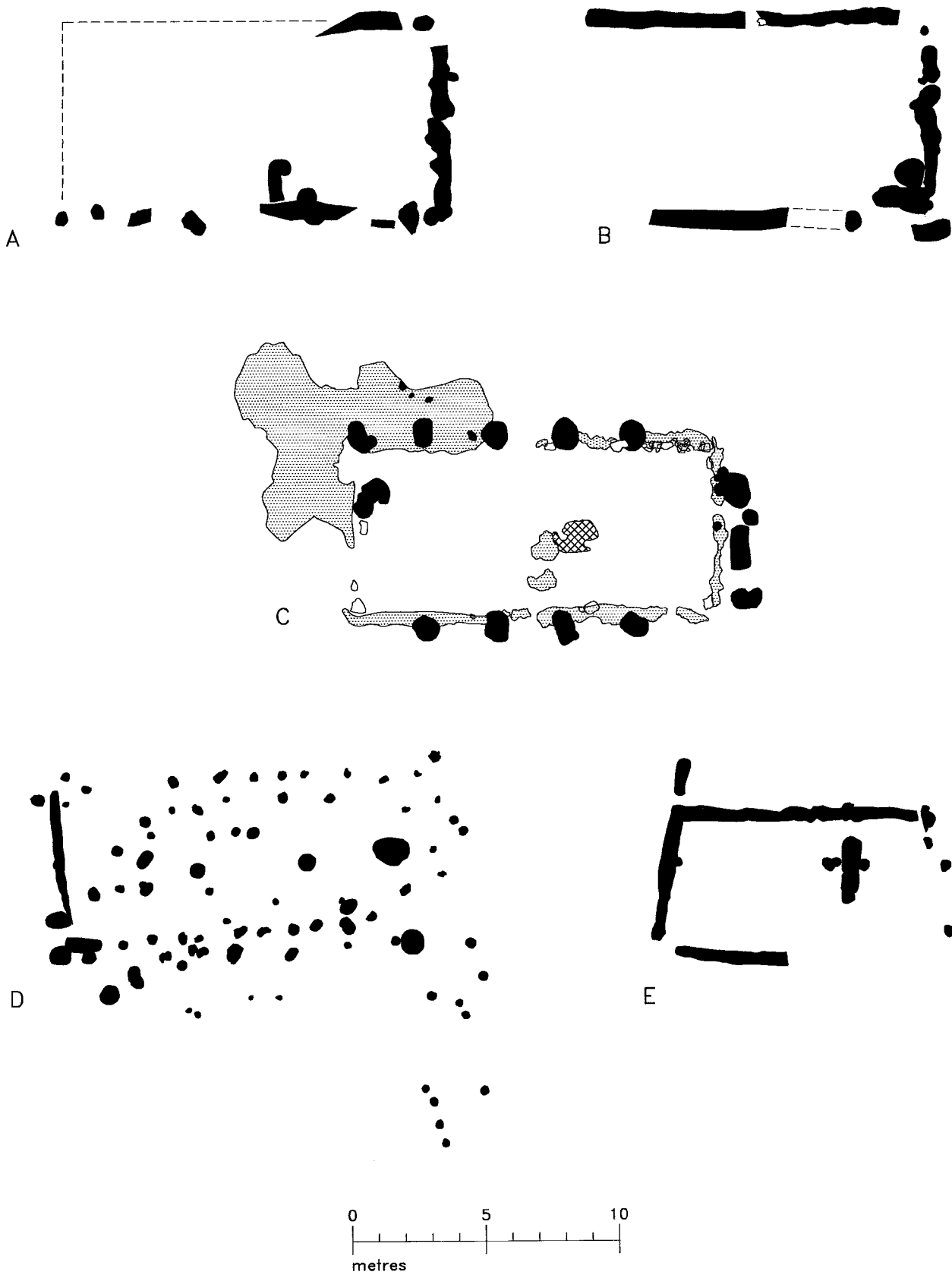


FIG. 3.4. Selected building plans from Period 3, Phase 3b. A. Building 8; B. Building 5; C. Building 1b; D. Building 13; E. Building 9. (P. Copeland).

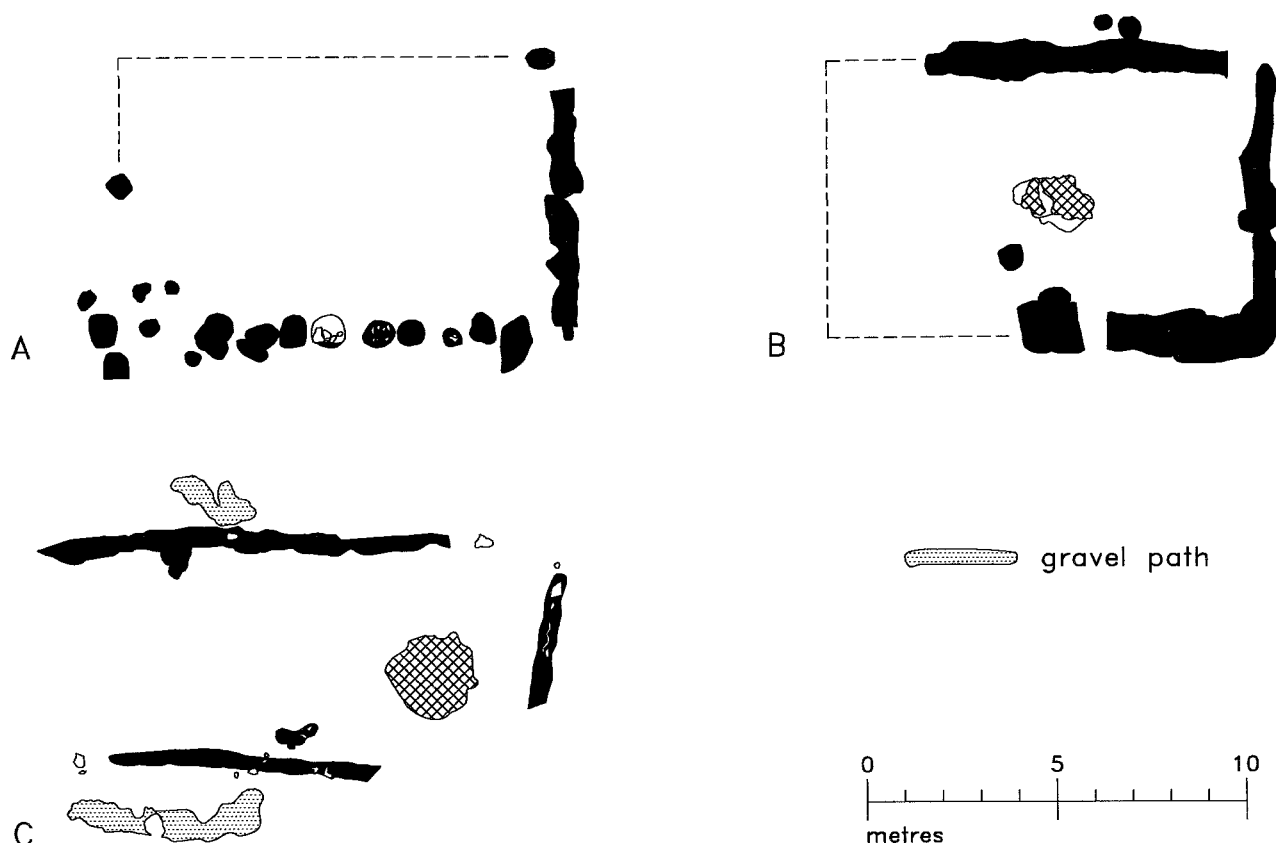


FIG. 3.5 Selected building plans from Period 4. A. Building 15; B. Building 3; C. Building 10a. (P. Copeland).

198–199; Gentili 2001, 28–29; FIG. 3.14). Further examples have been found along the Meuse valley, Belgium, from seventh- to eighth-century contexts onwards, at Huy (Péters 1999, 34), Liège (Péters and Léotard 1999, 43) and Mont-Vireux (Lémant 1991, 156–157).

Subsequently, during the ninth and tenth centuries, stone-footed buildings became increasingly common throughout the settlement hierarchy in northern France and Rhineland Germany, for important communal and domestic buildings. For example, they occurred at Distré, Maine-et-Loire (Fillon and Valais 1997, figs 28–52; FIG. 3.14); Saleux-les-Coutures, Somme (Catteddu 1997, 143–146); Montours-Le Teilleul, Ille-et-Vilaine (Catteddu *et al.* 2001, 43–44); and Hamage, Nord (Louis 1997, 61–62), in northern France. And they were found within the secular-aristocratic, monastic, and attendant farming settlement foci at Karlburg, between Mainz and Würzburg, on the River Main (Ettel 2001, 46–50 and 73).

The significance of this trend for seventh- to ninth-century England lies in the demonstrable and regular contacts between eastern and southern England, and the area from northern France to the Rhine delta. All the ‘portable wealth’ in terms of imported luxuries, recovered

from Flixborough, was derived from contacts with the latter geographical zone between the later seventh and ninth centuries (see Chapter 7, this volume). Furthermore, given the documented contact between secular and ecclesiastical elites from Anglo-Saxon kingdoms and their Frankish neighbours, it need not surprise us that continental, elite architectural styles were adopted for purposes of social display, alongside mobile material culture, in both secular and religious contexts.

Yet, in France, Belgium and Rhineland Germany, stone footings were not necessarily a reflection of the uppermost social stratum, i.e. Frankish royal families, for whom mortared and plastered stone ‘display buildings’ had become more prevalent from the late eighth century (Loveluck, 2005). Instead, buildings with stone footings seem to have been constructed by the middle-ranking aristocracy, for their residences, churches and chapels; or by wider settlement communities for key focal buildings, financed from communal wealth. For example, many early parish churches may have been constructed from resources of entire communities, rather than aristocratic or monastic founders (Zadora-Rio 1995, 148). Mortared stone halls and churches only became less rare at secular aristocratic centres during the ninth and tenth centuries (Callebaut 1994, 95–97; Loveluck, 2005).

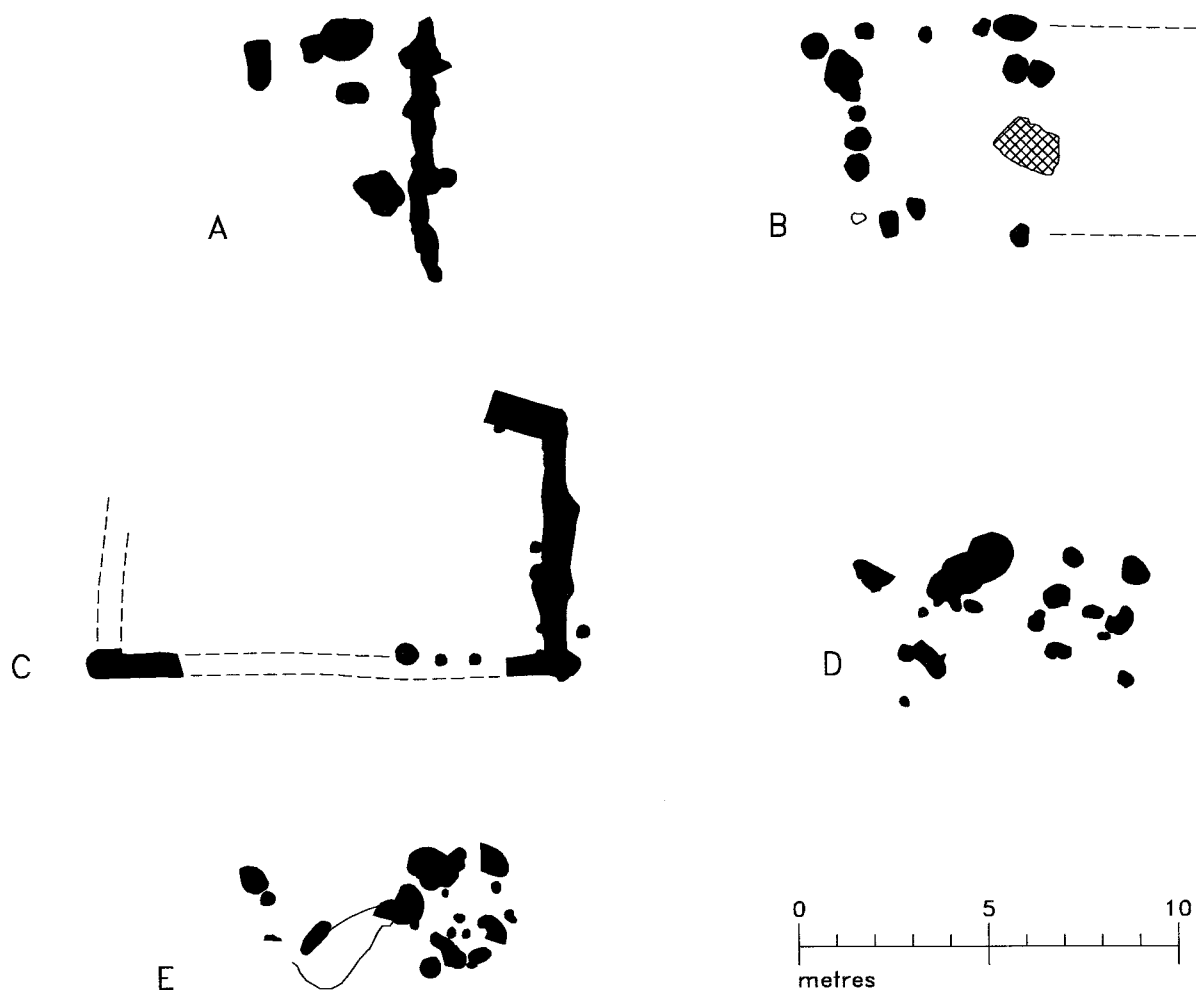


FIG. 3.6. Selected building plans from Period 5. A. Building 27; B. Building 4; C. Building 14; D. Building 36/37; E. Structure 38. (P. Copeland).

Within a seventh- to ninth-century context in England, the same seems to have been true. Buildings with gravel and stone footings are now being found at middle-ranking settlements like Flixborough, and on both secular and monastic sites; whereas, mortared and plastered buildings dating from the same period have been found only at royal centres and major monasteries, such as Dunbar, Northampton, Monkwearmouth, and Jarrow, amongst others (Perry 2000, 67–68; Williams *et al.* 1985, 17–20; Cramp 1976, 232–239; FIGS 3.9, 3.10 and 3.11). Buildings 1a and 1b at Flixborough can thus be seen as a reflection of integration within the wider aristocratic world of Christian, western Europe, during the eighth century.

In terms of function and interior use of space, there appears to have been a distinct difference between building 1a and its replacement 1b. Building 1a was divided into two halves by a north-south partition, marked by post-holes and gravel post-footings (FIG. 3.3). A fired-clay hearth base was situated in the eastern half of the building, indicating that this feature and the deposits

associated with the interior of the building represent floor surfaces. They are all consistent with a residential function for the building, especially its eastern section.

At some time in its use, however, the building became a focus for the burial of at least five, and possibly six, individuals (Loveluck and Atkinson, Volume 1, Chapter 4; Loveluck, this volume, Chapter 2; Geake, Volume 1, Chapter 8). They included an adult woman, a baby, and four adolescents (Mays, Volume 1, Chapter 8). They had clearly been placed in graves which had been cut through floor deposits of building 1a, and all but two graves had been dug on east-west alignments, along the long walls, in the interior of the building. At least one of the graves placed outside was also located on an east-west alignment to the south of the southern long wall, and it is not possible to draw a conclusion on the skull from a probable disturbed grave, which had subsided into the upper fill of a post-hole of building 19, from Period 1 (Loveluck and Atkinson, Volume 1, Chapter 4; Mays, Volume 1, Chapter 8).

The subsequent rebuild of building 1 (1b) was

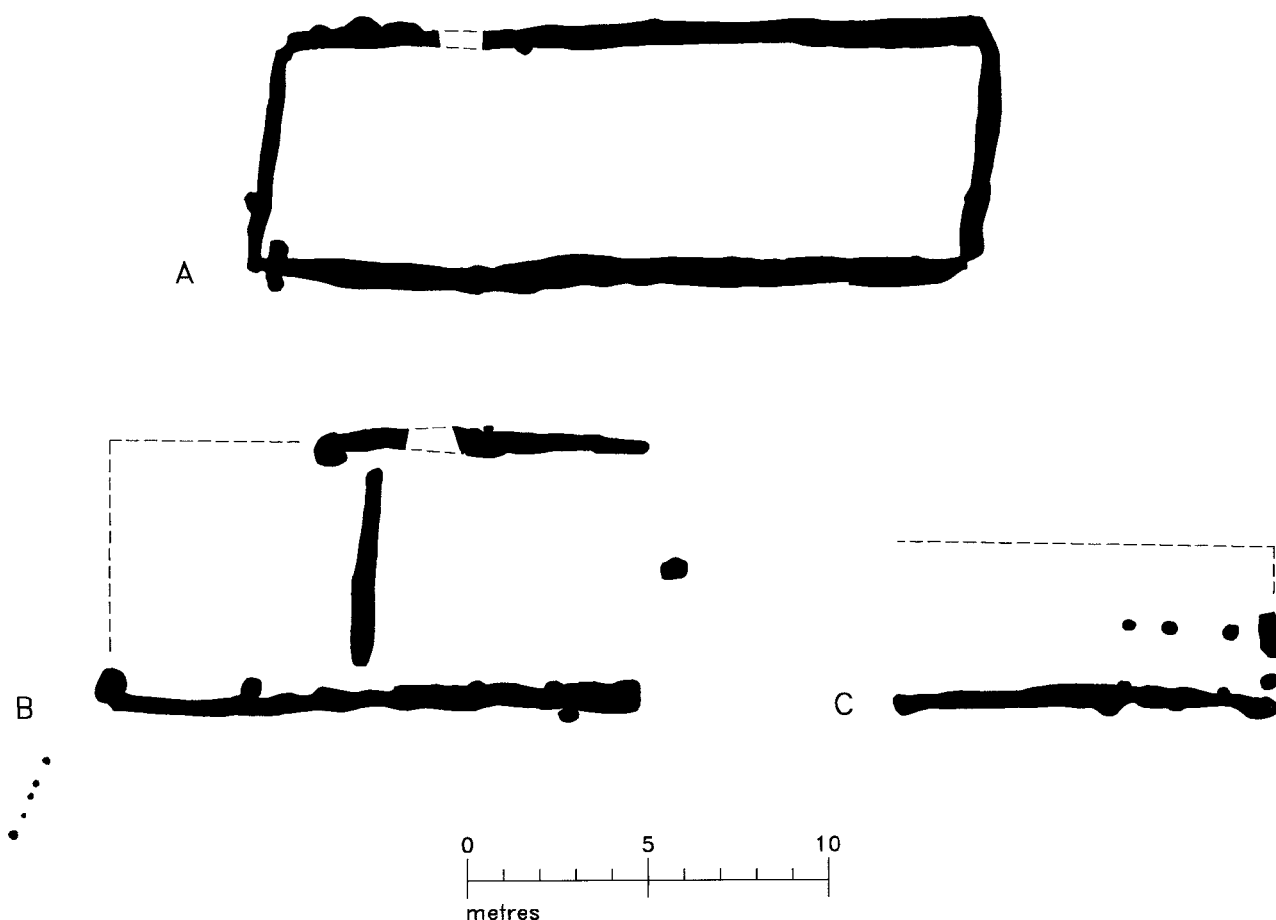


FIG. 3.7. Selected building plans from Period 6. A. Building 7; B. Building 12; C. Building 32 (P. Copeland).

constructed on the exact 'footprint' of building 1a (FIG. 3.4). The dry-stone footing for its timber base-plate encroached on top of the filled-in graves, particularly in the eastern end of the building. The central partition was also demolished, and a fired-clay hearth was placed in the centre of the building on the line of the former partition. No evident reference was made to the location of the graves, consistent with a memory of the use of the building for burial. The hearth and associated floor deposits again indicate that this reflected the occupation surface within the building, and that it had a residential function. The eastern end of the building seems to have been replaced during the use of the building, as reflected by the large post-holes outside the original line of the dry-stone and gravel footing. There is no evidence of a break in the use of this building plot during the eighth century, i.e. the graves were not interred in a vacant space in the excavated part of the settlement. Building 1b was a direct replacement of building 1a, although the significance and knowledge of the graves may have been lost by the time building 1b was constructed, in the mid to late eighth century.

This sequence of use suggests a very complex history during the eighth century. An important building, probably constructed for residential purposes, was taken over for funerary use and possibly became a burial chapel for a time. Subsequently, this important building was replaced and again, appears to have been subject to residential use. The use of building 1a as a burial focus illustrates one of a range of burial locations used in England between the later seventh and ninth centuries, whether isolated groups of burials, small cemeteries associated with burial chapels within settlements, or large cemeteries at monastic centres. A similar, contemporary complexity is also apparent on the Continent, in France, Belgium, the southern Netherlands and Germany (Zadora-Rio 1995, 148; Zadora-Rio 2003; Theuvs 1999, 345–346; Loveluck 2005; see Loveluck, this volume, Chapter 9).

Very few finds were recovered from the floor deposits of either building 1a or 1b, as they were kept relatively clean. The artefacts that were found came predominantly from the fills of post-holes, and most were fragmentary. It is difficult to be certain, therefore, that they represent

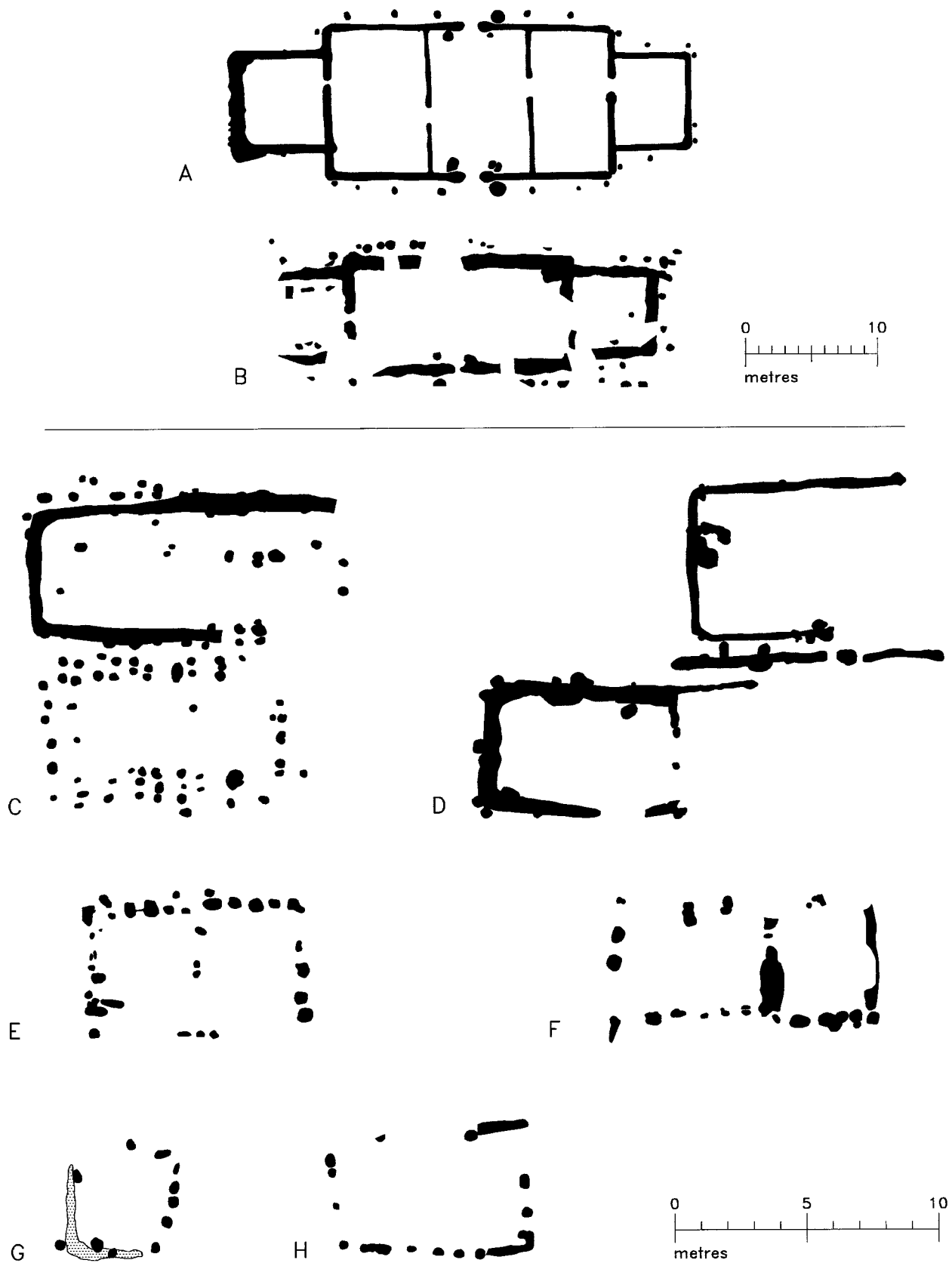


FIG. 3.8. Comparative building plans from secular settlements, seventh to eighth century. A. Yeavinger A3 (After Hope-Taylor 1977); B. Northampton A (After Williams, Shaw and Denham 1985); C. West Heslerton (After Powlesland 2000); D. Dunbar Bs 1 & 2 (After Perry 2000); E. Hamwic S11 (After Andrews 1997); F. Hamwic S16 (After Andrews 1997); G. Portchester Castle S5 (After Cunliffe 1976); H. Portchester Castle S6 (After Cunliffe 1976). (P. Copeland).

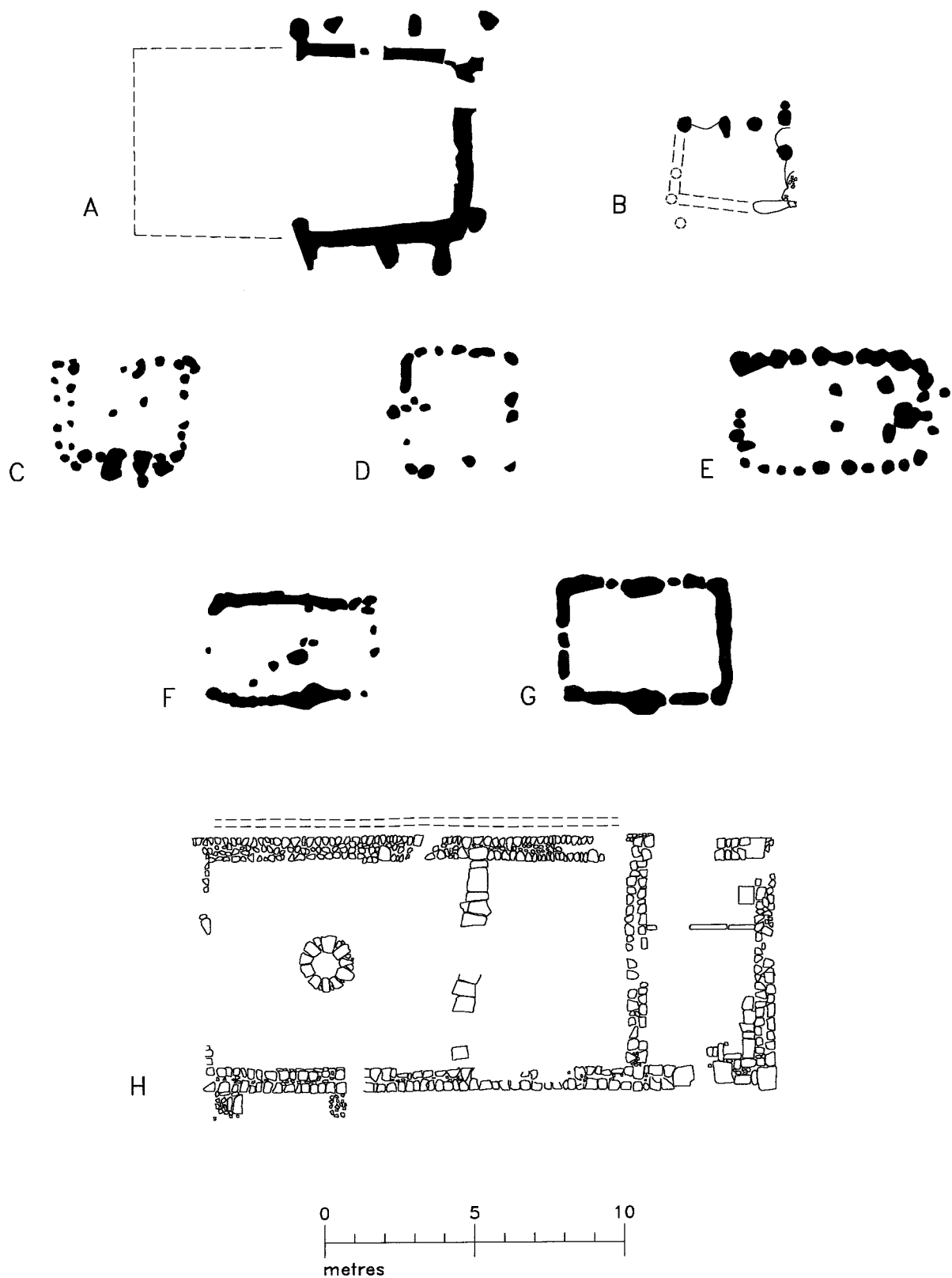


FIG. 3.9. Comparative building plans from monastic settlements, seventh to eighth century. A. Whithorn 6a (After Hill 1997); B. Kirkdale (After Rahtz and Watts 1998); C. Hartlepool XXI (After Daniels 1988); D. Hartlepool XVIII (After Daniels 1988); E. Hartlepool XIV (After Daniels 1988); F. Hartlepool XVII (After Daniels 1988); G. Hartlepool VIII (After Daniels 1988); H. Jarrow B (After Cramp 1976). (P. Copeland).



FIG. 3.10. Comparative building plans from secular settlements, eighth to ninth century. A. North Elmham B. Z (After Wade-Martins 1980); B. Dunbar B5 (After Perry 2000); C. Dunbar B9 (After Perry 2000); D. Dunbar B7 (After Perry 2000); E. Wharram Percy A (After Stamper and Croft 2000); F. Goltho, 'Hall' A (After Beresford 1987); G. Goltho, 'Hall' B (After Beresford 1987); H. Hamwic S46 (After Andrews 1997); I. Hamwic S29 (After Andrews 1997). (P. Copeland).



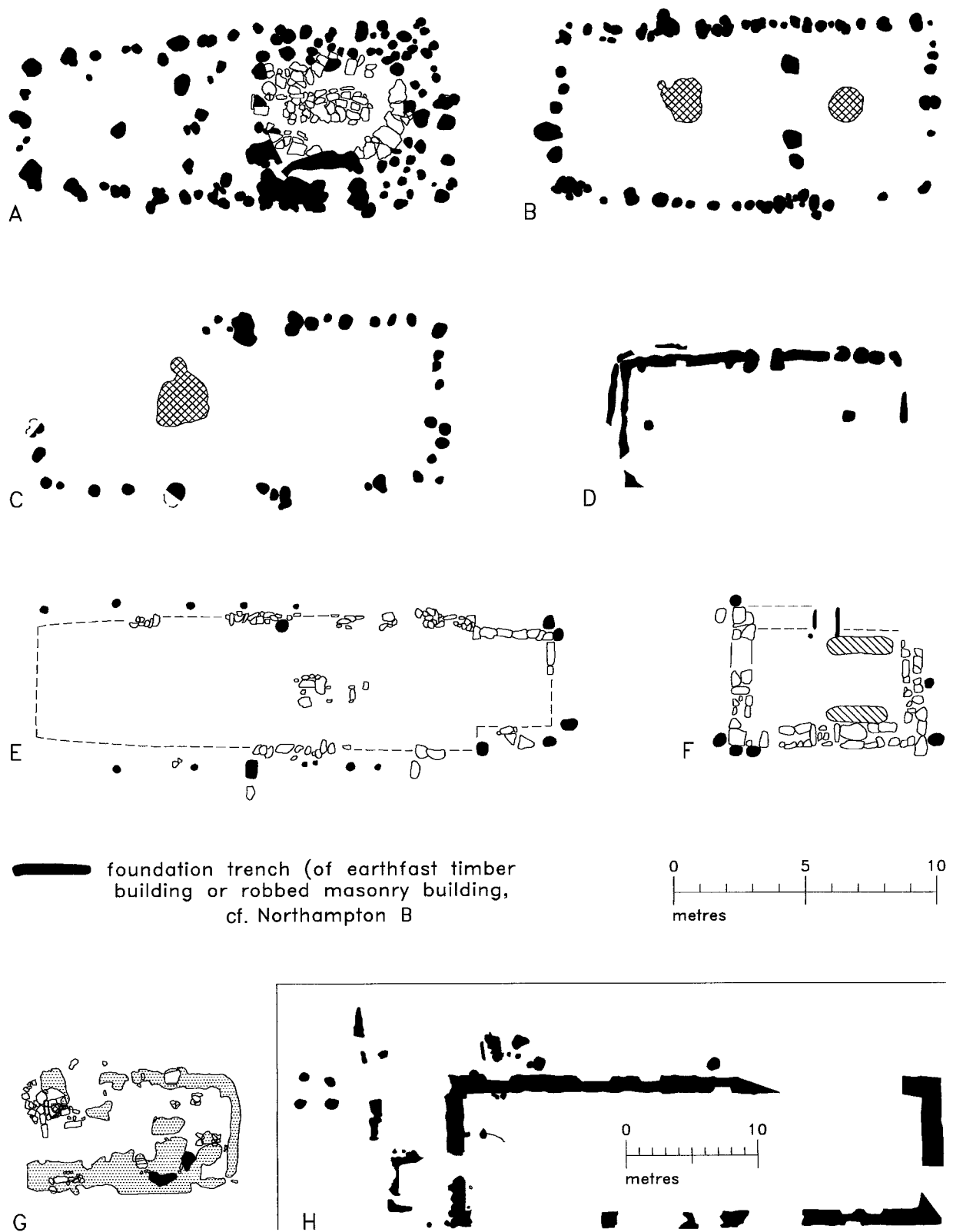


FIG. 3.11. Comparative building plans from monastic settlements, eighth to ninth century. A. Hoddom, Area 5 (After Lowe 1991); B. Hoddom, Area 7 (After Lowe 1991); C. Hoddom, Area 7 (After Lowe 1991); D. Whithorn 9a (After Hill 1997); E. Whithorn, Church (After Hill 1997); F. Whithorn, Burial chapel (After Hill 1997); G. Hartlepool VI (After Daniels 1988); H. Northampton B (After Williams, Shaw and Denham 1985). (P. Copeland).

activities associated with the buildings when in use. Most were deposited after the demolition of building 1b, at the end of the eighth, or early ninth century, and could represent non-local levelling deposits or material which subsided into post-hole fills from a succeeding phase of occupation. Nevertheless, fragments of glass drinking vessels from floor deposits in the eastern section of building 1a, and the location of the hearth in that part of the building confirm dining and residential use for part of the building's history. Other finds from fills of post-holes and external yard deposits also suggest domestic activity and limited textile production associated with a household. The finds associated with building 1b were recovered from post-hole fills, and included two comb fragments, a stylus and a limited number of fragmented pottery sherds and animal bones.

A fragment of coloured window glass and two lead comes from two refuse deposits from the end of Phase 3b (end of the eighth to early decades of the ninth century) also reflect the existence of a building with glazed windows on the settlement. Again, however, it is difficult to be certain that they came from a demolished eighth-century building, rather than a later ninth-century building, since the deposits in which they were found formed the activity surface of early to mid ninth-century occupation in the excavated area. If they were from an eighth-century building, it is tempting to suggest that they came from building 1b, and ended up in the central refuse deposits as a result of its demolition. Unfortunately, this cannot be proven as the same refuse deposits contained other fragmented material derived from outside the excavated area.

Important buildings with stone footings have been found associated with window glass, as at the monastery at Whithorn (Cramp 1997, 327–328). Yet the range of window glass at Flixborough is much more limited in quantity and complexity, when compared with collections from contemporary monastic sites (Cramp, volume 2, Chapter 5). It is interesting to observe that a similar, limited collection of window glass has also been recovered associated with the large residential building (30m by 9m), constructed on stone footings, at Serris (Seine-et-Marne), in northern France (Gentili pers. comm.). The latter building lay within the aristocratic settlement complex, on the edge of the settlement agglomeration (Foucray and Gentili 1995, 142; see Chapter 9). It was contemporary with building 1 (a and b) at Flixborough, and was a means of display like its counterparts in monasteries. In the light of the current bias, in England and southern Scotland, towards excavation on documented seventh- to ninth-century monastic sites, it is perhaps not surprising that window glass has been taken as a monastic trait. Nevertheless, the contacts between northern France, Belgium, the Netherlands, Rhineland Germany and England, attested in documentary sources (and in the case of Flixborough and other settlements, in the archaeological remains) also raise the possibility of

the use of window glass for important buildings at secular centres, in an English context.

Just as building 1b had replaced its early to mid eighth-century predecessor, so a series of buildings with earth-fast foundations replaced their earlier eighth-century counterparts in the mid to late eighth century (Phase 3b). At this time in the settlement's history, the buildings, other than 1b, were constructed using combinations of post-in-trench foundations and individual post-holes (Fig. 3.4). Although, the number of individual post-holes could be over-emphasised due to the truncation of foundation trenches cut into the sand, and the recovery of only the bases of post-holes placed within them. Four earth-fast buildings from this phase have provided foundation plans, which allow some assessment of their dimensions, and aspects of their function.

Buildings 5, 8, and 9 (and the partially excavated building 2) are represented by foundation trenches, with post-holes or stone post-pads reflecting the placing of posts in the trenches. The trenches of the long-walls were dug separately from those of the short-walls of the buildings; and in the case of building 2, the short walls were supported within individual post-hole foundations (Loveluck and Atkinson, Volume 1, Chapter 4). Stone post-pads were also found outside the long-wall trenches of buildings 2 and 5, suggesting either the use of external raking timbers to assist in roof support (James *et al.* 1984, 194), or rebuilds on the same plots, of which any earth-fast foundations had been totally truncated. All these building footprints had been subject to some erosion, or disturbance from later phases, but estimates of their size can be made. Building 5 was at least 13m by 7m; building 8 was approximately 15m by 6m; and building 9 was at least 9m long and 5.5m wide. The former two buildings were substantial structures, not dissimilar in size to building 1b, whereas building 9 was somewhat smaller. Traces of the floor level within these buildings were absent, with the exception of building 2, which possessed the remains of a fired-clay hearth base.

Parallels for these buildings are widespread from later seventh-, eighth- and ninth-century Anglo-Saxon settlement sequences. Buildings of similar size and foundation type can be cited from Dunbar, East Lothian (Perry 2000, 35–55); Whithorn, Dumfries and Galloway (Hill 1997, 172–178); West Heslerton, North Yorkshire (Powlesland 2000, 24); North Elmham, Norfolk (Wade Martins 1980, 60–68); Wicken Bonhunt, Essex (Wade 1980, 96–97); Portchester Castle, Hampshire (Cunliffe 1976, 58–59); Hamwic-Southampton (Andrews 1997, 56–173), Cheddar, Somerset (Rahtz 1979, 49–53); and smaller examples were found at Church Close, Hartlepool, Co. Durham (Daniels 1988, 168–175). A selection of building plans from these sites is shown for purposes of comparison in Figs 3.8 to 3.12.

This list of contemporary settlements does not represent all the sites with buildings exhibiting the same combined post-in-trench/post-hole foundation types, but



FIG. 3.12. Comparative building plans from ninth-century settlements. A. Portchester Castle S10 (After Cunliffe 1976); B. Portchester Castle S11 (After Cunliffe 1976); C. Portchester Castle S12 (After Cunliffe 1976); D. Cheddar B. P (After Rahtz 1979); E. Hamwic S12 (After Andrews 1997); F. Cheddar 'Long Hall' (After Rahtz 1979); G. North Elmham B. S (After Wade-Martins 1980). (P. Copeland).

it does demonstrate the widespread presence of buildings constructed using this tradition, with similar dimensions. They are found on rural settlements, both secular and monastic; and in newly emerging urban, trading centres, dating from the eighth to ninth century. Indeed, contemporary examples of very similar form, dimensions and foundation type have also been found in Belgium, France and north-west Switzerland (Witvrouw 1999, 105–108; Foucray 1996, 207; Federici-Schenardi and Fellner 1997, 124–125; FIG. 3.15). The majority of the Flixborough examples, however, are at the larger end of the size range from England, like those from Wicken Bonhunt; whereas the monastic examples from Hartlepool form the smallest of the group.

Very few finds were recovered from the interior areas of the buildings from Phase 3b (mid to late eighth – early decades of the ninth century) at Flixborough. This reflects the fact that contemporary floor surfaces were absent from all buildings, apart from buildings 1b and 2; and the interior spaces of the structures were kept clean. Refuse was dumped in the centre of the site in the shallow valley, first around building 13, and then at the eastern end of building 9, before the area was levelled. All were probably residential buildings.

The final eighth-century structure to be considered is building 13. It was uncovered during the last days of the excavation in 1991, and consequently it exists largely in plan only; although, the short-wall foundation of its western end was excavated (FIG. 3.4). At its extremities, it was 14m in length and 6.5m in width. The predominantly post-hole plan could be an illusion, since the post-holes of its western end were positioned in a narrow foundation trench, discovered on excavation. This building is unlike its contemporaries in the excavated area. Its long-walls are defined by double-rows of post-holes, smaller than those from other buildings on the site. The interior rows of post-holes are also slightly bowed. A line of larger post-holes runs along the centre of the building in its long axis, presumably for roof support, and the location of a door is suggested in the middle of the southern long-wall.

No contemporary floor deposits were identified, and no hearth was found, suggesting that the floor may have been raised. Refuse deposits accumulated around this building, in Phase 3bii. They contained a large quantity of loom-weight fragments, suggesting that weaving may have been a significant activity within building 13. At the same time, however, these external refuse deposits also contained highly fragmented crucible and mould fragments, and fragmented hearth bottoms from blacksmithing. The latter activities were not undertaken in the excavated area, and the loom-weights may also have been brought in and dumped around building 13. The demolition and levelling deposit which covered the building (12925) contained significant quantities of daub. It is currently very difficult to find parallels for this building from seventh- to ninth-century England, but some

similarities exist with building 4 from Venray – 't Brugske, Limburg, in the south-western Netherlands (Proos 1997, 152–153).

### *The ninth-century buildings*

Sometime during the early decades of the ninth century, all the structures from Period 3 were replaced with three lines of buildings (see Chapter 2, this volume). The largest buildings were constructed on the two sand spurs either side of the increasingly, filled-in shallow valley; and two smaller buildings were built in the shallow valley itself. Only three of the seven buildings from this time (Period 4) have furnished sufficient information from their foundations and floor levels, to allow any interpretation of size and function. These comprise buildings 3, 10a and 15 (FIG. 3.5). Overall, where it can be estimated, the buildings from Period 4 were on average approximately 2 metres shorter in length than in Period 3. Combinations of earth-fast foundations were used for the construction of the buildings, and stone footings were no longer used. Interior floor levels were identifiable in buildings 3 and 10a by the presence of fired-clay and stone hearth bases, located in the eastern halves of these structures. The position of doorways was indicated in only one instance, by the presence of gravel pathways leading to the middle of the long-walls of building 10a (FIG. 2.12).

The earth-fast foundation types were particularly varied in Period 4 (early to middle decades of the ninth century). Building 3 was built using the post-in-trench method, with dimensions of at least 9m by 7m. Building 10a was built by placing a timber sill as a base-plate, within a continuous foundation trench on three sides, and was at least 13m by 6m in size. Whilst, building 15 was built using individual post-holes for the long-walls and a foundation trench for the short-walls, and was between 11 and 12m in length and 7 to 7.5m in width. Buildings with comparable earth-fast foundations and internal features have again been encountered on settlements such as North Elmham (Wade Martins 1980, 64–65) and Portchester Castle (Cunliffe 1976, 29–31), from later eighth- and ninth-century contexts (FIGS 3.10, 3.11 and 3.12). Although, building 10a, with its charred sill placed as a base-plate within a foundation trench is unusual. This building was also marked out as particularly important by the construction of metalled pathways leading to its entrances.

When contemporary floor levels and deposits could be identified, they indicate that the buildings from Period 4 were again kept relatively clean. Very few artefacts were recovered from the interior spaces of the buildings. A piece of a glass vessel was found in a filled-in foundation trench of building 10a, and was not necessarily associated with its use; and another piece of glass vessel had been incorporated into the hearth of building 3. Overall, the scarcity of finds from interior living spaces and the presence of three fired-clay and stone hearth bases suggest

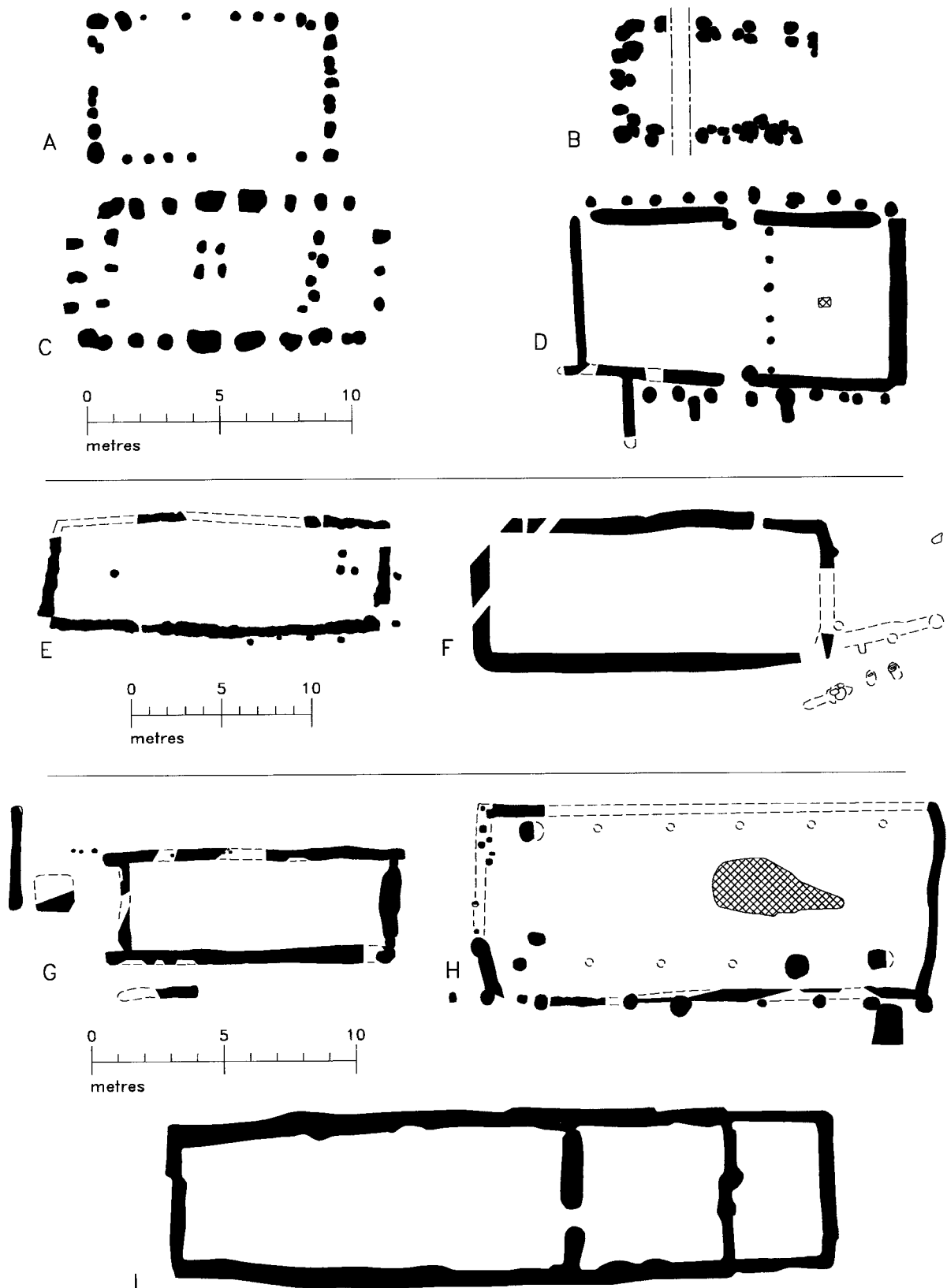


FIG. 3.13. Comparative building plans from tenth- to eleventh-century settlements. A. Portchester Castle S14 (After Cunliffe 1976); B. Portchester Castle S17 (After Cunliffe 1976); C. Raunds-Furnells B (After Cadman and Foard 1984); D. Portchester Castle S13 (After Cunliffe 1976); E. Raunds-Furnells A (After Cadman and Foard 1984); F. North Elmham B. U (After Wade-Martins 1980); G. Faccombe Netherton B. 4 (After Fairbrother 1990); H. Faccombe Netherton B. 11 (After Fairbrother 1990); I. Goltho, 'Hall' C (After Beresford 1987). (P. Copeland).

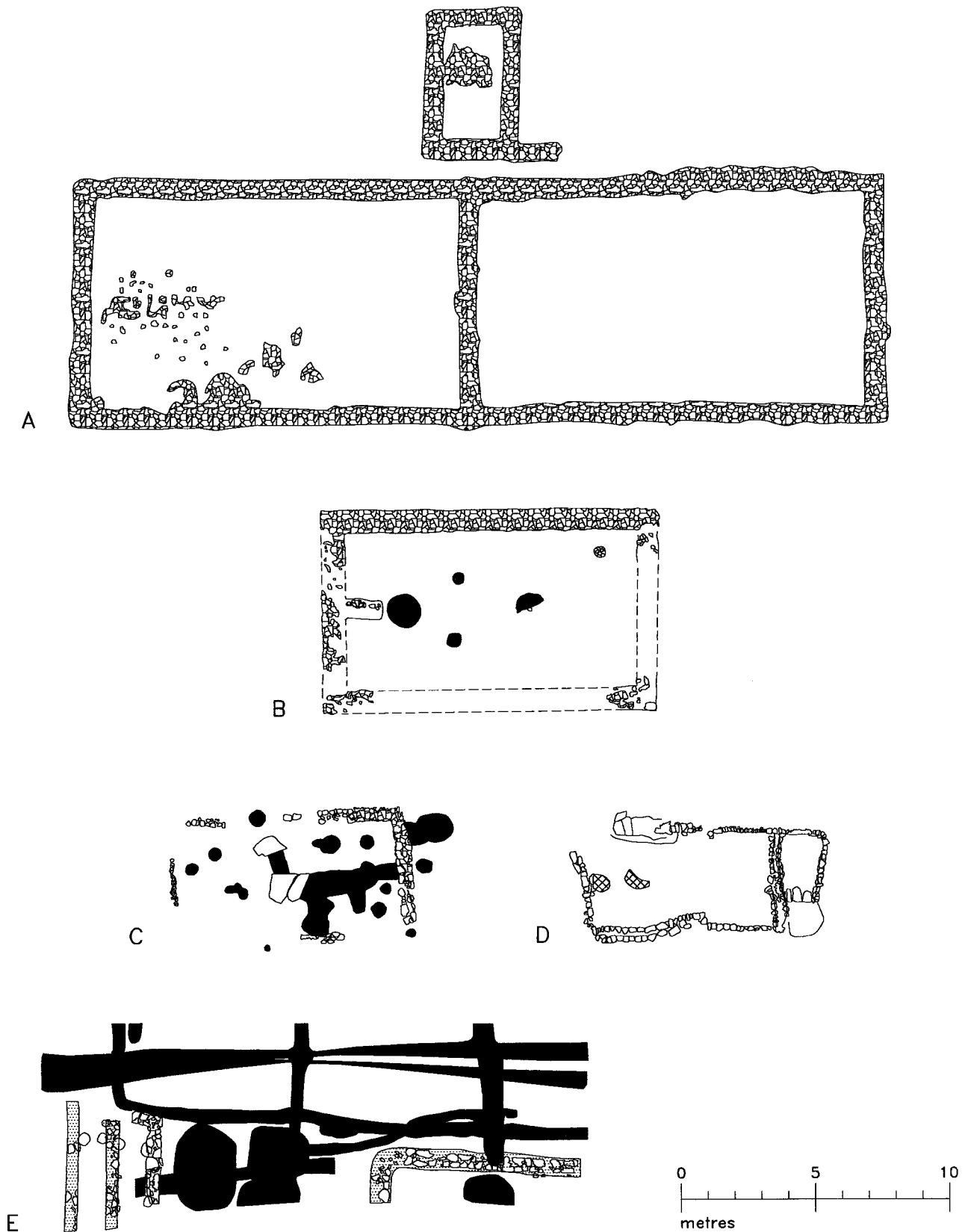


FIG. 3.14. Plans of buildings with dry-stone footings from northern France, seventh to tenth century. A. Serris, 'Hall' from aristocratic settlement zone (After Foucray and Gentili 1995 and 1998); B. Serris, Cemetery Chapel (After Foucray and Gentili 1998); C. Distré B. 2 (After Fillon and Valais 1997); D. Distré B. 4 (After Fillon and Valais 1997); E. Montours-Le Teilleul (After Catteddu 2001). (P. Copeland).

that all the buildings were used for residential purposes. Although, the huge quantities of domestic refuse and textile-manufacturing debris thrown into adjacent refuse dumps, and into the ditch, indicate that specialist textile production may also have been conducted in some of the buildings (Loveluck, this volume, Chapters 2 and 6; Walton Rogers, this volume, Chapter 6).

Following the clearance of the excavated area, sometime after AD 858 (*terminus post quem* provided by pennies of Æthelberht of Wessex, struck between AD 858 and 865), the smallest buildings in the Flixborough occupation sequence were raised on new building plots. The structures of this era (Period 5, Phase 5a) were built using individual post-hole foundations, with the exception of building 27, which had a foundation trench for at least one of its long-walls (FIG. 3.6). Only building 29 was sited in any relation to former buildings, having succeeded building 10. Only building 26 possessed an interior fired-clay hearth base, reflecting the floor level.

The structures from Phase 5a, from the mid to late ninth century, can be divided into two groups: namely, buildings and ancillary structures. The buildings lay in the southern half of the excavated area, and a zone of domed, fired-clay ovens and post-hole structures were located to the north. The small post-hole buildings are paralleled on a range of contemporary sites from the eighth and ninth centuries (FIGS 3.10 to 3.12). In the regions neighbouring the Humber estuary alone, examples have been found at Wharram Percy (North Yorkshire: Stamper *et al.* 2000, 29–31), Cottam and Thwing (East Yorkshire; Richards 1999a, 28; Manby forthcoming); and from Barton-upon-Humber (North Lincolnshire; Bradley 2000), and Goltho (Lincolnshire; Beresford 1987, 25). The buildings from Flixborough are at the smaller end of the range, with building 29 the largest at approximately 9m by 6m. Building 26 was at least 8m by 5m; and building 27 was at least 7m long and 5m wide.

The smallest of the post-hole buildings at Goltho, Wharram Percy and Thwing were larger than the largest building (29) at Flixborough during Period 5a. If used as a medium of social display, the Flixborough buildings from this period suggest a significantly less wealthy community than in preceding centuries (also borne out by artefact evidence). On a wider scale within Britain, post-hole buildings have also been found within ninth- and tenth-century phases of settlements (FIGS 3.12 and 3.13), at Portchester Castle, Hampshire (Cunliffe 1976, 57–59); Hoddum, Dumfries and Galloway (Lowe 1991, 18–19) and Raunds-Furnells, Northamptonshire (Cadman and Foard 1984, 84–85). All were larger than the Flixborough examples, with the exception of two buildings (S14 and S17) from Portchester Castle, probably reflecting functional differences in the use of buildings (Cunliffe 1976, 39–40 and 47–48). Directly comparable buildings from the ninth and tenth centuries have also been found in northern France, Rhineland Germany and

the Jura, Switzerland (Fillon and Valais 1997, fig. 60; Ettel 2001, 114–122; Federici-Schenardi and Fellner 1997, 124–126). They reflect different functional uses: residential, craft-working and storage; and they vary considerably in size (FIG. 3.15).

A functional change in the excavated zone of the settlement could also have influenced building size and character to a certain extent at Flixborough. As usual very few finds were discarded within the interior spaces of the buildings, and contemporary floor levels were not detected, with exception of the hearth-base level in building 26. The hearth was located in the centre of the building. The large refuse zone in between the buildings and the ovens (FIG. 2.15) again contained significant textile-manufacturing evidence, and needles were also found within the interior areas of buildings 26 and 29. Nevertheless, bearing in mind the huge quantities of textile-manufacturing implements found on the site, it is not possible to ascribe a weaving or textile-manufacturing function to these buildings, separate from a probable residential function, indicated from other artefact and animal bone assemblages in the area.

The grouped post-holes to the north-west of the buildings were constructed over part of the filled-in ditch (ditch 50), in the western edge of the excavated area. Prior to their construction a building also appears to have been raised across the line of the former ditch, indicated by a line of post-holes, a building corner, and stone post pads. It has been designated building 36/37 because it was not possible to distinguish it from the inter-cutting groups of post-holes which replaced it. The groups of post-holes described under the terms ‘buildings 36/37’ and ‘structure 38’ are best interpreted as foundations for haylofts or granaries. When encountered on excavations of Anglo-Saxon settlements, parallels for these structures have tended to come from eighth- to tenth-century phases. Similar examples have been identified at West Heslerton, North Yorkshire (Powlesland pers comm.); Barton-upon-Humber, North Lincolnshire (Bradley 2000); Catholme, Staffordshire (Losco-Bradley and Kinsley 2002); Yarnton, Oxfordshire (Hamerow 2002, 154); Pennyland, Buckinghamshire (Williams 1993, 82) and Wicken Bonhunt, Essex (Wade 1980, 96–97; FIG. 3.28 below). At Flixborough, the clusters of post-holes were approximately 3m by 3m in surface area, for structure 38; and 3.5m by 4m in the case of the western cluster of ‘building 36/37’ (FIG. 3.6).

Sometime between the late ninth and early decades of the tenth century (Phase 5b), buildings 30/31 and 14 were constructed over the central refuse area of Phase 5a, and building 4 replaced building 26, on broadly the same plot. Buildings 4 and 30 were, again, constructed with individual post-hole foundations, although 30 was replaced by building 31, built with post-in-trench foundations like building 14 (FIG. 3.6). Fired-clay and stone hearth-bases were present in buildings 4 and 30/31. In the latter structure, the hearth was located in the

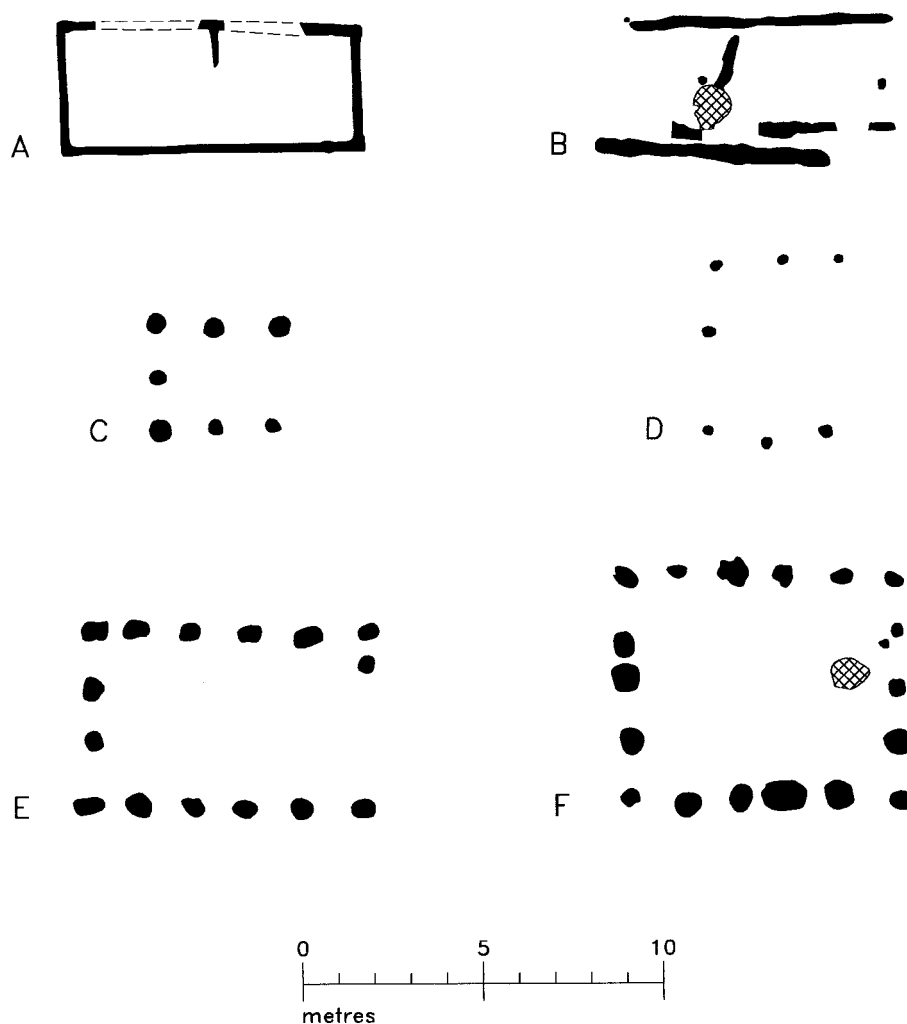


FIG. 3.15. Plans of buildings with earth-fast foundations from northern France, Belgium and Switzerland, seventh to tenth century. A. Thier d'Olne/Hermalle-sous-Huy (After Witvrouw 1999); B. Develier-Courtételle (After Federici-Schenardi and Fellner 1997); C. Distré B. 11 (After Fillon and Valais 1997); D. Distré B. 12 (After Fillon and Valais 1997); E. Rosstal M 1 (After Ettel 2001); F. Develier-Courtételle (After Federici-Schenardi and Fellner 1997). (P. Copeland).

eastern half of the building, although it is unclear whether the same was true for building 4. Its hearth was either located centrally or in the eastern half of the building. It is impossible to be sure as the western end of the building continued beyond the eastern limit of the excavated area.

With the exception of building 14, all the structures appear to have been of a similar size to those of Phase 5a: building 30/31 was 8.5m by 5m; and building 4, at least 8m by 6m. By contrast, building 14 was 12m long and 7m wide, similar in dimensions to the buildings of Period 4. Caution has to be exercised before ascribing any particular function to buildings 14 and 30/31, as their foundations were cut directly into the huge refuse deposits of Periods 3 and 4, with the consequence that residual artefacts were incorporated within their fills. However, a cluster of fired-clay loom-weights was recovered within the interior space of building 30/31, at the level associated with the hearth, together with several spindle whorls and

needles, suggesting that the building was used for textile manufacture. A similar cluster of loom-weights, and a spindle whorl, were also recovered in association with the interior corner of the partially identified building, within the 'building 36/37' group. It is possible that this cluster of finds (not overlying deposits which contained significant weaving debris) also reflects textile working in this building.

### *The tenth-century buildings*

The transformation in the character of structures at Flixborough, between the early and middle decades of the tenth century (Period 6), represented a change as radical as that which had occurred in the mid to late ninth century (Period 5). The small buildings of Period 5 were demolished, and were replaced by the largest buildings within the occupation sequence, on the excavated site. Buildings 7 and 12 yielded relatively



complete plans: building 7 having had dimensions of 19.7m by 6.5m; and building 12 was at least 15m in length and 7m in width (FIG. 3.7 and 3.27 below). The latest buildings in the sequence were only partially excavated, as their remains continued beyond the eastern boundary of the excavations. Nevertheless, it is still possible to state that buildings 32 and 33 had lengths of at least 10.5m, and at least 13m, respectively. All the buildings were constructed using foundation trenches, especially for the long-walls. Unlike buildings of the eighth and ninth centuries on the site, none of the tenth-century buildings contained surviving hearths at ground level, or surviving floor deposits. Nevertheless, the domestic refuse deposits dumped outside the buildings, for example 1680, outside buildings 34 and 7, attest to their residential function.

Building 7, in particular, has very close parallels in its foundation plan, use of stone post-pads or settings, and in its dimensions to 'building A' at Raunds-Furnells manor, Northamptonshire (Cadman and Foard 1984, 84–85); and 'building U' at North Elmham, Norfolk (Wade Martins 1980, 136–140). Building U is suggested to have stood from the early decades of the tenth century, into its later decades, almost exactly contemporary to building 7 from Flixborough. Building A from Raunds-Furnells manor is also dated to the Late Saxon period. Further parallels to the tenth-century buildings from Flixborough, in size and foundation type, although not in exact form, are to be found from tenth- to eleventh-century phases on other settlements (FIG. 3.13). Examples come from Facombe Netherton, Hampshire (Fairbrother 1990, 99–117); Raunds-West Cotton, Northamptonshire (Windell *et al.* 1990, 23–25) and Goltho, Lincolnshire (Beresford 1987, 9).

In their larger size, the buildings on the tenth-century settlement at Flixborough follow a trend becoming increasingly apparent for tenth- and eleventh-century royal and aristocratic estate centres or early 'manors' (Gardiner 2000, 169–170; Loveluck 2001, 110). Each possessed a main 'hall' or a core of large rectangular buildings, with other ancillary structures, epitomised at the West Saxon, tenth-century royal centre at Cheddar, Somerset, and the sites mentioned above (Rahtz 1979, 49–60; Williams 2003, 31–32; Blair 2003, 309).

### General conclusions

The remains of the buildings and other structures from Flixborough did not furnish a large number of complete foundation plans, for the purposes of metrological analysis. Yet, the collection of buildings with complete or substantially complete foundations, interior features at floor level (hearths) and floor or sub-floor deposits, and external yards and refuse dumps, do provide an important corpus of evidence. This is particularly true with regard to changing trends in the nature of structures on a single settlement from the seventh to tenth centuries; use of internal and external space; and potential expression of

status and identity through the built environment.

The sequence of buildings demonstrates that general chronological trends in foundation styles for earth-fast buildings are extremely difficult to establish in the Mid to Late Saxon period. At Flixborough, the sequence begins with buildings constructed in individual post-hole foundations during the seventh century; then a mixture of post-in-trench and individual post-hole buildings between the eighth and mid to late ninth century; to be followed by a period of small post-hole buildings in the later ninth to early tenth century; and finally a series of large buildings predominantly with post-in-trench foundations.

Internal living and working areas of buildings were nearly always kept relatively clean, artefact discard having been rare in these interior spaces. This can be demonstrated beyond doubt when interior floor surfaces and hearths were uncovered. However, domestic and certain craft-working refuse associated with dwellings was not always discarded far away from buildings. In some cases, rubbish was thrown away immediately outside them; and in others discard was more organised within the shallow valley in the central part of the excavated site. Nevertheless, there was no simple correlation between material found near buildings and building function. Detailed analysis of the refuse deposits showed that a significant proportion of material was derived from outside the excavated area, from a different zone of the settlement, where iron smithing and non-ferrous metalworking were carried out.

Superimposition of buildings and refuse deposits, together with exhaustive examination of *termini post quos*, residuality and re-deposition of artefacts also enable an estimation of earth-fast building longevity, within the chemically hostile sand sub-soil. Stratigraphic and artefact analysis suggests that buildings stood on average between 25 and 50 years. This estimate of structural longevity is supported from a currently unique series of dendro-chronological dates from a raised wooden trackway, dating from the eighth and ninth centuries AD, discovered in the Varde district of the Ribe Amt, western Denmark, in 1998. Wooden piles from a section of track, 57m in length and 3.5m in width, were driven into a layer of white sand (Frandsen 1999, 42). Large parts of the excavated area had subsequently become waterlogged. Dendro-chronological analysis of the oak piles, driven into the sand, showed two periods of replacement. The trackway and bridge were constructed in AD 761 and the piles and structure were repaired and replaced between AD 785 and 791 (Frandsen 1999, 50). The timber for the buildings at Flixborough was also oak, and analysis (see Darrah below) suggests that buildings stood for a period similar to that suggested by the stratigraphic analysis of the site, and the dendro-chronological dates from Varde.

Buildings from different periods in the settlement's history were also constructed for the purpose of displaying aspects of social status, identity or function. Buildings 1a

and 1b, constructed on their gravel and stone footings, from the eighth century, were built for social display, as both a dwelling and burial focus. They were built in an architectural style associated with important communal buildings or elite residences, found more often in northern France, Belgium and Rhineland Germany. In contrast, the small post-hole buildings of the later ninth century demonstrate an absence of significant social display through the medium of buildings, at least in the excavated part of the settlement. This could reflect a decline in the social standing of the inhabitants or a partial functional change in the use of this settlement zone. Yet, the large refuse deposits from this era also suggest an absence of wealth, as expressed in mobile material culture. In the tenth century, everything changed again, with the construction of the large earth-fast buildings, directly paralleled at other contemporary rural centres, often described as early 'manors'. Thus, the larger buildings are likely to have been a component of rural, secular elite identity by that time (see Loveluck, this volume, Chapter 9).

### ***3.3 Identifying the architectural features of the Anglo-Saxon buildings at Flixborough, and understanding their structures***

***by Richard Darrah***

The Flixborough plans and sections allow for only very limited understanding of the buildings as standing structures. The evidence from the excavation, and the settlement's hinterland, is combined with information from the nails, daub, post pads, floors, glass, dumps, soil types etc. to begin to identify the methods of construction used in the buildings. However, the site data must be combined with the evidence from a wider context (for example, Anglo-Saxon building materials, joints and construction techniques) for any real interpretation to be possible. The reason that we are able to make any interpretation here is because of the more detailed and accurate recording of wood and features on archaeological sites over the last half century.

One of the benefits of creating an interpretation of a building on paper is that it enables us to understand the possible interpretations of the evidence, and which parts may be feasible. It should be remembered that two strokes of the illustrator's pen in these paper reconstructions (which I will call interpretations) are in place of many hours of hewing, transport, and erection of timbers. The interpretations have been supported by looking at the ground plans, wood technology, joints, tools, and methods of construction that were used at that time. If reconstructing Anglo-Saxon buildings were easy, the riddles would have been solved many years ago. Even where large sections of structures survive, as at Tamworth Mill or Anglo-Scandinavian Coppergate in York, it is not obvious how the missing parts of the structure were constructed.

The disadvantages of interpretations on slim evidence are that they may be taken as a reality and lead later workers in the wrong direction. For this reason the illustrations accompanying this section should be accepted with due caution as possible interpretations only. Although we are interpreting from known types and techniques, it does happen that new and previously 'unthought-of' techniques appear. For example, Deer Park Farm (Lynn and McDowell 1987, 175) in Co. Antrim, Ireland, has provided a new unobvious solution to building construction, double wattle walls without daub, but packed between with bracken. Patrick Wallace has since identified an area of Dublin, Fishamble Street, where thirteen phases of building were constructed in a similar manner. As yet, Anglo-Saxon buildings are not fully understood but they may have unexpected features (such as the arcade posts made from trunk and branches found in London: Goodburn 1993, 78–92).

The evidence for Anglo-Saxon buildings comes mainly from ground plans. These occur on many sites and have been interpreted for their function, style, size, number of Anglo-Saxon feet, spatial relationships and groupings. I use interpretations to understand how the buildings were constructed, types of structure made, and raw materials required.

#### ***Types of structure***

Five distinct types of building foundations were found on this site:

- Earth-fast post structures
- Earth-fast posts paired across the building
- Above or below ground base-plates
- Combinations of post-in-trench and post-hole construction
- Deep trenches which would have supported post-in-trench construction, and
- Non-interpretable structures

A distinctive feature of most buildings on this site is the absence of corner posts. This is true of both trench-built and post-built buildings.

#### ***Earth-fast post structures***

There are no totally complete plans of buildings with only earth-fast posts, so it is not possible to identify repeated structures in the parallel walls or to understand the structures in any depth. This is partly due to lack of sections for many post-holes, in favour of post-hole profiles, so even identification of similar post-holes (in terms of depth and shape) is impossible. This is, to a certain extent, a consequence of the nature of the site. The structures were constructed in sand foundations, and details of post-hole dimensions and depths were easily destroyed, during the demolition process in the past.

#### ***Earth-fast posts paired across the building***

There is one clear example of a building with large post-holes along both long sides, where these can be paired

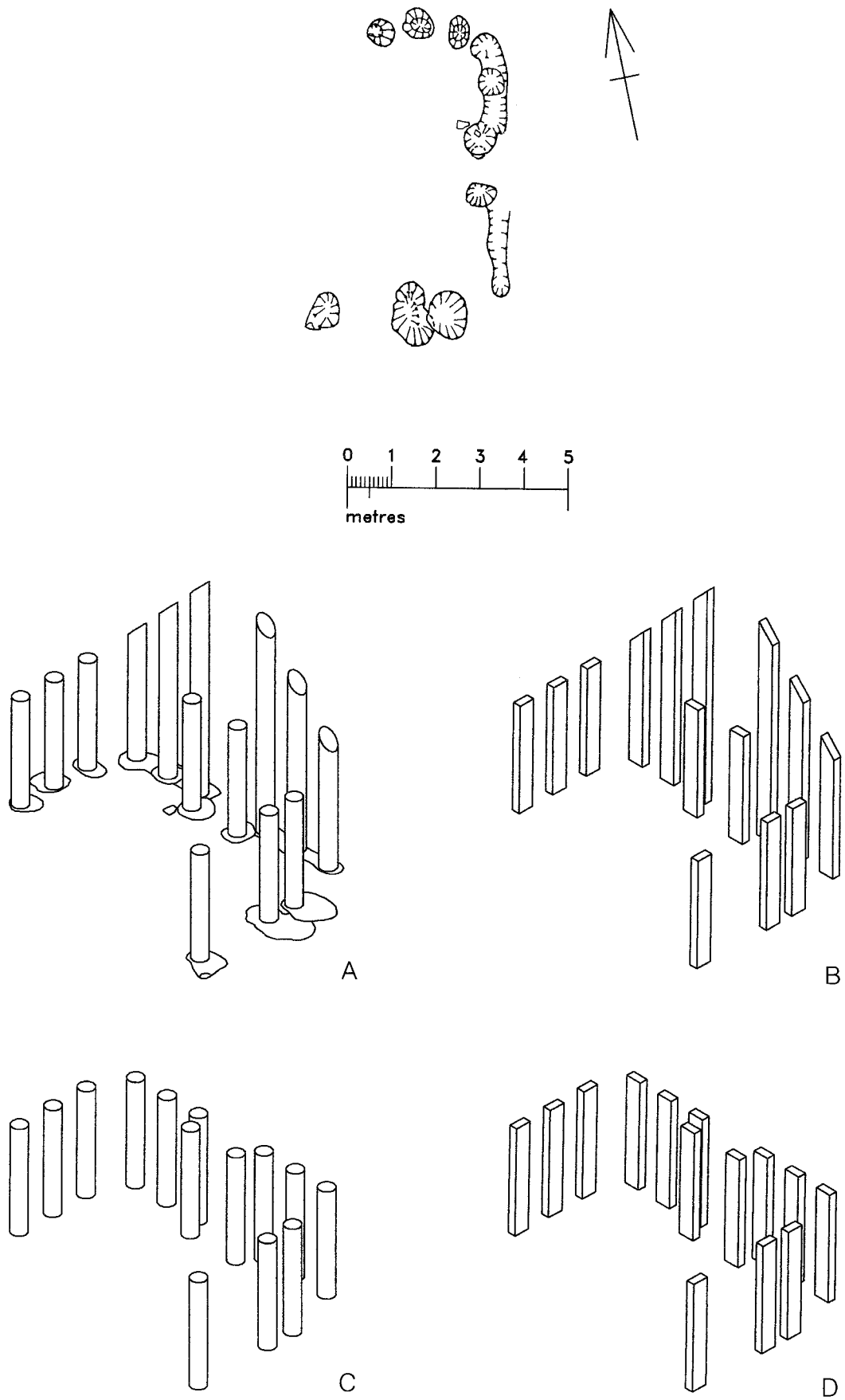


FIG. 3.16. Understanding wall construction from post-holes, after Richard Darrah (M. Frankland).

across the building, building 1b, in Period 3 (and possibly 1a on the same site). Here there are 4 post-holes along each long side of the building. It is likely that this structure allows paired tie-beams. The large post-holes are all similar in shape and have been dug by the same person or to the same plan. If, as seems likely, the gravel spread delineates the edges of the building, then there are no post-holes at the corners of this construction, so the whole of the structure is being supported on these four pairs of posts, and possibly also on base-plates lying at ground level on the gravel spread (see FIG. 3.19). The absence of internal or end-wall posts suggests a lack of a ridge beam roof, but it could still have had gable ends or a hipped roof.

#### *Base-plates*

Besides buildings 1a and 1b, which have good evidence for paired post-holes and above-ground base-plates, resting on the edge of the gravel spread, only building 2 appears to have above-ground base-plates. It consists of only parts of a corner and two walls, with no large post-holes able to encase paired supporting posts. There is a shallow trench in the longer wall with post-pads that may have supported a base-plate and in the shorter wall a ground-level post-pad. This may relate to wooden base-plates, one lying partially underground and supported on post pads, the other at ground level (FIG. 3.22).

The carbonised remains of two timbers in the shallow trenches of building 10a suggest underground or partially underground base-plates. One of these was lying on edge, and the other may have tipped over. Base-plates may be useful for defining the edges of the building, attaching vertical timbers during building assembly, spreading the weight of the walls over the ground plan, and acting as a damp course and sacrificial timber.

#### *Deep trenches which would have supported post-in-trench construction*

The deeper trenches (with steep vertical sides and over 0.3m deep by 0.5m wide) sometimes had padstones within them and sometimes post-holes cut through them, suggesting post-in-trench construction (FIG. 3.17 E); however no post-ghosts were seen in deep trenches to confirm this. The padstones hint that some of the posts may have been widely spaced, suggesting wattle-and-daub walls between the posts. Building 7 has deep trenches on all four sides, but there is no evidence of deepening of the trenches at corners or near doors as is seen at Cowdery's Down (Millett and James 1983, 215). Wide post pad spacing (0.8m apart) in this building along with small post pads suggest that this is not a stave-built structure, but more probably small roundwood posts used to support a wattle wall. However, lack of evidence means that this could be horizontal planking above ground, or a stave wall (FIG. 3.21, A,B,C or F).

In these post-in-trench structures there is no evidence for buttressing (with the possible exception of building

5), so it is likely that the outward thrust of the roof was resisted by tie-beams running across the buildings. The lack of evidence for any pairing of post pads within the trenches suggests that the tie-beams rested on a wall-plate (supported on the small posts in the trench) rather than on paired posts.

#### *Combinations of post-in-trench and post-hole construction*

Some buildings have at least one wall that is entirely trench-built, and one that is entirely post-hole built, while others have a combination of trench and post-hole within one wall. It is easier to dig trenches than post-holes, so why some post-holes were dug is not clear. It is also unclear what the implications are for wall structure or roof structure. Where the end walls are of trench construction, for example, building 8, the trenches have been dug from the corners and do not quite meet at the centre point, giving clear evidence for lack of a central post in the end walls (that would be needed to support a ridge beam). Other buildings have a post-hole in the centre of the end wall but lack posts inside the building to support any ridge beam along its length.

Several buildings (3, 5 and 6b) have clear evidence of post-holes cutting through the bottom of deep trenches, in the end walls, but not in the long walls. This hints at use of a gable end to the building, but does not exclude a hip roof.

#### *Non-interpretable structures*

Many groupings of post-holes are un-interpretable because of incomplete building plans, lack of regularity of the structures and lack of well-preserved post-hole sections.

#### *Repairs to buildings*

Replacement of timbers in standing buildings appears commonplace. Where post pads occurred above the bottom of the trench or post-hole (as in building 19), or even at ground level (as in building 1a), they are likely to represent replacement of a timber. Similarly when post-holes were cut through the sides of an existing trench, we may be seeing timber replacement (for example buildings 22 or 27). A cross-trench in building 7 may also represent a trench dug to allow a post to be replaced (FIG. 3.17 H).

For example, building 12 has the most positive evidence for post pads (in post-hole 10960), where a group of stones laid horizontally in the hole suggest packing under a post. This packing, more than 0.25m above the base of the post-hole, as well as the large width of the post-hole indicate replacement of the post. If so, the packing stone forced down the side suggests rebuilding from the west.

As it is only necessary to replace posts if they are structural (as otherwise they remain supported by the wall structure even after decaying seriously), replacement suggests a position in which a post may be supporting a

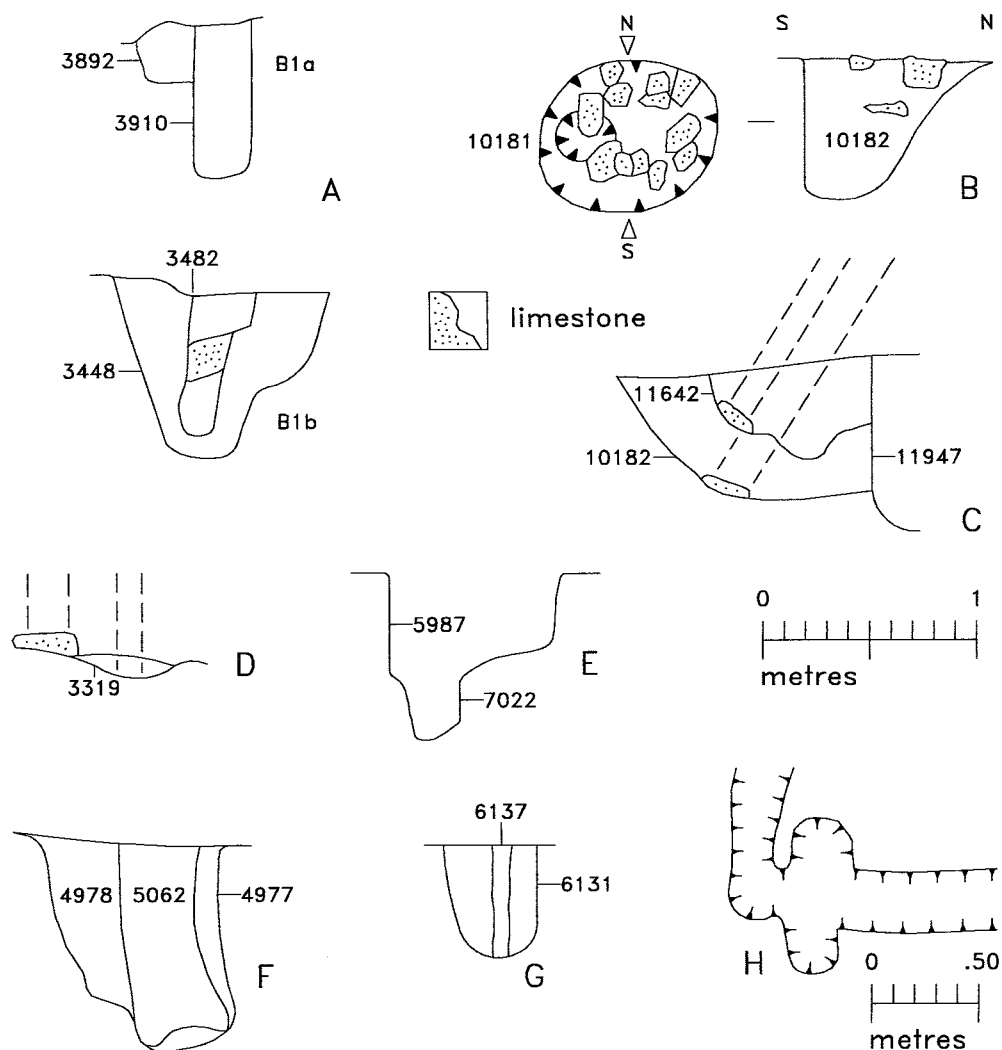


FIG. 3.17. The post-hole evidence, after Richard Darrah (M. Frankland).

tie-beam or other load-bearing timber. This hints at reverse assembly where the tie-beam rests directly on the top of the post, rather than on a wall-plate.

Evidence from this site suggests that most of the timbers that can be assessed are round and less than 0.25m in diameter. Even in durable wood, such as oak, a considerable amount of the cross-section of such a post will be sapwood.

Beresford, in his excellent work on Goltho (Beresford 1987, 77, fig. 78), considered how long earth-fast timbers might survive. He used data from the Building Research Establishment – an excellent starting point, but the timber and wood being used in Anglo-Saxon building construction differs in several important aspects from that tested:

- BRE's data are based on air-dried or even kiln-dried material, the wood used by the Anglo-Saxons was freshly felled.
- The timber used by BRE is all heartwood: in oak,

heartwood is much more resistant to decay than sapwood (which is non-durable).

- Dried wood rots more slowly than freshly felled timber in contact with the ground.
- Size of timber may also affect durability – the forestry products research laboratory suggests that larger sections of durable timber last much longer than small ones, but increasing the size of non-durable timbers will not increase their life span.

There is another feature to this equation, in that slow-grown heartwood in old trees tends to be even more resistant than heartwood generally. If the Anglo-Saxons were cleaving timber, these would be the type of tree they were using.

If ash wood were used to build a structure, it would not last much longer if 250mm-square-posts were used rather than 50mm-square-posts. After five years, fifty percent of the pieces would have lost much of their strength. I would expect a similar life for oak roundwood

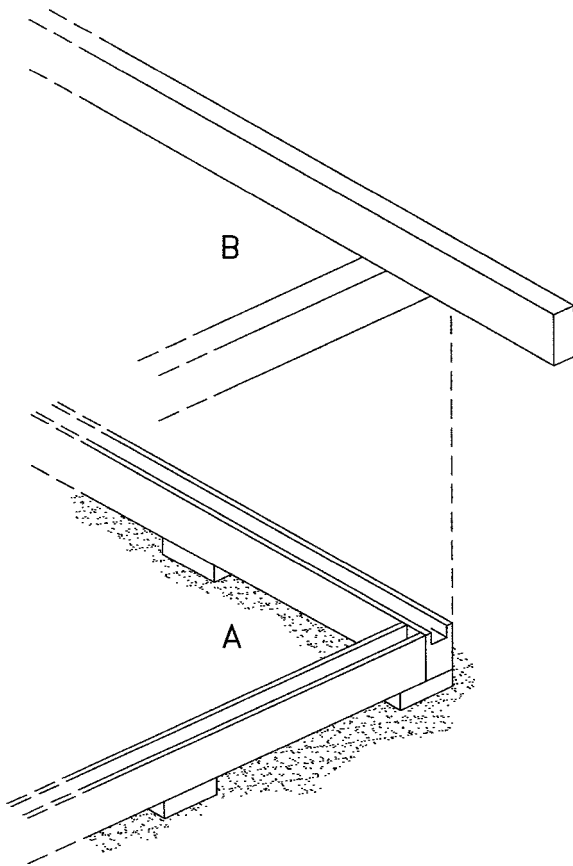


FIG. 3.18. A solution for buildings which appear not to have corner posts, after Richard Darrah (M. Frankland).

of less than 0.15m in diameter. It is likely that if oak roundwood of 0.25m diameter was used for the buildings, some repairs would have been needed in the first twenty years, and major rebuilding after twice that time. If timber is being reused in a structure after it has been seasoned, or charred, it may last longer.

#### *Changes with time*

Due to the limited evidence from this site, it is difficult to define time periods for various structural techniques or approaches. However, the earlier buildings (Periods 1, 2 and 3) appear post-built with individual post-holes. In Period 3, we see some trench-built structures, although post-built kept on occurring through Period 5, alongside or in combination with the trench-built structures.

From Period 6, the only complete trench-built building (building 7) is almost twice the floor area of earlier structures, but with a tantalising lack of evidence of how this structure worked. The evidence suggests an otherwise similar construction type with 0.2m diameter posts, 0.8m apart, set in a trench, with weak corners. Two partial buildings from Period 6 (buildings 32 and 33) were right at the edge of the excavation (with only one wall in evidence for each). The length of these north-south walls

is such that the buildings were either extremely wide, or orientated north to south. Building 32 is the only structure for which there is evidence of either an aisle construction or internal stalling for cattle.

#### *Post-ghosts*

The post-holes sometimes contain post-ghosts, indicating the size and shape of timbers. Although there are few of these ghosts, they emphasise two things, firstly that it is the base of the post-hole that indicates the size of the timber; secondly, that the timbers rest on or near the flat bottom of the post-holes. One ghost occurs above a stone post pad (building 23) indicating that at least some of these pads supported posts and not base-plates. Wooden post pads were also used in York, London and Dublin.

#### *Ground level*

Where a hearth is present and the top edges of any post-holes or trenches are slightly rounded, then it is assumed that the structure's ground level is present. Where no hearth is found, and where the sides of the holes are steep with a sharp angle, then the surface is assumed to have been lost – this is the case for many of these structures.

#### *Building dimensions*

The size of the buildings has been defined by drawing straight lines down the centres of the individual pairs of post-holes, trenches, and sets of post-holes. This does not represent the actual size of the building either internally or externally, but simply the likely centre of any wall being built. It may not even be a line that would have been used in the laying out of the original building, as it represents the centre of the wall line. But it would have been a line of sight that the builder or the foundation digger would use in judging whether the trench or set of post-holes was in the correct position. The actual dimensions of the building as we find it are then defined by the wall type used and hence the wall thickness. It is impossible to estimate the wall positions of these buildings to within plus or minus 0.1m.

On the well-preserved site of Cowdery's Down, building C12, the line of wattle runs straight down the trench, but the individual staves of the wall on either side of this follow the line but form a sinuous line. This shows clearly that Anglo-Saxons were capable of building straight walls, but even with a straight line of wattle the cladding staves fail to follow it closely. This suggests that the Anglo-Saxons did not feel that it was important for a building to appear to be in straight lines. Even if an initial plan was created in straight lines with right-angled corners, the vagaries of building techniques probably meant that this was not realised – not through incompetence, but through lack of interest in this aspect of the building. For example, building A4, the 'Royal Hall' at Yeavering, a very prestigious building, has no two facing walls the same length (Hope Taylor 1977, figs 24 and 61).

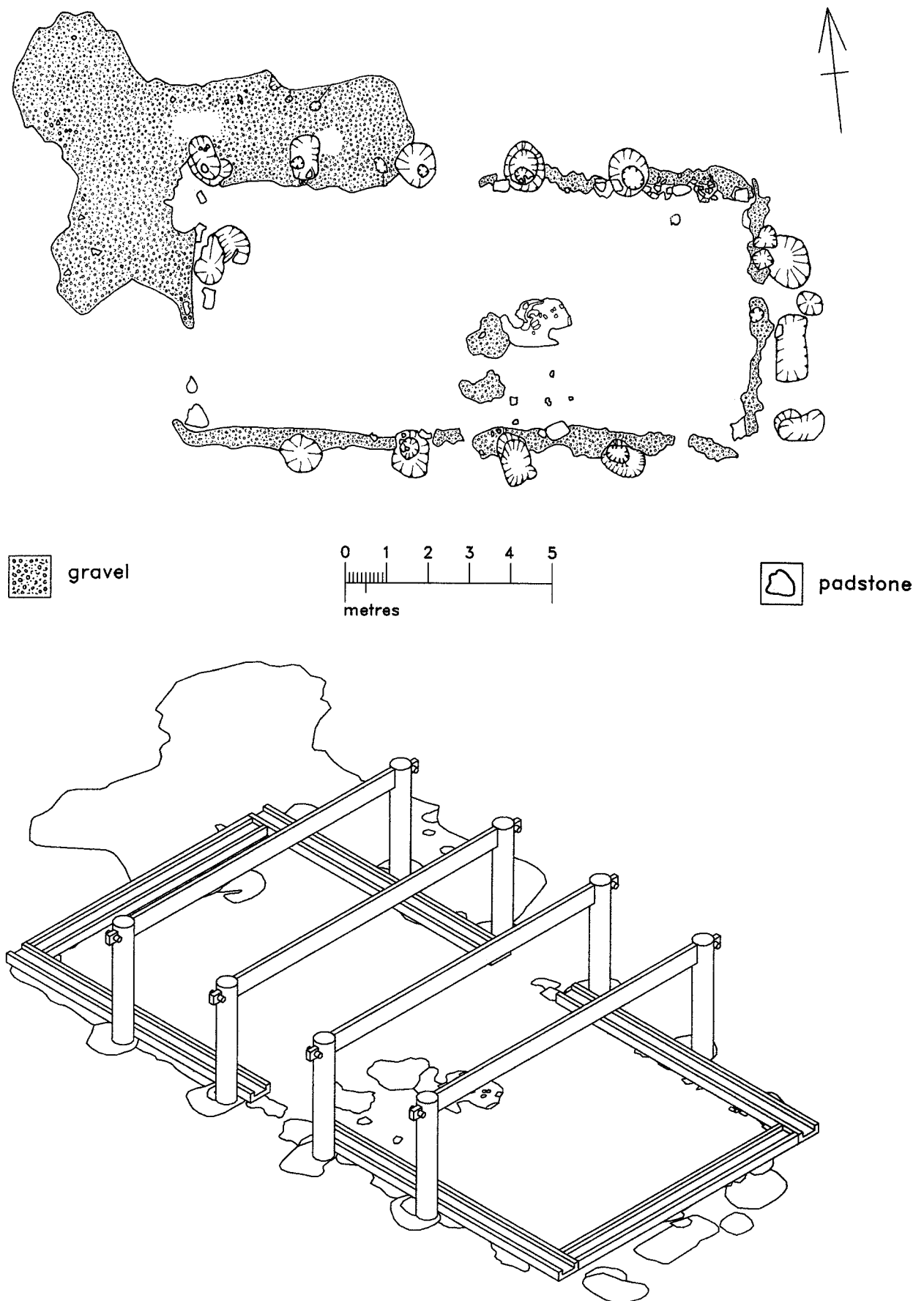


FIG. 3.19. Paired-post holes suggesting tie-beams running across the buildings, after Richard Darrah (M. Frankland).

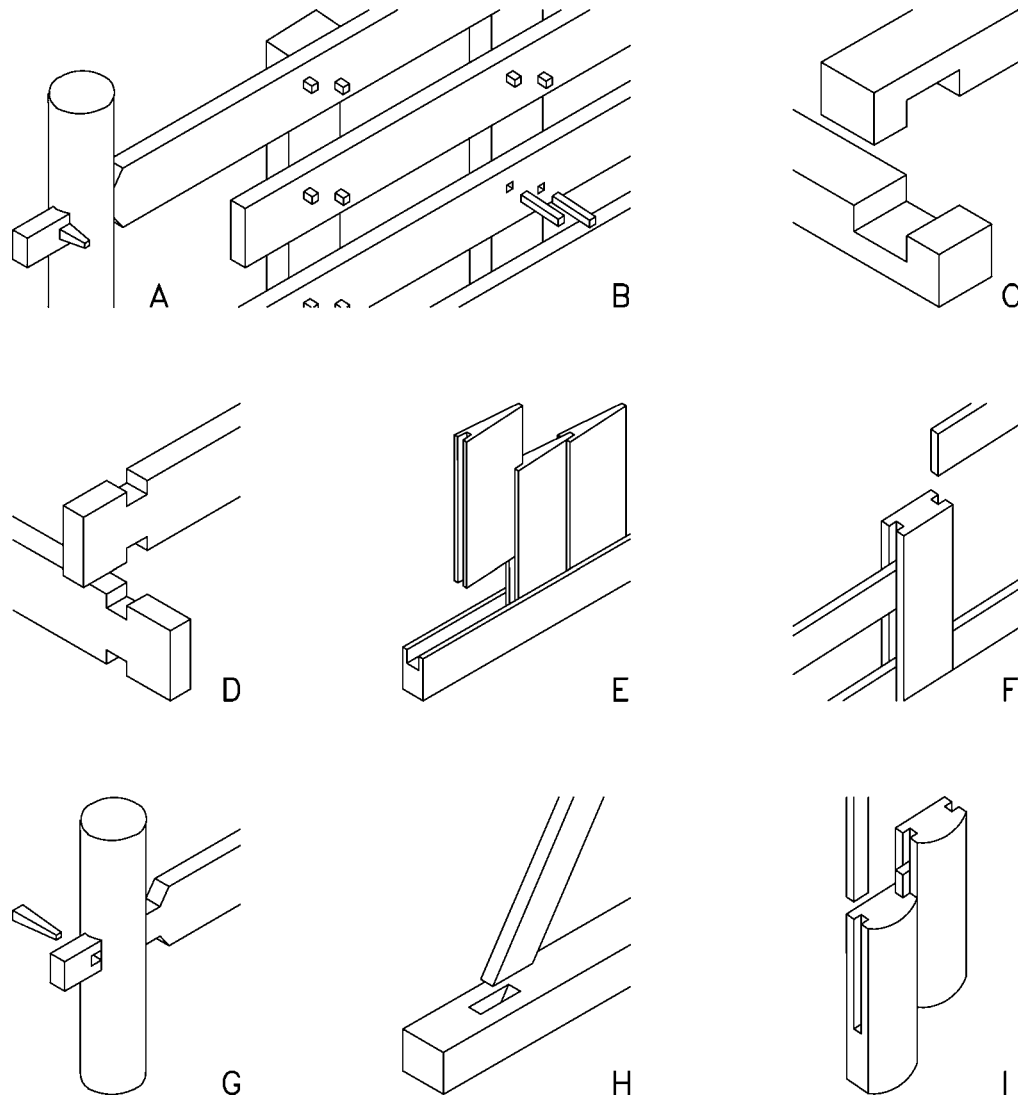


FIG. 3.20. The wood joints used to join timbers in the Anglo-Saxon period, after Richard Darrah (M. Frankland).

#### What is a wall?

One way of deciding on whether a group of post-holes represents a wall is to draw a straight line through them in plan. However, there are no straight lines on this site, so the question is 'does this set of holes form a straight enough line to be a wall?' This makes it extremely difficult to deal with big sets of post-holes (for example, around the north wall of building 18) as there are too many to be one phase of construction, but we cannot decide which belong to a single phase, in the absence of direct stratigraphic relationships, without biased selection. We have to use lines of sight, similar shapes of post-holes or post-ghosts to identify the structure. However, on this site, with few post-ghosts and poorly surviving sections of post-holes, this is not a realistic task.

#### Charcoal

Approximately half of the charcoal from the site (about

fifty pieces large enough to identify the position of the wood in the original trunk) is roundwood, from a variety of species (oak, hazel, ash, birch and willow or poplar). The other half is from timber (greater than 150mm in diameter originally), of which all is oak. Some of these were clearly structural timbers as they were found *in situ* (as in the base-plate timber in building 10a) or exhibit tool-marks (one has an auger hole drilled through it, another shows axe or adze tool-marks). All of the charcoal was incorporated into secondary, re-worked deposits: for example, fills of pits, dumps and 'dark soils', and the fragmentary base-plate from 10a could have been re-used.

The growth rates of the charcoal from the site can be seen in FIG. 3.23. Most timber was growing at a regular rate of up to 2mm per year. This is the rate of growth that one would expect from trees growing in high forest, and the evenness of the growth supports this. This suggests



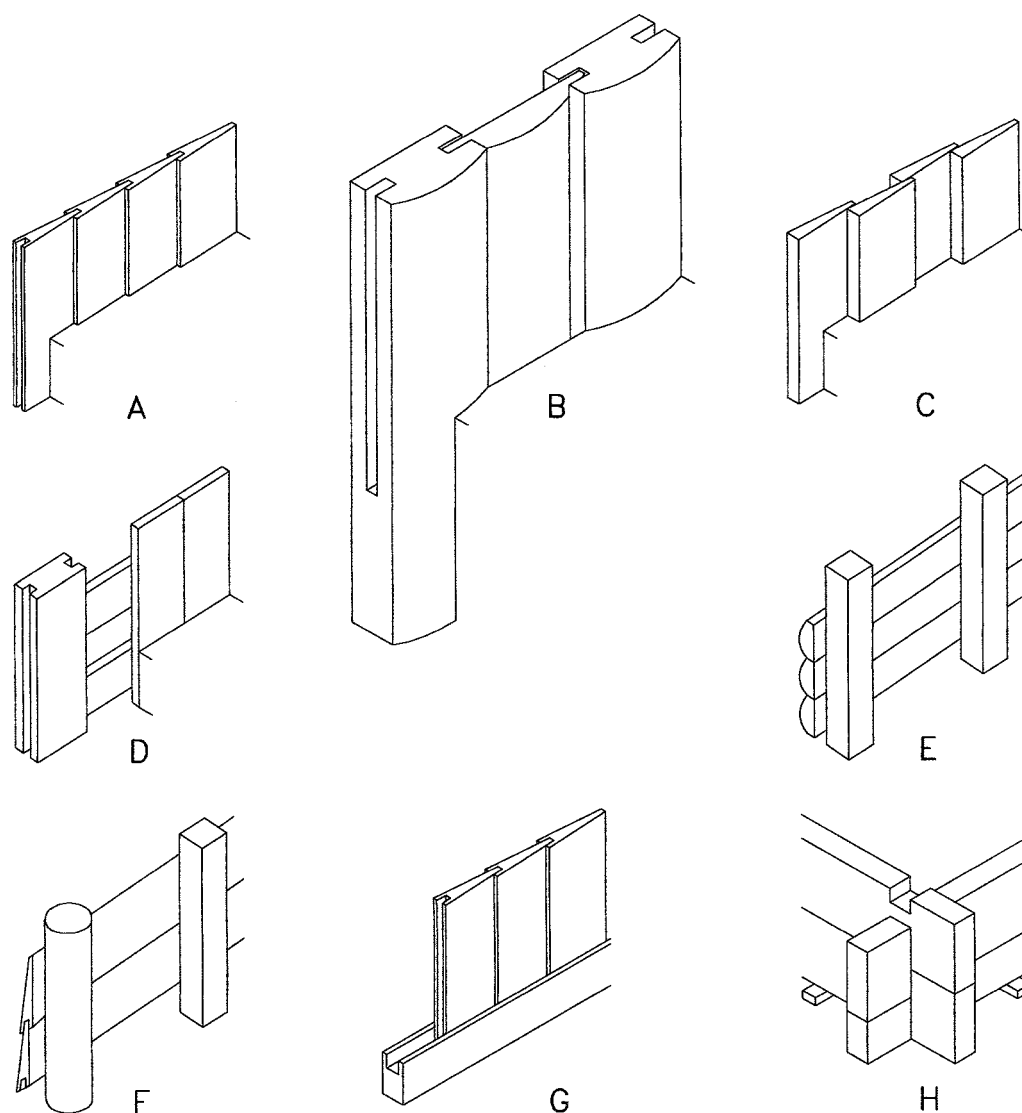


FIG. 3.21. Timber-built wall types used in Mid and Late Saxon England, based on Goodburn 1994, Fig. 5, and R. Darrah (M. Frankland).

that the main source of timber used at Flixborough was high forest oak. This is the type of timber generally used in the Mid and Late Anglo-Saxon periods.

#### *Woodland evidence*

The Domesday survey of 1086 records 682 acres of underwood, plus 120 acres of timber woodland, plus 'underwood' two leagues in length and one league in breadth' within Manley wapentake (containing the excavated site). This suggests a plentiful supply of underwood and timber available (see Loveluck, this volume, Chapter 4). Post evidence suggests use of mostly roundwood and round timber posts (of up to 0.3m diameter) for building construction. It is not clear whether

these were used with or without bark. Charcoal evidence from the site indicates use of mixed species of roundwood for building and/or firewood. The charcoal from timber indicates that timber was mostly slow-grown oak and long lived, suggesting its origin as high forest rather than coppice with standards.

#### *Type of timber used*

Given the frequency of high quality, slow-grown timber in the charcoal finds it is surprising that there was only one post-ghost that was either triangular or rectangular in section (representing either cleft planks, or cleft and dressed planks), compared with five that were round in cross-section. This is at odds with the evidence from a

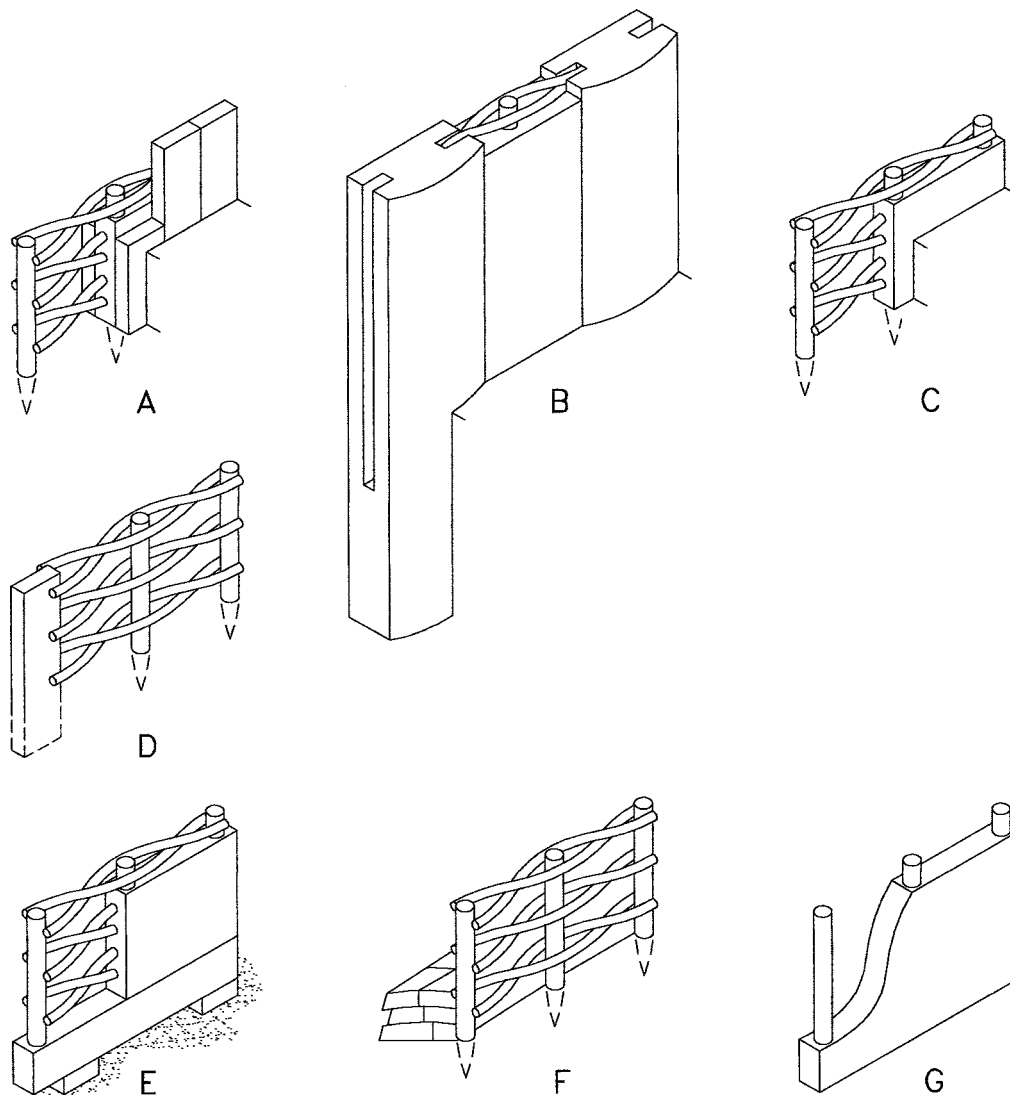


FIG. 3.22. Combinations of wattle and daub, and timber or round-wood wall types, used in Mid and Late Saxon England; A, B and C, after Millett et al. 1983 and Goodburn 1994, Fig. 5; G after Carr 1982, and R. Darrah (M. Frankland).

number of high-status sites (for example Yeavering, Cowdery's Down and Whithorn) where the majority of the cross-sections of the staves was rectangular. However, it should be noted that there were several post-ghosts for which a cross-section was not recorded.

It is possible that the process of decay enabled ghosts to form from timbers in-the-round (which will incorporate bark), but not squared timbers. It is also possible that shaped timbers were extracted (possibly for re-use, although there is no evidence for this), but in this case you would still expect to see a clear cross-section of the extracted timber, filled with distinctive soil.

Stone packing can also indicate timber cross-sections, for example packing in post-hole 10181 (in building 15)

suggests that that timber was round. The narrow base of post-hole 10145 (also building 15) also suggests the shape of the post within, in this case one with a rectangular cross-section, which may represent use of a stave. It is worth noting that only the base of the post-hole can indicate the original shape – the post-hole at ground level will bear no relation to the post's shape or dimensions.

#### *Size of timber used*

Stones were rarely used for packing around posts, but flat stones occur in the trench fills, almost always in a horizontal position – suggesting their use as post pads (stones under the ends of timbers, which might allow

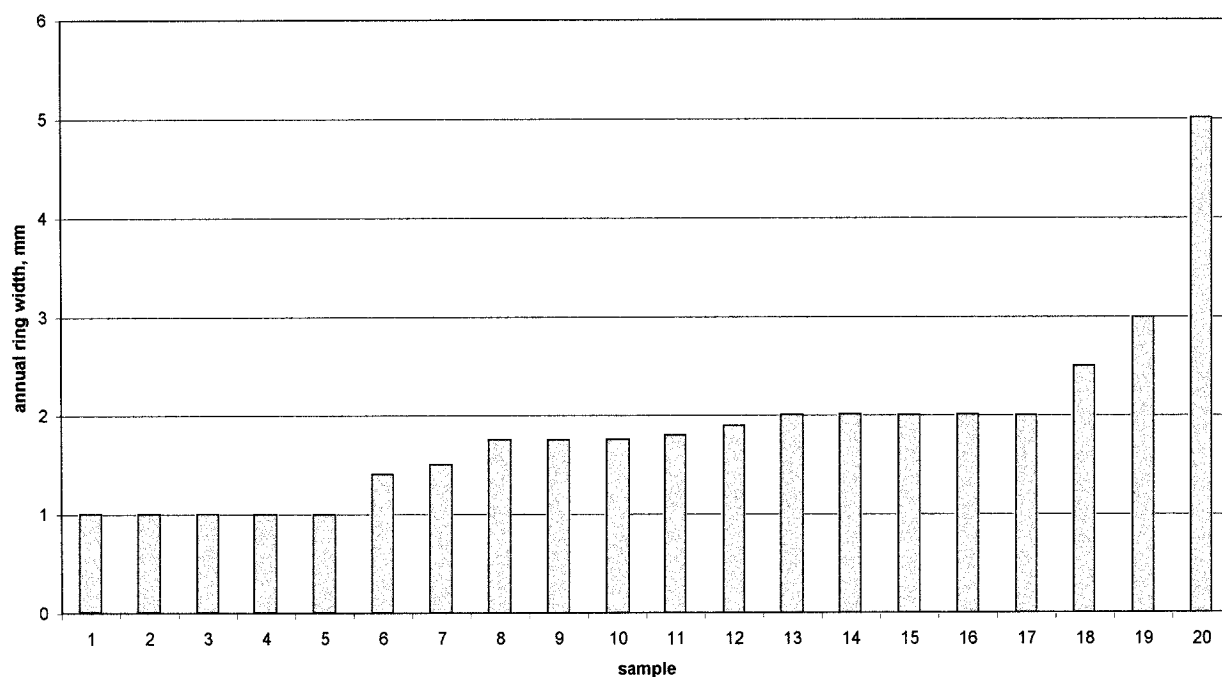


FIG. 3.23. Graph showing tree growth rates from wood used at Flixborough, based on charcoal evidence (R. Darrah).

timbers to be placed at a certain height in the trench, or to stop timbers sinking deeper into the trench). If we assume that the pads are larger than the cross-sectional area of the supported timbers (because if they were smaller they would tend to be forced into the ground and would be found below the base of the trench), then the timbers were small, less than 0.25m in diameter. Where padstones are used to level a horizontal timber, then the size of the pad bears no necessary relation to the size of the timber it supports. It is wrong to assume that timbers would be cut to a point if axe-cut; it is quick and easy to cross-cut timbers so that they have flat ends. There is no evidence that timbers were cut to points, except where a number of stakes occurred on the ground plan of Building 12. The other evidence for the size and shape of posts used is the deepening of post-holes or trenches at the point where the post will sit (FIG. 3.17 E). There is evidence for a post-ghost completely filling this lower hole, as in building 20 (FIG. 3.17 F).

#### Tools

A set of probably Late Anglo-Saxon tools was found at Flixborough-North Conesby, having been placed in two lead tanks or tubs. They included:

- Several large augers
  - Also, a bell, a hoe blade and a bill hook (which will not be discussed here: see Ottaway, Volume 2, Chapter 7).
- The function of the woodworking tools is interesting in relation to the buildings. The axes, adzes and drawknives would have been used for cutting the surfaces of timber, or cutting across it. The augers would have been used for drilling holes in timber. Of the nine cutting tools seven (two of the broad axes, the adzes and the drawknives) were specifically designed for putting a smooth, flat finish on timber. The narrow axe was a felling axe, used for cutting down trees, cutting timber to length and cutting joints in timber, across the grain. Despite the 60mm blade-width, it would have been used for felling trees of over 0.5m in diameter. One of the broad T-shaped axes is heavier, and weighted differently (with a counterbalance, or poll, on the back of the head) suggesting it was intended as a rough hewing axe, for flattening the surfaces of planks or baulks before final dressing with the other tools. The three broad axes were designed for dressing the faces of wide timber, as the hole that the handle is fitted into is angled (offset) so that a right-handed user would not have caught his knuckles on the face he was hewing. Copies of the axes have been used to dress timbers over 0.35m wide; they are excellent tools.
- The majority of work, in a job such as house building,
- A narrow bladed (felling) axe
  - Three broad axes
  - Two adzes
  - Three drawknives

is the felling and rough dressing of timber, so it would be surprising to find a set of house-builder's tools with so many finishing tools. However, a shipwright has to shape planks, to put a chamfer on the faces so that the timbers could be joined together in the correct shape of the boat, and to shape spars and oars. This set of tools would be more appropriate for a shipwright; all that are absent from this set are fine awls for pre-drilling boat-nail holes, and a hammer for clenching nails over the roves, plus some wooden wedges, and clamps. This is probably the toolset belonging to a shipwright, and would contain sufficient tools for a shipwright and five assistants to work full-time making boats similar to the tenth-century Graveney Boat (Fenwick 1978).

#### *Prefabrication*

There are several features of Anglo-Saxon buildings that indicate that prefabrication did not take place, the most important of these is the absence of the mortise and tenon joint, as a tensioning joint. Without this joint, which can be draw-pegged, and its associated squared shoulders, it is not possible to create a rigid structure that can be raised. It is sensible to assume that buildings were built piece by piece, and that the earth-fast posts were structurally necessary, both in the process of assembly and in maintaining the stability of the building during

assembly. Even wattle is much stronger if woven as continual panels rather than assembled wattle hurdles.

It is clear from post-ghosts found at Yeavinger and Cowdery's Down that wall staves were all very similar in (rectangular) section. This does not mean that the buildings were prefabricated, but that elements of the structure were cut to size and brought to the site. This is true of most building technologies where timber is felled for specific projects; it is cut to size where it is felled for ease of transport. If a timber is dressed before being carried out of the wood, it may weigh only two-thirds of its unshaped weight.

#### *Daub*

Only three large structural pieces of daub were found on the site. One was a pole, 85mm in diameter, with daub attached to wattle-work behind the pole (FIG. 3.24). Another piece (300mm long) was found in a post-hole of building 1a. Finding such pieces of daub suggests that this was the wall cladding used in at least some of the buildings. The limited findings (mostly fired daub from ovens) do not preclude its use on the walls of all the buildings on the site. In an experiment by Peter Reynolds only one piece of daub was recovered after the burning down of a daubed round house (Reynolds 2000, 97).

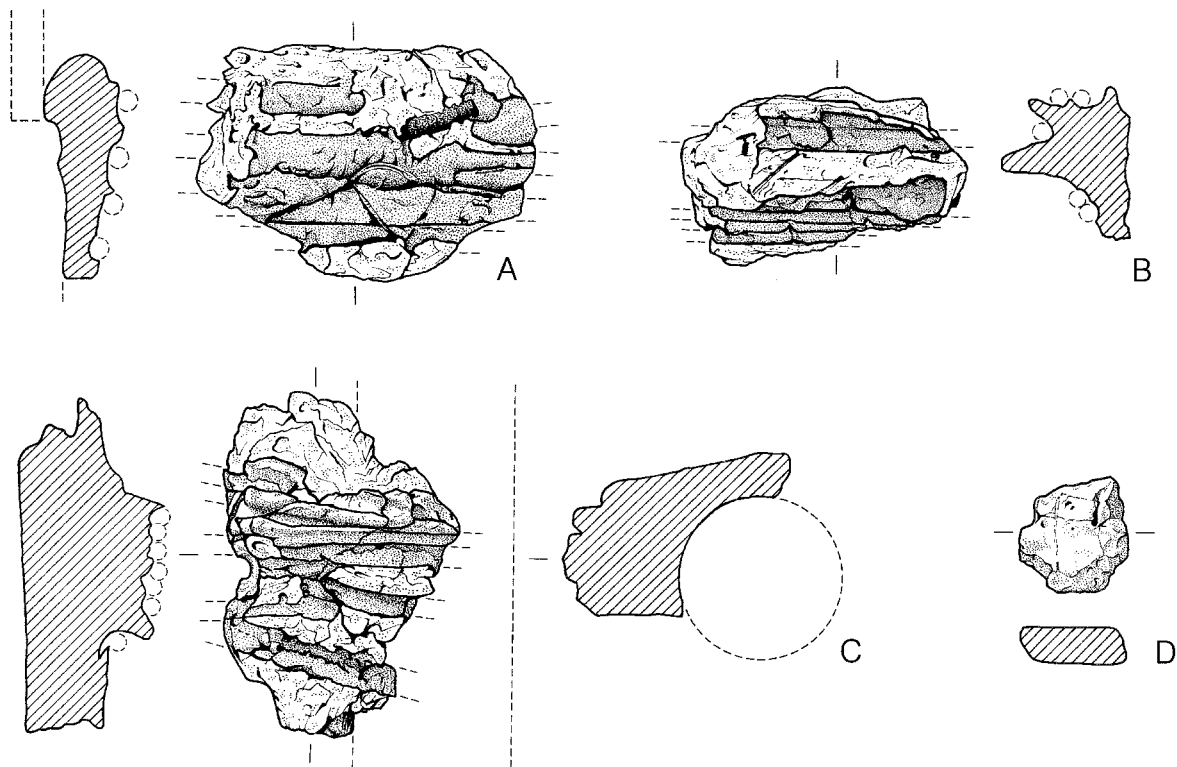


FIG. 3.24. Wattle and roundwood impressions on daub from Flixborough. Scale 1:4. (M. Frankland).

### Wall structure

It is not clear whether the base-plates found on the site held stave or wattle walls, or a combination of both. There is no evidence for earth-fast staves, but they may have been used in a base-plate. The only evidence for wattle is that associated with the daub above (except for wattle-and-daub ovens), and daub could have been used with either wattle or stave walls. Use of stave walls is material- and labour-intensive, and so may have been used in any 'high-status' buildings, for example a church. However, with evidence for such small structural timbers on this site, extensive use of staves in walls would be surprising. The lightness of the timbers used in constructions suggests that many of these buildings were wattle and daub. But no stake-holes for the daub uprights were found.

Goodburn (Goodburn 1994, fig. 5) illustrates Anglo-Saxon, Anglo-Scandinavian, and Norman wall types that have been found in London since 1988. The importance of this illustration is that these are actual examples surviving as wood and timber on wet sites. It shows the variety of solutions used to build walls of buildings. To summarise current information on Anglo-Saxon wall building – based on the evidence from Goodburn's illustration of wall types from London, dated after AD 880, with additions from Cowdery's Down, Yeavinger, Hemington (Cooper and Ripper, forthcoming), and Wallingford (Carr pers. comm.) – see Figs 3.21 and 3.22:

- Both earth-fast posts and base-plates are used
- Many buildings use large quantities of heavy timber
- Wattle and daub is used both in earth-fast constructions and base-plate constructions, and with or without staves
- Stave walls (that appear otherwise very similar) may be load-bearing or have associated internal posts
- Both vertical and horizontal planking are used
- There are no mortise and tenon joints
- Structural and cladding timbers are joined by being slotted into grooves, or face-pegged to each other
- No timber framing is evident
- No wall construction has features that would enable it to be prefabricated and raised as a unit.

Many of the Flixborough buildings could accommodate several of the above wall types, and the evidence is insufficient to choose between them. The best evidence that does exist, from the post-hole excavations, is the lack of suggestion of earth-fast staves. Yet, the evidence is slim enough that even these could be accommodated. The charcoal and carbonised wood finds both suggest that timbers from large oak trees were used, but probably not as upright posts. Evidence from the bottom of post-holes and trenches does not suggest the use of staves, but rather of roundwood posts.

Otherwise, there is some suggestion of wattle use, of daub use and of base-plate use (either above or below

ground). The lack of strong corners only eliminates continuous stave walls from the possible options, but does suggest the presence of wall-plates that run to the corners of the buildings, supporting the roofs. One or more types of wall construction may have been used over time and in different buildings (Figs 3.21 and 3.22).

### Buttressing

The only example of buttressing is seen in building 25 (Period 4). The evidence comes from post pads, where they are always horizontal in other buildings; here we see padstones at an angle. A contemporary or near-contemporary pit had been dug outside the south-east (weak) corner of building 25, and the pit was re-dug more shallowly slightly later. Both pits have padstones on their outer faces in exactly the position that a buttress would need a base. However, we lack evidence of the angled post-ghosts that would be needed to confirm a buttress.

### Roof structure

We have no evidence for Anglo-Saxon roof structures, except that early sunken featured buildings (not seen on this site) have central posts at each end, suggesting a ridge beam, and larger structures (such as Yeavinger A4) had internal aisle posts, suggesting a complex roof structure with external buttressing and 2m-deep foundation posts. It is plausible to construct complex roofs using the medieval set of carpentry joints, but much more difficult with the Anglo-Saxon tree-wrights' joint system. The scientific method suggests postulating the simplest possible solution to a problem, until there is a reason to believe that the solution is more complex in some specific way. The simplest Anglo-Saxon roof is one with rafter pairs, but hip roofs are also a possibility as they use less thatch and have increased wind bracing (Fig. 3.25). Rafter pairs can be built from coppice poles with unsupported lengths of 5.5m, large enough to roof the largest span of 7.8m on site. Larger spans (not found on this site) could be constructed as A-frames, with poles pegged across to prevent the rafters bending.

Many of these buildings have no evidence of internal post-holes, suggesting free spanning of the internal space, or posts on base-plate or padstones. As stone post pads are preserved both at ground level and in trenches, it would be odd if the internal ones had all been reused. Lack of buttressing of the long-walls suggests that the outwards thrust of the roof has been resisted, either by deep trenches (at least 1m deep) or by tie-beams spanning the building. As most of the foundation trenches are shallower than 1m, the buildings must have been spanned by tie-beams. Tie-beams need not be heavy timbers; an ash pole of at least 0.1m in diameter by 7.5m would suffice if fixed to the wall top at each side.

### Joints

There are several distinct Anglo-Saxon technologies that use timber:

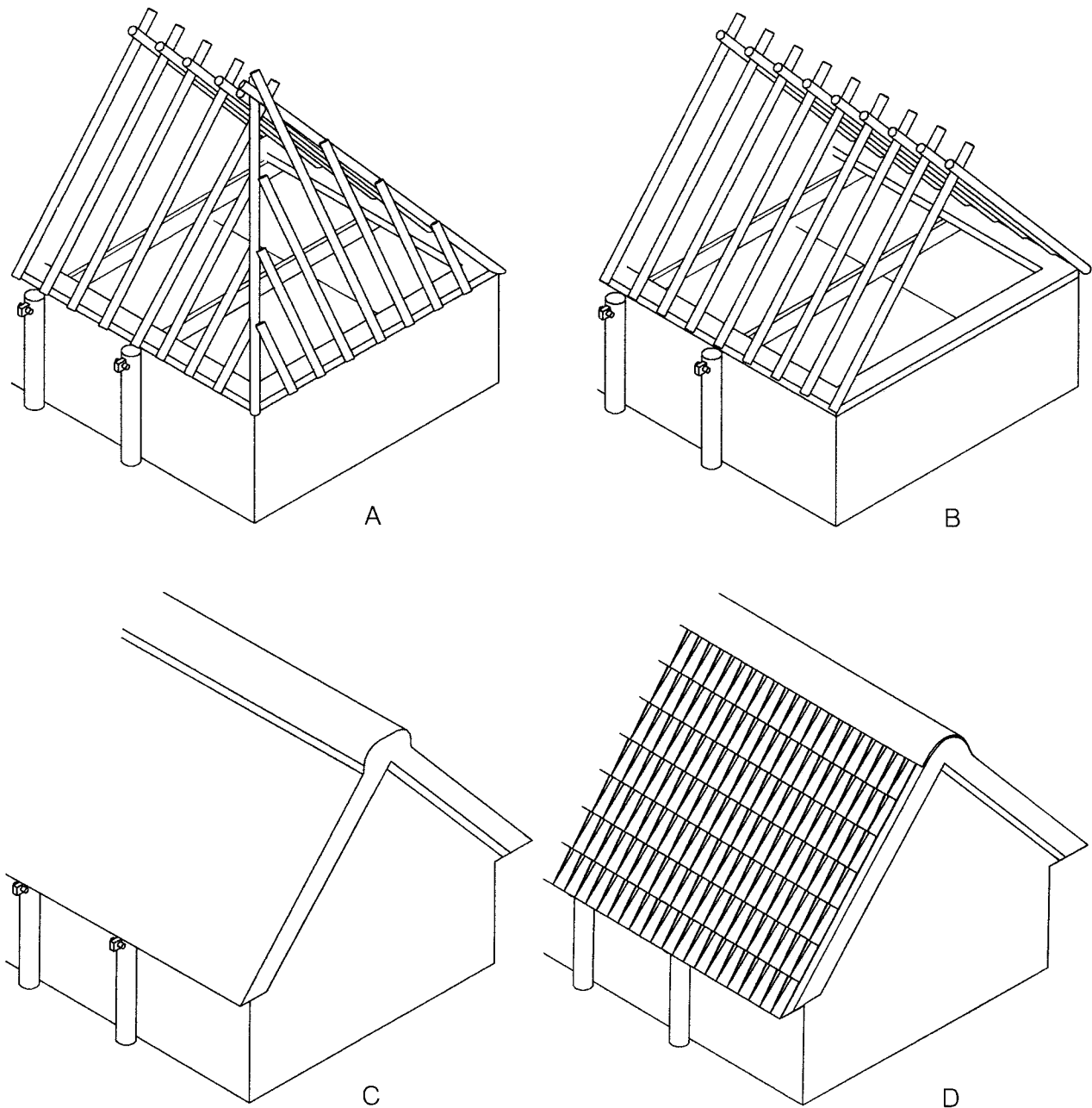


FIG. 3.25. The simplest roof forms, after R. Darrah (M. Frankland).

- boat building
- cooperage
- shield making
- casket making
- house building.

Although they all use wood, they all have to overcome different technical problems, so they will not necessarily use the same type of timber, joints or tool kit. This means that even if one technology uses a specific joint, it may not be seen in other technologies during the same time

period. Many Romano-British joints were not used by the Anglo-Saxons. FIG. 3.20 illustrates the set of Anglo-Saxon joints, although the only one discussed here is the tusked tenon. These joints are used within the interpretations presented.

#### *The tusked tenon*

The tusked tenon was used by the Anglo-Saxons, and looks similar to the mortise and tenon, but differs in function. The tusked tenon used by the Anglo-Saxons is not a true mortise and tenon joint, as the pieces are not

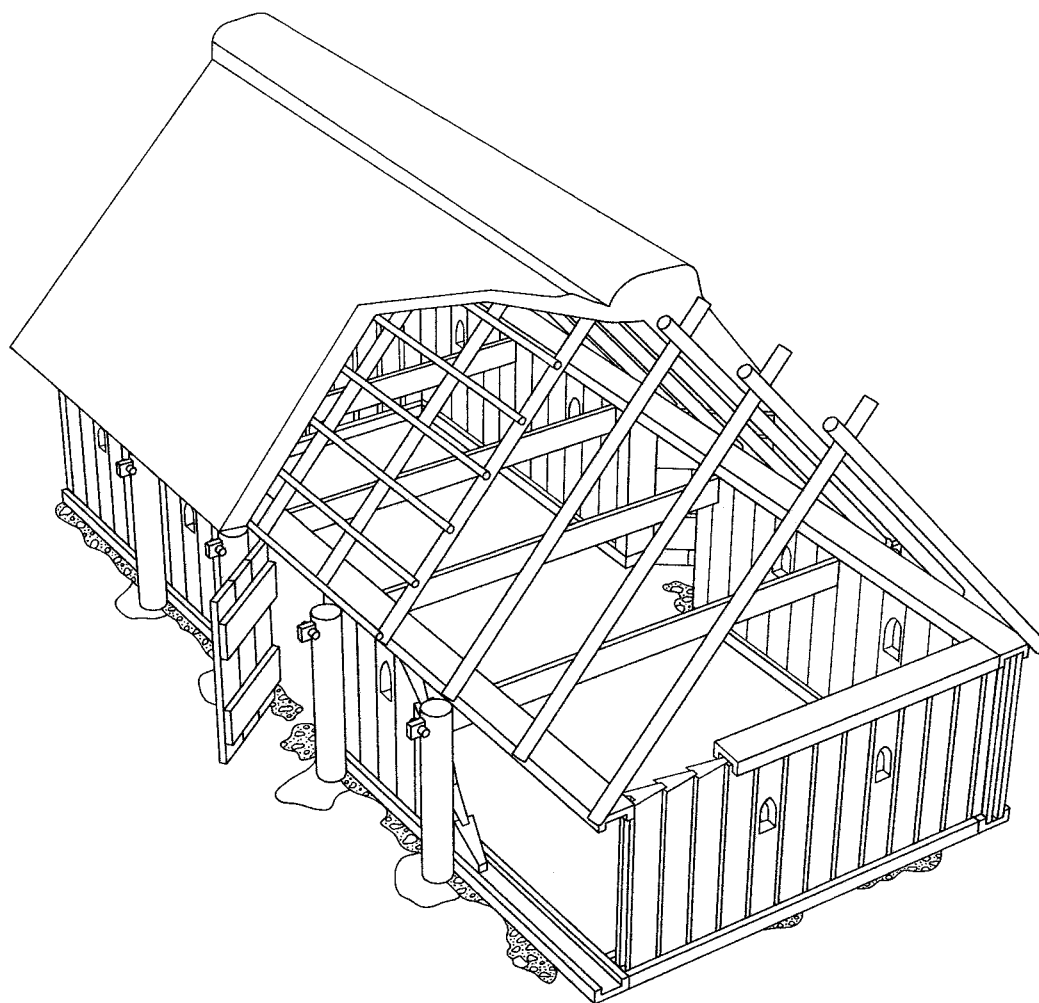


FIG. 3.26. Possible reconstruction of Building 1b (eighth century), based on R. Darrah (M. Frankland).

cut and fitted accurately enough for it to form a rigid joint. It can be used to tension a structure, as the tongue has a hole cut through it in which a wedge can be fitted to tighten the joint (FIG. 3.20 G). As none of the faces is cut accurately, this does not create a rigid joint. The London arcade posts were tied back to the wall with tusked tenon joints (Goodburn 1993 78–92). The true mortise and tenon joint that may be used to frame prefabricated structures does not appear in England before AD 1200. The real mortise and tenon consists of a pre-drilled mortise hole that is accurately cut out to the correct depth with a chisel or similar tool. This hole is set in the flat face of a timber. The tenon usually has flat shoulders on one or more sides; these shoulders bear on the flat face of the timber with the mortise hole, and the tenon acts as a locating tongue (it is not load-bearing, as the end of the tenon does not bear on the bottom of the mortise hole). This joint can be used to join timbers into rigid frames, but was not available to the Anglo-Saxons.

#### Nails

None of the buildings had nails associated with them. As high-status buildings on other sites (like Yeavinger A4 and Cowdery's Down C12, which had both burnt down) did not have large groups of nails associated with them, it is unlikely that nails were used in construction of the buildings at Flixborough. Where waterlogged structural timbers survive on other sites they are pegged together, or have peg-holes present; while earlier, Roman waterlogged timbers are frequently nailed or have nail holes. Thus, the absence of nails in Anglo-Saxon structural timbers suggests that nails were never present, and not that they have decayed away.

Some clenched nails and roves were found on the site. We know from surviving doors from other sites (Hewett 1982, 78) that clenched nails and roves were used together in the construction of doors, to hold the planks to the ledges across the doors. In these doors, the roves are found at right angles to the shaft of the nail. The nails with roves from Flixborough were of two lengths: 25 to

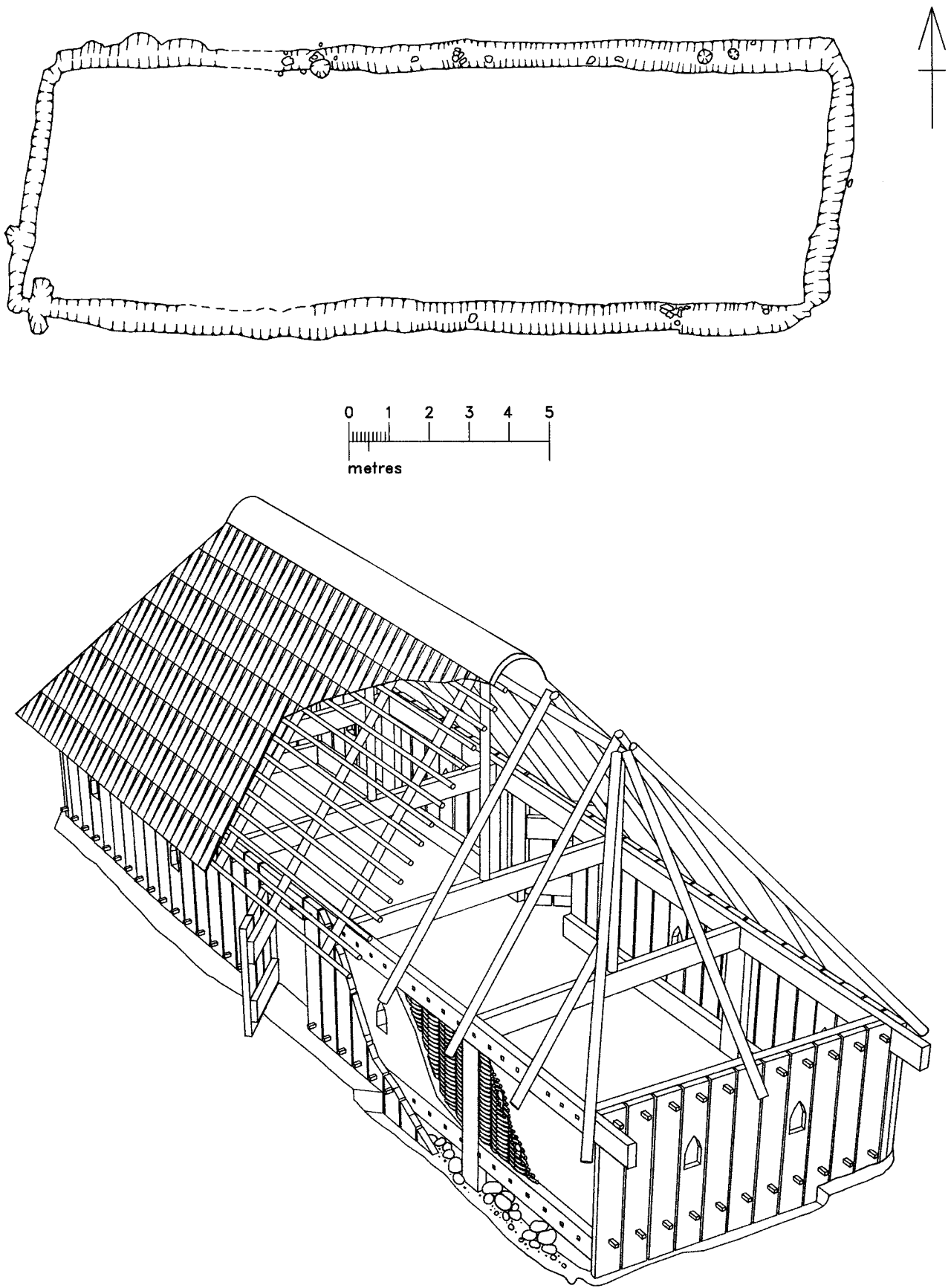


FIG. 3.27. Possible reconstruction of Building 7 (tenth century), based on R. Darrah (M. Frankland).



30mm between the inner face of the nail head and the inner face of the rove; and 55 to 60mm between those points. Most of the roves and/or heads were at an angle to the shaft of the nail. This suggests use not in a flat door structure, but in boat building, or the re-use of boats on this site. The shorter lengths are consistent with use of nails and roves for joining scarfs in boat-planks, and joining boat-planks together along their lands, in small clinker-built boats. The longer lengths may represent either larger boats, or the joining of the shear strake to the frame in a smaller boat.

Reused sections of clinker-built boat-plank are found in revetments at London, Norwich, and Yarmouth, so there is no reason why a flat section of boat-plank should not have been reused to build or repair a house or other building. However, no nails or roves were found clearly associated with the buildings. This suggests that the general scatter of nail and rove evidence is more likely to be associated with boat (or ship) building and repair, rather than house construction. A single large spike was found on the site (150mm long); these are also used in boat building, to attach the tholes to the shear strake.

All the other Anglo-Saxon nails found on the site were either decorative nails, or hob-nails. Neither of these would have been used in building construction. Other metalwork from the site (for example the hinges and clasps) is all very light, and is more likely to be associated with chests, rather than doors or windows.

In summary, although Goodburn demonstrates that there is a similarity between boat building and house building in tenth-century London (Goodburn 1993, 81), the scatter of nails at Flixborough is not related to any of the building structures. It is possible that some may have been used in doors on the site, but the angles of the roves to the nail shanks suggest they came from boats. Their presence on the site indicates that boats were either being dismantled, or parts were reused; or that boats or ships were being built here. This is to be expected in a location so close to the navigable Trent and Humber, although the boat building would have probably taken place closer to the river.

#### *Doors*

When a gravel spread is worn away, there may be an indication of a path to a doorway. For example, in buildings 1a and/or 1b, and building 10a, where the doorways appear to be in the centres of the long sides of the buildings. This position is where doors would be expected from previous archaeological evidence. There is no evidence in any of the buildings on the site for more substantial post-holes representing doorways in these positions. Building 1a has a post-hole (5037) adjacent to the proposed doorway position, which has the same depth and surface dimensions as the other post-holes from that building. Building 1b has no post-holes, but post pads on the surface near the proposed central doorway position. Building 10a is a base plate-in-trench built structure, with no deeper post-holes

apparent, even near to the proposed doorway. The positions of the doorways were indicated by gravel paths leading to the middle of the long-walls, on both sides of the building, so the doorposts may have rested on the base-plate. We have no evidence for the position of doorways in any of the other buildings at Flixborough.

#### *Windows*

Windows, being holes in the wall above ground level, can only be located through association with existing wood remains, associated glass or lead cames, or surviving metal shutter hinges. On this site, both coloured glass and lead cames were found, scattered in refuse/demolition dumps, but no surviving pieces indicate window shape or the building(s) of origin.

### ***3.4 Aspects of settlement morphology and the use of space***

#### ***by Christopher Loveluck***

The relatively small surface area of the excavations at Flixborough (75m by 55m) limits the extent to which conclusions can be drawn on the overall layout of the settlement, between the seventh and tenth centuries. Nevertheless, the exceptional vertical stratigraphic sequence in the excavated area does allow the observation of changing trends in the use of space between the Mid and Late Saxon periods, which have wider importance in relation to other contemporary settlements. The analysis of individual features and plots within the excavated area was summarised in detail in Chapter 2 (and see Loveluck and Atkinson, Volume 1, Chapters 3 to 7, for more detailed examination); and more general trends in settlement organisation and comparisons are discussed below. The wider significance of continuity and change in the organisation of space through time is then discussed in conjunction with interpretation of lifestyles and settlement character in Chapter 9 of this volume.

The themes considered here stem predominantly from the evidence for increasingly planned and stable layouts of settlements, dating from the seventh to eleventh centuries AD (Hamerow 1995, 16; Loveluck 1998, 159; Loveluck 2001, 108). These comprise the use of boundaries to define space; superimposition of buildings on long-lived plots; greater organisation of refuse and other working areas; and burial zones, chapels and churches within settlements.

#### *Boundary features and enclosed space*

Between the seventh and tenth centuries, more frequent use was made of major ditches and palisades to define space within Anglo-Saxon settlements in England and southern Scotland, in comparison with sites from the fifth and sixth centuries. The key features that can be observed in the use of such boundaries are complexity and diversity. At Flixborough, the large east to west-

aligned ditch was linear, and had been filled-in by the middle decades of the ninth century. It appears to have headed from the mouth of the shallow valley, in the centre of the excavated site, down towards the wetland margins of the River Trent. Similar use of linear ditches, and also trackways, to organise access to different settlement zones can also be seen at other Mid Saxon settlements: at Goltho, Lincolnshire, in its pre-tenth century phase (Beresford 1987, 23); and in seventh- to ninth-century phases at Wharram Percy, North Yorkshire (Stamper *et al.* 2000, 28–29); North Elmham, Norfolk (Wade Martins 1980, 54–55); and Wicken Bonhunt, Essex (Wade 1980, 96–97, FIG. 3.28).

Enclosure ditches and palisades also defined storage or processing areas at West Heslerton, North Yorkshire (Powlesland 2000, 25), and defended enclaves for protecting livestock or people at Sprouston, Borders (Smith 1984, 187); and Yeavering and Milfield, Northumberland (Hope-Taylor 1977, 78–88; Gates and O'Brien 1988, 3). In other cases enclosures surrounded certain residential foci, usually interpreted as living areas for leading inhabitants of settlements; as at Bramford, Suffolk (Reynolds 1999, 144); and tenth- to eleventh-century phases at Cheddar, Somerset; Goltho, Lincolnshire; and Trowbridge, Wiltshire, among other sites (Rahtz 1979, 46–61; Beresford 1987, 9; Graham and Davies 1993, 34–35). Single enclosures, or a series of linked enclosures with routeways, also surrounded settlements as a whole. These can be seen at the defended, Northumbrian royal centre at Dunbar (Perry 2000, 50 and 62); Cowage Farm, near Malmesbury, Wiltshire (Hinchliffe 1986, 240); Thwing, East Yorkshire (Manby forthcoming, FIG. 3.29); Cottam, East Yorkshire (Richards 2000a, 32–33); Riby Cross Roads, Lincolnshire (Steedman 1994, 221; FIG. 3.30) and the tenth- to eleventh-century 'manorial' sites at Raunds, Northamptonshire (Cadman and Foard 1984, 82–84; Windell *et al.* 1990, 17).

Clear chronological trends in the use of ditches and enclosures to organise space and defend settlements, or parts of them, do not seem to have existed between the seventh and eleventh centuries in Anglo-Saxon England and southern Scotland. Although, at present, settlement layout structured by linear boundaries appears to be more of a seventh- to ninth-century phenomenon, than a trait of the tenth and eleventh centuries. Enclosures were common elements on different settlement types, at various levels of an increasingly differentiated settlement hierarchy, from the seventh century onwards, whether they served functions of defence, or status- and symbolic display.

Use of major linear boundaries and enclosures, however, did not always remain a feature of settlement layout throughout occupation sequences. Within the excavated area at Flixborough and at North Elmham, the later (the tenth- and eleventh-century) phases of these settlements were either not enclosed or greater use was

made of more ephemeral boundaries – fences and hedges (Wade Martins 1980, 136, 140 and 152). The same was true for the latest phase of the settlement at Catholme, Staffordshire (Losco-Bradley and Wheeler 1984, 111; Losco-Bradley and Kinsley 2002). Nevertheless, the majority of excavated sites identified with estate or 'manorial' centres, whether secular or ecclesiastical, do seem to have possessed an enclosed or defended element by the tenth or eleventh century, if not earlier. Thereby, their existence was enshrined as an idealised Late Saxon 'thegnal' qualification (Williams 2003, 26–29). The apparent absence at the excavated site of Flixborough can be accounted for by limited excavation area. Both Flixborough and North Conesby were estate centres in 1066, as recorded in the Domesday survey (see Roffe, this volume, Chapter 8), and the place-name 'Flixborough' records the existence of an enclosed or fortified site, probably constructed sometime between the later ninth and eleventh century (see Chapter 4).

The widespread use of ditches, enclosures and other boundary markers on seventh- to eleventh-century Anglo-Saxon settlements enables enclosure features associated with monastic precincts to be viewed in their wider contemporary context. The settlement archaeology of the seventh to tenth centuries in England has largely developed from pioneering excavations on sites identified with contemporary, textual descriptions. Hence many of the first sites and, indeed current excavations, are focussed towards settlements associated with the label of 'monastery'. A ditch or boundary enclosing such settlements, or zones within them, was often identified with a documented monastic *vallum* to separate the sacred religious space of these settlements from any associated lay agglomeration. Such boundaries certainly existed on monastic sites, throughout the British Isles from the seventh century (and from the sixth century in western Britain, Ireland and western Scotland). However, bearing in mind the widespread occurrence of boundary features from the seventh century onwards, extreme caution must be exercised before a ditch, palisade, or bank is identified with a monastic *vallum*.

In the past, the occurrence of a major boundary feature on a Mid Saxon settlement, together with artefacts also found on monastic sites, and a building identified as a church, have been enough for researchers to suggest a monastic character for such a settlement, as has been the case with provisional interpretations of the Flixborough evidence (Whitwell 1991, 247; Stocker 1993, 101–114; Blair 1996a, 98–104). Yet, partial excavation and the possibility of transformation of settlement character during the occupation of a single site make such identifications very difficult (see chapter 9). It is the association of boundary features or enclosures with textually attested monasteries, and their proximity to churches, that have created the equation of 'ditch equals vallum' in the past. It is usually not possible to distinguish monastic boundary ditches from their contemporary

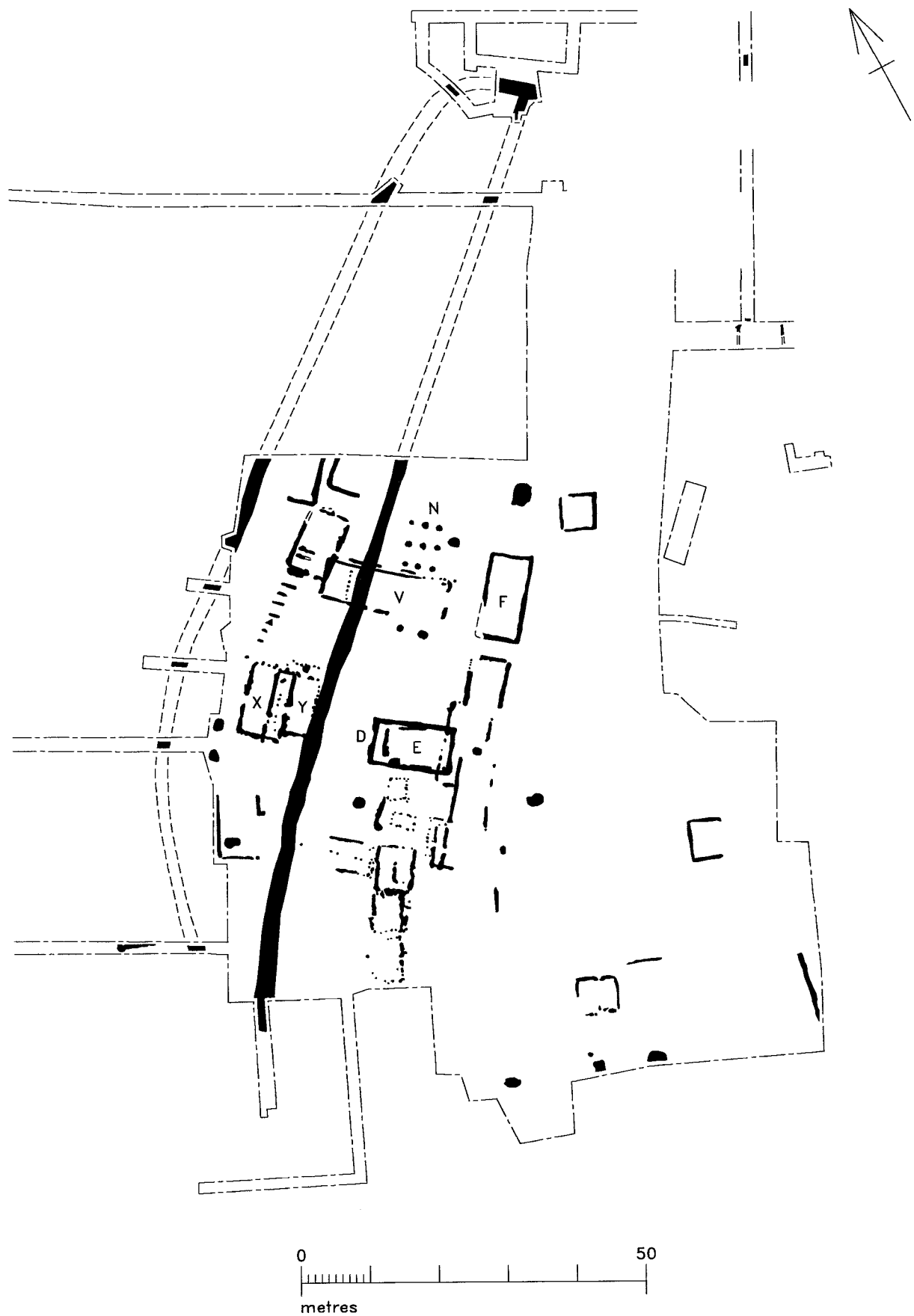


FIG. 3.28. Plan of the seventh- to tenth-century settlement at Wicken Bonhunt, Essex, after Wade 1980 (P. Copeland).

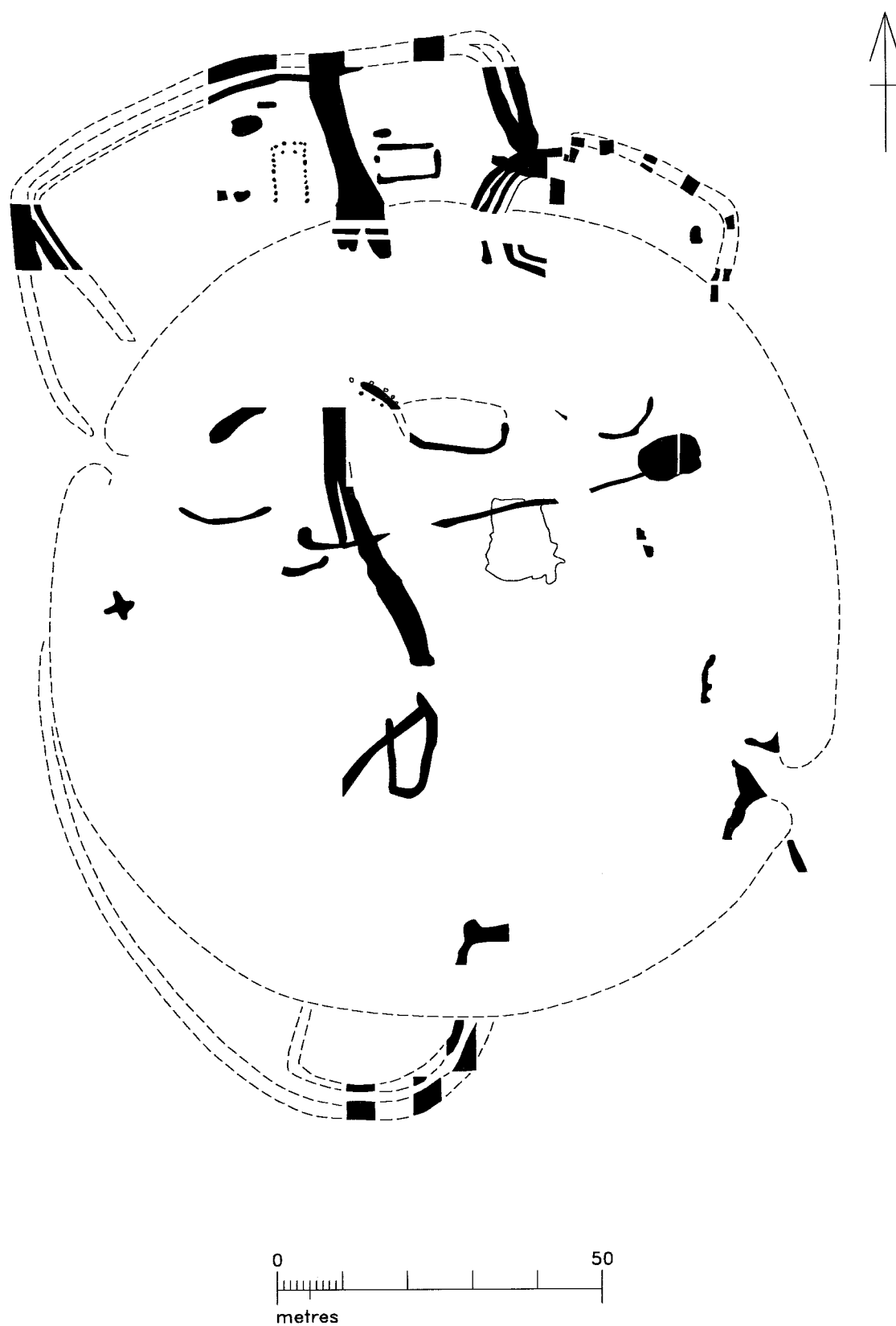


FIG. 3.29. Plan of the seventh- to eleventh-century settlement at Thwing, East Yorkshire, after Manby forthcoming (P. Copeland).

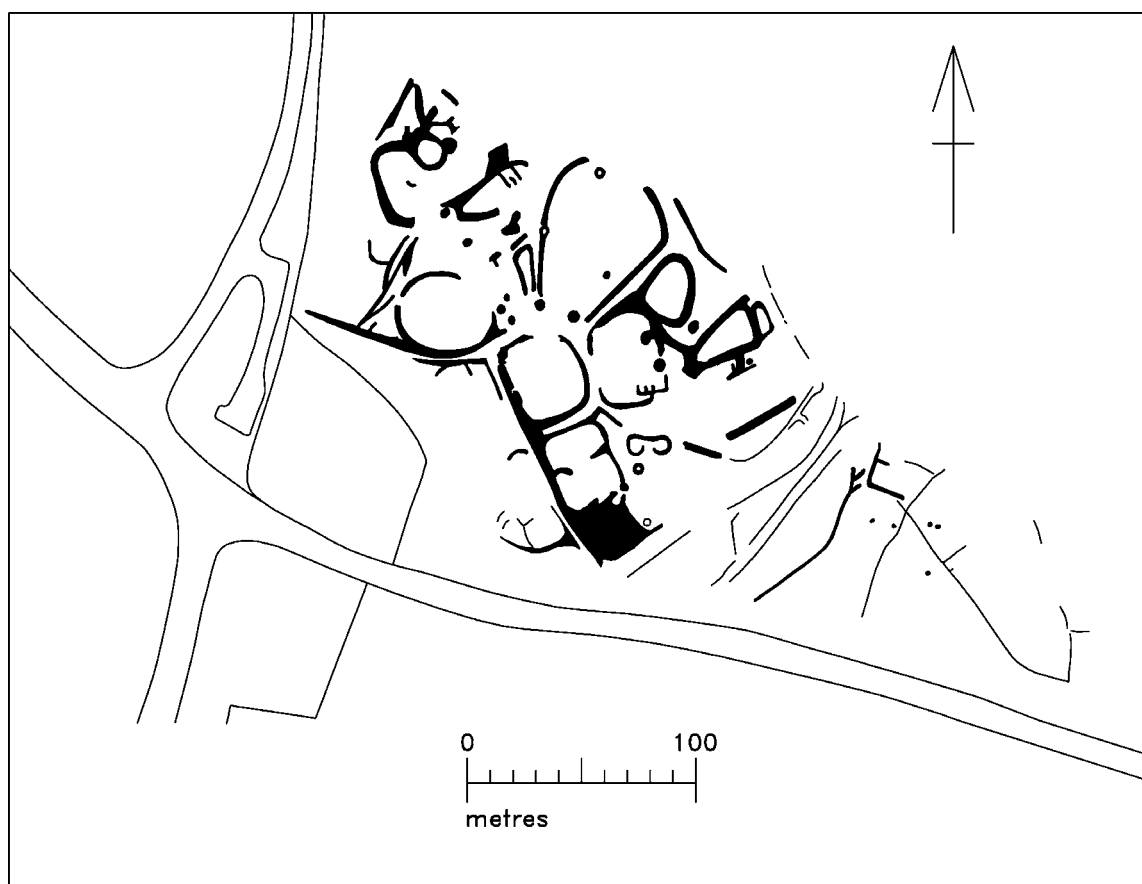


FIG. 3.30. Plan of the seventh- to tenth-century settlement at Riby Crossroads, Lincolnshire, after Steedman 1994 (P. Copeland).

counterparts on other types of settlement. For example, the identification of boundary ditches and fences found at Church Close, Hartlepool, County Durham (Daniels 1988, 161), and Lurk Lane, Beverley, East Yorkshire (Armstrong *et al.* 1991, 8–11) could not be entertained without documentary references placing Anglo-Saxon monasteries in these locations.

#### *Superimposition of buildings and organised settlement zones*

A corollary of the more intensive use of defined and enclosed space from the seventh to eleventh centuries was greater attention to settlement planning, in relation to building plots, refuse zones and specific work areas. This can be seen particularly on rural settlements with high-status elements (see Chapter 9), and in towns. More intensive use of space, some of which was enclosed or bounded, also had an impact on settlement mobility. The locations of many settlements, or elements within them, became highly stable between the seventh/eighth-century and the tenth/eleventh century, as at Flixborough

(Loveluck 2001, 108–109). Such stable settlement location followed on from either a period of more shifting settlement, between the fifth and seventh centuries, as proposed by Helena Hamerow; or an era of stable but more extensive use of space for settlement activity, as proposed by Dominic Powlesland and Jess Tipper (Hamerow 2002, 121–124; Powlesland 2000, 22–26; Tipper 2004). The former argument is based on the importation of shifting settlement theories from the North Sea coastal regions of the Netherlands, north-west Germany and Denmark; whilst the latter argument is based on detailed site formation and taphonomic analysis of fifth- to eighth-century settlement deposits in England.

Continuous rebuilding and superimposition of buildings on long-lived plots became an increasingly common trend in the seventh and eighth centuries. On settlements with zones planned on a linear or axial basis (Blair 1992), whether defined by building orientation or ditch systems, buildings were often constructed on the same plots as their predecessors, although not always on the same building ‘footprints’. Flixborough is one of these

settlements. Others include Yeavinger (Hope-Taylor 1977, 46–66), Wicken Bonhunt (Wade 1980, 97–98), North Elmham (Wade-Martins 1980, 54–55) and Whithorn (Hill 1997, 139–156). Superimposed buildings were also a feature of planned, rural settlements organised around central foci, whether churches or large secular buildings: for example, Hartlepool (Daniels 1988, 205); Dunbar (Perry 2000, 109); Cowage Farm, Malmesbury (Hinchliffe 1986, 245–247); St. Peter's, Northampton (Williams *et al.* 1985, 38–39) and Cheddar (Rahtz 1979, 49–61). And superimposed buildings on fixed plots are especially common in the urban built environment, for example at Hamwic-Southampton (Andrews 1997, 54–55). All the above seventh to eleventh-century settlements are either documented or interpreted as secular aristocratic or ecclesiastical centres; or in the case of Hamwic, a settlement with significant West Saxon royal interest invested in it.

This stable use of space, whether by superimposition of successive buildings or long-term maintenance of single buildings, is also seen on contemporary rural settlements, in northern France, Belgium, parts of the Netherlands, and areas of Germany under direct Carolingian control (Loveluck 2005). This is particularly true of secular aristocratic or monastic settlement nuclei, within larger agglomerations, and is not limited to royal centres or major monasteries. For example, the aristocratic residential zone and burial chapel focus at Serris, Seine-et-Marne, were occupied continually from the seventh to later ninth centuries AD (Foucray and Gentili 1998, 200; Fig. 9.3, this volume). The aristocratic hall and church complex at Petegem, in the Schelde valley, Flanders, was occupied continually from the eighth to twelfth centuries (Callebaut 1994, 94–97); and the aristocratic/monastic settlement focus at Hamage, Nord, from the seventh to tenth centuries (Louis 1997, 56–62).

A consequence of long-term use of the same building plots and enclosed space was a greater need to organise activities and refuse disposal within settlements. To date large midden zones, where refuse had been systematically dumped, have rarely been recovered from seventh- to eleventh-century settlement sequences in England. A number of reasons can explain this relative scarcity: subsequent ploughing, fragmentation and dispersal of refuse discarded on the surface; use of domestic refuse for manuring; or burial of refuse in pits. A further and potentially very important reason for their scarcity has been the targeting of excavation towards central, high-status or religious nuclei of settlements, which may often have been kept relatively clean. At Flixborough, both domestic and household craft-working refuse was tipped outside houses; and in the central, shallow valley. Yet, it is also clear from deposit analysis that craft-working and other domestic debris was brought into the excavated area and dumped in the centre of the site, in midden heaps by buildings, as subsequent levelling deposits, and as open communal middens, at different times in the

occupation sequence. This raises the question of the central or peripheral nature of the excavated area, in relation to the rest of the settlement.

There were two periods in the Flixborough occupation sequence when there were undoubtedly large open middens covering much of the excavated area: in Phase 5a and Period 6iii, from the mid to late ninth century and mid to late tenth century respectively. During Phase 5a, refuse was dumped either side of gravel paths in between a zone of residential buildings and a line of ovens. Paradoxically, at Flixborough, it was also from this period that the settlement was not influenced by boundary features in the excavated area. Nevertheless, the presence of an open communal midden and a zone of ovens and haylofts, overlying former building plots and the filled-in ditch, certainly suggest that the excavated site was on the margins of the settlement in the later ninth century. The accumulation of the 'dark soil' middens in Phase 6iii, after the slight shift of the settlement eastwards towards All Saints' church, also suggests that the zone had become marginal by the later tenth century. The material in these deposits was heavily fragmented, apart from the largest quantity and the largest individual fragments of iron-working debris from the settlement sequence (Loveluck, this volume, Chapter 6; Starley, Volume 2, Chapter 10). The area seems to have remained peripheral between the eleventh and fourteenth centuries, indicated by the presence of a large oven and pits. Indeed, the location of activities involving fire and high temperatures on settlement peripheries is a logical response to managing fire risk to housing areas of rural settlements (Loveluck 1994, 38; Hamerow 2002, 190).

Within the other periods in the settlement history at Flixborough, refuse was either dumped outside standing buildings or dumped as levelling following the demolition of buildings, within a housing zone. Any evidence of high-temperature craft-working debris was extremely fragmented when found in these deposits, and had been imported from another part of the settlement. Between the end of the seventh and mid ninth century, there is no evidence that the excavated area was on the periphery of the settlement at Flixborough. Indeed the buildings on the spurs overlooking the Trent floodplain could have been focal points in the settlement, certainly suggested by the building plot housing successively, buildings 2, 1a, 1b, 10 and 29. In further, recent evaluation to the east of All Saints' church, no remains from the seventh, eighth or ninth centuries have been identified at present, and no metal-detected finds have been reported. Furthermore, no architectural fragments indicative of an eighth- or ninth-century church have yet been recovered from the site of All Saints' church. It cannot be assumed, therefore, that the excavated area was a peripheral settlement zone in the Mid Saxon period. During the tenth century, however, there are undoubted signs that the housing area was moving slowly eastward, possibly to a thegnal focus of 'hall' and newly constructed stone church, on the

ironstone escarpment, rather than the windblown sand.

The importance of identification, targeting and detailed analysis of refuse zones and deposits cannot be overestimated, and assessments of the derivation and representativity of their components hold the key to interpretation of lifestyles, status, social identity and settlement character, integrated with the evidence from built structures and mortuary remains (see chapter 9, this volume). Surface refuse zones, 'dark soils' or 'dark loams' to compare with the Flixborough evidence come from Portchester Castle (Cunliffe 1976, 123); the South Manor area, at Wharram Percy (Stamper *et al.* 2000, 37); Sedgeford, Norfolk (Davies 2000, 6–7; Thirkettle 2000, 8); Staunth Meadow, Brandon (Carr *et al.* 1988, 372–374); and Whitby, where refuse deposits were dumped over the side of the promontory from the Anglo-Saxon monastery, to accumulate along what is now Church Street (White 1984, 35).

To a certain extent, an open midden refuse strategy at most of these sites was opportunistic, taking advantage of topographic circumstances. For example, at Flixborough, the shallow valley was exploited as a hollow space to fill; at Whitby, refuse was thrown over the cliff; at Portchester, rubbish was dumped against the wall of the Roman 'Saxon shore' fort; and at Sedgeford, it was tipped at the base of a hill, below the settlement. However, all waste disposal on the above sites was organised against a background of settlements with long-lived, topographically stable residential zones. Also, few of the above settlements possessed many, if any, sunken-featured buildings, which could be filled with refuse on demolition. Furthermore, the digging of refuse pits was rarely undertaken on these settlements. This contrasts with urban centres like Hamwic-Southampton (Andrews 1997, 174–187); Lincoln (Perring 1981, 8–18) or York (Kemp 1996; Dobney *et al.* 2000, 134–135); and rural sites like Dorney, Maidenhead, Berkshire; although the latter may have been seasonally occupied (Hiller *et al.* 2002, 60–64).

### *Burial zones, chapels and churches within settlements*

Perhaps one of the most contentious subjects relating to the interpretation of seventh- to tenth-century settlement remains from England and southern Scotland relates to the identification of churches within settlements, and interpretation of what this might represent. Helen Geake has given the burials from Flixborough detailed consideration in volume 1; so here it is necessary to set the subject of churches and burial zones within their wider settlement context.

Significant problems exist in deciding how to recognize timber churches, or timber churches built on stone footings, from archaeological remains. In nearly all cases, prior to the construction of mortared masonry churches, such buildings have always been identified in relation to burials. Yet, even if a building or buildings associated

with burials were all mortuary chapels or churches, which seems highly unlikely, it is extremely difficult to suggest the implications of the presence of a church or churches within a settlement, with regard to interpretation of settlement character (Morris 1989, 75). Within the context of the development of seventh- to ninth-century settlement studies in England and southern Scotland, buildings associated with burials have often been viewed in the light of the recorded use of monasteries or *minsters* as burial foci for wider regions, or particular social ranks within society, particularly kings (Blair 1994, 73). Yet, this reflects a bias in archaeological attention towards documented monastic sites in England, and excavation has now demonstrated that a range of burial locations was used within settlements, between the seventh and tenth centuries.

At Flixborough two grave groups were encountered, one in association with building 1a, and the other was excavated by Kevin Leahy to the south of the excavated buildings, and was defined by a boundary ditch on at least one side. It is possible that the location of the burials within or in association with building 1a marked a particular social identity for the individuals, perhaps membership of an elite household, interred within a family burial chapel (Morris 1989, 133). The grave group to the south could be viewed as part of a communal cemetery for the majority of the settlement's inhabitants. Furthermore, alongside these burial locations, an alternative could well have been burial at a monastery for particular members of family groups, and the absence of adult males associated with building 1a could reflect such a choice of burial location, open to members of the social elite. Yet another option was burial in small, possibly family groups, as at Bramford, Suffolk (Reynolds 1999, 144); or burial in larger extended family groups associated with a chapel or church, as is suggested at Thwing, East Yorkshire, between the mid seventh and mid ninth centuries (Manby forthcoming; FIG. 3.31). Added to these options, older linear cemeteries, probably located on territorial peripheries, were still in use in the Driffield and Garton-on-the-Wolds areas of East Yorkshire into the middle decades of the eighth century (Teasdale 1965, 355–359; Loveluck 1996, 44–45). The picture in the areas bordering the Humber estuary alone is very complex, and similar complexity is appearing throughout England.

This complex range of burial locations, within settlements and beyond them, is mirrored almost exactly in northern France, Belgium, the southern Netherlands and the Rhineland. In a review of burial locations and associated buildings, Elisabeth Zadora-Rio has observed that without detailed textual corroboration it is often not possible to distinguish from a range of possible interpretations, when faced with a potential church or chapel and burial group, or indeed multiple groups (Zadora-Rio 2003, 1–19). A building and a cemetery could reflect a communal focus – a parish church and cemetery; an elite

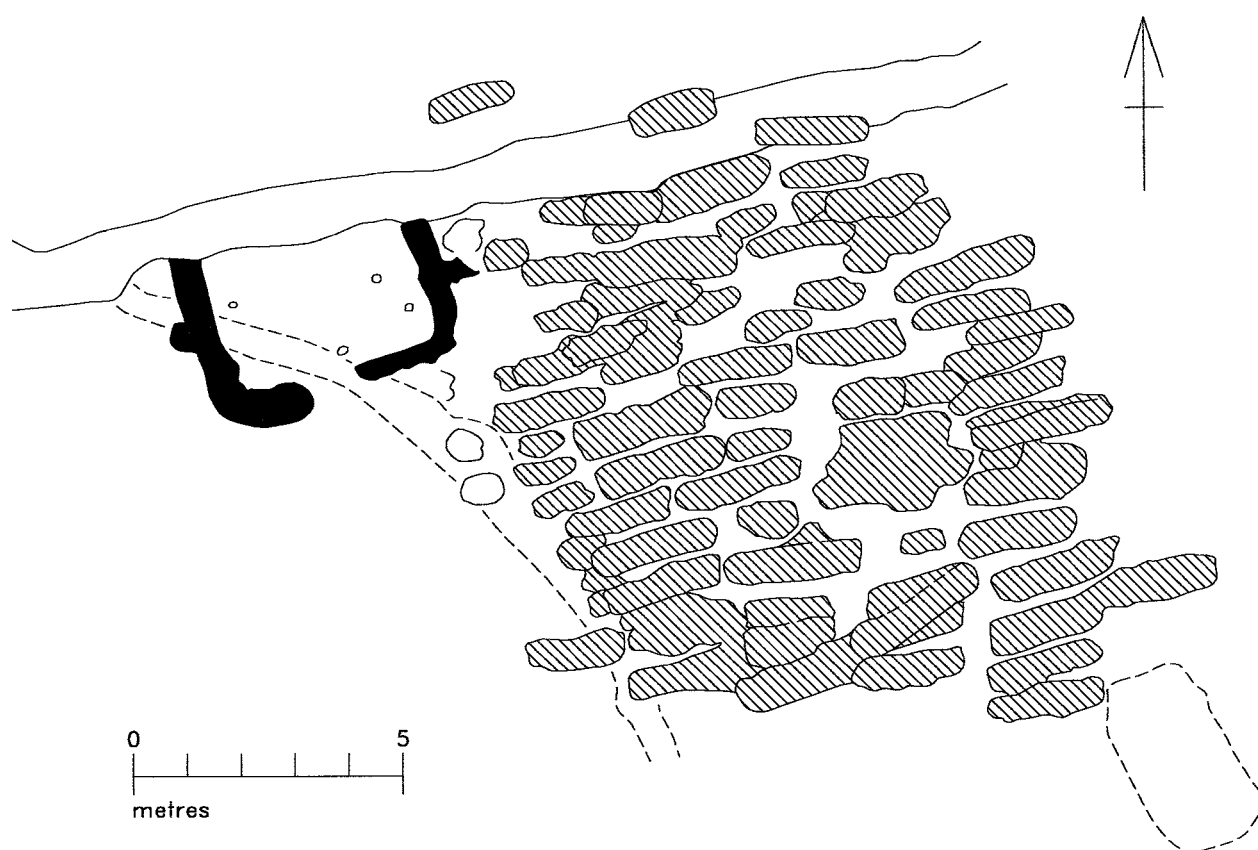


FIG. 3.31. Plan of cemetery and associated building, within the settlement at Thwing, East Yorkshire, after Manby forthcoming (P. Copeland).

burial and religious focus; or a small monastic cult building and cemetery (Zadora-Rio 1995, 148). The two burial and church foci at Serris, Seine-et-Marne, also demonstrate that both aristocratic and communal liturgical and sacramental zones could co-exist within the same 'secular' settlement (Foucray and Gentili 1995, 139–143). Frans Theuws has also suggested a range of hierarchical burial options for families in the Kempen region of the southern Netherlands, involving small family groups, estate centre burial foci and monasteries (Theuws 1999, 345).

In the light of the increasingly similar trends observable on the Continent, mainly between areas formerly within the Roman Empire and England, it is no doubt time to embrace a wider range of possible interpretations in relation to buildings associated with burials, and multiple churches and burial zones, within an Anglo-Saxon context. In England and southern Scotland, multiple churches and burial zones have been seen as particularly indicative of monastic centres (Blair 1996a, 9; Hill 1997, 42). Indeed, John Blair has tried to reassess John Williams' interpretation of the St. Peter's 'palace' complex, at Northampton, in favour of a monastic

interpretation, partly by the close proximity of two likely Anglo-Saxon churches, St. Peter's and St. Gregory's (Blair 1996b, 101–107; Williams *et al.* 1985, 40–41). Viewed within the context of the diversity of evidence now being presented through excavation, and the similarities with trends from what was northern Gaul, the likelihood of multiple churches and burial foci on non-monastic settlements in England should also be recognised. Great care should, therefore, be taken before ascribing a monastic character to a settlement in England, which possessed more than one cemetery and associated buildings, such as Staunth Meadow, Brandon (Carr *et al.* 1988, 374–375). It is only the legacy of textually-led approaches, often based on Bede, and the bias towards excavation on documented monastic sites, that has inhibited our appreciation of the complexity of the organisation of religious and funerary space, on undocumented English settlements of the seventh to later ninth centuries.

As the tenth century progressed, funerary space seems to have been more regulated. Indeed, burial in churchyards is a feature across Britain from this period. No burials or church dating from the tenth century were



found in the excavations at Flixborough. Yet, the settlement did shift slightly eastwards during the course of the tenth century, towards the site of All Saints' church, which was certainly in existence during the twelfth century. It is possible that a mid to late tenth-, or eleventh-century stone precursor lies beneath the site of All Saints' church, and that graves from the same period lie in its churchyard. It was not available for excavation as it is regarded as consecrated ground, and burial continued in the cemetery into the modern period. All Saints' church had been known as 'North Conesby' church and

'Flixborough Old church' (Coppack 1986, 51), and it is possible that a church on this site was associated with the Domesday manor of North Conesby (Loveluck 2001, 90). Such a church and cemetery would fit into an emerging picture of mid to late tenth-century stone churches, built at estate centres in northern Lincolnshire and more widely in England; for example Burnham, not far from Flixborough (Coppack 1986, 47–50); and St. Peter's, Barton-upon-Humber (Rodwell and Rodwell 1982, 310).

## 4 Environment and Landscape in the Anglo-Saxon Period

*Geoff Gaunt, Christopher Loveluck and Kenneth Cameron†*

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### **4.1 The Anglo-Saxon settlement and its contemporary topography**

*by Geoff Gaunt*

#### *Introduction*

No early medieval maps of the area around Flixborough are known, but three basic topographical assumptions can be accepted without question. First, in terms of physical relief and geological disposition, the ground occupied by the two asymmetric ridges adjoining the sand spurs on which the Anglo-Saxon settlement was situated will have remained unaltered since the early medieval period, with the exception of minute local changes where blown sand may have been redistributed by rabbit-warren development, assumed to have begun since the Norman conquest (Gaunt, volume 1, Chapter 1). Secondly, the Humber estuary and the Rivers Ouse and Trent must then, as now, have been the principal drainage features in the area, with the addition of the original course of the River Don, now abandoned. Thirdly, the alluvial floodplains and adjacent ground to the north and west will have been just as flat and low-lying as they are in the present day. Less obvious, however, are the conditions that prevailed in these low-lying areas, particularly with regard to the nature of the ground surface and its liability to flooding. The surface conditions would have influenced the ability to exploit these areas, and even to traverse them safely in order to reach features such as riverside berthing locations. The following comments, therefore, summarise the available evidence relating to sea level, the locations of drainage features and the nature of low-lying ground, during the Anglo-Saxon and early medieval periods.

#### **4.1.1 Sea level**

Spring tides in the upper reaches of the Humber can rise at present to 3.6m above Ordnance Datum (OD), which is as high or higher than much of the ground adjacent to

the estuary and its confluent rivers. This low ground is now protected from flooding by high embankments or dikes constructed in the last two centuries, but it previously suffered frequent inundation despite the presence of natural levées and localised embanking. Some of the earliest embankments may date from before 1086 but most of them were constructed from the later twelfth century onwards (Sheppard 1966, 15). Assessment of the relative height of sea level in the Anglo-Saxon and earlier medieval periods is therefore critical to our understanding of the liability of low-lying ground to flooding. In the Humber area, sea level had risen to approximately its current level by 3000 radiocarbon years before present, i.e. by some time between 1305 and 1225 BC, and had subsequently varied within a metre or two of the current level – Ordnance Datum (Gaunt and Tooley 1974). The details of this variation, however, are little known; and even for Britain as a whole, ‘the period from 300 BC to AD 800 possesses very few dated indexed points’ (Tooley 1990, 5).

Some idea of the general trend of sea-level variations in the Humber area is, nevertheless, becoming apparent for the period spanning the first millennia BC and AD. For example, analysis of deposits associated with the Hasholme log boat, found in the lower Foulness valley in East Yorkshire, and dating from the Iron Age, points to ‘a marine transgression around 800–540 BC’, i.e. a rise in sea level that extended estuarine conditions in the area ‘throughout the later Iron Age and into the Romano-British period’, after which sea level fell in the first half of the first millennium AD’ (Millett and McGrail 1987, 99). At Newton Marsh, south of Grimsby, on the south bank and at the other end of the Humber, the top of a peat layer overlain by estuarine silty clay (at a height of 0.96m above OD) yielded a calibrated radiocarbon-date range suggesting a transgression between 1251 and 826 BC (Long *et al.* 1998, 233 and 240). These and other relevant sites in and adjacent to the Humber are described by Dinnin and Lillie (1995) and Long *et al.* (1998). The

authors of the latter work concluded that between 1250 BC and AD 50 approximately, 'marine conditions expanded to their Holocene (i.e. post-glacial) maximum and then contracted' around the Humber (Long *et al.* 1998, 229).

Certain late Roman riverside sites contain sediment evidence of flooding, notably Sandtoft (Buckland and Sadler 1985) and Littleborough (Riley *et al.* 1995), but no sediment or environmental (biological) evidence of tidal influence was found, despite these sites being within the present-day tidal range (extrapolated with respect to Sandtoft – Jones 1995). The flooding has, therefore, been attributed to the consequence of changing agricultural practices and/or neglected river management further up the river systems feeding the Humber. At Barrow Haven a freshwater-fen peat deposit, 0.28m in thickness, rests with its base at 1.79m above OD, within estuarine sediments. It has yielded radiocarbon dates from its basal and upper parts of  $2040 \pm 40$  and  $1080 \pm 40$  before present respectively. This implies the existence of freshwater fen in that locality at approximately 1.80 to 2.00m above OD within the period defined by the calibrated radiocarbon-date ranges from 157 BC–AD 68 until AD 887–1023 (Gaunt *et al.* 1992, 125–126; Long *et al.* 1998, 231–233).

What evidence there is from the area around the Humber estuary, therefore, suggests that for much of the first millennium AD, with the possible exception of its first two centuries, the height of sea level was below that of the present (i.e. below Ordnance Datum). At times, it was probably as much as a metre or more below that of today, on the evidence from Barrow Haven. If this tentative conclusion is correct, low-lying land in the Flixborough area would have been appreciably less prone to extensive major flooding during the first millennium AD than it was in the middle of the second millennium. For example, eighteen major floods were recorded during the seventeenth and eighteenth centuries (Cory 1985, 9–10). Some low-ground exploitation should have been feasible in the Anglo-Saxon period, and raised trackways would have ensured access to riverside berthing for boats and shipping.

#### 4.1.2 Drainage features – the Humber river systems and settlement location

The Humber is one of the most actively varying estuaries in Britain. On its northern side, a sequence of land reclamation is evident. The former inter-tidal silt bank known as 'Broomfleet Island', just east of the Ouse-Trent confluence, was reclaimed and incorporated into the 'mainland' by 1907 (Fig. 4.1). An older and more northerly accretion, formerly known as 'Broomfleet New Sands,' was reclaimed at the end of the seventeenth century (Saltmarshe 1920, 8–9). The first reference to the then 'riparian' or riverbank settlement of Broomfleet was in 1304. This suggests the possibility that it did not exist at the time of the Domesday survey in 1086, unlike settlements further west (see below), possibly because the

coastline was then further north. The evidence from the lower Foulness valley implies that until the early centuries of the first millennium AD a tidal arm of the estuary had extended northward up the Skelfleet, across Walling Fen and into the lower Foulness valley (Fig. 4.1). A tidal inlet east of Broomfleet still existed as a vestigial feature at the time of Surbey's survey of 1699 (Hughes 1994). It is logical to assume, therefore, that in the Anglo-Saxon and early medieval periods the northern edge of the Humber estuary was somewhere between the earlier tidal limit and the northern edge of the future 'Broomfleet New Sands', i.e. at least 1.4km further north in places than it is at present. However, if the rubbish in the 'Roman rubbish level' close to Weighton Lock (Hulme and Beckett 1973) is *in situ*, this locality has been emergent periodically for nearly two millennia; it may be pivotal between the varying conditions in the estuary and the more stable conditions along the Ouse to the west. The conjectural northern edge of the estuary during the Anglo-Saxon and early medieval periods is also shown in Fig. 4.1.

On the southern edge of the estuary, at the confluence of the Trent and Ouse, the point-bar alluvial deposits called Alkborough Flats have probably persisted either as an inter-tidal bank or as dry land throughout the last two millennia, at least. This is due to the fact that the feature controlling its existence, in the form of the eastward meander of the Trent immediately upriver, is permanently constrained by the west-facing scarp slope of the asymmetric ridge between Walcot and Burton-upon-Stather, North Lincolnshire. The alluvial flats between Whitton and Winteringham, long protected between the northern ends of the two asymmetric ridges, are also probably of great antiquity. How far north these two alluvial flats extended into the estuary during the early medieval period is unknown. There is, however, an optimum width for any part of a river or estuary, which is determined by its hydrological regime and sediment load. It is quite possible, therefore, that because the northern estuarine edge was then at least 1.4km further north than it is now, its contemporary southern edge may well have been an equivalent distance further north, with wider alluvial flats north of Whitton (as suggested on Fig. 4.1).

In contrast to the estuary, adjacent reaches of the Rivers Trent and Ouse appear to have been fairly stable for a long time. There is no topographical evidence of abandoned former channels outside their levées, although flood warp covers much of the floodplain on both sides of the Trent from Amcotts southwards, and may conceal such evidence (Gaunt 1994, 129; Fig. 46). Fan-shaped masses of silt, known locally as 'old going land', extend beyond the levées of both the Trent and Ouse in places. They were deposited during severe floods and levée breaches, but nowhere do they lead into alternative or additional co-existing channels. There is some cartographic evidence indicating that the channels of both rivers have varied slightly within their containing levées

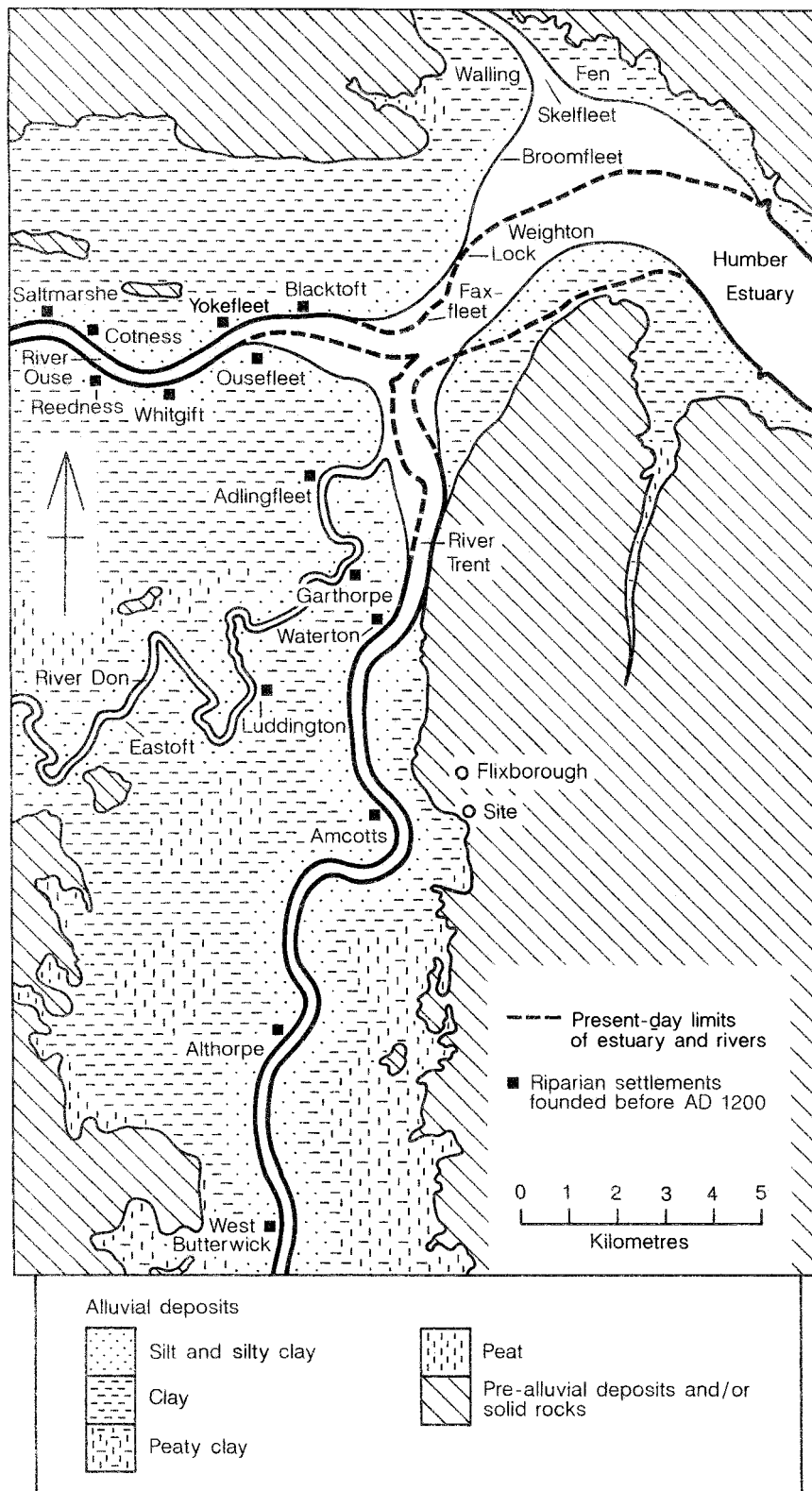


FIG. 4.1. Conjectured early medieval topography and conditions for settlement in the lower Trent valley and Humber estuary, after G. Gaunt (*M. Frankland*).

due to combinations of point-bar deposition and scour erosion, and reclamation of marginal saltmarshes – an activity known locally as ‘inning’. The largest saltmarsh reclamations were along the lowest 4km of the western side of the Trent and the lowest 3km of the southern side of the Ouse, where several inter-tidal stretches of saltmarsh and islands are now embanked and joined to the mainland, thereby narrowing the rivers in these areas.

On the northern side of the Ouse, the riverbank (riparian) settlements of Saltmarshe, Cotness and Yokefleet are mentioned in Domesday Book (1086). The dates of earliest reference to settlements farther east are: Blacktoft (1154) and Faxfleet (1275 or 1295). On the southern bank of the river, the earliest documentary references to settlements are for Reedness (1164–1177), Whitgift (*circa* 1070), and Ousefleet (1100–1108), as collated by various scholars (Saltmarshe 1920, 7–8; Smith 1961, 7–11; Sheppard 1966, 15–16). These dates of earliest documentary reference imply that the stability of the course of the Ouse between Saltmarshe and Blacktoft has been maintained since the mid twelfth century at the latest (Fig. 4.1). If, as previously suggested, sea level (and therefore the drainage base level in the area) was lower in the first millennium AD, it is highly likely that the channel of the Ouse was more deeply incised, and therefore just as stable then as in later centuries.

Along the Trent, the settlements immediately adjacent to the river on its western bank, at Waterton, Amcotts, Althorpe and West Butterwick, were all mentioned in the Domesday survey. No settlements, however, were included in that survey from the eastern (Flixborough) bank of the river. This could be due to variations in the river channel, although equally the absence of reference to any settlements on the eastern side of the Trent could reflect the adverse peaty and therefore marshy or peat fen ground conditions east of the river (see below). Therefore, although the course of the Trent appears to have been fairly stable, neither the topographical nor early documentary evidence is quite as conclusive as that for the Ouse.

The River Don was partly diverted at Thorne into an artificial channel leading north to the River Aire prior to the fourteenth century, and probably during the Roman period (Gaunt 1975; Jones 1995; Gaunt, *in press*). Despite this action, however, there is firm archival and cartographic evidence showing that the Don continued to flow along its original course to its eastern confluence with the Trent, north-east of Adlingfleet, until this was ended by Cornelius Vermuyden in 1626–27, during his drainage of those areas of north-western Lincolnshire adjacent to the Isle of Axholme and Hatfield and Thorne Moors (Fig. 4.2). Curiously, Christopher Saxton’s maps of Lincolnshire, Nottinghamshire and Yorkshire, produced in 1576 and 1577, show the natural course of the Don reaching the Trent east of Fockerby and Garthorpe, i.e. without passing Adlingfleet. Nevertheless, the older Inclesmore maps of 1410–20, most later maps, the topographical feature of the former river channel, and

the traditional line of the county boundary all indicate the course through Adlingfleet, as shown on Fig. 4.1. Luddington, Garthorpe and Adlingfleet, all situated along the original Don, are also mentioned in the Domesday survey. Adlingfleet was written as *Aethelingfleet* on the Inclesmore maps, and Richardson (1985) has suggested that this is the *Aelfet.ee* of the Anglo-Saxon Chronicle, mentioned in an entry for AD 763, and the site of the eighth-century monastery at *Donaemuthan*.

No artificial watercourses dating from the Anglo-Saxon period are known from the Flixborough area. Nevertheless, the Domesday Book entry noting the existence of two mills at Flixborough in 1066 presupposes the existence of water leats for their supply or their location on natural watercourses (Foster and Longley 1924, 148). In the adjacent Howden area, to the north-west, a charter of King Edgar from AD 959 refers to ditches in this locality (Long 1993), and contemporary ditches may have existed further south-east in order to drain low-lying stretches of floodplain beyond the river levées. The oldest authenticated artificial watercourses in the Flixborough area comprise the Hansardam, Thornton Dam and Temple Dam, cut between the Norman Conquest and AD 1200. They ran from the River Foulness southwards to the Ouse, between Blacktoft and Faxfleet (Sheppard 1966, 15–16). Further south, the ‘Mare’ or ‘Mere’ Dyke ran from the original Don south of Luddington, eastward to the Trent between Waterton Hall and Amcotts, and was in existence by 1280 but its origin is uncertain.

#### 4.1.3 The nature of the low-lying ground around Flixborough

The deposits forming the surface of the Trent floodplain at present range from silt to clay, with some peat in places. Most of the more silty deposits occur on river levées, reclaimed estuarine inter-tidal banks, and on flood-warped fields, producing light well-drained soils. The more clayey deposits extending beyond the levées generally produce somewhat heavier soils that are difficult to drain in some localities.

Levées result from repeated over-bank flooding where the base level of drainage approximates to the adjacent ground level. Around the Humber, levée deposition probably started during the last few centuries BC, when sea level was relatively high. During the first millennium AD, however, further accumulation of deposits on levées became minimal as sea level became somewhat lower. The middle centuries of the second millennium AD witnessed persistent over-bank flooding, so the levées probably reached their present magnitude at that time. It seems likely, therefore, that levées existed in the Anglo-Saxon and early medieval periods, although lower in height and with less extensive slopes than those of the present day. Nevertheless, they were probably sufficiently elevated to have provided the best routes for getting about the floodplain areas in general. These embryonic levées were almost certainly the only predominantly silty deposits

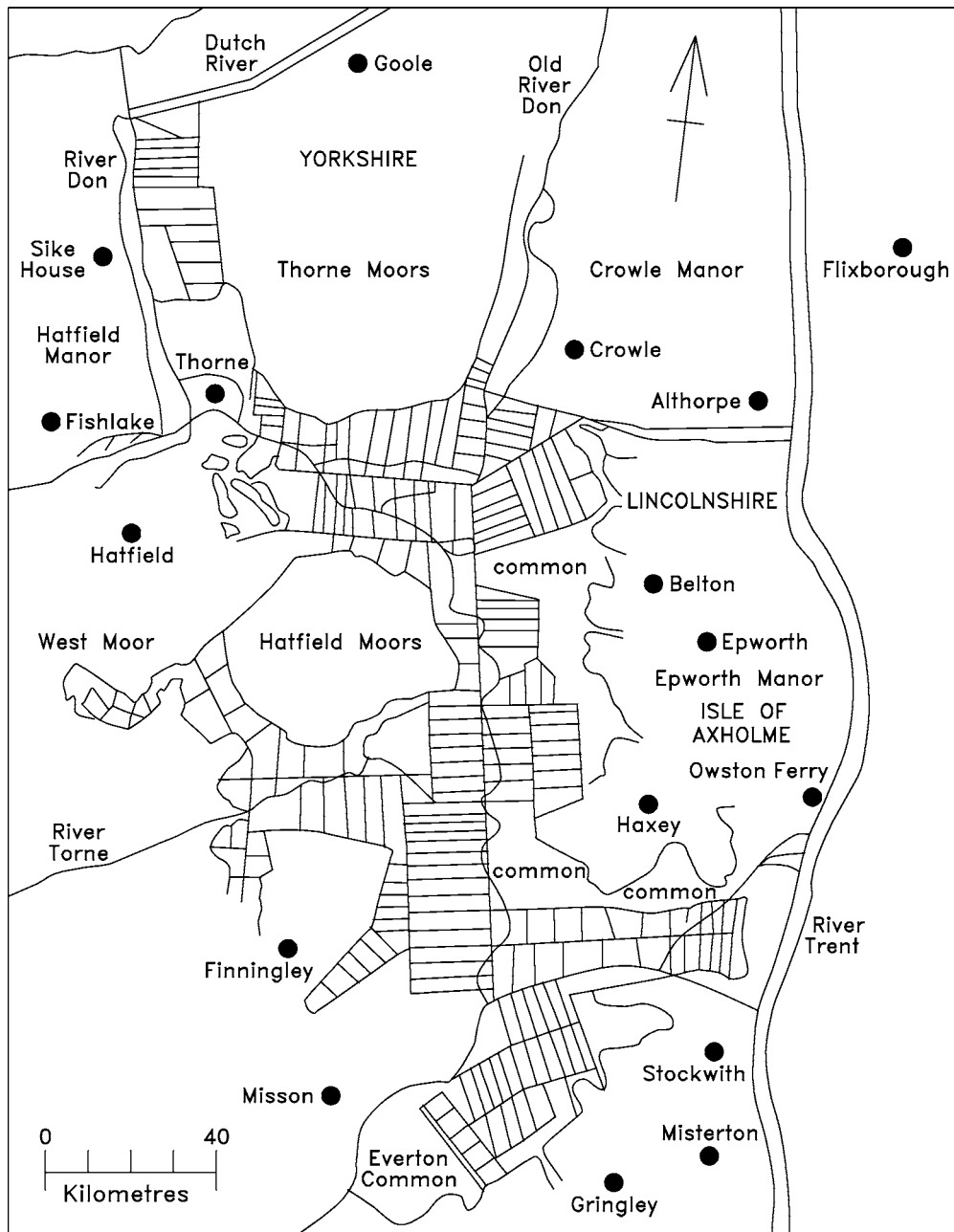


FIG. 4.2. Plan of Cornelius Vermuyden's drainage works in those areas of north-western Lincolnshire adjacent to the Isle of Axholme and Hatfield and Thorne Moors, after Muir 2000 and Aerlebout 1639 (P. Copeland).

in the Trent floodplain, since it is currently thought that embanking and reclamation of estuarine inter-tidal banks could not have been achieved by this time.

The predominantly clayey deposits occurring on the floodplain beyond the embryonic levées would have produced waterlogged marshy conditions. In the absence of efficient drainage during the Anglo-Saxon and early medieval periods, this would have resulted in some peat formation over wide tracts. In some places, peat and mixed peat and clay deposits certainly existed at the surface (Fig. 4.1). The most obvious stretch of peat was

located north of the original course of the Don, where the raised bog of Thorne Moors formerly extended north-eastwards for at least 6km, possibly to within 2 or 3km of Fockerby and Garthorpe (Fig. 4.1 and 4.3\*). This peat was covered by flood-warp before 1880 but is still visible in deep ditches, and is indicated on old maps such as that published by Sheardown in 1805. An expanse of wetland peat also existed in the area north-west of Eastoft, and was previously known as Ousefleet Moor. This may have been the area which provided peat shipped from Ousefleet in 1432–33, to be used as fuel in a brickyard at Kingston-

upon-Hull (Brooks 1939). It is also possible that its exploitation as a turbary extended further back into the early medieval period.

On the western side of the Trent, small areas of peat still survive along the western edge of the floodplain, mainly in embayments sheltered by the rising ground of the Isle of Axholme. Sheardown's map of 1805 also illustrates areas west of Amcotts, north-west of Althorpe, and south-west of West Butterwick, with the same symbol ornament as that used on Thorne Moors, suggesting peat bog and otherwise marshy conditions. Similar but more extensive evidence of peat is also available for the floodplain east of the Trent, on the Flixborough side of the river. On Sheardown's map the 'peat' symbol extends southwards from opposite Amcotts, i.e. from immediately below the Anglo-Saxon settlement at Flixborough, to beyond East Butterwick. At the latter location peat occurs at the surface, particularly to the east of Gunness and on Butterwick Common. Overall, the extensive peat deposits underlying flood-warp on the eastern bank of the Trent floodplain below Flixborough, and hence wetland conditions prior to post-medieval drainage, probably account for the lack of recorded riverbank settlements in Domesday Book, in contrast to those mentioned on the west bank, such as Amcotts, Luddington, Waterton and Garthorpe (Foster and Longley 1924, 192–193).

Raised trackways would have been required to traverse the areas of peat bog (possibly used as turbaries) and marshy fen below the Anglo-Saxon settlement at Flixborough-North Conesby, in order to reach the main river channel of the Trent. Such trackways could have provided access to riverside landing-places, fish traps, and possibly the mills recorded at the settlement in Domesday. They could also have been used to reach tracts of land described as 'waste', primarily for grazing sheep. This 'waste' was recorded as having belonged to North Conesby in the mid to late twelfth century, in a grant of Thomas d'Arcy to Alvingham Priory (Priory charter No. 12, Dudley 1931, 52–53). It probably reflects saltmarsh pasture below North Conesby and Flixborough, which would have been important as a source of seasonal grazing. The existence of nearby saltmarsh is also reflected in the mollusc and botanical remains recovered from the excavations (Carrott and Hall, this volume, Chapter 5).

## **4.2 Landscape descriptions and place-names as evidence for the environment around Anglo-Saxon Flixborough and North Conesby**

### *4.2.1 Descriptions of the landscape and natural resources*

*by Christopher Loveluck*

A number of documentary sources of evidence provide

indications of the nature of the landscape in the vicinity of Flixborough prior to large-scale drainage, ranging from the Domesday survey to the accounts of John Leland and estate terrier surveys. These accounts offer some description of the different ecological habitats in the area and add strong evidence to support the conclusions presented in the previous section on the nature of the Anglo-Saxon topography and drainage conditions in the lower Trent valley.

The Domesday accounts of the land assessed for *geld*, i.e. taxation in coin, at Flixborough, North Conesby, and immediately adjacent areas provide a wealth of information on the nature of the mid eleventh-century landscape, and its management. The Domesday survey also provides important indications on the extent of the lands and resources linked to the holdings of Flixborough and North Conesby. In 1066, the *thegn Fulcheri* or *Fulcric* held the estate of Flixborough, in addition to other holdings on both the eastern and western sides of the River Trent, extending from just south of the Humber estuary to the Isle of Axholme (Fig. 4.4; Foster and Longley 1924, 147–148 and 192–193). The Flixborough estate seems to have been Fulcric's largest landholding, being assessed at eight pounds in *geld*, in both 1066 and 1086, with eleven *carucates* and seven *bovates* of land assessed. As previously mentioned, the estate included two watermills and it also possessed the largest tract of woodland on the eastern bank of the Trent, in that part of northern Lincolnshire. It comprised 120 acres of 'underwood', probably consisting of coppiced woodland and perhaps some 'standard' timber trees, located somewhere between Flixborough and its northern neighbours at Normanby and Burton-upon-Stather (Foster and Longley 1924, 148; Rackham 1994, 7). Recorded plough-land, reflected in the references to *carucates*, *bovates* and oxen for plough teams, also testifies to land sufficiently free-draining for cultivation of arable crops. The area of arable cultivation would have been located on the escarpment, and its windblown sand margins. A large tract of pasture, consisting of 205 acres of meadow, provided grazing for animals (Foster and Longley 1924, 148). The considerable extent of land for pasture, both on the better-drained land of the escarpment and on nearby saltmarsh, is perhaps reflected in the aforementioned twelfth-century land grant of Thomas d'Arcy to Alvingham priory, which mentions pasture on both sides of North Conesby and 'especially in the waste' (Dudley 1931, 53).

In addition to the territory directly linked to Flixborough, Fulcric also possessed land at Conesby to the east, Roxby and Winterton to the north-east, Walcot to the north, and Crosby to the south-east (Fig. 4.4). These lands incorporated further areas utilised for arable cultivation and underwood (Foster and Longley 1924, 147–149). Fulcric's other landholdings and rights on the western side of the Trent may reflect a coherent block of land, which yielded a range of resources to the estate centre. On the higher and better-drained land of the Isle

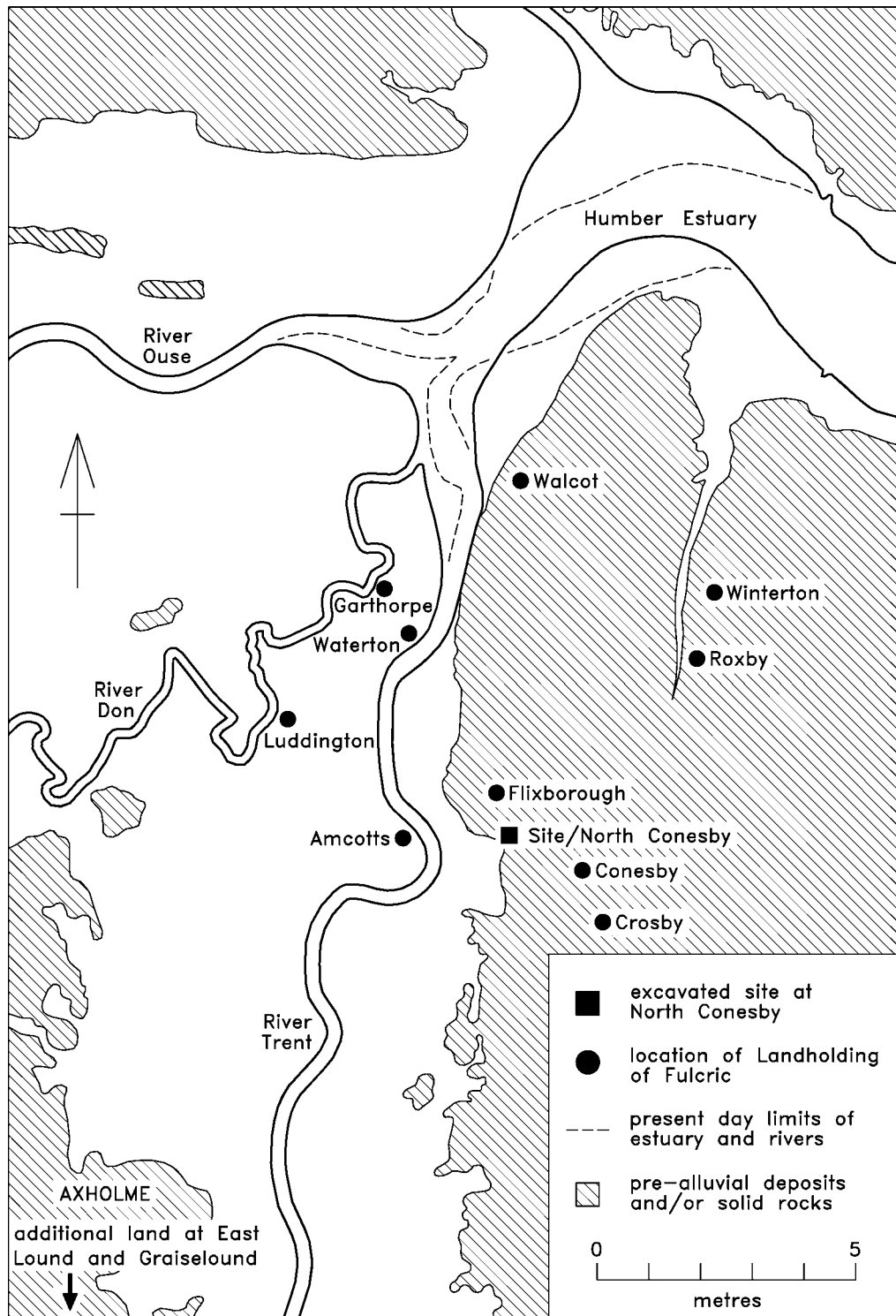


FIG. 4.4. Map showing the location of the landholdings of the last Anglo-Saxon lord (Fulcric) of Flixborough in 1066, indicating access to arable, pasture, woodland and marshland resources (P. Copeland).

of Axholme, he held land at East Lound and Graiselound, the names of which derive from the Old Norse *-lundr*, meaning a grove or small wood (Cameron 1998, 82). Hence, he probably had access to expanses of woodland, notably for pannage, i.e. for the seasonal feeding of pigs

on acorns or beech-mast, and possibly for the grazing of cattle, sheep and horses in woodland pasture (Rackham 1994, 10; Hooke 1998, 142–143). Fulcric also held large tracts of marshland, which included small areas of arable land presumably on levée silts, extending from the area



of Amcotts through to Luddington, Waterton, Garthorpe and Thorne Moors (FIG. 4.4). Furthermore, his recorded 'hall' either in Luddington or Garthorpe, almost directly opposite Flixborough on the other side of the River Trent, may reflect a settlement whose purpose was to exploit the resources of the marshes (Foster and Longley 1924, 193).

The Domesday description of the lands and rights of Fulcric, the last Anglo-Saxon lord of Flixborough, provides a 'snap-shot' of the nature of the various elements of his landholdings. In combination, the landholdings, rights and settlements that provided resources constituted a single and complex 'economic' unit, straddling both sides of the River Trent. It is not possible, however, to be sure of the longevity of the tenurial unit which we glimpse in the mid eleventh century, in the *temporis Regis Edwardi* of Domesday. The landholdings of the seventh- to eleventh-century settlements situated in the modern parish of Flixborough may have fluctuated, but the nature of their contemporary landscapes and ecological habitats probably remained the same throughout the Anglo-Saxon period.

One of the issues discussed in later chapters is whether the excavated settlement remains represent the Anglo-Saxon precursor of the medieval settlements of either North Conesby or Flixborough. It is also conceivable that the excavated site could have been part of a Middle Saxon settlement and estate subsequently divided during the later ninth or tenth century, to emerge as the two manors of Flixborough and North Conesby in the Domesday survey (Roffe, this volume, Chapter 8; Loveluck, this volume, Chapter 9). Such an idea may be supported by the fact that All Saints' church at North Conesby was also known as 'Flixborough Old Church' well into the post-medieval period (Roffe, this volume, Chapter 8; Coppack 1986, 51). If such an estate division does account for the birth of both Flixborough and North Conesby, the two nearly juxtaposed settlements were again held by a single noble in 1086, when they were incorporated into Norman d'Arcy's possessions (Foster and Longley 1924, 147–149). Nevertheless, the two settlements do seem to have had distinct territorial units.

Whatever the reality of the tenurial history, there are documentary indications that very similar resources were available within the respective territories of the two settlements. In contrast to the Domesday account for Flixborough, descriptions of the lands associated with North Conesby occur only from the twelfth and fifteenth centuries. The documentary evidence comes from two sources, comprising the already mentioned charter of Thomas d'Arcy, granting some land and rights to Alvingham priory; and the *Conyngesby Computus Roll* of 1431 (Dudley 1931, 52–54). The twelfth-century charter described a gift of two *bovates* of land and a toft, presumably for arable cultivation, together with access to a much greater expanse of pasture for a thousand sheep, primarily on 'waste' saltmarsh (Dudley 1931, 53). The

fifteenth-century roll details the harvesting of oak for timber, the collection of sheaves of rushes for thatch, and the construction of a fish-trap at *Pepilstather* – a landing place seemingly linked to North Conesby (Dudley 1931, 54). The use of North Conesby common by inhabitants of Flixborough is also recorded in the latter source, reflecting continued interdependence of the settlements in the High Middle Ages.

The documents referred to above in relation to North Conesby reinforce the impression of the landscape gained from the Domesday entry for Flixborough. The medieval settlement of North Conesby had direct access to arable land, pasture, woodland with timber trees, marshland resources, and the River Trent, with a landing-place and fish-traps. An estate map of 1724 and an accompanying terrier, listing the landholdings of the Duke of Buckingham in North Conesby, both show that the tenurial border extended from the Liassic ironstone escarpment of the Lincoln Edge in the east, to the River Trent in the west (North-east Lincolnshire archives, Grimsby; Loveluck and McKenna 1999, 43). The boundaries encompassed the pre-drainage habitats that would have provided the resources listed in the twelfth- and fifteenth-century documents relating to North Conesby, and as such they may reflect boundaries of considerable antiquity (North-east Lincolnshire archives, Grimsby; Sheffield family papers; Loveluck and McKenna 1999, 15).

In short, Anglo-Saxon settlement foci in Flixborough parish seem to have been positioned at the interface between the Trent wetlands and the Lincolnshire Edge escarpment. This would have provided optimum opportunities to exploit the woodland, arable land, and pasture of the better-drained soils on the escarpment and the sand, on its western periphery; while at the same time allowing easy access to the resources of the marshes, the River Trent and the Humber estuary. Recent analysis of pollen cores taken from sediments in the wetlands below Flixborough, during the Humber wetlands archaeological survey, supports the impressions gained from the textual descriptions of landscape features. The pollen showed the existence of raised mires (peat bogs) during the post-Roman period, and the emergence of alder-dominated fen on their margins from approximately AD 1000; whilst to the east of the settlement a more open agricultural landscape is suggested (Lillie and Parkes 1998, 51–52).

The maintenance of these environmental conditions into the post-medieval period is clearly demonstrated by John Leland, who travelled up from Gainsborough through to the Isle of Axholme in 1544, following the line of the River Trent. He seems to have followed the better-drained silt and sand areas of the river levées to the higher ground of Axholme, and described a landscape of arable and pasture belts, with occasional woodland and larger marshland tracts (Chandler 1993, 294–297). The major changes to the wetland landscape only began with the large-scale drainage works of Cornelius Vermuyden from the late 1620s and 1630s (Muir 2000, 49).

#### 4.2.2 Place-names and field-names as indicators of settlement and environmental history

by Kenneth Cameron† (collated with introduction and concluding synthesis by Christopher Loveluck)

A third source of evidence giving indications of the nature and management of the Anglo-Saxon and medieval landscape is provided through the analysis of place- and field-name evidence, usually derived from documents and maps dating from the late eleventh century to the post-medieval period (FIG. 4.5). Kenneth Cameron has produced numerous works on the history and derivation of the names of Lincolnshire (Cameron 1998 *et al.*), and here he provides detailed information on all the names in the vicinity of Flixborough, located in the historic Manley Wapentake. The information on the place- and field-names, and the clues they yield on the nature of the past landscape is organised into two sections. First, the derivation and history of Flixborough, North Conesby and their surrounding settlement names is discussed by listing the earliest recorded representations of the actual names and their meanings, in order of distance from Flixborough. Secondly, the minor names, generally field and other topographical descriptions, are collated with a view to gaining greater insight into the nature of local natural resources and the way they were managed. The overall evidence provided by this historical linguistic study is then briefly synthesised to show how it complements the information from the other forms of evidence, described in earlier sections of this chapter.

##### *Linguistic history and meaning of settlement names in the vicinity of Flixborough*

**FLIXBOROUGH:** ‘Flik’s fortified place’. This is a hybrid place-name with the first element comprising the Old Norse personal name *Flik*, and the second the Old English *burh*. It is highly likely that in a place-name with *burh* as a second element, the Old Norse first element has replaced an earlier Old English word or personal name. The earliest forms of the name and their dates of recording are as follows: *Flichesburg* 1086 – (Domesday Book), 1115 and 1165; *Fliccheburc* 1163, 1164, 1166 and 1167; *Flickesburc* 1201, *-burg* 1279; *Flikesburgh* 1242–43, 1293, 1322 and 1328; *Flixburg* 1295; *Flyxburgh* 1372.

**CONESBY** (North), immediately adjacent to the excavated Anglo-Saxon settlement remains (eastward): ‘the King’s village or settlement’. This is formed from two elements: the Old Danish *kunungr* meaning king, and the Old Danish *-by* meaning settlement or village. The earliest records of the name of this settlement are: *Cunesbi* 1086 (Domesday Book); *Cuningesby* 1115 and 1199; *Cuningebi* 1205; *Cynnyngesby* 1409.

**AMCOTTS**, on the west bank of the River Trent immediately opposite Flixborough Stather, approximately 2km from the excavated site: ‘Amma’s cottages or huts’.

This place-name is derived from the Old English personal name *Amma* and the Old English *cot*, meaning hut or cottage, in the plural form. The earliest recorded forms of the name are as follows: *Amecotes* 1086 (Domesday Book), 1099–1123, 1154, 1155–62; *Ammecotes* 1200.

**NORMANBY**, approximately 2.5km north-north-east of the excavated site: ‘the farmstead or village of the Northmen or Norwegians’. The two elements come from the Old English *Northmann* and the Old Danish *-by*, meaning farmstead or village. The earliest recorded forms of the name of the settlement include the following: *Normanebi* 1086 (Domesday Book), 1115, 1128; *Normanab(i)* 1115; *Normanneby* 1206; *Normanby* 1212.

**BURTON-UPON-STATHER**, approximately 4km north of the excavated site: ‘the farmstead or village at or belonging to a fortified place’ – *burh* – *tun*. The site of the associated fortification is not known. The earliest forms for the affix *stathel* are presumably derived from the Old English *stadol*, which can mean a ‘foundation, base, support or platform’. Forms of the name using the Old Norse *-stathe*, meaning ‘a landing-place or jetty’ also occur. The name *stather* is found too in other parishes bounding on the River Trent, for example, Flixborough Stather (see below). At Burton, the landing-places were presumably at Burton Stather on the river a little to the north-west of the village itself (see section on landing-places below). The earliest references to Burton and its affix Stather are as follows: *Burtone* 1086 (Domesday Book), *-ton* 1199, 1201, 1202, 1218; *Burtonestathel* 1201; *Burtonestattheher* 1208; *Burtonstather* 1275; *Burton cum Stather* 1343.

**ROXBY**, approximately 5km north-east of the excavated site: ‘*Hrok*’s farmstead or village’. Derived from the Old Norse personal name *Hrokr* and the Old Danish *-by*. The earliest recorded forms of the place-name are as follows: *Roxebi* 1086 (Domesday Book); *Rochesberia* 1090–1100 and 1147–73; *Rokesbia* 1100–1108; *Rochesbi* 1115 and 1136–40.

**LUDDINGTON**, approximately 4.8km north-west of the excavated site, on the west bank of the River Trent: ‘the farmstead, settlement or village called after or associated with Luda’. From the Old English personal name *Luda*, with the Old English connective participle *-ing* and the Old English *-tun*. The earliest recorded forms of the place-name are as follows: *Ludintone* 1086 (Domesday Book); *Ludinton* 1180, 1182 and 1200.

**WATERTON**, approximately 4.5km north-north-west of the excavated site, on the west bank of the River Trent: Derived from the Old English *waeter* ‘Water’ and *-tun*, meaning farm, settlement or village. The name survives as *Waterton Hall*, approximately 200m from the river. The earliest recorded forms of the name are as follows: *Watretone* 1086 (Domesday Book); *Waterton* 1246, 1256, 1301.

GARTHORPE, approximately 5.5km north-north-west of the excavated site, on the west bank of the River Trent: ‘Gerulf’s secondary settlement’. Derived from the Old Danish personal name *Gerulf* and the Old Danish *-thorp*. The earliest recorded forms of the name are as follows: *Gerulftorp* 1086 (Domesday Book); *Gerold’torp* 1180; *Gerald’torp* 1200; *Gerlethorp* 1238, 1253; *Gerthorp* 1275.

RISBY, approximately 4.5km east of the excavated site: ‘the farmstead or village among the brushwood’. The name comes from the Old Norse *hris* and the Old Danish *-by*. The name is also found at Rejsby and Risby in Denmark, and it is possible that it is a personal name transferred from Denmark. If this were so it was presumably as topographically appropriate for the English names as for the Danish. The earliest recorded forms of the names are: *Risebi* 1067–69, attributed in the mid twelfth-century *Chronicle of Hugh Candidus*; *Risebi* 1086 (Domesday Book) and 1115, c.1128 and 1192.

CROSBY, approximately 2.5km to the south of the excavated site: ‘the village with a cross’. From the Old Norse *kross* or the late Old English *cro*s and the Old Danish *-by*. The earliest references to the place-name are: *Cropesby* 1086 (Domesday Book); *Crossby* 1206 and 1207.

FRODINGHAM, approximately 3.5km to the south-east of the excavated site: ‘the homestead or estate of the *Frodingas*’. From the Old English group name *Frodingas* – the family, dependents of *Froda* – and the Old English *-ham*. The earliest references to the name are as follows: *Frodingham* 1128; *Frodtingham* early 13th-century; *Frodingeham* 1224; *Frothigham* 1237; *Frothingham* 1259.

GUNNESS, approximately 4km to the south-west of the excavated site: ‘Gunni’s ness or headland’. The name for this settlement is formed from two Old Norse elements: the personal name *Gunni* and *nes*, meaning ness or headland. The name of the modern settlement corresponds to a marked promontory extending into the River Trent in this locality, and is probably named after it. It

was first recorded in the following form: *Gunnesse* 1199, 1200, 1202 and 1210–12; *Gunes* 1219; *Gunnes* 1300.

*Minor names illustrating landscape features, land management and different ecological habitats (collated from analysis by Kenneth Cameron†)*

The analysis of the minor names from the modern parish of Flixborough (which includes the former territories of North Conesby) is presented according to specific features and resources which illustrate the nature and management of the surrounding landscape, predominantly from the high medieval and post-medieval periods. The majority of the names are derived from field-names, although some such as the *Stather* names are feature descriptions in their own right. To avoid the necessity of stating the source of the names in every case, a summary of the main sources studied with their respective dates is presented in FIG. 4.5 below.

LANDING-PLACES: Names indicating landing-places or jetties along the Trent are common in the Flixborough and Burton-upon-Stather reaches of the river. Flixborough Stather was first recorded in 1299 as *Flikesburgh Stather*, and as *Flixburgh stather* and *Flixbrough stather* in 1414 and 1583 respectively. As previously mentioned, the affixes *stathel* and *stather* had become linked to Burton-upon-Stather in 1201 and 1208, reflecting the Old English and Old Norse words for landing place, platform or jetty. From 1503, two separate *stathers* were recorded linked to Burton – presumably at Burton Stather, although their sites are unknown. A landing-place linked to North Conesby known as *Pepilstather* is also recorded, in conjunction with a *fishgarth*, in the *Conesby Computus Roll* of 1431 (Dudley 1931, 54).

FERRIES: There are references to two ferries in the immediate and nearby vicinity of Flixborough. A local ferry, known as Flixborough Ferry is shown on the maps of Christopher Saxton and John Speed: *Flixburghe ferye* 1576 (Saxton); *Flixburgh ferye* 1610 (Speed). The ferry is mentioned again in 1828, within the context of

Dates	Source
1304, 1414	<i>Feet of Fines</i> , Public Record Office
1314	<i>Calendar of Charter Rolls</i> , Public Record Office (6 vols, 1903–1927)
1327, 1332	<i>Subsidy Rolls</i> , Public Record Office
1334, 1341	<i>Calendar of Patent Rolls</i> , Public Record Office
1449	<i>Calendar of Close Rolls</i> , Public Record Office
1564, 1634, 1653, 1797, 1807, 1839, 1850	<i>Sheffield Family papers</i> , North-east Lincolnshire Archives, Grimsby
1583	<i>Miscellaneous Donations</i> , Lincolnshire Archives Office
1602, 1668, 1674, 1679, 1686, 1690, 1697,	<i>Terriers</i>
1700, 1784, 1788, 1822	
1840	<i>Tithe Awards</i> , Lincoln Archive Office and Public Record Office

FIG. 4.5. List of sources for name evidence.

referring to Flixborough Stather. The other ferry, linked to Burton-upon-Stather to the north, is referred to from 1314 – *Burton Feria*.

**TRACKS / WAYS:** *Trangate* 1839 and 1840, from the Old Norse *trani*, meaning ‘heron’ and *gata*, ‘a way, path or road’; *Stone Gate* 1839, ‘stone way or road’.

**MILLS:** *tercia vnus molendini .....in Flixburgh* 1304, referring to mills at Flixborough, possibly the successors to the watermills described in the Domesday survey (Foster and Longley 1924, 148).

**WOODLAND:** *The Underwood* 1668 – coppiced woodland, possibly with ‘standard’ timber trees (Rackham 1994, 7); *Underwoods* 1839; *Underwood* 1840; *Old Common Wood* 1840; *Ash Wood* 1778 (Snape Map), adjacent to the moated enclosure at North Conesby. Access to wood for timber on the part of inhabitants of North Conesby was also remarked upon in the *Conesby Computus Roll* of 1431.

**MEADOW / PASTURE** (described by Old Danish *Eng* or *Ing* names – generally low-lying pasture): *Trentenges* 1449 – the meadows or pastures beside the River Trent; *The Cristenges* 1449 – the first element may be the personal name *Crist* denoting meadow dedicated in some way to *Chrisr*; *The parkyngs* 1602; *Flixbrough Ingges* 1653; *Ings* – and *Ingge Lane* 1668; *Park Ings* 1668 and 1674; *The Ing close* 1686.

**PASTURE** (common land and other pasture): *Hestecroft* 1314, 1334 and 1341, from the Old Danish *hestr* – ‘a horse, a stallion’ – and the Old English *croft*, ‘a small enclosed field’. *Dam Leys*, *Damleys* – ‘meadow or pasture next to the dam or pond’; the Old Danish *dammr* element, describing a dam or pond was referred to in 1332. *Conyngesby Common* (North Conesby) 1431; *Old Common* 1840; *Flixborough Common* 1840; *Mare walk* and *Shepe-walk* 1839 and 1840 – ranges of pasture, mainly for sheep; *pasture*, *cow pasture* 1839 and 1840.

**CULTIVATED LAND:** *The Field* 1674, from the Old English *Feld* referring to the open field of Flixborough village, presumably for cultivation of arable crops and vegetables; *Middle field* 1668; *North field* 1690. *Short lands cald the Butts* 1668 – ‘a short strip at right angles to other strips, a short strip ploughed in the angle where two furlongs meet’; *the two Long Lands* 1668; *the corn close* 1674; *Rye Garth* 1839 and 1840 – rye enclosure.

**MARSHLAND/LOWLAND PEAT BOG/WATER-COURSES:** *La More* 1327 – from the Old English or Old Norse *mor*, meaning marsh or lowland peat bog or moor; *the Carre* 1674 – from the Old Norse *kjarr* describing ‘marshland overgrown with brushwood’; *Carr Closes* 1697. *Ye sure called Flixbrough sewer* 1583 – watercourse presumably flowing to the River Trent below Flixborough.

### *Synthesis: inferences on the pre-drainage landscape around Flixborough from place-names and minor-names*

by Christopher Loveluck

The settlement-related place-names and the names associated with fields or landscape features provide consistently strong evidence for the nature of the landscape and its management in the Flixborough area, before the extensive drainage of the middle decades of the seventeenth century. As such, they constitute an extra layer of information in support of the findings suggested from the topographical and sediment studies, and analyses of past landscape descriptions and pollen cores.

In relation to settlement and tenurial history, nearly all the settlements within four kilometres of Flixborough were recorded in the Domesday survey of the late eleventh century, including Amcotts, Luddington, Waterton and Garthorpe on the west bank of the River Trent. There was an especial concentration of settlement, as might be expected, on the sand-edged Liassic escarpment of the Lincolnshire Edge: for example, Flixborough, Conesby, Crosby and Burton-upon-Stather, enabling these settlements to exploit the adjacent wetlands of the Trent floodplain and the arable land, pasture and sporadic woodland of the escarpment. All the latter settlements were certainly in existence in the time of Edward the Confessor, in 1066. Settlements such as Gunness, however, are not recorded before the end of the twelfth century, suggesting that the latter low-lying promontory was situated in an area of marshland, characterised by peat bog or fen (see Gaunt above). The location of a settlement in this environment probably reflects settlement expansion into this marginal landscape after the Anglo-Saxon period.

In many ways, the names associated with fields and landscape features provide a much more important body of evidence for the nature and management of the past landscape than that provided by the settlement names – although the latter provide a closely dated ‘snap-shot’ of the existence of settlements. The field- and feature-names tend to have been recorded from the early fourteenth century onwards, with some exceptions relating to *stather* landing-places coming from the thirteenth century. These dates of recording, however, do not necessarily indicate their inception during the thirteenth and fourteenth centuries. The majority of the early field- and feature-names incorporated Old Danish, Old Norse and more rarely Old English elements, which described the nature of the topography or landuse. The previously discussed historical descriptions of the landscape, from Domesday to Leland, suggest a picture of broad continuity in the character of managed and ‘natural’ ecological habitats, in the vicinity of Flixborough and the Trent delta area. Consequently, it is highly likely that the thirteenth- and fourteenth-century renditions of landscape descriptions

could derive from the later Anglo-Saxon period. Indeed, topographical, sediment and pollen studies do not suggest significant differences in the nature of the landscape in the environs of Flixborough throughout the Anglo-Saxon period (Gaunt above; Lillie and Parkes 1998, 51–52).

The field- and feature-names describe a series of structures, places, route-ways, habitats and land use practices, incorporating predominantly Old Norse, Old Danish and Old English personal names and descriptive elements. The lowland moor and carr names reflect the existence of marshland in the Trent floodplain below Flixborough and North Conesby, corroborating the sediment studies and extant historical descriptions. The existence of a series of woodland place-names – especially the name *underwood* – is also likely to reflect the continued management of coppiced woodland in the vicinity of Flixborough and North Conesby, between the eleventh century when underwood is recorded in the Domesday survey, into the fifteenth and seventeenth centuries. The underwood of the seventeenth century need not have corresponded exactly with the underwood of Domesday in terms of location or extent, but continuity of the same managed woodland resource cannot be ruled out. The frequent references to meadow and pasture – *engs*, probably referring to low-lying pastures, and in one case certainly by the River Trent – also demonstrate the existence of large pasture tracts of permanent and seasonal pasture in the floodplain and on saltmarshes. Likewise, the *feld* names, in conjunction with the medieval descriptions of *carucates* and *bovates*, demonstrate land under arable cultivation in Flixborough and North Conesby; whilst names also show that pasture and woodland were held as *common* land by the inhabitants of both settlements, at least in the high medieval period.

Significantly, the landscape feature-names provide unambiguous evidence of the linkage of Flixborough, North Conesby and Burton-upon-Stather to landing-places on the River Trent. The earliest references to landing-places along the river are associated with Burton-upon-Stather, but *Flixborough stather* and *Pepilstather* (associated with North Conesby) are recorded from the late thirteenth and mid fifteenth centuries respectively. Their antiquity is uncertain, but it is highly likely that they reflect long-lived riverside landing-places, possibly on river levées. The imported artefacts found amongst the excavated Anglo-Saxon settlement remains certainly attest to commodities undoubtedly transported via maritime and fluvial means (see Chapter 7, this volume). The character of the landing-places is unknown. During the Anglo-Saxon period, they could have consisted of specific places where shallow draft vessels were drawn up on to the lower silt levées of the period (see Gaunt

above). Alternatively, they could have comprised a jetty area and a revetted riverbank, like the seventh- to eleventh-century example at Skerne on the River Hull, near Driffield, East Yorkshire (Dent *et al.* 2000, 214–242). Whatever form they took, they were probably linked to the sand edge and the escarpment settlement zone by raised trackways, crossing the intervening peat marshland.

The feature-names also give important hints of the importance of river resources, and yield intriguing clues on the physical linkage of territories on the east and west banks of the River Trent. The Domesday reference to watermills at Flixborough, re-affirmed in the reference of 1304, and the description of a *fishgarth* at *Pepilstather* in 1431 also demonstrates the importance of the Trent, and possibly its local feeder channels, for both crop processing and procurement of fish. It is possible that fish traps were located in the same locations as landing-places and mills, with the local inhabitants taking advantage of artificial leats, canalised channels, or jetty structures extending into the River Trent, for siting wickerwork traps (Swanton 1975, 110; Hooke 1998, 179; Brown 1997, 259–260). Finally, the existence of ferries across the Trent at *Flixborough Stather*, recorded from 1576, and a ferry linked to Burton-upon-Stather, recorded from the early fourteenth century, provides clear indications of the linkage of the east-bank Lincolnshire Edge settlements with the wetland tracts on the west side of the river. The existence of a ferry at Flixborough Stather is particularly interesting since it is situated directly opposite Amcotts on the west bank. The longevity of the ferry is not known, but its operation and the site of the landing-place could extend back into the Anglo-Saxon period. In 1066, the Domesday survey recorded that the Anglo-Saxon lord of Flixborough – Fulcric – also possessed a ‘hall’ at either Luddington or Garthorpe, together with marshland tracts on the west bank, from Amcotts to Garthorpe and into Thorne Moors (Foster and Longley 1924, 193; Loveluck above). It is entirely sensible to conclude that contacts with Amcotts, Luddington, Waterton and Garthorpe, together with the resources to the west of the Trent, were maintained by a long-standing river crossing-point, probably located at *Flixborough Stather*.

The complexities of the agricultural economy and provisioning of the excavated Anglo-Saxon settlement, described in the following chapter, must be understood within the context of the abundant indications of access to pasture, arable land, woodland, marshland, and river resources and communications, suggested by the sediment and pollen sequences, historical accounts, and the linguistic evidence discussed above.

## 5 The Agricultural Economy and Resource Procurement

*Keith Dobney, Deborah Jaques, Cluny Johnstone, Allan Hall, James Barrett, Jerry Herman, John Carrot and David Slater*

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### 5.1 Pastoral strategies – animal husbandry

*by Keith Dobney, Deborah Jaques and Cluny Johnstone*

Evidence for a wide range of economic activities, involving the different domestic species was present in the animal bone assemblage at Flixborough. Identification and quantification of the remains clearly point to the importance of domestic livestock (and deadstock) to the inhabitants, and the products from both played a major part in the complex agricultural economy of the Mid and Late Saxon periods.

Analysis showed that the vast majority (67–90%) of identifiable bone fragments for all periods were from the three major farmyard mammal *taxa* (i.e. cattle, sheep and pig), whilst between 10–33% of fragments derive from domestic fowl and goose. Although the frequencies of each appeared to vary through time (see Fig. 5.1 and section 5.5 below), cattle appear to be the most important domestic mammal, followed by sheep and then pig. Beyond the relative importance of the individual domestic species, zoo-archaeological analysis of age at death data, biometry, pathology and even DNA has provided more detailed insight into possible husbandry strategies which occurred at and around the site through the mid eighth to tenth centuries AD. However, the nature and character of the settlement at Flixborough (i.e. possibly being a high-status estate centre for most of its existence) may bias the evidence somewhat. It is more than likely that the vast majority of domestic produce reaching the site is from food rent, paid to the local aristocracy by tenants and ‘clients’. Thus, some of the data outlined below may not truly reflect the wider agricultural and economic ‘landscape’, since many of the components are likely to be missing from the site. Nonetheless, some useful observations can be made.

#### *Cattle*

Although it is clear that a wide range of age categories are represented in the assemblage for all major phases (i.e. from neonatal to elderly individuals), the emphasis at Flixborough was primarily on adult and elderly individuals. There is little change in the survivorship curve for cattle through all periods, apart from a possible small increase in importance of very young calves during the ninth century (Periods 4–5b). This suggests that the vast majority of food rent arriving alive at Flixborough were animals that were mostly at the end of their useful lives in terms of producing secondary products (i.e. milk) or no longer useful as draught animals. All were obviously killed for meat, but not before many had performed other useful agricultural functions. This can be further illustrated by consideration of biometrical data.

Various cattle bone measurements (e.g. for tibia, humerus and metacarpal) provide clear evidence for sexual dimorphism in the cattle and appear to indicate the presence of numerous small gracile cows, longer-limbed and more robust oxen (castrated males) and a few very robust and stocky bulls (entire males). Males that were surplus to breeding requirements, can be either killed immediately, or grown on. In the latter case, they are usually castrated, making them easier to handle (i.e. by being less aggressive and less sexually active) and encourages increased muscle mass and prolonged development. This process is reflected in the skeleton in the form of more robust and longer-limbed individuals of greater variation, a pattern that appears to be present at Flixborough. Since oxen used for traction would be kept alive well beyond their prime (in terms of efficient meat production), their presence at the site (along with breeding/dairy cows) corroborates the evidence for an emphasis on full adult and elderly animals.

The fact that oxen should be present at a high-status centre such as Flixborough should be no surprise. Their prime importance as draught animals (Figs 5.1 and 5.2\*)

Species		Phase 1	Phase 2-3a	Phase 3b	Phase 4-5b	Phase 6	Phase 6iii	Total
<i>Talpa europaea</i> L.	mole	-	-	-	4	-	-	4
<i>Oryctolagus cuniculus</i> (L.)	rabbit	3	33	1	127	69	28	261
cf. <i>Oryctolagus cuniculus</i> (L.)	?rabbit	-	-	1	2	1	-	4
<i>Lepus</i> sp.	hare	-	3	18	8	4	1	34
<i>Clethrionomys glareolus</i> (Schreber)	bank vole	-	-	1	-	-	-	1
<i>Microtus agrestis</i> (L.)	field vole	-	-	1	-	-	-	1
Microtine	vole species	-	-	1	-	-	-	1
<i>Apodemus sylvaticus</i> (L.)/A. <i>flavicollis</i> (Melchor)	wood/yellow	-	-	-	1	-	-	1
<i>Mus musculus</i>	house mouse	-	1	-	-	-	-	1
Murine	mouse species	-	1	3	-	-	-	4
<i>Rattus</i> sp.	rat	-	-	-	-	1	-	1
Cetacean	unidentified cetacean	-	1	4	-	6	4	15
<i>Balaenoptera acutorostrata</i> Lacepede	minke whale	-	-	-	1	-	2	3
cf. <i>Balaenoptera acutorostrata</i> Lacepede	?minke whale	-	-	-	1	2	-	3
<i>Tursiops truncatus</i> (Montagu)	bottle-nosed dolphin	-	7	22	14	55	17	115
cf. <i>Tursiops truncatus</i> (Montagu)	?bottle-nosed dolphin	-	4	17	14	12	3	50
<i>Globicephala melas</i> (Traill)/Orcinus orca(L.)	pilot whale/killer whale	-	-	-	-	1	-	1
Canid	canid	-	-	2	1	3	2	8
cf. <i>Vulpes vulpes</i> L.	?fox	-	1	1	1	6	-	9
<i>Canis f. domestic</i>	dog	-	-	-	1	-	1	2
cf. <i>Martes martes</i> (L.)	?pine marten	-	-	5	-	1	-	6
<i>Felis f. domestic</i>	cat	-	-	12	23	17	11	63
<i>Equus f. domestic</i>	horse	1	82	316	431	514	157	1501
<i>Sus scrofa</i> L.	boar	-	-	2	-	2	1	5
<i>Sus f. domestic</i>	pig	36	716	1582	2559	1702	574	7169
<i>Cervus elaphus</i> L.	red deer	-	-	-	2	2	-	4
cf. <i>Cervus elaphus</i> L.	?red deer	-	-	-	3	-	-	3
<i>Capreolus capreolus</i> (L.)	roe deer	-	13	28	36	35	9	121
cf. <i>Capreolus capreolus</i> (L.)	?roe deer	-	-	-	-	1	-	1
<i>Bos f. domestic</i>	cattle	52	1104	2939	2557	2567	1042	10261
<i>Capra f. domestic</i>	goat	-	7	35	16	26	3	87
cf. <i>Capra f. domestic</i>	?goat	-	1	8	4	8	2	23
<i>Ovis f. domestic</i>	sheep	24	258	525	990	546	179	2522
Caprovid	sheep/goat	55	614	1641	2450	1731	771	7262
<i>Homo sapiens</i>	human	-	11	1	6	2	29	49
<i>Rana temporaria</i> L.	frog	-	-	-	2	-	-	2
<i>Bufo bufo</i> L.	toad	-	1	-	-	1	-	2
Amphibian	amphibian	-	-	2	3	-	-	5
<b>Subtotal</b>		<b>171</b>	<b>2858</b>	<b>7168</b>	<b>9257</b>	<b>7315</b>	<b>2836</b>	<b>29605</b>
<i>Cygnus</i> sp.	swan	-	-	1	-	1	-	2
cf. <i>Ardea cinerea</i> L.	?grey heron	-	2	-	-	-	-	2
<i>Anser</i> sp.	goose	31	489	985	1348	751	94	3698
cf. <i>Anser</i> sp.	?goose	-	-	-	1	-	-	1
<i>Anser brachyrhynchus</i> Bailon	pink-footed goose	-	-	-	2	-	-	2
cf. <i>Anser brachyrhynchus</i> Bailon	?pink-footed goose	-	-	1	-	-	-	1
cf. <i>Branta leucopsis</i> Bechstein	?barnacle goose	7	191	351	107	185	5	846
cf. <i>Branta bernicla</i> L.	?brent goose	-	-	3	3	3	-	9
<i>Anas</i> sp.	duck	5	42	60	116	64	19	306
cf. <i>Anas</i> sp.	?duck	-	-	3	1	1	1	6
<i>Anas cf. platyrhynchos</i> L.	?Mallard	-	-	-	9	-	-	9
<i>Anas crecca</i> L.	teal	-	-	7	2	2	1	12
cf. <i>Anas crecca</i> L.	?teal	-	-	1	1	-	-	2
Raptor	raptor	-	-	-	2	-	-	2
cf. <i>Milvus milvus</i>	?red kite	-	-	19	-	1	-	20
cf. <i>Circus aeruginosus</i> (L.)	?marsh harrier	-	-	1	-	1	-	2
cf. <i>Buteo buteo</i>	?buzzard	-	-	20	4	1	-	25
<i>Lyrurus tetrix</i> (L.)	black grouse	-	7	17	-	9	-	33
cf. <i>Lyrurus tetrix</i> (L.)	?black grouse	-	-	-	2	-	-	2
<i>Gallus f. domestic</i>	chicken	38	846	1596	1817	1192	202	5691
cf. <i>Gallus f. domestic</i>	?chicken	1	3	2	5	1	1	13
cf. <i>Phasianus colchicus</i> L.	?pheasant	-	-	-	1	-	-	1
<i>Grus</i> sp.	crane	2	26	115	13	72	-	228
cf. <i>Grus</i> sp.	?crane	-	-	-	-	1	-	1
wader sp.	wader	-	12	11	6	6	-	35
?wader	?wader	-	-	1	1	-	-	2
cf. <i>Vanellus vanellus</i> (L.)	?lapwing	-	1	1	1	-	-	3
cf. <i>Pluvialis</i> sp.	?plover	2	173	76	16	31	3	301
<i>Numenius arquata</i> (L.)	curlew	-	7	1	3	9	-	20
cf. <i>Numenius arquata</i> (L.)	?curlew	-	6	1	1	1	-	9
cf. <i>Scolopax rusticola</i> L.	?woodcock	-	2	1	-	2	-	5
Laridae	Laridae	-	3	2	-	2	-	7
cf. <i>Larus fuscus</i> L.	?lesser black-back gull	-	1	-	-	-	-	1
Columbidae	Columbidae	3	29	75	29	35	2	173
cf. Columbidae	?Columbidae	-	-	-	-	-	1	1
<i>Tyto alba</i> (Scopoli)	barn owl	-	-	-	1	-	-	1
cf. <i>Tyto alba</i> (Scopoli)	?barn owl	-	-	-	1	-	-	1
<i>Strix aluco</i> (L.)	tawny owl	-	-	-	2	1	-	3
Turdidae	Turdidae	-	1	-	-	1	-	2
cf. Turdidae	?Turdidae	-	-	3	-	-	-	3
<i>Garrulus glandarius</i> (L.)/Pica pica (L.)	jay/magpie	-	-	-	-	2	-	2
<i>Corvus monedula</i> L.	jackdaw	-	1	-	-	-	-	1
<i>Corvus frugilegus</i> L.	rook	-	-	-	1	-	-	1
<i>Corvus corone</i> L./Corvus <i>frugilegus</i> L.	crow/rook	2	8	46	37	18	1	112
<i>Corvus corax</i> L.	raven	-	-	-	-	4	-	4
<b>Subtotal</b>		<b>91</b>	<b>1850</b>	<b>3400</b>	<b>3533</b>	<b>2397</b>	<b>330</b>	<b>11601</b>
<b>Total</b>		<b>262</b>	<b>4708</b>	<b>10568</b>	<b>12790</b>	<b>9712</b>	<b>3166</b>	<b>41206</b>

FIG. 5.1. Hand-collected vertebrate remains from the excavations at Flixborough, North Lincolnshire, identified to species (K. Dobney, D. Jaques and C. Johnstone).

is reflected in the fact that (along with horses) they are one of the most common types of domestic animals mentioned in Anglo-Saxon charters and wills. For example, a grant by Offa, king of Mercia, to the church of Worcester of land at Westbury and Henbury, Gloucestershire (AD 793–796) mentions 7 oxen as part of tribute or food rent payable to the royal estate, whilst an exchange between Ethelbert, king of Kent, and his thegn Wulflaf (AD 858) of land at “Wassingwell” and Mersham (*EHD* 93) allowed Wulflaf to pasture four oxen with the king’s oxen.

In terms of their management, the Irish law codes indicate that although most castrated male cattle would be slaughtered in their first year for their meat, some would be selected on the basis of their strength and docility as draught oxen. Trained from their third year, they were highly prized animals and in a ninth-century gloss on *Bechbretha* they are classed along with *milch* cows as ‘noble dignitaries of livestock’ (*CIH* iii 924.24 from Kelly 1997, 48). When fully grown they would have been considerably larger than a *milch* cow – which is aptly illustrated by an old Irish legal passage on trees, which indicates that more oak bark is needed to tan an ox hide than a cowhide (*CIH* I 202.20;582.7 also from Kelly 1997, 48).

Biometrical analyses of the cattle bones from the site have also indicated the presence of unusually tall cattle at Flixborough (particularly in Periods 2–3a), which have few parallels in the country or on the continent. These may represent a different variety or breed of cattle present at Flixborough that were possibly not of local origin (see Dobney, Chapter 7, this volume).

### Sheep

A broadly similar pattern to that of cattle (i.e. of little change through time) was seen when reconstructing kill-off patterns for sheep. All age categories (except very young ones, i.e. animals of 0–2 months old) are represented for each major phase, with an emphasis on sub-adult and early adult animals (i.e. from 2–8 years). There is a gradual kill-off of younger animals (2 months – 2 years), after which the majority of individuals were killed. The absence of very young sheep at Flixborough tends to argue in favour of an emphasis on wool, against the consumption of lamb by high-status individuals and against the use of sheep for dairying purposes. However, a heavy emphasis towards mature animals may only reflect the proportion of the flock provided as food rent, and (like cows) could indeed include the remains of mature ewes surplus to the dairying herd.

### Pig

Remains of pigs were ubiquitous throughout all the occupation sequence at Flixborough, as they are at many sites of this period in Britain and on the continent. Age at death data for pigs suggest that there is little or no change in culling patterns through time, although unlike

cattle and sheep, it is clear that there are indeed specific age categories that were being selectively slaughtered (i.e. animals at approximately 20 months and 32 months of age). Pigs were an important seasonal resource in the past, being traditionally killed during the winter months, and the pattern from Flixborough suggests this was also the case throughout the whole of the main occupation sequence, with animals being killed mainly during their second and third winters. Irish Law codes corroborate this finding by indicating that many pigs were not slaughtered in their first autumn or winter, but more often between their second autumn (16 months) and following spring (2 years). They indicate the killing of sows after they had produced 2–3 litters, and there are numerous references to the slaughter of older pigs (Kelly 1997), a practice, which, according to the Flixborough data, appears to have been common practice during the Anglo-Saxon period in England.

Pigs were traditionally fattened during the late autumn/early winter in woodland, where they would gorge themselves on fallen acorns and beech mast – a system known as ‘pannage’. One of the final agricultural tasks of the year was the winter killing of pigs. Scenes of pannage and pig slaughtering are common depictions in eleventh-, twelfth- and thirteenth-century calendars for the months of November and December (Perez-Higuera 1998).

In Anglo-Saxon and medieval Britain, high frequencies of pig remains also appear to be associated with high-status sites. As well as ecological factors involved with the abundant areas of managed woodland controlled by large aristocratic estates, it has been argued (e.g. for the early medieval period in Belgium) that the consumption of large quantities of pork was also a manifestation of wealth and position, reinforcing rank and social identity (Ervynck in press).

It is interesting to note that pig was the dominant domestic animal present in tenth- to eleventh-century assemblages from Dublin (McCormick 1992). Whether this implies a higher status urban component to the inhabitants of Late Viking Dublin, compared to the contemporary tenements and artisan quarters excavated in, for example, Viking York (where cattle remains were most common), is difficult to know. It could merely reflect different provisioning practices of urban centres, or the presence of different ecological conditions around each urban centre (e.g. more woodland for pig breeding) favouring certain kinds of husbandry.

### Domestic fowl

The vast quantity of chicken remains recovered from Flixborough attest to their obvious importance to the inhabitants of the site throughout all periods and, along with geese, their remains are commonly recovered from many other sites of Anglo-Saxon date in England. Over 85% of the major limb elements were from adult birds, which, along with the numerous fragments of eggshell



recovered from wet-sieved samples, suggests that domestic fowl were important for egg production as well as for providing meat for the table.

Biometrical analyses showed clear evidence for sexual dimorphism in chickens, suggesting that a large proportion of their remains were from female birds. Additional evidence from the tarsometatarsal bone (which has a specific sexual character in the form of the spur) suggests that cockerels and castrated males (capons) were also present. Cockerels would have been castrated because the resulting bird grew larger and the quality of the meat produced was better. It also creates more docile birds, which are much less active and lack the desire to fight and behave in a territorial manner. Although the first records in England of caponisation do not occur prior to the medieval period (Allison 1985), Roman authors do allude to the practice, although it is unclear from their writings, whether the birds were actually castrated or merely had their spurs removed. Contemporary Irish sources make several references to capons – termed *gaillín* or *gaillén* – (Kelly 1997, 102), as do later medieval documents and recipes.

### *Domestic geese*

Like pig, large numbers of goose remains appear to be the norm on many high-status Anglo Saxon sites. These were obviously important for their meat and feathers, but the presence of numerous ‘thick’ eggshells in the wet and dry-sieved assemblages from Flixborough also (like chickens) allude to the utilisation of eggs.

Problems with separation and identification of wild and domestic geese bones have caused many workers to make sweeping assumptions about the relative importance of wild and domestic geese varieties present in medieval assemblages. The large assemblage from Flixborough provided an opportunity to use biometrical and biomolecular techniques to resolve some of these questions (Barnes *et al.* 1998 and Haynes 2001). Results from analysis of aDNA of over 50 sequences obtained from over 300 samples showed that the vast majority of geese at Flixborough were indeed domestic. Only two wild species of geese were identified; these being the barnacle and pink-footed goose. More interesting, was the identification of a unique genetic ‘marker’ for domestic geese that allowed us to calculate the relative proportions of wild to domestic in the assemblage, which was 1:6.

The wide size range for domestic geese, and the presence of what appear to be two common domestic genotypes, may even reflect the existence of different varieties of domestic geese at the site. The two separate genotypes correspond to representatives of the two breeds (Toulouse-type 1; Embden-type 2), both described as “monopolising standards until recent times”, and which were supposedly mentioned in the first book of standards (Hawksworth 1982, 328).

## **5.2 Arable strategies and processing of arable crops**

*by Allan Hall*

Evidence for crop plants at Flixborough was extraordinarily sparse, due to the soil conditions, and the single sample relatively rich in cereal crop weeds (together with modest concentrations of poorly preserved cereal grains) was of twelfth- to fourteenth-century date (pit fill 1410). The cereal taxa recorded from the site (in descending order of frequency) were barley (*Hordeum*), wheat (some bread/club wheat, *Triticum* ‘*aestivo-compactum*’, with other material not identified beyond genus), rye (*Secale cereale*) and oats (*Avena*). A high proportion of the determinations were tentative, and remains were often rather poorly preserved. The only cereal chaff recorded was a trace of barley rachis (ear stalk) from a single sample from context 3911, a Phase 3a post-pipe fill, associated with Building 1a.

It may be suspected that such low concentrations and poor preservation indicate reworking, but whatever their origins, these few remains do not stand as good evidence for the processing of the crops in the vicinity, nor for the widespread use of cereals at the site. The only other crop plants recorded were seeds of the legumes field bean (*Vicia faba* var. *minor*), possibly pea (cf. *Pisum sativum*), and seeds of flax (linseed, *Linum usitatissimum*) and hemp (*Cannabis sativa*), all recorded in very small amounts from very few contexts, scattered through the sequence.

## **5.3 Procurement strategies – fishing, hunting and environmental management**

*by Keith Dobney, Deborah Jaques,  
James Barrett and Jerry Herman*

Numerous remains of wild vertebrates recovered from excavations at Flixborough attested to a significant exploitation of wild resources by the inhabitants at the site. Apart from fish, the vast majority of wild animal remains identified were those of birds and the diverse range of species identified indicate the important role wildfowling played in both the economic and social lives of the inhabitants. Few wild terrestrial mammals were identified in the Flixborough assemblage, probably indicating the general rarity or absence in the vicinity of the site of species such as wild boar, red deer, wolf etc. This is perhaps a reflection of the intensive management and use of the landscape for agriculture (both pastoral and arable), already well established in the region between the seventh and eleventh centuries. In addition to fish, the numerous bones of bottle-nose dolphin (present in all periods, but in different quantities) attest to the systematic exploitation of marine resources, and along with the avian remains, also provide important evidence for the nature

and character of the settlement (see Loveluck, this volume, Chapter 9).

### Wildfowling

A contemporary and somewhat brief reference to the variety of techniques employed in wildfowling can be found in *Aelfric's Colloquy*. This set conversation piece between master and pupils was probably written for the novices at Cerne Abbas where Aelfric lived from 987–1002 (Swanton 1975, 108). In it, the character of the wildfowler specifically states that “*I trap birds in many ways; sometimes with nets sometimes with snares, sometimes with lime, by whistling, with a hawk or with a trap*”.

Nets and snares, the form and function of which changed little from Saxon to early modern times, were perhaps the most common form of catching a wide variety of wildfowl. Nets (probably made of hemp) were especially good for capturing ground-roosting birds such as black grouse (MacPherson 1897, 339). A whole range of bird species from small to very large could be taken with snares (usually made of horse hair, the tendons of other large birds, and other similar materials). According to Folkard (1859, 8) “*they were used by the Anglo-Saxons both by night and day and were employed in the fens as well as by the margins of lakes, rivers and pools, the snares being sometimes placed underwater*.”

An extremely common aid to catching wild birds was by the use of ‘birdlime’, a generic term for an ancient adhesive designed to hold fast an alighting bird. A variety of recipes for birdlime attest to a diverse range of ingredients (e.g. Markham 1655 cited in Ray 1678, 49). Birdlime is today commonly associated with the taking of small songbirds and *passerines*, but was used to take a variety of prey of all sizes, including birds as large as geese.

Another, perhaps more bizarre, way of catching wild birds was by the use of poisoned or drugged bait. This was a relatively simple way of catching geese and ducks by soaking the seeds and root of “Belenge” in water. When such bait is eaten by birds, they are said to “*sleep as if they were drunke*” (Helme 1614).

Of course individual birds could be killed using archery, although this method tended to be used only for larger species, since large numbers could not be brought down at once. In medieval and post-medieval times, shooting large birds with the longbow was esteemed above all other methods for taking waterfowl (Folkard 1859, 10).

Perhaps one of the most effective ways of capturing waterfowl in large numbers (particularly ducks) was to drive them into tunnel nets during their moult in the summer season. The antiquity of decoys and tunnel nets is unknown, but the limited numbers of duck bones identified in the Flixborough assemblage perhaps indicate that this particular method of wildfowling was not practised during the Anglo-Saxon period, on the east coast.

Finally, wild birds could have been hunted with hawks and falcons. Certainly the art of falconry (catching wild game using tame birds of prey) was well known to the inhabitants of northern Europe from the sixth century onwards, and was a pastime associated with high-status individuals. As previously mentioned, the fowler in *Aelfric's Colloquy* describes the use of hawks as one means of catching birds (Swanton 1975, 111). There are various zoo-archaeological lines of evidence which might support the existence of falconry at Flixborough and other Anglo-Saxon sites. At Flixborough, cranes were a particularly favoured prey species, alongside certain wild geese species; and black grouse and heron were present in smaller numbers (Dobney and Jaques 2002, 10–14; FIG. 5.3\*). These are discussed in more detail in Dobney and Jaques (2002, 7–21) and in Volume 3.

Detailed analysis of the bird remains themselves also appears to provide a number of specific clues which suggest that wildfowling practices at Flixborough may have been targeted towards specific habitat types.

The bones of ‘small geese’ (most likely Barnacle goose – confirmed by aDNA analysis) appear to be the most abundant wild bird species in the assemblage (FIG. 5.1), whilst Brent geese in comparison are almost completely absent. If extensive wildfowling was being carried out in the saltmarshes of the Humber, one would expect to find more Brent geese remains in the assemblage. Like barnacle geese and pink-footed geese, Brent geese frequent the inter-tidal flats adjacent to the saltmarsh in similar high frequencies. Therefore, unless Brent geese were being deliberately avoided, they should have been caught in equal numbers, particularly if they were being caught as flocks in nets. Barnacle geese, however, (unlike Brent geese) will also move inland to exploit arable fields – which would appear to suggest that the majority of wildfowling for geese most likely took place on the unimproved ‘waste’ pastureland (which would have been plentiful around the site during the Anglo-Saxon period – see Loveluck, this volume, Chapter 4) and not on the more distant saltmarshes and mudflats. The other bird species, such as crane, curlew, plover, woodcock and black grouse broadly supports this general hypothesis (FIG. 5.1).

The zoo-archaeological evidence, therefore, may be used to argue that the vast and diverse wetland habitats, in the broad vicinity of the site, may in fact not have been heavily utilised for the purposes of wildfowling. The coastal saltmarshes and freshwater marshes and mires to the west, would have been havens for numerous wildfowl species other than Barnacle geese all year round. However, large expanses of these wetland areas may not have been easily accessible. Yet, on unimproved grassland, possibly the documented ‘waste’ of Domesday and the Alvingham charter, or arable fields, wildfowl from the wetlands could congregate in large numbers, particularly in the evening when they roost. This is when they could have been caught in some quantity.

## Fishing

As a component of overall diet, fish were probably of limited importance in Mid and Late Saxon England. This observation is particularly true of rural settlements. Fish bones are rare in assemblages of this date, even when large-scale sieving has been employed and preservation conditions are conducive to their recovery. At the inland settlement of West Heslerton, for example, only a single fish bone (pike) has been recovered from an assemblage of over 80,000 identified specimens (J. Richardson, pers. comm.). In fact, Saxon fish assemblages of any size are rare outside urban contexts such as York (e.g. Jones 1988; O'Connor 1989; 1991), Ipswich (e.g. Locker and Jones 1985), London (e.g. Locker 2001, 181) and Southampton. As one might expect, the few large rural collections are from coastal and estuarine sites. Flixborough, with c. 6000 identified specimens from the sieved samples, provides the largest assemblage known to the author, followed by Sandtun, West Hythe (on the coast of Kent) with c. 4000 specimens (Hamilton-Dyer 2001, 258). Even in these cases, however, the low ratio of fish to mammal bone (by number of identified specimens) implies a limited quantitative role for fish in the overall diet. The ratios of fish to mammal bone for the phase groups at Flixborough range from less than 0.01 (Phase 6iii) to 0.15 (Phase 2–3a). As a comparison, the equivalent ratio for broadly contemporary sites in northern Scotland ranges from 0.4 to 38.5 (Barrett *et al.* 2001, Table 1).

In contrast to the limited numbers of bones from archaeological sites, fish do occasionally figure strongly in Mid and Late Saxon historical and ecclesiastical sources. In 731 Bede observed that “Salmon and eels are especially plentiful” (Colgrave and Mynors 1969). The fisherman of *Ælfric's Colloquy* (c. 987–1002) claimed “*I can't catch as many as I can sell*” (Swanton 1975, 110); and the Laws of Æthelred (code IV, c. 991–1002) set out tolls in London for boats containing fish. Poor recovery and preservation are possible explanations for this apparent disparity, but the importance of fish may have had more to do with the ritual and seasonal cycles of Anglo-Saxon England than with their absolute dietary contribution. Specific *taxa*, particularly sturgeon, may also have served as prestige goods (Hagen 1995, 167).

The practice of Christian fasting, later formalised by Benedictine and subsequent monastic rules (Dembinska 1986), was broadened to the secular community in Kentish law by AD 695 (Swanton 1975, 3). Similar legislation was gradually adopted throughout Anglo-Saxon England. Examples include the ninth-century edicts of Alfred and Guthrum, Edgar's code at Andover (959–963) and Canute's laws of the early eleventh century (Hagen 1992, 131). The precise number of fast days per year varied through time and according to the rigor of the community in question (Hagen 1992, 127–134). Nevertheless, the meat of quadrupeds would typically have been forbidden during the forty days of Lent, the forty days of Advent

before Christmas, possibly the forty days following Pentecost, and on the eves of Christian celebrations throughout the year (Hagen 1992, 127–131). This practice is known to have had a major impact on the seasonal demand for fish in the later Middle Ages, particularly among the aristocratic elite who could afford the considerable expense (Dyer 1988). It is less certain that fish were widely accepted as a component of fasts prior to the twelfth century (Dembinska 1986, 155). Although they were not explicitly excluded by the Benedictine Rule, it is clear that fish were viewed as delicacies rather than staple fare by some Christian communities (McDonnell 1981, 22; Dembinska 1986, 155).

The seasonal cycle of abundance and scarcity would also have created important niches for fish within the subsistence economy. Fisheries for smelt, during their upstream spawning run in March to April (Maitland and Campbell 1992, 165); and adult eels, during their seaward migration in September to October (Wheeler 1969, 228), would have produced huge catches in a matter of weeks or even days. Regardless of the requirements of Lent, fish may have been particularly important in late winter, the traditional period of shortage in medieval Britain (Wilson 1973, 26).

Although approximately 28 freshwater, migratory and marine *taxa* were identified at Flixborough, the assemblage was dominated by just seven, all of which are freshwater or migratory species. Based on the sieved assemblage (2mm mesh), these were: salmonids (157 specimens), smelt (910 specimens), eel (3097 specimens), flounder or plaice (c. 780 specimens), Pike (588 specimens), cyprinids (351 specimens) and perch (290 specimens). They could have been caught using a variety of methods, principally nets, lines and traps. Ælfric's river fisherman caught “*eels and pike, minnows and turbot [flounder?], trout and lampreys and whatever swims in the water*” (Swanton 1975, 110). When asked about his methods, he replied “*I board my boat and cast my net into the river; and throw in a hook and bait and baskets*” (Swanton 1975, 110). Probable lead net weights have been found at Flixborough itself (Wastling, Volume 2, Chapter 6), and Saxon fish weirs of wattle are known, at Colwick further up the River Trent for example (Salisbury 1991). This specific example, comprising wattle fences forming a V-shaped enclosure with its mouth facing upstream, would have been particularly useful for catching eels in a terminal net or wicker basket during their autumn downstream migration (Salisbury 1991). However, similar technology has been used to catch salmonids (principally salmon) during their upstream migrations and, if placed in an estuarine setting, flatfish and marine *taxa* (Salisbury 1991).

In medieval England freshwater fish were cultivated in carefully managed ponds sponsored by monasteries and the aristocracy (Dyer 1988). Pisciculture of this kind was practised on the continent in the reign of Charlemagne. However, it seems not to have been

introduced to Britain until the eleventh and twelfth centuries (McDonnell 1981), and is unlikely to be the source of the fish recovered at Flixborough.

As noted above, sturgeon require special comment. This species, present in Periods 2–3a through 6, is rare in late prehistoric to medieval fish bone assemblages throughout north-western Europe (Enghoff 1999; 2000). A preliminary survey of sieved English assemblages dating from the sixth to fourteenth centuries has noted only three other occurrences (Jones 1976; O'Connor 1989; 1991). Sturgeon were probably highly valued in the Anglo-Saxon period (Hagen 1995, 167), and came to be reserved as royal property later on in the Middle Ages (Hammond 1993, 21–22). Their presence at Flixborough is consistent with other ecofact and artefact evidence for high-status occupation. This species could conceivably have been acquired by trade, but it does visit the lower reaches of large British rivers (Maitland and Campbell 1992, 91), and is more likely to represent a rare local catch.

The large number of cetacean fragments found at the site is exceptional since very few sites of similar or later date from Britain (or indeed Europe) have produced such a large collection of marine mammals. What is even more surprising, is the fact that almost all of the fragments represent a single species, that of the bottlenose dolphin (*Tursiops truncatus*). The only other species that have been identified from the site are the Minke whale (*Balaenoptera acutorostrata*) and a possible single fragment of Pilot or Killer whale (*Globicephala melas/Orcinus orca*). Unlike the *Tursiops* remains, bones of these larger whales are few in number (a total of three fragments) and do not appear in the assemblage until the ninth century.

Once again, *Ælfric's Colloquy* provides a source for information about cetacean fishing. In it, the pupil (representing the fisherman) indicates that "*porpoises and sturgeon were caught among other fish, but whales were not, since they were dangerous and can sink the many boats sent to hunt them.*" However, the master presses the fisherman and states that "*...many catch whales..... and make great profit by it*". Historical and zoo-archaeological evidence summarised by Gardiner (1997) indicates that hunting whales, porpoises and dolphins was not common in England, during the Anglo-Saxon period. Gardiner also states that the main English sources of cetaceans throughout the medieval period were probably those animals stranded or cast up on the shore. He cites a famous passage from *The Life of St Godric* (twelfth century) which describes the saint searching the beach, three or four miles from shore, whereupon he came upon three stranded *delphines*. The two that were still living he returned to the sea, the third (dead individual) he cut up and carried home (Stevenson 1847, 26–27). However, the evidence from Flixborough appears to point to a scale and intensity of exploitation beyond the mere opportunistic utilisation of stranded animals.

Detailed analysis of the Flixborough bottlenose dolphin remains shows a clear bias towards fragments of selected vertebrae, rib and skull fragments and a complete absence of elements from the flippers. Although meat was almost certainly the primary objective, the presence of cranial fragments may indicate that these animals were also utilised for their oil, substantial quantities of which are particularly copious in the 'melon' and jaw. Butchery marks are consistent with the separation of the dolphin carcasses into manageable pieces, which must have aided transport from the coast, probably via the river, to the site. It appears that only selected portions were reaching the settlement (i.e. those with a high meat or oil utility).

In terms of the age profiles and sizes of the individuals that are represented, almost all of the *Tursiops* specimens are from subadult/adult animals and all are from large animals of between 250–350cms in length. In contrast, all the large whale bones are from small juvenile specimens which, like *Tursiops*, could have either been hunted (in the estuary or inshore) or stranded on the coast. This suggests the deliberate targeting of particular size/age classes which most likely indicates harpooning as a method of capture.

The exploitation of stranded animals at Flixborough can also be ruled out on the basis of recent stranding records since 1913, which interestingly, also show that bottlenose dolphins have only rarely been recorded near to the Humber estuary in the last 90 years. These records also show a significantly higher frequency of porpoise strandings, evident from all decades for which records exist, and a similarity in the number and frequency of Minke whale strandings to that of bottlenose dolphins. If we make the assumption that the twentieth-century stranding data are what might have been expected during the eighth to tenth centuries AD, it is strange that not one single common porpoise element has been identified from the vast vertebrate assemblage at Flixborough (despite careful sorting and identification of bones), and only a few elements of Minke whale are present.

Although the lack of bones of Minke whale can be readily explained by their much larger size compared to either *Tursiops* or *Phocoena*, the complete absence of common porpoise remains is less easy to explain. If their present-day frequency and distribution reflect that of the past, then they also ought to have been more common in waters around Britain, between the seventh and eleventh centuries.

Bottlenose dolphins may have been present in and around the Humber estuary in large numbers, following migratory fish that congregated in river mouths prior to moving upriver to spawn. A resident population in the estuary may have been easier to hunt than other cetacean species (particularly smaller porpoises), due to their propensity to come into very shallow waters, and because of their extremely inquisitive nature, making them more approachable (and therefore vulnerable) by boat.

The fact that there are no recent or historical records

for the presence of a resident population of bottlenose dolphins in or around the Humber estuary may suggest that their intensive exploitation in the past led to their eventual extinction from the region. It is unlikely that this purported extinction occurred in the tenth century AD (numerous fragments are still present in Period 6 dump deposits – some even in Phase 6iii dark soils). Interestingly, Musset (1964, 161) suggests that the zenith of whale hunting further south in the English Channel took place a little later, i.e. during the eleventh and early years of the twelfth century AD. The Anglo-Saxon exploitation purported at Flixborough could perhaps have increased during the subsequent Anglo-Norman period, and rapidly led to the demise of bottlenose dolphins from the Humber estuary.

#### **5.4 Reconstruction of the environmental habitats utilised by the inhabitants of the settlement**

**by Keith Dobney, James Barrett,  
John Carrott, Allan Hall, David Slater,  
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The vast wealth of direct and indirect evidence reflecting the range of wild and domesticated resources utilised by the inhabitants of Flixborough are many and varied, and are extremely informative, as much for what is absent from the bio-archaeological record, as for what is actually present. The evidence for exploitation of these resources, and the ways in which they might have been procured, are outlined and discussed below.

##### *Evidence for on-site environment and living conditions*

All of the snail assemblages recovered from the excavated area at Flixborough were small, and only a small range of *taxa* was represented. The overall character of the assemblages (other than the small number indicative of saltmarsh) was consistent across the physical and temporal distribution of the site. These all indicated a local environment of dry, probably short-turfed, grassland with damper or perhaps merely more shaded conditions (indicated by, for example, *Carychium* spp. and *Vitrea crysallina*) present within cut features. There were also hints of denser cover, such as nearby woodland or scrub, given by the presence of *Discus rotundatus* in deposits from Periods 1 through 6.

Perhaps one of the most surprising aspects of this site is that occupation was continuous over a long period, with many phases of building and rebuilding, on deposits consisting of unconsolidated sand. It seems inconceivable that such sand was not largely vegetated (or in some other way protected from the elements) to prevent mass-movement under the influence of rain and wind. The likelihood that a cover of turf would be detectable through plant macrofossil remains is small, given the rapidity

with which uncharred remains would decay. Nevertheless, the lighting of bonfires on areas of turf might, one supposes, produce some charred remains which would find their way into the occupation deposits, dispersed from their original concentration in a burnt surface. As previously discussed, however, the land snail assemblages appear to suggest a cover of short grassland over the site throughout its occupation. In fact, deposits identified during excavation as turf lines were recorded in four cases for the pre-Anglo-Saxon period and once for Period 7. Samples from two of the pre-Anglo-Saxon 'turf line' contexts were examined, and one of these produced modest numbers of sclerotia (resting bodies) of a soil fungus in or related to the genus *Cenococcum*, consistent with the formation of a soil but offering no further information about the nature of vegetation on it.

##### *The regional picture*

From the range of bio-archaeological and historical information (see Loveluck and Cameron, this volume, Chapter 4) that exists for the region, a general picture of the environment of the area surrounding the site of Flixborough can be constructed for the period, between the seventh and eleventh centuries AD. This is of a very large and diverse wetland habitat stretching away from the site to the west and north. Large well-established reed beds would have been plentiful along the Trent, edged with some riverine woodland. The area closer to Flixborough would probably have been rich fenland under the influence of the freshwater from the Trent and the Don on its old course, which was probably interspersed with intact raised mires (see Gaunt, this volume, Chapter 4). The area south and east of Flixborough was likely to have been rich lowland heath and unimproved pasture, and the majority of woodland would have been deciduous, patchy and coppiced, not unlike that seen today. Some elements of the various bio-archaeological assemblages from Flixborough have provided a more detailed insight into the exploitation of several specific environmental zones surrounding the site (i.e. woodland, saltmarsh, river and estuary).

##### *The utilisation of woodland*

Woodland was a valuable seasonal resource for pigs which, throughout the Saxon and later medieval periods, were turned out to forage in late summer and autumn on the fallen acorns or beech mast – 'the pannage season' (Hooke 1998). The large number of pigs throughout the sequence at Flixborough (and their apparent increase in importance during the ninth century) suggest that large tracts of nearby woodland were available to, and incorporated into the Flixborough estate, as indicated in the Domesday survey for 1066 – *Temporis Regis Edwardi* (see Loveluck, this volume, Chapter 4). Woodland was also utilised for the seasonal pasturing of cattle, horses and even sheep (Hooke 1998, 143), and was also traditionally the preserve of the nobility for hunting game

such as wild boar, deer, badger, wolf and bear. However, large tracts of dense and relatively undisturbed 'wildwood' would be necessary to maintain viable populations of the larger wild game.

The substantial woodland linked to the manor of Fulcric of Flixborough in 1066 was certainly large enough to support herds of swine, located near Flixborough and on the Isle of Axeholme (Loveluck, this volume, Chapter 4; FIG. 4.4). It is most likely that these tracts existed as 'islands' in the midst of larger areas of unimproved pasture, arable lands and areas of natural wetland. They were almost certainly highly managed for wood, firewood, pannage and grazing, and thus heavily disturbed by humans and their livestock. It is, therefore, not surprising that boar, bear, wolf and red deer are absent from the Flixborough assemblage, since the available woodland utilised by the inhabitants of the site would not have supported and sustained viable populations which could have been hunted. The presence of moderate numbers of roe deer lends credence to this argument.

Finally, woodland or woodland-edge wild plant resources likely to have been exploited by the inhabitants of the site at Flixborough were hazel nuts (charred *Corylus* nutshell was recorded in 12 contexts), and various wild fruits (blackberry, *Rubus fruticosus* agg., identified in a single context, and wild plum, *Prunus domestica* ssp. *Insititia*, recorded as charred fruit stones from three contexts), but these few remains do not suggest large-scale or long-term exploitation, unless the nature of survival of plant material at this site is such that only a very little of the food waste discarded ever found its way into the fossil record.

Not all the woodland may have been mixed deciduous forest with oak and beech trees dominating. The presence of pine marten (*Martes martes*) may indicate the presence of local coniferous woodland. Although absent from the region today, pine marten bones were recovered at Flixborough and also from eighth- to ninth-century deposits at Fishergate in York (O'Connor 1991). Although the specimens from York are interpreted as evidence for the exploitation of pine marten pelts, which could have travelled much greater distances, those from Flixborough are from major limb-bones suggesting that whole animals (not pelts) were present at the site. O'Connor (1991, 259) has previously suggested that local populations of pine marten could have existed in coniferous woodland on the North York Moors, or even closer to Flixborough, in patches of pine woodland that may have grown on areas of Devensian coversands. This argument is strongly supported by the remains from Flixborough.

Insofar as charcoal can be taken as representative of the environs surrounding the site, a modest range of *taxa* is present, reflecting a rather diverse range of sources (this assumes no long-distance transport of wood or timber). By far the greatest part was oak, *Quercus*, whilst other *taxa* identified included hazel (*Corylus*), willow/

poplar/aspen (*Salix/Populus*), ash (*Fraxinus*), alder (*Alnus*), possibly birch (*Betula*) and possibly Pomoideae (the last taxon including apple, pear, rowan, and hawthorn). There was a single record (in deposit 4920) of charred coniferous wood, probably pine (*Pinus*). That woods of different kinds grew in the environs of Flixborough is not perhaps surprising given the diversity of soils types reflecting, in turn, a diversity of drift and solid geologies within a small area. The dominance of slow-grown and probably long-lived oak amongst the charred wood also suggests that areas of mature 'high forest' were exploited for the round timber used in the construction of the buildings (Darrah, this volume, Chapter 3). It is not possible to be sure how locally available were such 'high forest' resources. Timber could have been procured through exchange or redistribution through wider exchange networks, although 'timber' trees were certainly available locally to the inhabitants of North Conesby in the fifteenth century (see Loveluck, this volume, Chapter 4).

### *The exploitation of coastal saltmarshes*

Exploitation of nearby saltmarshes may be inferred from a number of lines of evidence. Direct evidence of the exploitation of saltmarsh by the inhabitants of Flixborough was provided by archaeo-botanical and archaeo-molluscan remains. Although species identification proved problematic on some of the charred rush capsules, it seems most likely that the plant association represented is the *Puccinellietum*, a rather species-poor community in which *Puccinellia* and *Plantago maritima* are prominent (Rodwell 2000: 55ff.), or the zonally slightly higher *Juncus maritimus*-*Triglochin maritima* or *Festuca rubra* communities (*ibid.*, 72–83). Strong corroborative evidence for saltmarsh as the principal source for the plant remains comes from the records for the snail *Hydrobia ulvae* -Penant (Carrott 2000), some of which had been charred. This species, typical of saltmarsh habitats, was found in four contexts, all of which also yielded remains of saltmarsh plants (cf. Hall 2000, table 10).

The Lincolnshire fens provided important pasture for stock during the summer months (Hoskins and Dudley-Stamp 1963, 10–12). Post-medieval historical accounts indicate that the Lincolnshire marshland, particularly those saltmarshes of the coastal parishes, surpassed all other areas in the rearing and fattening of both cattle and sheep, and they were important for intensive livestock grazing from as early as the Roman period (Dobney *et al.* 1996). By the end of the sixteenth century, the Lincolnshire fens and saltmarshes were specialising in the fattening of sheep bred on the neighbouring hill country, the animals being destined for droving to the meat market at Smithfield, London (Thirsk 1957, 137–8). By c.1700 Lincolnshire was the largest wool-producing county in England and was particularly noted for long heavy wool (Munro 1978, 118–69). Similarly

the Romney Marshes (also saltmarsh) in Kent provided the bulk of sheep meat carcasses to the London market during post-medieval times. These areas would also have been utilised for salt production, and for providing peat for fuel, thatching material, fish and fowl (Hooke, 1998, 173).

It is, therefore, most likely that the coastal saltmarshes and fenlands in Lincolnshire were extremely important landholdings of the major Anglo-Saxon secular and ecclesiastical estates, providing high quality, rich pasturelands for undoubtedly numerous head of sheep and cattle (both for meat and dairy purposes), as is witnessed in the twelfth-century Alvingham charter relating to North Conesby (Loveluck, this volume, Chapter 4).

### *The utilisation of river and estuary*

The seven common fish *taxa* recovered at Flixborough could all have been caught in the nearby waters of the River Trent and its environs (Wheeler 1969; Whitehead *et al.* 1986a; 1986b; 1989; Maitland and Campbell 1992). Moreover, given the proximity of the Humber estuary, and independent evidence that the lower Trent was subject to brackish/marine incursion (Van de Noort and Ellis 1998, 289), the few marine specimens from the site may have been incidental catches from little further afield. Salmon typically spawn in the upper reaches of rivers, but are otherwise widely distributed. Smelt would have been available year-round in the Humber, but may have been harvested during their upriver spawning migrations. These runs typically occur between March and April, but within a single river system they may be restricted to only a few days during which smelts are a particularly easy catch. Eels are common in coastal waters, estuaries and all freshwater habitats. They are potentially a year-round resource, but are also most susceptible to capture during large-scale annual migrations (in this case the autumn progression of adult 'silver eels' to the sea).

Flounder, which probably account for most or all of the flatfish bones in the sieved material, routinely occupy fresh water. They could have been caught along the shores of the Trent or the Humber. However, they also figure largely in the diet of estuarine eels (Maitland and Campbell 1992, 248) and may partly represent the gut contents of eels. Many of the specimens from Flixborough were very small (from fish of less than 15cm total length). Most of the cyprinids from the site may also represent gut contents, particularly of the common piscivorous species, pike and perch (which would have been readily available in the lower Trent, typically inhabiting slow-flowing rivers and lakes). This observation is especially relevant from Phase 3b onwards, after which most of the cyprinid specimens were from fish of less than 15cm total length. Some of the largest examples could, however, represent fish purposefully caught in the Trent – particularly in Periods 1 and 2–3a.

The incidental species recovered at Flixborough are

equally consistent with very local use of the Trent and the Humber. Many small and uncommon fish, such as stickleback and burbot (the few bones of which are from tiny individuals), may also have arrived on site as the gut contents of larger fish. Other *taxa*, such as the few herring, cod and haddock, could conceivably represent long-range trade or fishing on the North Sea. Given their tiny numbers, however, they are more likely to derive from individuals caught in the Humber estuary (or even in the lower Trent if it was indeed occasionally marine; see Van de Noort and Ellis 1998, 289). The most common marine *taxon*, herring, is represented by only 11 specimens in an assemblage of over 6000 bones. Two ling specimens from the hand-collected assemblage (Periods 3b and 4–5b) could conceivably have been traded from further north (cf. Wheeler 1977, 406), but are more likely to represent vagrants or even intrusive specimens.

Attempts have been made to assess changes in water quality during the Anglo-Saxon period, based on the abundance of pollution-sensitive *taxa* such as shad, grayling and burbot (e.g. O'Connor 1989, 198). Although a sound methodology, the rarity or absence of these *taxa* at Flixborough is mirrored at early historic sites throughout Britain and north-western Europe (e.g. Enghoff 1999; 2000). Rather than indicating early contamination of a river as large as the Trent, it seems more likely that these species were naturally rare, difficult to catch, or excluded from the cultural repertoire of desirable species.

## ***5.5 Changing patterns of exploitation and their implications***

***by Keith Dobney, James Barrett,  
Deborah Jaques and Cluny Johnstone***

Analysis of the Flixborough vertebrate assemblage has provided an amazingly detailed insight into aspects of Anglo-Saxon life running from the mid eighth until the end of the tenth century AD. Well-stratified and tightly dated deposits, containing large quantities of animal bones, have also allowed us to track any changes in exploitation or resource utilisation through three hundred years of occupation (Fig. 5.1). The zoo-archaeological data indeed show significant changes through time, particularly during the ninth century (Periods 4–5b).

Major changes occur in the relative importance of the three major domestic mammals (cattle, sheep/goat and pig). Relative frequencies indicate cattle to be the most commonly identified species of the three in Period 3, Phase 3b (reaching its highest value for all phases) followed by caprine and pig. However, in Period 4–5b pig and caprine remains become more common at the expense of cattle, which this time reaches its lowest value for all periods. In Period 6, the relative frequency of cattle bones increases to once again attain values higher than those for caprine and pig. However, they do not dominate the assemblage as they had in Phase 3b. Using

raw MNI counts, and calculating their relative frequencies, the same pattern as the fragment counts is observed.

Using simple and multivariate statistics to compare the patterns of skeletal element representation for the three major domesticates, it would appear that several major shifts in body-part disposal occurred at the site over time. There is clear evidence of change during the ninth century, where a much more varied and (in general) higher proportion of post-cranial elements, other than mandible fragments, are represented. Data from Periods 3b and 6 appear similar (i.e. mandibles are the most commonly encountered bone fragment, whilst the remaining teeth and post-cranial elements are represented in similar but much lower frequencies), although, the relative proportion of certain of the post-cranial elements are increased in Period 6. These patterns appear to indicate major changes in human behaviour, with regard to consumption and disposal, particularly during the ninth century.

Even data relating to the occurrence on cattle and sheep bones of non-metrical traits, and specific pathological conditions, suggest changes occurring in husbandry practices during the ninth century. A reduction in the frequency of cattle abnormal mental foramina in Periods 4–5b (compared to Periods 3b and 6) appears to indicate a change in the genetic basis of cattle during the ninth century. The higher frequency of this trait in Period 6 may indicate the introduction of new breeding stock during this period and/or the reinstatement of the supply lines from earlier periods. The same argument could be made for sheep, on the basis of a similar trend observed in the changing frequencies of premolar foramina. Changes observed in the frequency of dental calculus in the Flixborough cattle may also be linked to changes either in the genetic basis of the cattle (once again most notable in Periods 4–5b) and/or changes in the diet of these animals.

Evidence from the joint pathology in sheep known as ‘penning elbow’ again shows a peak in frequency during Periods 4–5b. This coincides with the period when caprovid remains are at their most prevalent over the whole site, and with clear evidence of a shift towards fine textile working (Loveluck, this volume, Chapter 6; Walton Rogers, this volume, Chapter 6). The higher incidence of ‘penning elbow’ may, therefore, reflect a shift in one aspect of the sheep husbandry strategy during the ninth century, the result of a shift in economic activity at the site. Finally, if a condition noted on the cattle calcanei is indeed related to physical stress (perhaps as a result of the droving of animals over long distances), then perhaps the sharp decrease in its prevalence between Periods 3b and 4–5b suggests that cattle were being moved on the hoof much shorter distances and from different areas during Periods 4–5b.

From the non-metrical and pathological evidence outlined above, it is postulated that the supply of domestic

ruminants (i.e. cattle and sheep) to Flixborough probably changed during the ninth century. This is reflected in the animals’ different genetic make up, and even possible differences in their diet.

In terms of the avian assemblage from Flixborough, once again, Periods 4–5b stand out. During the ninth century, despite the very large number of bird bones recovered, the relative proportion of wild to domestic birds decreases considerably. The range (and quantity – except in the case of ducks) of wild bird species from the ninth century (i.e. Periods 4–5b) is lower, when compared to the earlier and mid-late eighth (Period 3, Phases 3a and 3b) and the tenth centuries (Period 6). Wild wetland species are almost completely absent from ninth-century deposits, and the numbers of what are considered to be domestic geese and ducks are at their highest. What is clear from these data is that the exploitation of wild birds from the surrounding wetlands was much reduced during the ninth century. The overall avian ‘signature’ for Periods 4–5b at Flixborough appears to reflect that proposed for ‘ecclesiastical sites’ outlined by Dobney and Jaques (2002, 10–12). In contrast, the signatures from Period 3, Phase 3b and Period 6 compare best with those of sites interpreted as high-status estate centres (see Loveluck, Chapter 9, this volume). The composition of the avian fauna from Flixborough could support the view that changes noted at the site during the ninth century were associated with the presence of a new (possibly monastic) component to the settlement (see Loveluck, this volume, Chapter 9). This appears to be short-lived, since a very similar signature to that exhibited in Phase 3b (here interpreted as one associated with high-status) is also present in Period 6.

Although the suite of fish *taxa* represented at Flixborough is relatively uniform, broad patterns of temporal change have also been observed (perhaps surprisingly, since there are no consistent patterns of species representation across space). Overall, the ratio of migratory to freshwater fish increases between Periods 2–3a and 3b. This change is marked by increases in the abundance of eel and flatfish at the expense of pike, perch and cyprinids. It is paralleled by contemporary increases in the size of smelt and decreases in the size of cyprinids. It is tempting to interpret these patterns as evidence for a diachronic trend towards greater emphasis on fishing in the Humber estuary. However, the transition from Period 2–3a to 3b is also marked by a change in the contexts from which the assemblage derives. Data from Periods 1 and 2–3a are dominated by material from ‘soakaway’ gullies, occupation surfaces and post-holes. Conversely, data from Period 3, Phase 3b and Periods 4–5b are composed principally of bone from dumps or post-holes, and material from Period 6 was derived mainly from dumps and ‘dark soil’ middens (Loveluck and Atkinson, Volume 1, Chapters 4 to 7; Loveluck, this volume, Chapter 2).

When the data are divided by both period and major feature type (dumps, occupation deposits and post-hole



fills), the pattern of diachronic change becomes more complex. Firstly, all phases are not represented within each feature type. There are no dumps or occupation deposits in Period 1, for example. Secondly, different feature types reveal slightly different patterns. The ratio of migratory to freshwater *taxa* does seem to increase across the board from Period 1 (represented by post-hole fills only) until Period 3, Phase 3b (represented by post-holes, dumps and occupation deposits). It continues to increase in Periods 4–5b in dumps and occupation deposits, but the signal is mixed given that the ratio drops for post-holes. In Period 6 there is a negative correlation between occupation deposits and dumps. Migratory *taxa* continue to become more common in the former, but drop dramatically in the latter. The sample size for Phase 6iii (represented only by dumps) is too small to justify consideration.

These broad trends represent a composite view, but they are heavily influenced by fluctuations in just three important *taxa*: eel, smelt and flatfish. It is a superabundance of flatfish which increases the importance of migratory *taxa* in Phase 3b, a superabundance of eels which does the same in Periods 4–5b, and a plunge in smelt, eel and flatfish numbers which leads to a low ratio of migratory to freshwater *taxa* in the dumps of Period 6. These observations do not lend themselves to simple models of causation.

Perhaps the most remarkable facet of the Flixborough assemblage is the fact that it does not reflect the increasing importance of marine species, such as cod, around the turn of the first millennium which is now documented throughout north-western Europe (e.g. Jones 1988; Barrett *et al.* 1999; Enghoff 1999; Perdikaris 1999; Enghoff 2000; Locker 2001, 281). One explanation is that the site pre-dates this development, with Phase 6iii ending in the early eleventh century. An alternative

possibility is that this shift in emphasis was initially an urban rather than a rural phenomenon (Ervynck *et al.* 2001).

English medieval (in the broadest sense) ecclesiastical sites tend to yield higher levels of flatfish and smelt than secular sites, be they rural or urban. An increase in flatfish in Phase 3b, and perhaps the increasing size of smelt from Periods 2–3a to 3b, could also conceivably mark a monastic phase in the occupation at Flixborough. Although broadly corroborating the evidence from the wild bird assemblage (i.e. suggesting that a possible non-secular/monastic phase existed at the site at some point during its occupation), the data from fish differ from birds in terms of the specific timing, a fact which is difficult to explain. The necessity of using broader chronological comparanda for the fish may go some way towards explaining the differences, since the nature of monasticism and linked dietary rules almost certainly changed between the Anglo-Saxon, Anglo-Norman and later medieval periods.

The vast array of evidence from the vertebrate remains at Flixborough clearly indicates major changes, particularly during the ninth century, which have been associated with the possible dislocation of the settlement's supply system, and its probable re-establishment during the tenth century. Causal factors for these changes could have been varied and were certainly complex. Factors such as a shift from secular to monastic occupation, changes in land tenure, a possible shift to open field systems, even the advent of Viking raids, could all be cited as possible causes for the major economic and social changes occurring during the ninth century (see Loveluck, this volume, Chapter 9). Whatever the cause or causes, complex changes are clearly documented in the exceptional vertebrate assemblage.

# 6 Craft and Technology – Non-Agrarian Activities Underpinning Everyday Life

*Christopher Loveluck and Penelope Walton Rogers*

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## 6.1 Introduction

*by Christopher Loveluck*

This chapter focuses on the range of skills practised at Flixborough that enabled and provided the trappings of everyday life for its inhabitants. The patterns of craft-working are discussed within the different periods of the Anglo-Saxon occupation sequence in order to evaluate the character, and perhaps the scale of specialist manufacturing, and to examine how the craft-working base of the settlement changed through time. Comparison is made with other excavated seventh- to eleventh-century Anglo-Saxon settlement evidence to explore whether the incidence of particular types of craft-working could be indicative of the character and status of settlements. More specifically to the Flixborough remains, trends evident at particular periods within the settlement's history are considered against the possibility that they could reflect changing settlement character or wider changes in contemporary society between AD 700 and 1000. Implications for our greater understanding of how society functioned in England between the Mid and Late Anglo-Saxon periods are then drawn together in Chapter 9, where themes such as the emergence and organisation of specialist artisans are explored further. The potential influences on the character of production provided by settlement character and changing relationships between rural settlements and nascent urban centres are also considered in greater detail within the discussion in Chapter 9.

## 6.2 Patterns of craft-working at Flixborough and comparison with contemporary Anglo-Saxon settlements

*by Christopher Loveluck*

### 6.2.1 The eighth century: catering for the needs of the settlement

Between the late seventh and early ninth century (Periods

2 and 3), a very similar range of manufacturing practices was evident at Flixborough despite differences in the organisation of refuse dumping during this time span. Textile production (FIG. 6.1\*), wood-working (FIG. 6.2\*), leather-working, non-ferrous metalworking and the smithing of iron were represented by tools and manufacturing debris, although quantities of finds did vary according to the nature and extent of refuse deposits. At no time within the eighth century did the craft-working finds seem to have originated from within the excavated area alone, but a greater proportion of the material from the late seventh- and early eighth-century deposits is likely to have been of local derivation.

In comparison with other, broadly contemporary rural settlements with identified seventh- to ninth-century occupation, such as Riby Cross Roads, Lincolnshire (Steedman 1994, 212–306); Wicken Bonhunt, Essex (Wade 1980, 96–102); and Portchester Castle, Hampshire (Cunliffe *et al.* 1976), the craft-working assemblage from eighth-century Flixborough appears to be extensive. However, when the sizes of excavated areas and the degree of survival of particular kinds of deposit are examined, the disparity in the extent of craft-working evidence becomes less apparent.

For example, the range of craft-working practices at Riby Cross Roads was identical to that at Flixborough between the late seventh and early ninth centuries, with the exception of the apparent absence of mould and crucible fragments (Steedman 1994, 222; Ottaway 1994, 249–252; Watt 1994, 272; Cowgill 1994b, 273). Perhaps it is significant, however, that it was only the detailed post-excavation analysis of, at first glance, unimportant fired-clay fragments that allowed the identification of small pieces of moulds and crucibles at Flixborough. None was identified for certain during excavation or initial post-excavation examination. Without a similar intensity of analysis of small, fired-clay fragments from other sites, it is difficult to be certain whether crucible and mould fragments were really as rare as current

published reports suggest. At Riby, the finds were recovered from a narrow evaluation trench, prior to the laying of a pipeline (Steedman 1994, 215–221). The disparity in the quantities of finds between Riby and Flixborough is most likely to reflect the difference in the size of the excavated areas and the lack of opportunity to identify, or excavate, large refuse deposits.

Even though the remains from Wicken Bonhunt, Essex, are published only in interim form, and the quantity of finds is smaller, undoubted similarities in craft-working also exist between the Mid Saxon phases of that settlement and Flixborough, during its late seventh- to early ninth-century period of occupation, particularly in relation to textile manufacture (Wade 1980, 98). At Wicken Bonhunt, however, the excavated area was significantly larger than that at Flixborough, approximately 2000 square metres greater in size. Yet, large surface spreads of refuse were not recovered at the Essex site due to plough damage (Wade 1980, 97–98). The bulk of the artefact and vertebrate remains came from ditches and cut features.

An area very similar in size to that at Flixborough was excavated at Portchester Castle, Hampshire, but the quantity of evidence for craft-working was also significantly smaller due to plough damage, and hence most of the finds came from pits, wells and other cut features (Cunliffe 1976, 3–5). Nevertheless, within the excavated area of approximately 3772 square metres a chronological occupation sequence highly comparable to that at Flixborough was uncovered, with seven structural or depositional phases between the seventh and mid eleventh centuries (Cunliffe 1976, 122–127). Surviving large refuse deposits similar to those at Flixborough were identified from the mid ninth to early tenth centuries only (Cunliffe 1976, 123). The seventh- to ninth-century phases yielded small quantities of textile-manufacturing debris and tools, and awls which could have been used for leather- or wood-working (Hinton and Welch 1976, 197–204; Hinton 1976, 219–221; Peacock 1976, 221–222).

The regular creation and survival of large surface refuse deposits in the shallow valley at Flixborough makes the quantity of craft-working debris look extensive in comparison with the vast majority of contemporary settlements. In reality, however, the evidence from Flixborough could well reflect a level of specialist production to serve the needs of the inhabitants of the settlement alone, or particular elements of those inhabitants. The differences in the character and scale of craft-working between Flixborough – during the eighth century – and Riby Cross Roads, Wicken Bonhunt or Portchester Castle, at a broadly contemporary period, could have been negligible in reality. The variation in the scale of recovery of craft-working evidence may rather be due to excavation size, past refuse strategies and deposit survival.

The use of Romano-British ditches for the dumping of mainly seventh- to mid eighth-century domestic and craft-working waste at Shakenoak, Oxfordshire, reflects a

similar strategy to that used at Flixborough: namely, the concentration of refuse in an area periodically on the periphery of an Anglo-Saxon settlement (Brodribb *et al.* 1972, 12–15 and 26–29). A similar range of craft-working activities to that at eighth-century Flixborough was also indicated at Shakenoak, with tools and debris from textile manufacturing and iron-working predominating, alongside very limited waste from bone- and antler-working (Brodribb *et al.* 1972, 28–29 and 118; Brown 1972, 94–95 and 106–109; Cleere 1972, 117–118). No moulds or crucible fragments were recognised, but small pieces of copper alloy sheet might reflect some non-ferrous metalworking.

Concentrations of refuse from sunken-featured buildings and refuse dumps at Wharram Percy, North Yorkshire, have also yielded craft-working debris in many ways similar to that from Flixborough, during the period from the late seventh to early ninth centuries. Non-ferrous metalworking waste was recovered from refuse within former sunken-featured buildings, in the form of decorated, fired-clay mould fragments and crucibles, of eighth- to early ninth-century date (Milne 1992, 80–82; Richards and Bayley 1992, 82–83; Bayley 1992a, 59–65; Lang 1992, 65). Limited textile-manufacturing remains were also found in the same deposits. Furthermore, the excavations of the South Manor site at Wharram Percy revealed a post-hole building with associated dumps of iron-working debris, together with further dumps containing wood-working, leather-working and textile-manufacturing tools, amongst other domestic detritus (Stamper, Croft and Andrews 2000, 27–36; Goodall and Clark 2000, 132–133; MacGregor 2000, 151–152). This was interpreted as a smithy and it provides an extremely rare example of an *in situ* rural craft-working area (Stamper, Croft and Andrews 2000, 32–35; McDonnell 2000, 162–166).

The presence of evidence for iron-working, textile manufacture, non-ferrous metalworking, leather-working and wood-working at Wharram Percy, during the eighth century, shows undoubted parallels with contemporary Flixborough; although there are some differences. For example, at Wharram the cast non-ferrous metal artefacts appear to have been much more complex than those at Flixborough (Lang 1992, 65–66). Nevertheless, this difference could be more apparent than real, since the excavated moulds from Flixborough could have been affected by severe fragmentation on deposit movement. This comes back to the main problem of assessing degrees of similarity between the above Mid Saxon settlements, in that the data from them are rarely directly comparable. At Riby Cross Roads the excavated area was very limited, whilst at Wicken Bonhunt and Portchester Castle large surface dumps did not survive from the Mid Saxon period. Refuse deposits comparable to those at Flixborough were recovered at Shakenoak and Wharram Percy, but differing extents in the movement of rubbish before final deposition could have affected the character of material present.

Even so, having considered the limitations on the extent of comparability imposed by the latter factors, the range of craft-working activities at eighth-century Flixborough had much in common with the settlements discussed above. None of them is associated with surviving Anglo-Saxon documentary labels that assign notions of their character for the period between the seventh and early ninth centuries. Although, in the case of Portchester, land was exchanged there between King Edward the Elder of Wessex and the Bishop of Winchester in AD 904; and it is mentioned as a *Burh* in the *Burghal Hidage* (c. AD 920), and as three manors in the Domesday survey of 1086 (Cunliffe 1976, 2). Likewise, the character of settlement at Wharram Percy is also first indicated for the Late Anglo-Saxon period, when a Domesday entry shows that its lands were divided between at least two manors in 1066 (Roffe 2000a, 1–3). For the period between the seventh and early ninth centuries, however, there are both similarities and differences between the evidence from Flixborough, and settlements that were subject to documentary description as ‘monasteries’ or key settlements within *vill* estates.

At the site of Yeavering in Northumberland, associated with the main settlement of the royal estate of *Ad Gefrin*, described by Bede, indications of a craft-working and refuse area were uncovered to the south-west of the main residential, religious and ceremonial zones of the settlement (Hope Taylor 1977). In this craft-working area Anthony Harding recovered crucible fragments, fuel ash slag, an annular loom-weight and animal bones (Tinniswood and Harding 1991, 101–106). The range of craft-working practices reflected at Yeavering, probably dating from the seventh century, shows close affinities with Flixborough in Periods 2 and 3 of its occupation sequence (late seventh to early ninth centuries). Textile manufacture and non-ferrous metalworking of an unknown complexity were indicated, as was limited iron-working by iron slags. Overall, the quantity of craft-working debris recovered at Yeavering is much smaller than from Flixborough, although given probable plough damage and the current impression of artefact-poor, Anglo-Saxon rural settlements in Northumberland, the evidence is very significant (Loveluck 2002, 139 and 147).

If the range of craft-working traits from eighth-century Flixborough is compared to those sites with textual descriptions referring to them as monasteries, both similarities and differences become apparent. For example, in comparison with the evidence for the casting of complex non-ferrous metal artefacts at Hartlepool, County Durham, the Flixborough mould and crucible fragments suggest production of technologically more simple artefacts, in the manner of the Yeavering material. The iconography of the apostle Luke on one of the moulds from Hartlepool also provides a peculiarly Christian subject for the mount, perhaps more consistent with production in a monastic ‘workshop’ (Bayley 1988, 184–

187; Cramp 1988, 187–190; Daniels 1988, 206–208). Furthermore, in contrast to the evidence for glass-working at monasteries such as Jarrow, Tyne and Wear, no indication of the working of glass either for vessels or windows was found at Flixborough (Cramp 1994, 292–293; Cramp 2000, 107). And there is no evidence for sculptors or stone masons at Flixborough, unlike Anglo-Saxon monastic centres of the eighth century, in northern England and southern Scotland (Cramp 1984, Cramp 1993, 68–72; Craig 1997, 433–441; Lang 1989; Lang 2000).

Despite these differences, there were common traits in the range of some of the craft skills practised. Unsurprisingly, textile-working and some iron-working was also undertaken at Whitby, North Yorkshire, in addition to the other specialist activities not seen at Flixborough, such as the sculpting of stone mentioned above (Peers and Radford 1943, 33–47, 68, 73–74 and 83; White 1984, 39–40; Cramp 1993, 66–67). Evidence for a range of craft-working skills was also recovered from excavations undertaken in the 1980s and early 1990s at Whithorn and Hoddum, both in Dumfries and Galloway, which were either wholly monastic settlements from their foundation or had major monastic phases (Hill 1997, 11–19; Lowe 1991, 11 and 25). Given the centrifugal pull on resources evident at Flixborough and the latter settlements, it is again not surprising that there are similarities between them.

Yet, the diversity of craft-working skills practised at Whithorn, between the eighth and mid ninth centuries (Period II), does not appear to have been as extensive as that at Flixborough, Wharram Percy or Riby Cross Roads at a contemporary period. Evidence of craft-working activities in Period II was generally rare in comparison to both earlier and later periods on the Whithorn site. The debris that was recovered, in the form of crucible fragments and silver and lead melt, suggests significant fine metalworking (Hill and Nicholson 1997, 403–404). At Hoddum, finds from both survey and excavation demonstrate iron-working and non-ferrous metalworking by the presence of significant quantities of melt and smithing debris (Lowe 1991, 25–26). Some of the smithing debris, in the form of slag and partly worked objects, was regarded as *in situ* and could represent a smithy (Lowe 1991, 19–20). In contrast to eighth-century Flixborough, however, significant quantities of lead were worked on these Dumfries and Galloway monasteries, presumably for structural and other purposes (Nicholson 1997a, 389; Lowe 1991, 25). Again unlike Flixborough, these sites possessed carved stone monuments, perhaps created by sculptors based at one or more of the monastic centres of the region (Craig 1997, 433–441; Lowe 1991, 12; Craig 1991, 27–34).

The use and working of window glass and lead came within buildings at sites such as Whithorn and Jarrow also appears to be an earlier feature of these settlements than it was at Flixborough (Cramp 1976, 237–238;

Cramp 1997, 327; Cramp 2000, 107–108). At the Lincolnshire site, the earliest point at which these materials were encountered was in sandy refuse dumps, dating at the earliest from the end of the eighth century, and probably from the early decades of the ninth century (Phases 3biv and 3bv). These dumps sealed at least three phases of building replacement and refuse disposal after the arrival of Maxey-type ware in the late seventh or early eighth century, and provided the activity surface for Period 4. The vast majority of the stratified lead comes and window glass was deposited at the end of Period 4, during or after the 860s on the basis of coin evidence (Loveluck, this volume, Chapter 2). The quantities of lead comes and, especially window glass quarries, from the entire Flixborough sequence combined, are far smaller than those from late seventh- to ninth-century Jarrow and Whithorn, and the decoration of the glass is far less ornate (Cramp 1997, 327–329; Cramp 2000, 113 and 201).

The differences in the later seventh and eighth centuries between sites like Jarrow, Hartlepool, Whithorn, and Hoddum on the one hand, and Flixborough, Riby Cross Roads, Yeavinger, Wharram Percy, Wicken Bonhunt and Portchester Castle on the other, could reflect differences in settlement character. A greater range of crafts seems to have been practised at the latter settlements, probably catering for the needs of their inhabitants, with an emphasis on the processing of immediate products of animal husbandry, i.e. wool and leather, supported by iron-working, wood-working and, generally, small-scale non-ferrous metalworking, when it is identified at all. At the former sites with their seventh- and eighth-century monastic phases, there is an impression of greater specialisation in metalworking, in addition to the previously mentioned tendency for glass-working and schools of sculpture to concentrate in monasteries at this time.

From other forms of evidence on those settlements with greater similarities in craft-working to Flixborough, during the eighth century, it can be suggested that they all had high-status elements within their broader populations. At present, however, with the exception of the apparent differences between some monastic sites and those similar to Flixborough, it is difficult to be certain from the archaeological evidence whether we can identify lower-status settlements with a more limited craft-working base. More limited craft specialisation can be expected on single farmsteads and at small hamlets, as was perhaps reflected by concentration on iron-working at the upland farmsteads at Simy Folds, in Teesdale (Coggins *et al.* 1983, 22), or by the near-absence of craft-working debris at sixth- to seventh-century Thirlings, in Northumberland (O'Brien and Miket 1991, 87).

Nevertheless, such absences could be the result of zonation in settlement planning, as at West Heslerton (Powlesland 2000, 22–25), and refuse strategies unsympathetic to survival and recovery. For example,

the Early to Mid Saxon settlement sequence at Catholme, Staffordshire, yielded very little artefact or vertebrate remains, presumably due to organised discard (systematic collection of refuse in middens and manuring), later ploughing, and subsequent weathering (Losco-Bradley and Wheeler 1984, 103). On the larger settlement agglomerations with similar patterns of craft-working to those at eighth-century Flixborough, it may not be appropriate to suggest that they reflect sites of a similar overall status or character in every case. They may rather reflect the broader, internally ranked nature of settlement populations, with social spectra ranging from rich to poor, free to unfree, or high- or low-born. Apparent concentrations of skills could relate to the size of settlements, their social complexity, what they did with their refuse, and factors influencing archaeological recovery, such as extent of excavation and occurrence of surviving refuse deposits.

### *6.2.2 Late eighth to mid ninth century: increased craft diversity, specialisation, and production for export?*

The early to middle decades of the ninth century (Period 4) at Flixborough saw a striking change in the diversity, character, and quantity of evidence for craft-working, without a significant change in character of refuse disposal. Craft-working evidence is provided in the form of large quantities of manufacturing debris, and an exceptional collection of tools for metalworking, wood-working, leather-working and textile manufacture (Figs 6.3\* and 6.4\*). The array of material was derived from both within and beyond the excavated parts of the settlement, and is probably representative of the settlement as a whole (Loveluck, this volume, Chapter 2). Greater quantities of textile-manufacturing debris and tools were recovered from this period than from any other in the Flixborough occupation sequence. For example, over 16kg of loom-weights, including 244 individually recorded loom-weight fragments, and 12 spindle whorls, came from Period 4. Whereas 9kg, with 160 recorded loom-weight fragments, came from the preceding Phase 3b (mostly 3biv and 3bv), together with 3 spindle whorls; and only 2.5kg of loom-weight fragments and 10 spindle whorls came from Phase 5a dumps, which contained much residual material from Period 4 (Walton Rogers, Volume 2, Chapter 9).

Period 4 also saw the use of a much lighter type of loom-weight and a related kit of smaller spindle whorls and pin-beaters (Walton Rogers below). The combined evidence from the artefact and faunal remains suggests production geared to the manufacture of a fine textile on a larger scale than seen previously, at a level possibly geared to export (Walton Rogers below; Dobney *et al.*, this volume, Chapter 5). Such intensification in the production of a specific commodity could reflect greater redistribution of renders 'in kind' between widely dispersed estate holdings with increasingly differentiated

roles, or it could indicate production for exchange. The organisational tasks of transport and exchange on an increasing scale may have fostered the development of closer links between rural centres, like Flixborough, and settlements variously described as *wics* or emporia – York (*Eoforwic*) in the case of the Humber river system. A significant number of the inhabitants of these settlements were involved in regular long-distance exchange and specialist craft-working, rather than agriculture; and they appear to have been provisioned from their hinterlands (Scull 1997, 284–289). In the case of York, the trading settlement or *wic* was merely one element of a poly-focal agglomeration, with key administrative, religious, artisan and trading nuclei (Phillips and Heywood 1995; Kemp 1996; Rahtz 2000, 6).

The evidence for metalworking also expanded significantly at Flixborough during Period 4, with large quantities of lead sheet and lead melt appearing for the first time, together with further mould and crucible fragments, and metalworking tools (Wastling, Volume 2, Chapters 4 and 11; Ottaway, Volume 2, Chapters 11 and 12; Coatsworth and Pinder 2002, 52–53; Fig. 6.5\*). Indeed, Lisa Wastling has shown that 93 percent of the lead from the site was deposited in Period 4, or probably re-worked from deposits of that date. This trend in the occurrence and working of lead, in particular, is reminiscent of attested monasteries from the eighth to ninth centuries. These include those already mentioned at Whithorn, Hoddum and Jarrow (Cramp 1976, 237–238); as well as Whitby (Peers and Radford 1943, 74; White 1984, 36–38) and Beverley, East Yorkshire (Foreman 1991, 158–162).

At the same time, however, the presence and working of lead at Flixborough is not unusual for Mid to Late Anglo-Saxon settlements around the Humber estuary, more generally. The settlements at Thwing (Manby forthcoming); Cottam (Richards 1999a); and Wharram Percy (Goodall and Paterson 2000, 132), in East and North Yorkshire; and both Riby Cross Roads and Bottesford, in northern Lincolnshire (Cowgill 1994a, 267–272; Watt 1994, 272; Cowgill pers. comm.) have all yielded lead artefacts and debris in the form of lead vessels, melt or sheet off-cuts. The latter group comprises most of the Mid to Late Saxon rural settlements subjected to sample excavation in the Humber region.

The larger scale and more specialist character of textile manufacture, together with the supply and working of commodities such as lead, suggests that the nature of production at Flixborough was influenced by increasing integration within regional and inter-regional exchange networks, between the early and middle decades of the ninth century. The arrival of lead probably indicates the importation of the raw material from the Derbyshire Peak District, transported along the River Trent and probably landed at the riverside *stathers* below the Anglo-Saxon settlement (Cameron and Loveluck, this volume, Chapter 4). The Peak region is known to have been exporting lead

regularly by AD 835, at least within estate or reciprocal exchange networks, as indicated in the ‘Humberht’ charter of that date (Hart 1975, 102; Loveluck 1994, 287–288). The sudden appearance of lead in significant quantities, and in most refuse deposits, at Flixborough suggests that the lead is unlikely to have been derived from a locally recycled, Roman source.

It is difficult to parallel the changes observed amongst the craft-working evidence from Flixborough, perhaps from the end of the eighth century through until the middle decades of the ninth century. The main reason for this results from the rarity of comparable, vertical stratigraphic sequences on most Mid Saxon settlements, and a commensurate lack of dating indicators. When closer precision has been possible, enabling the identification of occupation phases within the eighth and ninth centuries, comparable refuse deposits on the scale of those from Flixborough have not been encountered on rural settlements. Although similar later deposits have been recovered at Portchester Castle, dating from the late ninth- to tenth-century (Cunliffe 1976, 123); and at Sedgeford, Norfolk, dating from the Late Saxon period (Davies 2000, 6). This absence of ninth-century evidence on a par with Flixborough undoubtedly limits our ability to make suggestions on scales of production, but some analogy can be made in relation to the types of craft activity represented.

A similar range of metalworking activity is suggested at Lurk Lane, Beverley, presumed to have been part of the monastery founded by Saint John of Beverley in the late seventh or early eighth century (Colgrave and Mynors 1969, 456–469). Ninth-century debris from iron-working, lead-working and wood-working was uncovered in a possible workshop area to the south of the Minster church (Armstrong and Evans 1991, 9–14). At the same time, however, the overall range of activities at Flixborough still had more in common with the eighth- to ninth-century sites of Riby Cross Roads, Wharram Percy and Portchester Castle. Nevertheless, the suggested growth in the range and scale of non-ferrous metalworking is more reminiscent of some monastic sites discussed above, from the eighth and ninth centuries. However, none of the documented monastic sites has produced evidence for production of a fine-quality textile on a significant scale, as at Flixborough (Walton Rogers below).

Above all, at Flixborough the movement of bulk raw materials or finished products seems to have been a prerequisite for the character of craft-working undertaken between the early and mid ninth century. It is possible that the patterns of craft-working in Period 4 could reflect transformation of the Flixborough settlement (or part of it) into a monastic focus. Equally, however, specialist production for a degree of exportation could be reflected, indicating an increasingly symbiotic relationship between significant rural settlement agglomerations of whatever sort, and the poly-focal administrative, religious and trading centres that would emerge as towns.

### 6.2.3 *The later ninth and tenth centuries: limited artisan activity in support of daily life*

The period between the later ninth and the turn of the tenth century (Period 5 of the Flixborough sequence) seems to have been one of significant change and decline. Indeed, it is difficult to be certain of the extent of contemporary as opposed to residual material. For example, the *lunette* knife (FIG. 6.4\*) was recovered from a refuse deposit dating from phase 5a, but it may have been used during Period 4. Textile manufacture was certainly practised, and by the late ninth century a new heavier loom-weight had come into use for the production of a coarse, probably woollen textile (Walton Rogers below). Overall, however, the impression from the deposits dating from the later ninth century is one of limited craft-working, both in diversity and scale. Such periods of relative hiatus are difficult to define archaeologically, since absence of evidence can rarely be presented as evidence of absence. Nevertheless, it may be possible at Flixborough due to the abundance of residual finds, the evidence for continued occupation, and continuity in the organisation of refuse disposal. For most settlements, it is not possible to demonstrate changes in the level and quality of craft production in the later ninth and early tenth centuries. At sites such as Whithorn, however, specialist craft-working did not stop, but the sorts of activity changed, along with the nature of the settlement, as was possibly the case at Flixborough (Hill 1997, 50–51; see Loveluck, this volume, Chapter 9).

During the course of the tenth century (Period 6), evidence for contemporary craft-working at Flixborough increased again, although the diversity and degree of specialist manufacture did not reach the extent of either the eighth century or early to mid ninth century, and the contrast with Period 4 is particularly stark. Significant quantities of the new heavier loom-weights reflected the manufacture of the heavier woollen textile, produced from the end of the ninth century onwards. The scale of production, however, would probably have catered for the settlement alone. Other demonstrable tenth-century manufacturing debris related only to iron-working (Starley, Volume 2, Chapter 10). Significantly, the quantity and character of the evidence, particularly for iron smelting, suggests a change in the nature of iron-working in the vicinity of the excavated area, and perhaps a greater scale of iron-production in comparison with earlier periods. The contemporary skills apparent in the tenth century were those that supported aspects of daily 'domestic' life alone, namely the manufacture of clothing and black-smithing, to cater for the needs of the agricultural economy and to facilitate construction.

Due to the discovery of the hoard of wood-working tools and the lead tanks as a stray find, it is not certain whether they date from the Mid or Late Anglo-Saxon period (FIG. 6.6\*). When similar hoards have been found in lead tanks, sometimes with combinations of wood-

working tools and weapons, they have usually been dated to the tenth century and later (Cowgill, Volume 2, Chapter 7; Loveluck 2001, 103; FIG. 6.7\*). Their dates have been assigned on the basis of the chronologies of excavated deposits, or on stylistic decoration of the tanks and methods of manufacture; and only rarely on datable traits amongst the artefacts which they contained. Recent finds of late ninth- or tenth-century lead tanks, including one with tools, come from St. Saviourgate, York and Garton-on-the-Wolds, East Yorkshire (Finney 1998, 16; *Makey pers comm.*); and eleventh- or twelfth-century examples were recovered at Whithorn, Dumfries and Galloway (Nicholson 1997a, 390). Other isolated finds comprise tanks alone, or tanks and associated finds, probably dating from the tenth century, such as those from Westerley Waterless and Willingham, Cambridgeshire (Fox 1923, 300; Cowgill 1994a, 271; Cowgill, Volume 2, Chapter 7).

In his analysis of the hoard of wood-working tools from Flixborough, Richard Darrah has also observed the highly specialised wood-working indicated by these artefacts, suggesting their possible use as shipwright's tools (Darrah, this volume, Chapter 3). Indeed, identical tools are portrayed as used by shipwrights on the late eleventh-century Bayeux tapestry. The suggestion of boat-building or -repair would also tally with the presence of clench bolts, predominantly from Phase 5b onwards, used in clinker construction. Alternatively, the clench bolts could reflect the break-up and re-use of timbers from ships or boats owned by the inhabitants, perhaps previously moored or housed at *Flixborough stather* or *Pepilstather* (Cameron and Loveluck, this volume, Chapter 4).

The patterns of craft-working identified from the tenth century at Flixborough, albeit viewed through the filter of complicated deposit re-working, bear close similarities with those seen in the Late Saxon phases of other settlements thought to represent secular estate centres, variously described as '*thegnal* residences' or nascent 'manorial' settlements (Reynolds 1999, 112; Cadman and Foard 1984, 81–92; Beresford 1987). These include Goltho, Lincolnshire (Beresford 1987); the tenth and eleventh-century phases at Portchester Castle, Hampshire (Cunliffe 1976, 2 and 126–127); and the tenth- and eleventh-century foci of the Wharram Percy settlement, in North Yorkshire (Beresford and Hurst 1990, 57; Roffe 2000a, 8; Richards 2000b, 197–198). Similarities have also been noted between the archaeological evidence for craft-working at documented, or likely settlements of secular lords, and the artisan activity noted as obligatory on their settlements in the eleventh-century written compositions, the *Rectitudines Singularum Personarum* and the *Gerefa*. For example, the indications of wood-working, iron-working, leather-working and textile manufacture at Goltho seemed to compare well with activities expected in these idealised codes (Goodall 1987, 177–181; MacGregor 1987, 189–191; Beresford 1987, 194–195).

The key feature of artisan activity at Flixborough and the above sites, during their tenth- and eleventh-century phases, was the working of the products of animal husbandry and landscape management, probably derived from their immediate landholdings. Together with regular indications of iron-working, these activities catered for most of the daily needs of the settlements. Non-ferrous metal-casting and -working are not suggested at Flixborough during this period, and these specialist skills also seem to have been rare or absent on most of the Late Saxon rural settlements discussed above. Exceptions are provided by a crucible from Portchester Castle (Hinton 1976, 221–222); and by crucible and mould debris, together with silver, gold, copper alloy and enamel melt from Cheddar, in Somerset (Rahtz 1979, 203–204; Biek 1979, 253–258). Other craft-working activities undertaken at Cheddar included iron-working, wood-working, and possibly limited textile manufacture (Goodall 1979, 266–267). The evidence for small-scale fine metalworking was linked to possible jewellery manufacture or embellishment of a stone-founded chapel, constructed sometime in the mid tenth century (Rahtz 1979, 204; Biek 1979, 253; Rahtz 1991, 36).

The occurrence of specialist non-ferrous metalworking at Cheddar, between the mid tenth and early eleventh centuries, could reflect the status of the settlement as a known royal centre. It was described variously as a palace, estate centre and royal seat in mid tenth-century sources, possibly with a small, associated religious establishment (Rahtz 1979, 14–18). The settlement remained at the heart of a royal ‘manor’ up until the reigns of Edward the Confessor and his Norman successors (Thorn and Thorn 1980, 86b). Portchester too was a possession of the West Saxon and English royal house by AD 904. Like Cheddar, it was also held by Edward the Confessor in 1066, subdivided into three manors (Cunliffe 1976, 2). Cheddar was located in a political, religious and economic resource heartland of the West Saxon dynasty, and its kings regularly visited the settlement; whilst Portchester was a point of great strategic importance. It is possible that the evidence for fine metalworking reflects the necessity to cater for a broader range of needs than on other secular estate centres, such as periodic royal presence and active interest, although levels of production were still very limited. Overall, no archaeological traits at royal rural centres, or settlements seemingly like Flixborough, give any hints of the production of finished commodities for export, in the tenth or eleventh centuries. Specialist on-site artisan activity was geared to their immediate support.

The pattern of relatively limited craft-working at tenth- and eleventh-century rural estate centres, whether of royal or more humble status, differed markedly from that observable at certain contemporary monasteries. At Beverley *minster*, possibly re-founded by Æthelstan in 937, intensive craft-working was observed within tenth- and eleventh-century phases, to the south of the Minster church, on a scale well beyond that of the ninth century

(Armstrong and Evans 1991, 1 and 16–20). Evidence was recovered for glass-working, in the form of crucibles with glass slag; alongside lead-casting, iron-smithing, textile manufacture and wood-, leather- and antler-working (Armstrong and Evans 1991, 19–22; McDonnell 1991, 239).

Similar glass-making evidence in the form of crucibles and slag was found at the monastery of Glastonbury, Somerset, alongside glass furnaces. The glass-manufacturing evidence from Glastonbury also seems to date predominantly from the tenth century as at Beverley, although production possibly began in the late ninth century (Rahtz 1993, 91–92). This highly specialised activity was possibly associated with the rebuilding of the Glastonbury monastery by Dunstan during the mid tenth century, just as the Beverley evidence could have been associated with rebuilding the Minster church in the same period (Rahtz 1993, 92; Carley 1996, 11–12; Armstrong and Evans 1991, 15). The nature and concentration of craft-working skills within the Beverley monastery provides a relatively local and particularly distinct contrast with Flixborough; just as the existing manufacturing evidence from tenth-century Glastonbury in many ways contrasts with that from contemporary Cheddar.

Far greater differences, however, are shown between the patterns of craft-working at tenth-century Flixborough and those from contemporary towns, which had developed from the late ninth century onwards, whether labelled as Anglo-Scandinavian or Late Saxon. Examination of the evidence from these towns demonstrates a much greater contrast between rural and urban settlements than had existed between rural centres and the poly-focal settlements and *wics* of the Mid Saxon period. In the tenth century, craft-working and specialist production, beyond the needs of artisans and their immediate patrons, seems to have become much more concentrated in the new urban centres at the expense of rural estates, and perhaps some monasteries. This clustering of specialist production in tenth- and eleventh-century towns is clearly demonstrated in both the north and south of England, across most specialist manufacturing: for example, at York (Mainman 1990; Bayley 1992b; Ottaway 1992; Walton Rogers 1997; MacGregor *et al.* 1999 and Morris 2000); Lincoln (Perring 1981, 41–43; Mann 1982; Adams Gilmour 1988 and Miles, Young and Wachter 1989); and Winchester (Biddle 1990). In London, patterns of craft-working within the occupied areas appear to have been less zoned in the tenth century, although evidence for textile-working, iron-working and non-ferrous metalworking has been found throughout the walled area of *Lundenburh*, as well as evidence for bone- and antler-working, wood-working and leather-working (Vince 1991, 430–433; Pritchard 1991, 136–137 and 178–184; Bayley *et al.* 1991, 389–405; Schofield 1999, 13). By the eleventh century, however, zoned artisan activity was more evident off Cheapside and Poultry (Schofield and Vince 1994, 144; Rowsome *et al.* 1998, 55–56).



Despite the differences in the topography and organisation of craft-working in towns of the later Saxon period, they all consistently show signs of having become centres for specialist manufacturing activities, particularly textile manufacture, non-ferrous metalworking, bone- and antler-working, and in most cases pottery production. The limited craft-working undertaken at sites like Flixborough seems to have heralded a new relationship between rural and urban centres, with towns now acting as foci for the provision of utilitarian and some luxury products to their hinterlands, in the manner of their later medieval successors (see Loveluck, this volume, Chapter 7).

The Mid to Late Saxon settlement sequence from Flixborough has yielded the largest and best-stratified assemblage of textile-manufacturing remains from any Anglo-Saxon rural settlement to date. As a consequence of the exceptional nature of this collection of material, and the contextual information associated with it, textile manufacture and its organisation merit detailed discussion as a distinct topic.

### ***6.3 The importance and organisation of textile production***

***by Penelope Walton Rogers***

The evidence presented in volume 2 has shown that there was full-scale textile production at Flixborough between the eighth and early eleventh centuries – Periods 3 to 6 (Walton Rogers, Volume 2, Chapter 9). The 1,134 artefacts described there demonstrate that flax and wool were processed (from the evidence of flax heckle and wool-comb spikes), yarn was spun (spindle whorls), cloth woven (loom weights and pin-beaters) and garments cut and stitched (shears and needles) throughout this period of time. There remains to be considered, who were the people who used these tools, how were they organised and what sort of goods were they producing? The material naturally divides into two chronological groups, which will be discussed separately.

#### ***6.3.1 Textile production between the mid eighth and mid ninth century***

A handful of textile tools were recovered from Periods 1 to 3a, in the vicinity of the buildings in the southern part of the site. The main evidence for textile production, however, begins with Period 3, Phase 3b (as described in section 6.1 above). From Phases 3b to 5a, there is an extensive range of material indicating some form of specialised textile production.

Flax processing, for linen cloth, formed a significant part of this production. There are nineteen iron spikes from flax heckles, compared with five from wool-combs from Phases 3b–5a, although the thirteen indeterminate spikes makes the exact ratio of flax to wool difficult to judge. The spindle whorls from this date group are smaller

and more standardised than in other Anglo-Saxon collections: the stone whorls are lathe-turned into simple, standard shapes, and the small number made from other materials follow the design of the stone ones (Fig. 6.8\*). The loom weights, which will have come from the warp-weighted loom, are also lightweight, especially in Period 4, and the bone pin-beaters, used with the same loom, are particularly slender (Fig. 6.1\*). It is difficult to make any absolute correlation between size of weights and quality of cloth, as some soft, thick yarns require light weights, while fine weft-faced weaves require a heavier weight on the warp, but, taken as a whole, the combination of small spindle whorls, light loom weights and thin pin-beaters suggests that fine fabrics were being made. The needles in this date-group are also small, and indicate that this fine cloth was made up into garments and furnishings on site.

Other collections of Anglo-Saxon textile tools sometimes include small items such as these, but there has never been such a large number in such a limited range of sizes found together in one place. In Sweden, Eva Andersson has carried out a survey of the evidence for textile production at sites of different date and status, and has been able to show that the ‘economic’ status of a site is reflected in the size of the textile tools (Andersson 1999, 22). The Flixborough loom weights and spindle whorls from Phases 3b to 5a, are on average smaller even than most of the Swedish collections, but are closest in size to those from trading centres such as Birka and Åhus in Sweden; and Haithabu in Schleswig-Holstein. The Birka and Haithabu collections include a certain number of heavier objects, which Andersson suggests may be connected with the production of sailcloth (essential to these Viking-Age ports), but there is a clear emphasis on the more lightweight spindle whorls and loom weights (Andersson 1999, 30–34). The inhabitants of Birka have proved to be buried in some of the finest and best-quality textiles in north-west Europe (Geijer 1938); and as Andersson has pointed out, many of these could have been made with the tools recovered from the settlement (Andersson 1999, 40–1). Flixborough would certainly appear to be a high-status site (see Loveluck, this volume, Chapter 9), and the nature of the textile tools fully endorses the importance of its economic standing between the late eighth and mid ninth centuries.

Textile production at Flixborough was probably a self-sufficient industry. The evidence from sheep bones shows that the supply of wool was plentiful, seemingly reaching a peak in Period 4 (Dobney, Barrett, Jaques, and Johnstone, this volume, Chapter 5); and although there is no direct evidence for flax cultivation, the Trent valley would have been a suitable place to grow the flax plant *Linum usitatissimum* L. Most of the textile tools were probably made on site. For example, an unfinished loom weight, a bar of unworked clay and finished loom-weights were found together in a refuse deposit contiguous with another that contained further loom-weights and a pin-

beater, from Phase 4ii (Walton Rogers, Volume 2, Chapter 9). Indeed, since loom weights are simple objects to make, it is possible that the weavers themselves made them, using estuarine clay collected in the Trent floodplain (Vince, Volume 2, Chapter 9; Gaunt, this volume, Chapter 4). Since there were blacksmiths and whitesmiths (whitesmiths work non-ferrous metals) operating on the site, wool-combs, flax heckles, lead whorls (from Period 4 onwards), iron shears, and needles of iron and copper alloy could all have been made near at hand. In addition, the stone spindle whorls were made from stones that could have been picked up at the foot of escarpments in the region and brought back for lathe-turning at the settlement. Finally, bone-working was a common skill amongst Anglo-Saxons, and pin-beaters and spindle whorls would have been easily made from cattle and deer bones (although there is no demonstrable evidence for the working of bone or antler at Flixborough).

The distribution plots for these objects show that the evidence for flax processing concentrates in the ditch deposits from Period 4 (probably Phase 4ii), at the north-western edge of the excavated area. In contrast, spindle whorls were sometimes found in buildings, but were mostly recovered from the central dumps of Phase 4ii, where there were also loom weights, pin-beaters, sewing needles and occasional wool-comb spikes (ADS digital archive). These tools are likely to have originated in the nearby buildings, although it is impossible to know whether one or several buildings were used for the purpose (Loveluck and Atkinson, Volume 1, Chapter 5).

The separation of flax heckling from the other textile crafts was also seen at tenth-century Coppergate, in York. There, spinning, weaving, dyeing and stitching had been practised in a row of buildings on the street frontage, whilst flax was processed in the backyard area, well away from the buildings (Walton Rogers 1997, 1796–99). Flax heckling is strenuous and dusty work, and it makes sense to do it outdoors. There may also have been a gender division of labour here. It is obvious from early literature that textile production was viewed as a woman's craft, and it has been pointed out that this may be why hair comb fragments are so frequently associated with textile tools in the central dumps at Flixborough, especially in Phase 4ii (Walton Rogers, Volume 2, Chapter 9; Foreman, Volume 2, Chapter 1). Later historical evidence, however, shows menservants often helping the women with flax-heckling, and it is possible they were involved in the Anglo-Saxon period too (Walton Rogers 1997, 1726).

These two features of self-sufficiency in production and the separation of flax preparation from the other textile crafts are mirrored in the Old English text, *Be gesceadwisan gerefan*, 'The wise bailiff' (Corpus Christi College Cambridge MS 383; Liebermann 1903, 453–5). This was written or compiled by Wulfstan, who was Bishop of Worcester and Archbishop of York, AD 1002–1023 (Whitelock 1963, 12). The bailiff, or reeve, is

advised to 'plant madder, sow flax, and woad seed as well', and to supply the workshops with 'many tools: flax line, spindle, reel, swift, loom uprights, heddle rods, press, comb [toothed weft-beater], temple, weft, warp, wool-comb, cross-beam, beater, crank-stick, sheath, seam-pins, shears, needle, slick-stone' (author's translation, revised since publication in Walton Rogers 1997, 1823). The first item on the list – 'flax line' – is a term still used today for heckled flax, the fibre being known as 'tow' before heckling. The loom described in this text is the later two-beam vertical loom, not the warp-weighted type used at Flixborough, but it is obvious that the author of *Gerefa* thought that woolcombing, spinning and weaving should be carried out in one set of workshops, and that the flax should be brought into these workshops, ready-heckled. This seems a likely model for Flixborough.

It is difficult to find archaeological evidence for workshops, as few of the sites previously excavated can be compared with Flixborough in date and status. Some sites with significant collections of textile tools may be described, however, as background. At West Stow, Suffolk, a fifth- to seventh-century settlement, with an economy based on mixed arable and animal farming (West 1985, Volume I, 169), consisted of several post-built buildings and associated satellite 'pit-huts' or 'sunken-featured' buildings (also known as *Grubenhäuser* and hereafter referred to as SFBs). Textile tools were scattered through the settlement, but the loom weights were concentrated in a few of the SFBs, as if they had been given over especially to this activity (West 1985, Volume II, 138–150). The fills of some SFBs have proved to be re-deposited refuse from surface middens, but careful analysis, particularly of those SFBs that appear to have burned down while in use, has confirmed that some SFBs had a purpose related to weaving (Tipper 2004, 165–170; Walton Rogers 2007, 30–2). It is highly likely that in settlements of this sort the women prepared the yarn wherever it was convenient, but came together in certain huts to do the weaving. Similarly, at Mucking, Essex, a hamlet of the fifth to seventh or eighth centuries, which has been described as 'groups of farmsteads' (Hamerow 1993, 314), there were buildings with post-hole foundations and ancillary SFBs, with loom-weights concentrated in a small number of the SFBs (Hamerow 1993, 17–19, 66–8, 188–9).

The picture is a little different at West Heslerton, North Yorkshire, where a larger settlement of mid fifth- to mid ninth-century date is in the process of analysis. Preliminary reports show that post-hole founded buildings and SFBs were located in separate zones, and that loom-weights were found in the SFB zone (Powlesland 1990; Powlesland 2000, 22–25). That weaving in SFBs, continued into the Middle Anglo-Saxon period is confirmed at Old Erringham, Shoreham, in West Sussex. There, 75 particularly large loom weights with an average weight of 833 g were recovered from a SFB, loosely dated

to between the eighth and tenth centuries (Holden 1976). Weaving was not exclusive to SFBs, however, and at Upton, Northamptonshire, a sixth- or seventh-century building with post-hole foundations has been interpreted as having housed a timber wall-bench or box-bed, a warp-weighted loom, and spare loom weights mounted in rows on wooden rods (Jackson *et al.* 1970, 206–214). The Upton excavation was small in scale and its context is not entirely clear, but it is possible that the building represents a small homestead in which weaving and other domestic chores were all done under one roof.

None of these sites, except perhaps West Heslerton, has produced any quantity of ‘high-status’ objects, or evidence for literacy, in the way that Flixborough has done – or indeed any great number of small loom weights and spindle whorls. Nor have any SFBs been found in the excavated area of the Flixborough site. In terms of textile production, the villages and hamlets of Anglo-Saxon England had more in common with the agrarian sites of Andersson’s Swedish survey (Andersson 1999), while Flixborough seems to belong in a separate, high-status category. Little evidence for textile production has been retrieved from royal sites, such as the Mid Anglo-Saxon palaces at Northampton (Williams *et al.* 1985), and the nearest in status to Flixborough would be the Late Anglo-Saxon defended manor house at Goltho, a few kilometres north of Lincoln. At Goltho, a large building separate from the main ‘manor house’ has been identified as a weaving shed, although few of the textile tools seem to be associated with the building (Beresford 1987, 55–9, 68). The loom used at this site was the later two-beam loom (see below).

It is necessary, therefore, to turn to early medieval documents for descriptions of estate workshops. Sources such as the *Leges Alamannorum* (pre-Carolingian Alamannic laws) and Charlemagne’s *Capitulaire de Villis vel Curtis Imperialibus* (Loyn and Percival 1975, 70), concerning the idealised running of royal or ‘imperial’ estates, make use of the term *genicium* or *gynaecium*. This word originally meant ‘a place for women’, but to the Romans the term was already associated with textile production (Wild 1967), and in medieval texts it is sometimes glossed *textrinum*, or ‘weaving workshop’ (Hedges 1980, 110–112). The references to the women in these *gynaecia* imply that they are not free and the will of Wynflæd, a wealthy Anglo-Saxon of the tenth century, shows that two of her slaves were ‘a woman-weaver and a seamstress’ (Owen 1979, 222). These slaves would have worked under the supervision of the senior women of the household, and they presumably represent the staff of the workshops described in *Gerefa*. On the larger estates, the textiles they made ‘in-house’ may have been supplemented by cloth made by the wives of villeins working on the estate, as occurred on royal and monastic estates in France (Walton Rogers 1997, 1823).

The volume of textiles required by a high-status household of the Anglo-Saxon period, and the time it

took to produce, should not be underestimated. Fine textiles were used by the wealthy and powerful to express their rank, and cloth would be needed to clothe all the members of the household, not just the masters. Cloth and clothes might also be used as payment to servants and for gift-exchange with persons of equal rank. Producing textiles for all these purposes took time. Weaving progresses at approximately 0.70–0.80m per day on the warp-weighted loom, for a cloth with 12 × 12 threads per cm (Andersson 1999, 9); and time for fibre-preparation, spinning and warping the loom would need to be added to this. A survey of Swedish work time carried out in 1760 showed that women spent eight months of the year producing the household requirements for textiles (Andersson 1999, 7) – and this at a time when faster spinning and weaving equipment was available than in the Anglo-Saxon period. Textile production at sites such as Flixborough should therefore be seen as a year-round process occupying several people full-time and some part-time.

What sort of textiles were the Flixborough weavers likely to have been producing with their lightweight spindle whorls and small loom weights? The most valuable textiles of the Anglo-Saxon period were silks, but these would have been imported ready-woven. This leaves the production of wool and linen cloth, for which we already have evidence at Flixborough in the form of wool combs and flax-heckle spikes. There are few excavated Anglo-Saxon textiles dated to the eighth and ninth centuries, and the only textile recovered from Flixborough, dating from the period defined within Phases 3b to 5a, was a semi-mineralised piece of medium-weight, wool twill (12 × 12 threads per cm) attached to an iron garment hook (hooked tag – RF 13050). An imprint of a 2/2 diamond twill (14 × 10 per cm) on some daub recovered from Period 6 – Phase 6ii – may also have originated in this phase (Walton Rogers, ADS digital archive). There is, however, a broad similarity in terms of quality between the more numerous textiles of Early Anglo-Saxon cemeteries, such as Castledyke, Barton-upon-Humber, North Lincolnshire; and clothing fabrics in Late Anglo-Saxon habitation sites such as Coppergate, York. Early and Late Anglo-Saxon linens are mostly 14 to 20 threads per cm, while wool textiles are more usually 8 to 14 threads per cm (the higher the thread-count, the finer the textile). In the seventh-century royal ship-burial at Sutton Hoo, Suffolk, however, there were wool textiles as fine as 38 × 26 per cm (E. Crowfoot 1983, SH1, 457), alongside linens with counts up to 44 per cm (SH11); and there are similar fabrics from Broomfield Barrow, Essex (E. Crowfoot 1983, 468). The Flixborough looms may, then, have been producing fine wool and linen fabrics, although an emphasis on linens seems likely.

There is no evidence at Flixborough for the production of ‘fancy goods’ such as tapestry-work, tablet-weaving and embroidery. At Sutton Hoo, there were several examples of soumak-weave tapestrywork (E. Crowfoot

1983, SH5, SH7, SH14, 458–460), which was probably made on a small two-beam loom similar to that found in the ninth-century ship burial at Oseberg, Norway (Grieg 1928, 176–9). No examples of the hand tools used with this loom – the single-ended pin-beater and the long-handled toothed weft-beater – have been found at Flixborough. Tablet-weaving, which produced the patterned woven bands often seen in association with embroidery (G. Crowfoot 1956; Budny and Tweddle 1984), was a craft commonly practised by high-ranking ladies of the Anglo-Saxon period, but again there are no examples of weaving tablets from the excavation. Embroidery was another pastime associated with high-born women, and the nunneries of England were famous on the continent for the silk and gold embroidery known as *opus anglicanum*. Yet, although there are plenty of small needles at Flixborough, there are no obvious examples of the ultra-fine, blunt-tipped needles used for silk embroidery, of which three were identified at twelfth- to thirteenth-century Coppergate (Walton Rogers 1997, 1785). Furthermore, a comparison between Anglo-Scandinavian Coppergate, where there were 226 sewing needles, 136 spindle whorls and 23 pin-beaters; and Flixborough, where there were 75 sewing needles, 61 spindle whorls and 12 pin-beaters, shows no special emphasis on needlework at Flixborough. The evidence points rather to the production of top quality wool and linen textiles and clothing, without any of the ‘small goods’ with which high-class women and nunneries were associated.

This apparent standardisation in the production process raises the question of whether any of the cloth made at Flixborough was intended for exchange or even ‘sale’. The seventh and eighth centuries saw trading centres or ‘emporia’ being established on both sides of the North Sea, and parts of one of these have been excavated at York (Rogers 1993). Continental traders such as the Frisians are also documented as operating in York by the eighth century (Altfred *Vita Liudgeri*, 1, 11–12 in Whitelock 1955, 725). Several authors have seen the exchange of cloth as forming a fundamental part of the North Sea trade at this time (Bender Jørgensen 1992, 148; Rogers 1993, 1441–2) – and yet it is hard to find supporting evidence for this theory. Anglo-Saxon England produced many textile-types which were technically similar to those made by its near neighbours on the continent (Bender Jørgensen 1992, 140–5). When the raw materials of these textiles are compared, however, it becomes clear that the apparently similar textiles found on opposite sides of the North Sea are not the same (Walton Rogers 1997, 1826 and unpublished). There was a common weaving tradition shared between Anglo-Saxon England and its continental neighbours, especially Saxony and Frisia, but evidence for a trade in textiles between them is slight and at present limited to the tenth century (Walton 1989, 416). Even where textiles can be shown to have passed across the North Sea, it may not

have been as part of an active trade. Certain types of patterned linen, for example, have the focus of their distribution in the Rhineland (Bender Jørgensen 1992, 77, 145), but the small number reaching England may be interpreted as lightweight extra goods carried on the back of the Rhenish wine trade (Walton 1989, 348–358).

Historical sources tell us rather more about the trade in textiles. The records of the monastic houses of Charlemagne’s empire show that tithes were received in cloth, wool and flax, from which a monastery drew off what it needed and then sold on the surplus to merchants (Pounds 1973, 213–4, 285; Hägg 1993, 83). Many of these merchants were Frisians, and the cloth they bought may have been the ‘Frisian cloths’ which appear in records of the time as traded goods, and as the subject of gift-exchange between monarchs (Walton 1989, 416; Bender Jørgensen 1992, 143; Hägg 1993). These same Frisians were also selling short striped Gallic cloaks, which was a matter of some concern to the emperor (Notker *De Carolo Magno*, Loyn and Percival 1975, 22). Charlemagne preferred the long cloaks his Frankish ancestors had worn (Einhard *Vita Karoli*, Thorpe 1970, 64), and in AD 796 he wrote to Offa, King of Mercia, asking ‘that with regard to the length of cloaks, you may order them to be as they used to come to us in old times’ (Haddan and Stubbs, III, 495–8). This letter has been regarded as a trade document, since it refers to a *quid pro quo* in ‘black stone’, and it certainly seems to indicate a certain level of exchange. Its main intent, however, may have been to obtain for Charlemagne supplies of his own favourite cloaks.

Taking the evidence together, it seems likely that a trade in textiles did exist in the eighth and ninth centuries, but it was rather small in scale and its documentary visibility is linked largely to monasteries and royal courts. It was not large enough in volume to filter very far down into the lower ranks of society, or to leave much evidence in the archaeological record. As far as Flixborough is concerned, it is probable that a high-status site of this sort would have operated on similar lines to the monastic houses, with flax and wool coming in, not as tithes, but as the produce of the estate. These raw materials would have been made up into cloth primarily to meet the needs of the household, but if any of this good quality, workshop-produced cloth was left over, it could have been exchanged with the merchants who were bringing goods such as wine and quern stones into the Humber trading system. Certainly by the Late Anglo-Saxon period, an estate was expected to be prudent in its management of resources, which is why a man of Archbishop Wulfstan’s rank was interested in setting down advice for estate managers in *Gerefa*. To summarise, if any textiles were traded out of Flixborough in Period 4, they would almost certainly have been the result of the estate selling off its excess. The main function of looms at a high-status site such as this, would have been to supply the good quality cloth demanded by the people who lived there.

### 6.3.2 Textile production between the late ninth and early eleventh century

The textile-related artefacts from Phase 5b are relatively few, but they indicate the beginning of a change towards larger, heavier tools that became more evident in Period 6. There is a particularly heavy spindle whorl (RF 10174, 48 g) from a Phase 5b deposit, associated with building B30/31; and there are two loom weights from the area immediately to the south of this building, weighing 511 g (RF 3699) and 900 g (RF 12254), which is significantly more than the average of 236 g for weights from Period 4. By Period 6, loom weights of between 450–750 g were established and were joined by thicker pin-beaters (Walton Rogers, Volume 2, Chapter 9).

There is also a certain amount of material in this later chronological group which is residual from Periods 3b to 5a. Fragments of small weights with impressed marks occur above the Period 4 and 5a dumps, and one piece from Period 6 has even proved to fit a fragment from Phase 4ii (Walton Rogers, Volume 2, Chapter 9). Some residual early spindle whorls can also be distinguished from late ones by the size of the spindle hole (Walton Rogers, volume 2, chapter 9). After the early objects have been removed, what is left is a loose distribution of textile tools spread over the eastern half of the site. This seems to follow the slight movement in the focus of the settlement towards Conesby (Loveluck, this volume, Chapter 2; Figs 2.19 and 2.20). It is not possible to distinguish residual fibre-processing spikes from freshly deposited ones, but the ratio of wool-comb spikes to flax-heckle spikes in Periods 5b–6 was now 16 wool to 8 flax – the wool spikes being concentrated in the south and east of the site. This may indicate a greater emphasis on the production of wool cloth, although there are again a large number of indeterminate spikes which confuse the issue.

This marked shift to heavier tools and, perhaps, a greater emphasis on wool, began in the mid ninth century. This was a period of transition, when not only were the Viking invasions beginning in the North, but throughout Anglo-Saxon England there was the start of a general movement into towns. The later phases of the Flixborough site coincide with a period of urban renewal, as old ecclesiastical and administrative centres began to increase in population. These burgeoning towns seem to have drawn to them artisans of all sorts; and some may have been transferred to towns from the rural estates by their overlords. In York, for example, excavations have shown leather-workers, blacksmiths, whitesmiths, bone-workers and glassmakers working close together in tenements in the heart of the town.

The textile crafts moved into towns at the same time, and at first were practised exactly as they had been on the rural estates. The evidence from Coppergate shows spinning, weaving, dyeing, cutting and stitching being practised alongside each other, just as they were at

Flixborough (Walton Rogers 1997). Eventually, the separate sub-crafts were to split up, and moved on to different sites, as specialist craft guilds began to emerge, but for the time being, all the textile crafts remained together.

This concentration of people in towns stimulated trade; and in northern England Scandinavian merchants were now bringing in silks and other luxury commodities. At Coppergate, silks were cut up into small articles such as headdresses, and may have been re-distributed to towns such as Lincoln (Walton 1989, 360–377, 420). The influence of foreign goods can also be seen in the copies made of piled weaves, the originals of which had probably been brought in from Ireland or Iceland. Dyeing also seems to have played a greater role in textile production, and the British seem to have become identified with red cloth on the Continent (Walton Rogers 1997, 1769).

At this time a new loom arrived in towns such as York (Walton Rogers 1997, 1760) and Winchester (Keene 1990, 203–8). This was the two-beam vertical loom, which was later to be known as the tapiter's loom. The arrival of this loom is marked by the disappearance of loom weights and double-ended pin-beaters, and the appearance of single-ended pin-beaters, all of which seems to have happened quite quickly around AD 900 (Walton Rogers 2001). The new loom arrived in the defended manor-house at Goltho, 60 km to the south of Flixborough, at the same time (Beresford 1987, 35, 177–95); and it is this loom which is described in *Gerefa* (see above). It is rather curious, then, that the warp-weighted loom continued in use at Flixborough for perhaps another century.

Flixborough was not alone in retaining the old loom. At Rochester, Kent, an abandoned kiln dated to about AD 1100 proved to be stacked with loom weights (Harrison 1972, 123–4), and further small groups of weights have been found at eleventh- to twelfth-century Waltham Abbey, Essex (Huggins and Huggins 1973, 178) and eleventh- to twelfth-century Fishergate, York, which was the site of a settlement outside the town (Walton Rogers 1993, 1269). At St Cross, Winchester, in what was the hamlet of Sparkford, outside the old town, loom weights were also found inside the remains of a hut which had burned down in the eleventh or twelfth century (Collis 1978). There were two sets of weights, one set weighing 273–339 g, lying under the ash layer; and the other, weighing 182–266 g, on top of it (Collis 1978). The first set is thought to have fallen from a loom, and the second to have been stored in the roof-space, so that the weights collapsed on top of the ash as the building burned down. The spare set is comparable with the light weights from Period 4 at Flixborough, and demonstrates that fine fabrics were still being made on the warp-weighted loom long after the introduction of the two-beam vertical loom. The co-existence of the two looms is supported by the evidence of the textile products, which appear in a corresponding range of old and new textile-types over

the same period (Walton Rogers 2001) – although the reasons for this long period of overlap are not as yet clear.

To summarise, during the later ninth and tenth centuries, as towns started to become centres for trade and craft production, estates such as Flixborough would have found themselves fulfilling a different role from formerly. What this role may have been is considered in Section 6.2 above (and explored further in Chapters 7 and 9). As far as the textile crafts are concerned, at Flixborough there seems to have been a shift to the production of coarser types of fabric, and perhaps also a greater emphasis on wool. This does not imply any general down-grading of the site. The evidence presented

elsewhere in this volume shows that Flixborough still retained aspects of a high-status site, although the expression of that status seems to have changed in character (Loveluck, this volume, Chapter 9). It is possible that the settlement evidence from tenth-century Flixborough presents only part of the picture. If the owners of the land also held tenements in a town, then they may have had access to different types of cloth which were being made and traded there. In these circumstances, a certain amount of exchange between the lord's town holdings and the rural estate seems likely, and Flixborough may have become the place where the coarser wool fabrics were made for winter wear and servants' clothes.

# 7 Trade and Exchange – The Settlement and the Wider World

*Christopher Loveluck, Keith Dobney and James Barrett*

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## **7.1 Introduction**

*by Christopher Loveluck*

At no point within the occupational history of the Anglo-Saxon settlement did the inhabitants support themselves as an isolated, self-sufficient community. Different degrees of interaction with people and settlements from both the surrounding region and further afield would have been necessary to make possible the lifestyles indicated at Flixborough. Objects and commodities were procured or supplied to support the patterns of production and consumption which regulated life within the settlement, and also within wider contemporary society, whether agriculture, building construction, religious observance, artisan activity or social occasions such as feasts and marriages. Within different periods of the settlement sequence, the character and extent of provisioning, procurement and exchange relations seem to have varied. The following chapter explores the nature of these changing external contacts, with a view to establishing their significance and importance to the life of the settlement's inhabitants.

The receipt of commodities of non-local origin can be observed through a range of archaeological media. These take the form of imported artefacts, such as pottery, glass vessels and coinage from continental Europe; and pottery, coinage and raw materials from England, both to the north and south of the River Humber. A further, potentially imported commodity includes animals or their hides and fur pelts, sometimes moved on a long-distance basis. Commodities derived more locally, from Lincolnshire and the environs of the Humber estuary, included regionally produced pottery types and again, possibly animals, moved within estate redistribution systems or exchanged within this area. Hence, access to imported materials is reflected at three levels: in long-distance connections with the continental European countries bordering the North Sea and English Channel; in inter-

regional contacts along the east coast of England and the East Midlands river systems; and in local commodity movement within Lincolnshire.

When patterns are analysed by site period, distinct temporal trends are apparent in the long-distance, inter-regional and more local contacts, which do not appear to relate to differences in site-specific factors, such as availability of particular types of deposit in different phases. Instead, these temporal differences have to be explored within the context of a range of themes in search of an explanation.

## **7.2 The settlement within East Midlands, Humber estuary and continental exchange networks, AD 650–1000**

*by Christopher Loveluck*

### **7.2.1 Exchange contacts before AD 700**

Prior to the end of the seventh or early eighth century (Period 2 of the occupation sequence), a range of long-distance contacts is indicated between the inhabitants of Flixborough and eastern England to the south, as well as continental Europe. The evidence for these contacts is provided by a relatively small number of artefacts in comparison with later periods on the settlement. The earliest of these finds, the previously mentioned great-square-headed brooch (RF 2176; FIG. 2.21\*), dates from the mid sixth century and reflects links in the use of art styles and ideology in decoration, between north Lincolnshire and a wider identity in eastern England, and perhaps southern Scandinavia. John Hines has shown that it has zoomorphic style 1 decoration, highly reminiscent of Scandinavian style 1 decoration, rather than its English counterpart (Hines, Volume 2, Chapter 1). This reflects some continuing cultural affiliation with southern and western Scandinavia, if not continuing intermittent contact.

Unfortunately, the great-square-headed brooch was an unstratified find and was thus divorced from its original deposition context. The graffito of a wolf scratched on the back of the brooch may have been a feature present when the artefact was used, or it could be the result of a secondary action when the brooch had been discarded, and possibly saved for recycling on the settlement. It is possible that it was recovered following disturbance of fifth- to sixth-century graves, known to have been located in the vicinity (Dudley, 1931, 44).

The earliest stratified evidence for the settlement's integration within wider communication routes comes from the two phases of buildings defined within Period 1 of the occupation sequence. These structures may well reflect the edge of the fifth- to earlier seventh-century focus of the settlement. The fills of the post-holes, yards and under-floor deposits, as well as later refuse, yielded pottery from other parts of the East Midlands as well as the middle Rhineland, and possibly Belgium or northern France. Charnwood-type handmade pottery provides the evidence for regional exchange within the East Midlands. This ware, with its distinctive Mountsorrel granidiorite temper, was produced in the Charnwood forest area of Leicestershire and was transported throughout the East Midlands and into Yorkshire, between the fifth and seventh centuries (Williams and Vince 1997, 219–220). Its specific significance for understanding regional exchange and communication is discussed in detail by Alan Vince and Jane Young in volume 2 of the Flixborough publications (Volume 2, Chapter 12; and ADS archive).

Only two pottery vessels are likely to have been imported from the continent in Period 1, and these could have arrived in the later seventh century. These comprised fragments of a single Walberberg vessel, from the Vorgebirge region near Cologne; and one sherd of a trefoil-mouthed pitcher spout which could be either a continental import, or just conceivably a residual Roman sherd (Vince, volume 2, Chapter 12). The Walberberg jar (vessel 13) was broken and deposited by the turn of the eighth century (Loveluck, chapter 2, this volume); whilst similar trefoil-spouted pitchers are paralleled in seventh-century graves in England, suggesting that the Flixborough example could well be a contemporary import. Examples have been recovered from graves at Castledyke, Barton-upon-Humber, also on the south bank of the estuary like Flixborough; as well as Brundcliff, in the Derbyshire Peak District (Didsbury 1998, 311; Bateman 1848, 101–102). The entry point for all these imports is likely to have been the Humber estuary. The Peak District example probably reflects river communications up the River Trent from its delta, in the Humber, and subsequent transport by land beyond the less navigable middle reaches of the Trent (Loveluck 1994, 287–288; Brown 1997, 258; Loveluck 1998, 157).

The deposits from Period 1 at Flixborough are very limited in comparison with the quantity of evidence from

later periods in the settlement's history. Despite their limited extent, however, the two imported continental vessels of likely seventh-century date reflect a pattern of contact across the North Sea and English Channel, which is reflected on a Humber-wide basis during the seventh century. Several pottery vessels from the Rhineland, Belgium or northern France have been recovered from cemeteries on both sides of the Humber, from the previously mentioned Castledyke, at Barton-upon-Humber, and from King's Mill Road, in Driffield, East Yorkshire (Mortimer 1905, 294; FIG. 7.1). The Rhineland products probably arrived via the mouth of the Rhine in the Netherlands, facilitated by direct contact across the North Sea, and possibly through middlemen, moving items along the east coast of England to the Humber (Loveluck 1998, 157–158).

This pattern of fairly regular receipt of objects from the continent, on a small scale, is consistently reflected in the small number of graves in most seventh-century cemeteries of northern Lincolnshire and East Yorkshire, which were accompanied by luxury artefacts derived from, or funnelled through, links with the Channel-North Sea coast, from northern France to the Rhine delta (Geake 1997; Loveluck 1996, 42; Loveluck 2001, 96). That seventh-century pottery vessels were used, broken and discarded outside funerary ritual at Flixborough possibly reflects fairly regular receipt, and that a relatively low value was placed upon them. Their presence at Flixborough also reinforces the identification of the River

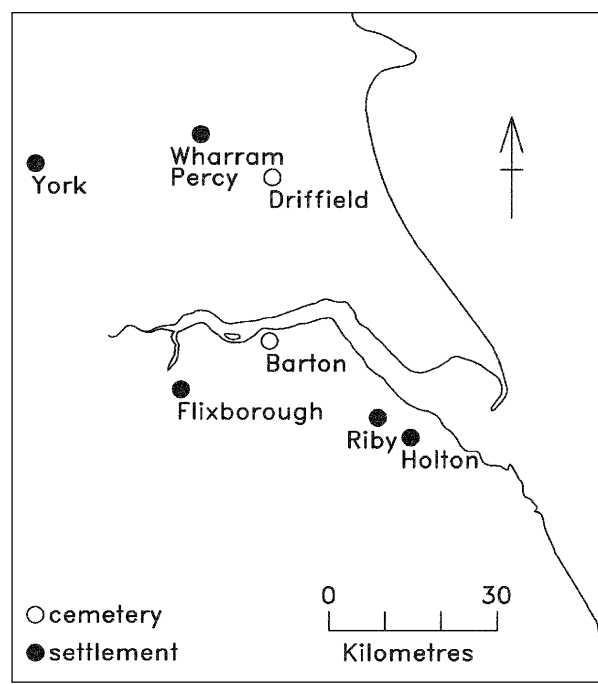


FIG. 7.1. Sites with imported continental pottery, dating from the seventh to ninth centuries AD, in the hinterland of the Humber estuary (M. Frankland).



Trent as a thoroughfare from the Humber into the interior of the Midlands during the seventh century, as do the Brundcliff pitcher and other items and raw materials of continental derivation, buried within the Peak District barrow burials of the mid to late seventh century, possibly resourced by the exchange of lead or even silver (Loveluck 1995, 90–91).

### 7.2.2 *The eighth century*

Between the end of the seventh century and the late eighth century (Periods 2 and 3 of the occupation sequence), the excavated area of the settlement became a focus for intensive settlement activity, with evidence for at least three phases of buildings on various plots, and for the accumulation and deliberate dumping of refuse in the course of everyday life, or prior to demolition and re-organisation of the site. From the mid to late eighth century, material was also undoubtedly brought into the excavated area from other parts of the settlement (Loveluck, this volume, Chapter 2). Despite these differences in the nature and extent of refuse deposits in Periods 2 and 3, the character of the imported artefacts reaching the settlement was the same, despite different quantities, which primarily reflect the size of refuse deposits in different phases. Quantities of imported items, both certainly and probably produced between the late seventh and late eighth centuries, were also recovered as residual finds from ninth-century deposits in Periods 4 and 5.

Continuing the trend of the later seventh century, a small number of pottery vessels were imported from Belgium or northern France, but their number cannot be held to reflect extensive integration of the settlement's inhabitants, or elements of them, within communications networks with the continent (Vince, Volume 2, Chapter 12). In contrast, the earliest silver coinage from the site, in the form of silver sceattas, demonstrates a much greater role of continental links in the life of the settlement from the end of the seventh century onwards, in terms of the facilitation of exchange and access to silver. Twenty sceattas have been recovered from the settlement, struck between the late seventh century and AD 730 approximately. Amongst this group, seventeen of the coins were minted on the continent. Most were derived from Frisia and the Rhine delta area (series E 'porcupine' types and series D 'Frisian runic' types), and two were possibly struck at the continental emporium of *Quentovic*, Vismarest-sur-Canche, near Étaples, Pas-de-Calais (Archibald, Volume 2, Chapter 13; Lebecq 1997, 75–77; Fig. 7.2\*). The three remaining coins of this early group comprise one sceat from East Anglia and two attributed to Kent.

The earlier continental coins have a high silver content, and this certainly kept them in circulation for a long period. Nevertheless, the quantity of sceattas from the continent is significantly greater than the number of native silver coins, dating from the eighth century, and

this impression is further reinforced by the discovery of a silver denier of the first Carolingian Frankish king, Pippin III 'the Short' at Flixborough, by metal detector (Story 2003, 252). This coin was struck at Quentovic in the second half of the eighth century and reflects continued access to continental coinage on the Humber estuary, throughout that century.

The large collection of continental silver coins at Flixborough, and the smaller group from southern England and Northumbria, were also joined by a group of base Northumbrian stycas from the mid eighth century onwards, as well as by a silver penny of Offa of Mercia from the end of the century (Pirie, Volume 2, Chapter 13; Archibald, Volume 2, Chapter 13). Overall, the coinage recovered from the site, struck between the end of the seventh and the end of the eighth centuries reflects the comprehensive integration of the settlement within communications and exchange networks around the Humber basin, extending up its feeder rivers to York and central Mercia. From this Humber-based focus for communications, the Flixborough settlement enjoyed incorporation within networks covering an area from eastern England to northern France and the Rhine delta; and there are indications from other sceatta finds on the Humber estuary that this area of pan-North Sea contact extended to the west coast of Denmark, based on Ribe. 'Wotan monster'-type (series X) sceattas have been found at North Ferriby, on the north bank, and at sites in northern Lincolnshire, and ever-increasing finds of these coins in Ribe suggest that they were minted there (Loveluck 1996, 44–45; Bendixen 1981, 64–67; Bencard and Bender Jørgensen 1990, 144–147; Jensen 1991, 11).

The relative importance of direct contact with continental seafarers, as opposed to exchange around the Humber estuary by inhabitants of the region, is difficult to gauge. Both continental and southern English sceattas were used interchangeably around the North Sea and Channel between the early and middle decades of the eighth century. Hence, it is difficult to know to what extent the Flixborough coins reflect direct contact with continentals. Nevertheless, the Humber estuary was certainly extensively integrated within continental routes of exchange, to the degree that most of the eighth-century coinage at Flixborough was derived from the Rhine delta area. The evidence for the inhabitants' incorporation into systems of exchange using coinage minted in Northumbria and Mercia is much more limited. This may be due to different systems underlying the use of coinage, in relation to Northumbria and the heartland of Mercia, resulting in an under-represented archaeological expression of the real extent of contacts with the north bank of the Humber and York, on the one hand, and the upper Trent valley on the other.

Flixborough, and England south of the Humber, were incorporated within the pan-North Sea zone, which used silver coinage as a medium of exchange, based on its weight and a consistent silver content. The kings of

Northumbria, with the exception of the *Aldfrith* sceattas of AD 685–705, initially struck silver sceattas during the mid eighth century; but the coinage soon became highly debased (Loveluck 1996, 44–48; Booth 2000, 83–87). New copper-alloy- and lead-based coins, called *stycas*, with a very low silver content were struck from the late eighth century, becoming the predominant type of coinage discarded in the first half of the ninth century, in Northumbria (Pirie, Volume 2, Chapter 13; Panter, Volume 2, Chapter 13; Booth 2000, 87–89).

The base Northumbrian sceattas and *stycas* found at Flixborough reflect their use on the northern border of the area using coins based on the intrinsic value of silver. The value of the Northumbrian coinage may not have been based on its intrinsic value, but rather on an assigned tariff value. The acceptability of this coinage as a medium of exchange on the south bank of the Humber may have varied, based on the stability and political strength of the Northumbrian kingdom, and the degree of cross-Humber exchange. In order to undertake most trade and exchange transactions outside the kingdom, whether in England to the south or on the continent, directly or via traders, it may have been necessary for Northumbrians to use the more widely acceptable form of exchange medium, i.e. silver coinage struck outside Northumbria. The extent of the Northumbrians' use of this silver coinage would then be unidentifiable archaeologically outside their kingdom. Consequently, the base Northumbrian coins found at Flixborough, and occasionally on other sites in southern England, such as Staunich Meadow, Brandon, Suffolk (Carr *et al.* 1988, 376); and in the *wic* of London (Blackmore *et al.* 1998, 62–63), could hugely under-represent the true scale of Northumbrian trade, exchange and commodity movement with England south of the Humber, between the later eighth and mid ninth centuries.

In the heartlands of the kingdom of Mercia, in the Cheshire plain and the upper Trent valley, the situation was very different. No coinage undoubtedly minted by the Mercian kings can be identified until the late eighth century, with the onset of the minting of the silver penny coinage by King Offa. The Cheshire plain and the upper Trent valley have also yielded far fewer ninth-century coins, than England to the south and east (Metcalf 1998, 168). This suggests that the use of coinage was not of exceptional importance in the facilitation of trade and exchange within this area, during the eighth and ninth century. Indeed, it is possible that the area functioned on a greater degree of direct reciprocal exchange of goods and services, as well as taxation renders almost exclusively in kind.

The result of such a difference in the functioning of Mid Saxon society in the upper Trent valley and Cheshire could have rendered any links between the upper and lower Trent valleys archaeologically invisible over much of the eighth century. In this region again, any exchange (using coinage) with southern England, the lower Trent valley, the Humber, and with continental traders would

have been facilitated using continental or southern English coin issues, probably on the margins of Mercian territory proper. The recovery of early eighth-century sceattas minted in the Rhine delta area (series E 'porcupine' sceattas) at Meols, in the Wirral, may reflect one such trading site on a beach on the Irish Sea margin of Mercia (Griffiths 1992, 63–68; Griffiths 1994, 184–186; Griffiths 2001, 24). Likewise, Flixborough was located within the other northern marginal zone of the Mercian kingdom, near the Humber estuary, on the interface with the intrinsic-value, silver coin-using area of eastern England, and the possibly more tariff-based, coin-using kingdom of Northumbria.

Despite the factors governing the use of coinage and the exchange relations that could be masked by its presence and absence at Flixborough, another key type of imported commodity found on the settlement from the end of the seventh century, probably illustrates both direct continental contact, and the inclusion of key sites along the Humber feeder rivers within continental communications networks. The imported items concerned were glass vessels. Vera Evison identified fragments of over 60 separate vessels from Flixborough, which she suggests should be dated from between the seventh and ninth centuries, in terms of their dates of manufacture (Evison, Volume 2, Chapter 2). They represent the most abundant form of import, in terms of discrete items, and most were drinking vessels. Eifel lava quern fragments, imported from the middle Rhineland from the end of the seventh century are more numerous, in terms of fragments, but they probably reflect a significantly smaller number of complete artefacts (Parkhouse and Loveluck, Volume 2, Chapter 6).

The range of drinking vessel types, colours and forms of decoration were varied, including fragments with trail and reticella decoration (Evison, Volume 2, Chapter 2). Examples included pieces of a cobalt blue vessel, decorated with white trails found in post-holes from building 9, and reticella-decorated bowls from refuse deposits (Figs 7.3\* and 7.4\*). Fragments of vessels of the same colour and identical reticella trail decoration have also been found at Dorestad, in the Rhine delta (Stiegemann and Wemhoff 1999, 171); at Ribe, in Denmark (Jensen 1991, 15); and at Valsgårde, in Sweden (Stiegemann and Wemhoff 1999, 172–173). An increasing number of reticella-decorated vessels are being recovered on sites with phases dating from the seventh to ninth centuries, around the English and continental coasts of the North Sea and the English Channel. They have been found predominantly on settlements with assumed wealthy or high-status elements, and the Flixborough examples form part of the wider pattern around the North Sea and Channel littoral (Steuer 1999, 411–413). Other settlements in receipt of imported glass vessels in the hinterland of the Humber, and along its feeder rivers, included Beverley, East Yorkshire (Henderson 1991, 124); Repton, Derbyshire; and Fishergate, York (Hunter and Jackson 1993, 1331–1344).

The key importance of the glass vessels is that their relatively large number suggests regular acquisition of commodities from the continent, and at least some of the exchange transactions would have been facilitated by silver coinage. The source, or sources, of the glass vessels are not certain, although it is often assumed that they were products of the Rhineland and its tributaries, which were exported north and eastwards. Much of the large eighth- to ninth-century assemblage of glass funnel beakers and bowls from the Carolingian royal palace at Paderborn, in Westphalia, probably reflects supply of glass vessels from this broad area along rivers travelling east from the Rhine, and this is further borne out by the large numbers of middle Rhine ceramics at the palace, such as Badorf and Tating wares (Gai 1999b, 214–216; Grothe 1999, 209–211). However, glass-working furnace evidence and glass melt also indicate some likely manufacture of vessels at the palace itself (Gai 1999b, 212–214).

The Meuse valley must also be considered as a source for the Flixborough vessels, given recent evidence for significant artisan activity, including glass-making and -working, at a series of centres (Huy and Namur) along this valley in the sixth, seventh and eighth centuries (Péters 1999, 35; Plumier 1999, 27; Dijkman 1999, 52). Both the Meuse and the Rhine flow into the same large delta area, and the glass vessels, Rhineland lava querns and sceattas, minted somewhere in the delta zone, could all have travelled on the same ships to the Humber estuary and hence to Flixborough, reflecting likely contact and trade facilitated through Frisian middlemen (Lebecq 1983; Heidenga 1997, 27–30).

The combined evidence of the large assemblages (in relative terms) of imported glass vessels and coins from Flixborough puts the much smaller collection of continental pottery vessels into a broader perspective, highlighting the likelihood that pottery may not be a good indicator of the extent of exchange relations and communications with the continent in the case of the Flixborough settlement. Between the end of the seventh century and the end of the eighth century, at least some of the inhabitants were in receipt of significant quantities of products manufactured in the Rhineland, Belgium or northern France. Most of these items were exotic luxuries or high value items, characterised by glass vessels and silver coins. Other commodities such as the Eifel querns and pottery vessels are likely to have travelled as bulk commodities or ballast, and were probably exchanged as important everyday or novelty items of less value.

### 7.2.3 *Late eighth to mid ninth century*

Patterns in the receipt of imported artefacts between the end of the eighth or early ninth century, and the middle decades of the ninth century (Period 4), seem to reflect continuity of the lines of communication evident in the seventh and eighth centuries, but to different degrees. In the first half of the ninth century, however, the various

links are not always manifested in the same ways as in earlier centuries. The physical character of the settlement changed in this period: all the structures from Period 3b were replaced and three lines of buildings were constructed, and refuse deposits accumulated outside some of those buildings. The end of this period of occupation (Phase 4ii) seems to have represented a period of site clearance at a time later than the minting of silver pennies of Æthelberht, King of Wessex, struck between AD 858 and 865 (Archibald, Volume 2, Chapter 13). The size of the clearance deposits, and their wealth in terms of artefacts, result in abundant evidence for the exchange contacts of the settlement up until the middle decades of the ninth century.

Fragments of glass vessels, lava querns, and pottery vessels continued to be deposited during Period 4, although it is difficult to be certain what proportion of these imports arrived at this time. There is certainly some residual material in the form of small, easily transported eighth-century sceattas; and cross-joining pottery fragments from vessels found in earlier periods. The quantity of these residual finds, however, is dwarfed by the amount of contemporary material, such as the new lighter loom weights discussed in the last chapter, and by diagnostic contemporary metalwork, namely coins and Trewhiddle-decorated strap-ends (Thomas, Volume 2, Chapter 1). Newly encountered continental pottery vessels were identified for the first time, such as four sherds from a white-ware vessel (DR351), probably from northern France (Vince, Volume 2, Chapter 12). This vessel and some of the other continental pots could have been contemporary imports, as could the glass vessel fragments from the refuse and clearance deposits.

The key difference between the array of continental imports which arrived in the eighth century, and those that arrived in the ninth century, is manifested in the absence of contemporary, continental silver coinage at Flixborough. Small numbers of Carolingian silver deniers were arriving on the Humber estuary, and were travelling along its feeder rivers, during the first half of the ninth century. A recent example of Charlemagne's 'palatine' issue, struck after his coronation as Holy Roman Emperor in 801, probably between AD 812 and 814, has recently been found at Market Weighton, East Yorkshire (Lafaurie 1978, 154–172; Kluge 1999, 84–85); whilst a denier of Louis the Pious, struck between 822 and 840, was recovered near Repton, in the upper Trent valley, in Derbyshire (Bonser 1998, 227). This pattern of recovery presents a great contrast with the large number of continental silver sceattas that arrived on the Humber estuary and at Flixborough, in the first half of the eighth century.

On face value, this difference might be taken to suggest a lessening of the extent of exchange and direct contact with the continent, during the first half of the ninth century. Yet, the likelihood that a significant proportion of the glass vessels, lava querns and pottery vessels

represent imports from that period suggests that such a conclusion may not be accurate. Periodic melting down and re-striking of silver coinage could account for the absence to a certain extent. It would certainly appear, however, that the inhabitants of Flixborough and the area bordering the Humber estuary were not using continental coinage as a medium of exchange after the early ninth century.

In contrast to the lack of continental silver coinage, and the difficulty in assessing the quantity of continental imports arriving in Period 4, a range of raw materials and artefacts was derived from links with the Midlands interior and southern England. These links were probably facilitated by the long-standing River Trent, Humber estuary and North Sea communication routes, running up the east coast of England (Loveluck 1994, 312). The imported commodities comprised lead in large quantities; Ipswich ware pottery from East Anglia; coinage minted in south-eastern England, between the 840s and 860s; and perhaps some dress accessories.

As mentioned in the preceding chapter, over ninety percent of the lead recovered at Flixborough, in the form of lead artefacts, sheet, melt and ingots, was found in deposits from Period 4 onwards (Loveluck and Atkinson, Volume 1, Chapter 5; Wastling, Volume 2, Chapters 4 and 11). Indeed, much of the lead may well have been imported from the end of the eighth century or the early decades of the ninth century, for it was worked extensively and probably recycled from that time. The near-absence of lead before this era suggests it was not derived from a nearby Roman source; and bearing in mind the location of the settlement, the lead was probably imported from the Derbyshire Peak District via the River Trent.

A charter from AD 835 demonstrates that lead was certainly being shipped down the Trent during the first half of the ninth century, when the ealdorman *Humberht* was ordered to ship his annual taxation render or land rent of 300 *solidi*-weight of lead directly to Canterbury, rather than to his immediate landlord, the abbess of the monastery at Wirksworth, Derbyshire (Hart 1975, 102; Loveluck 1994, 287–288). The Peak District seems to have been the major producer of lead in Anglo-Saxon England, and by the time of the Domesday survey of Derbyshire all the leadworkings or *plumbaria* were in royal hands (Morgan 1978, 272a,b–273a). The sudden appearance of lead at Flixborough, in quite large quantities, suggests the settlement's continuing integration into communications facilitated by the Trent, from the Mercian interior. The arrival of the commodity, however, may not reflect the operation of the same exchange links that had existed in the seventh and eighth centuries.

Alongside the probable evidence of contacts with central Mercia provided by the lead, the appearance of Ipswich-ware pottery demonstrates the further operation of links with East Anglia, via east coast sea routes to the Humber. As Paul Blinkhorn has shown, the collection of

Ipswich-ware sherds from Flixborough is currently the largest in northern England, and all the vessels are likely to have been produced at the Mid Saxon emporium of Ipswich or *Gipeswic* (Blinkhorn, Volume 2, Chapter 12). It is possible that several sherds of Ipswich ware could have been deposited in the late eighth century, in the latest refuse deposits of Phase 3b, but these refuse deposits formed the activity surface for life on the settlement during Period 4, and material could easily have been worked into existing surface deposits through trampling, churning and erosion of deposit surfaces (Loveluck, Volume 1, Chapter 2; Loveluck, this volume, Chapter 2). The remainder of the collection of over 260 sherds was deposited from Period 4 onwards, i.e. predominantly during the first half of the ninth century. This chronological span for the importation of Ipswich ware at Flixborough currently conforms to a pattern seen around the Humber estuary, where the ware was first deposited in significant quantities from the end of the eighth and early ninth century (Fig. 7.5). For example, at Lurk Lane in Beverley, East Yorkshire, Ipswich ware was first recovered in early to mid ninth-century contexts (Watkins 1991, 62); and at Fishergate, York, only four from a total of 36 sherds were found in deposits dated earlier than the late eighth and ninth centuries (Mainman 1993, 566).

The coinage recovered from Flixborough, minted although not necessarily deposited in the mid ninth century, also reflects the continued integration of the settlement within the communications networks indicated by the Ipswich-ware pottery. The coinage reflects three

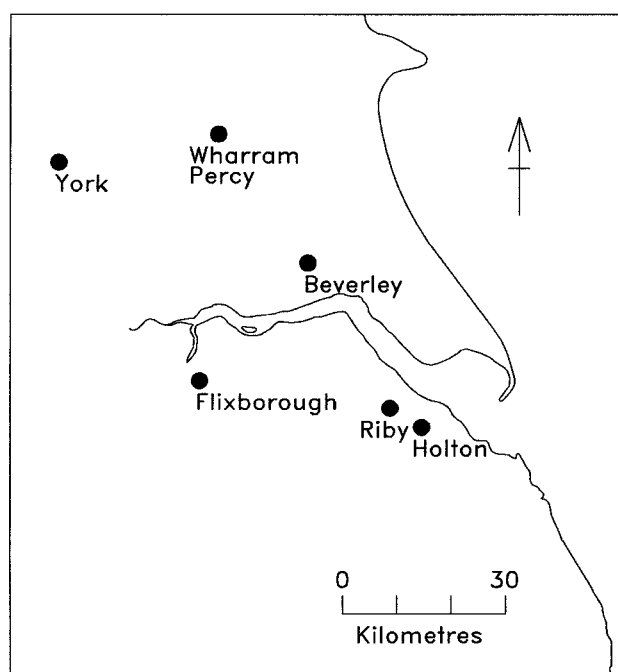


FIG. 7.5. Distribution of sites with Ipswich-ware pottery in the hinterland of the Humber estuary (M. Frankland).

political authorities, in the persons of the Kings of Mercia, Northumbria and Wessex. They comprise silver pennies and several Northumbrian stycas. The silver pennies from this period were all struck between the 840s and 860s, and were products of mints in the south-east of England, namely Canterbury, Rochester and London (FIG. 7.6\*; Archibald, Volume 2, Chapter 13). They included issues of Æthelwulf of Wessex, struck between approximately 852 and 858, and his son Æthelberht, struck between 858 and 863; as well as a penny of Ceolnoth, Archbishop of Canterbury (833–870), struck under licence from the West Saxon Kings, between 839 and 843. A penny of Berhtwulf, King of Mercia between 840 and 852, was also recovered during the excavations, having been minted in London (Archibald, Volume 2, Chapter 13). It must be assumed that the silver pennies were the most commonly used form of wealth storage and medium of exchange due to their intrinsic value, in contrast to the base stycas. The lack of coinage struck in central Mercia may reflect the different attitude to coin use in that area, rather than limited contact between the Humber and the upper Trent valley. The opposite is almost certainly demonstrated by the lead from the site, and the previously mentioned ‘Humberht’ charter.

The absence of Mercian coinage at Flixborough until the arrival of the Berhtwulf issue, perhaps in the 840s or 850s, is consistent with a pattern of limited coin production by the Mercian kings after their loss of Kent to Æthelwulf of Wessex (839–858), in the early years of his reign. Since most of the Mercian coinage seems to have been struck in London, Rochester and Canterbury before that time, it is not surprising that contemporary Mercian coinage was absent at Flixborough, in the hinterland of the Humber. The small number of Carolingian coins recovered from this area, from the same period, might suggest that silver coinage was not overly abundant during the first half of the ninth century, in contrast to the century before. Such circumstances could also have kept eighth-century silver coinage in use for a long period as an exchange medium, based on its weight and silver content. It is certainly the case that early eighth-century silver sceattas were recovered from deposits dating from the ninth century at Flixborough (Loveluck, this volume, Chapter 2).

By the 850s, however, West Saxon coinage presumably struck in Rochester, Canterbury and possibly London, was being discarded on the settlement in small but consistent quantities. This reflects continuity of east coast communications even after the demise of Ipswich-ware production, which Blinkhorn dates to *c.* AD 850 (Blinkhorn, Volume 2, Chapter 12). This pattern of the arrival and use of West Saxon silver coinage, struck from the 850s until the 870s, is also witnessed around the Humber estuary and further north, in Yorkshire and Northumberland. For example, at Fishergate, York (Kemp 1996, 83) Cottam, East Yorkshire (Richards 1997, 237) and on Lindisfarne (O’Sullivan 2001, 42;

O’Sullivan pers. comm.). In Northumbria, this represented an abandonment of the base styca coinage in favour of the intrinsically valuable silver coinage, and the more widely accepted medium of exchange and increasingly, payment of taxation.

To conclude, the excavated settlement at Flixborough was in receipt of greater quantities of imported raw materials and artefacts in the first half of the ninth century than at any other period in the occupation sequence. Nevertheless, there were significant differences from the evidence of the eighth century. Most noticeably, this can be seen in the arrival of lead and Ipswich-ware, emphasising contacts with the Mercian interior, facilitated by the Trent and Humber; and east coast links with East Anglia. Contemporary continental imports also arrived, in the form of glass vessels, lava querns and a small number of pots, but it is difficult to identify the proportion of ninth-century imports from their residual eighth-century counterparts. The contrast with the eighth century is most stark in the relative scarcity of coinage until the mid ninth century, after which east coast and/or coinage transfer through the Mercian interior are emphasised by the arrival of Mercian and then West Saxon coinage, minted in London and Kent. However, the apparent scarcity of coin use in central Mercia should caution against drawing conclusions about lack of contact on the basis of coin supply (Metcalf 1998, 167–168). Similarly, the adoption of the use of West Saxon silver coinage in York and East Yorkshire, sometime between the 850s and 870s, for at least some exchange, taxation or wealth storage purposes, could have rendered demonstrable cross-Humber links with Northumbria invisible through the medium of coinage.

#### 7.2.4 *The later ninth and tenth centuries*

After the apparent clearance of the site during the middle decades of the ninth century, probably sometime during or after the 860s, most of the former building plots were abandoned in favour of new locations for the small buildings of Period 5 (FIGS 2.15 and 2.17). The two phases of buildings from this period (Phases 5a and 5b) were both accompanied by significant refuse deposits containing large quantities of artefacts. The refuse area from Phase 5a lay in the centre of the site, and it was seemingly in existence for an extended period, having been crossed by gravel paths. During Phase 5b, areas in the north-east and south of the site became foci for rubbish disposal.

The material recovered from the deposits of Phase 5a did not contain any artefacts which demonstrate the contemporary integration of the settlement within local, regional or longer-distance exchange networks. The Maxey-type-, Ipswich- and Early Lincolnshire Fine-shelled ware pottery sherds recovered could have arrived in Period 4, and several sherds of vessels seen in earlier phases were retrieved, indicating a demonstrable element of re-worked material, from within the excavated area. The presence of a small collection of the light loom

weights that appeared in Period 4 also indicates a significant level of residual material from the first half of the ninth century (Loveluck, this volume, Chapter 2). Two early eighth-century 'porcupine' sceattas (RFs 12072 and 12987), several glass vessel fragments and pieces of Eifel lava quern-stones also represent a continental component to the 5a deposits. The coins were certainly residual, and the same may be true of the other objects. Overall, it is not possible to identify any significant element that must have been contemporary amongst the artefacts recovered from Phase 5a. Consequently, two contrary conclusions can be drawn from the evidence. The first, is that regional and long-distance exchange links were disrupted and ground to a halt during the mid to late ninth century, which would conform to a traditional view of the period as characterised by Viking raiding, invasion and settlement. The second option is that some regional exchange did continue, expressed in the form of Early Lincolnshire Fine-shelled ware; and it is not beyond the realms of possibility that some continental imports continued to arrive, along east coast routes.

Synthesis of the evidence from all the archaeological remains from this period suggests there was a marked change in the character of life on the settlement, between the mid and late ninth century. The abandonment of past building plots, the small buildings and the lack of demonstrable contemporary imports and significant craft-working do suggest disruption of the communications routes which had connected the settlement with the pan-North Sea world, between the seventh and mid ninth centuries. Nevertheless, the arrival of coins minted in the 870s, and possibly c.880, deposited in Period 6 on the site, does indicate at least some degree of direct or indirect contact with England, to the south, during or after these decades (Archibald, Volume 2, Chapter 13). The latter coins, of course, need not have arrived on the settlement close to their dates of minting, and the people who brought them, and the links they represent, may have been very different from those of earlier centuries.

The buildings from Phase 5b, together with associated domestic features and refuse, cutting or sealing structures from Phase 5a, did yield artefacts to demonstrate the existence of, at least, regional exchange within the East Midlands, between the late ninth and early tenth centuries. Small quantities of Torksey-type, Lincoln and locally made Late Saxon pottery wares arrived at Flixborough from this phase (Loveluck, this volume, Chapter 2). It is possible that this small number of Late Saxon vessels reflects continued regional exchange of pottery, throughout Period 5. Early Lincolnshire Fine-shelled ware was still present in this phase, and it is possible that this ware continued to be exchanged throughout the second half of the ninth century (Young, Volume 2, Chapter 12; Vince and Young, Volume 2, Chapter 12).

The previously mentioned West Saxon silver pennies,

minted in the 870s, and possibly after 880, could have arrived on the settlement in Phase 5b or later, as they were recovered in deposits from Period 6. In summary, it is difficult to conclude that the inhabitants of the excavated settlement were integrated within anything other than regional exchange networks and lines of communication, in the later ninth century. Those commodities that did arrive were small in number, and reflect limited use of the River Trent and overland routes in the East Midlands. Significantly, however, the presence of Lincoln Kiln-type and Torksey-type pottery wares indicates the growth of contacts between the Flixborough area and the emerging urban centres of Lincoln, and perhaps Torksey, although the latter ware was also the product of what became a regional tradition (Figs 7.7 and 7.8; Vince and Young, Volume 2, Chapter 12; and ADS archive).

During the tenth century (Period 6), this pattern of the importation of small quantities of Torksey-type and Lincoln pottery ware vessels continued. At the same time, the buildings of the early to mid tenth century were the

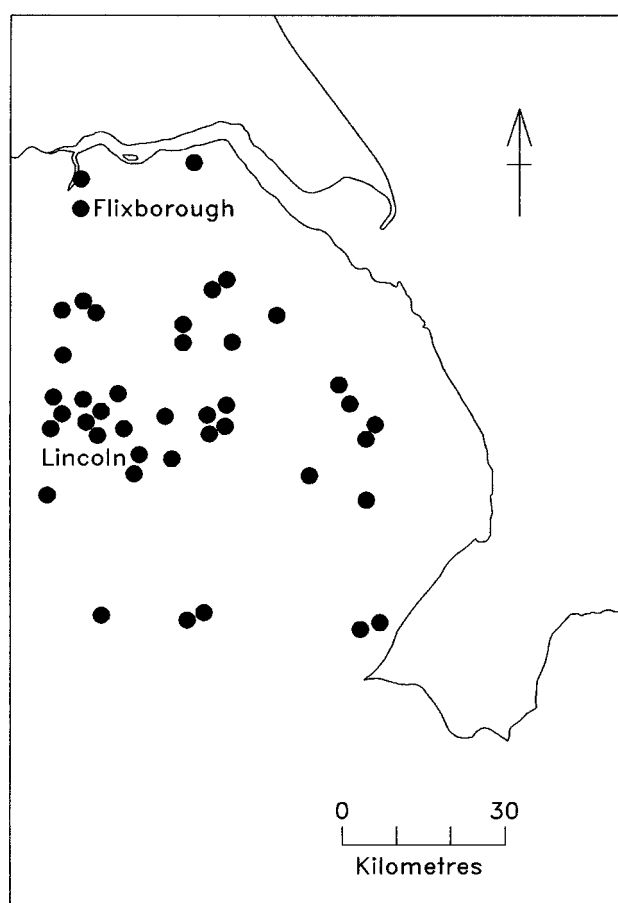


FIG. 7.7. Distribution of Torksey-type pottery in Lincolnshire and around the Humber estuary, tenth-eleventh century, after Vince and Young, volume 2 (M. Frankland).

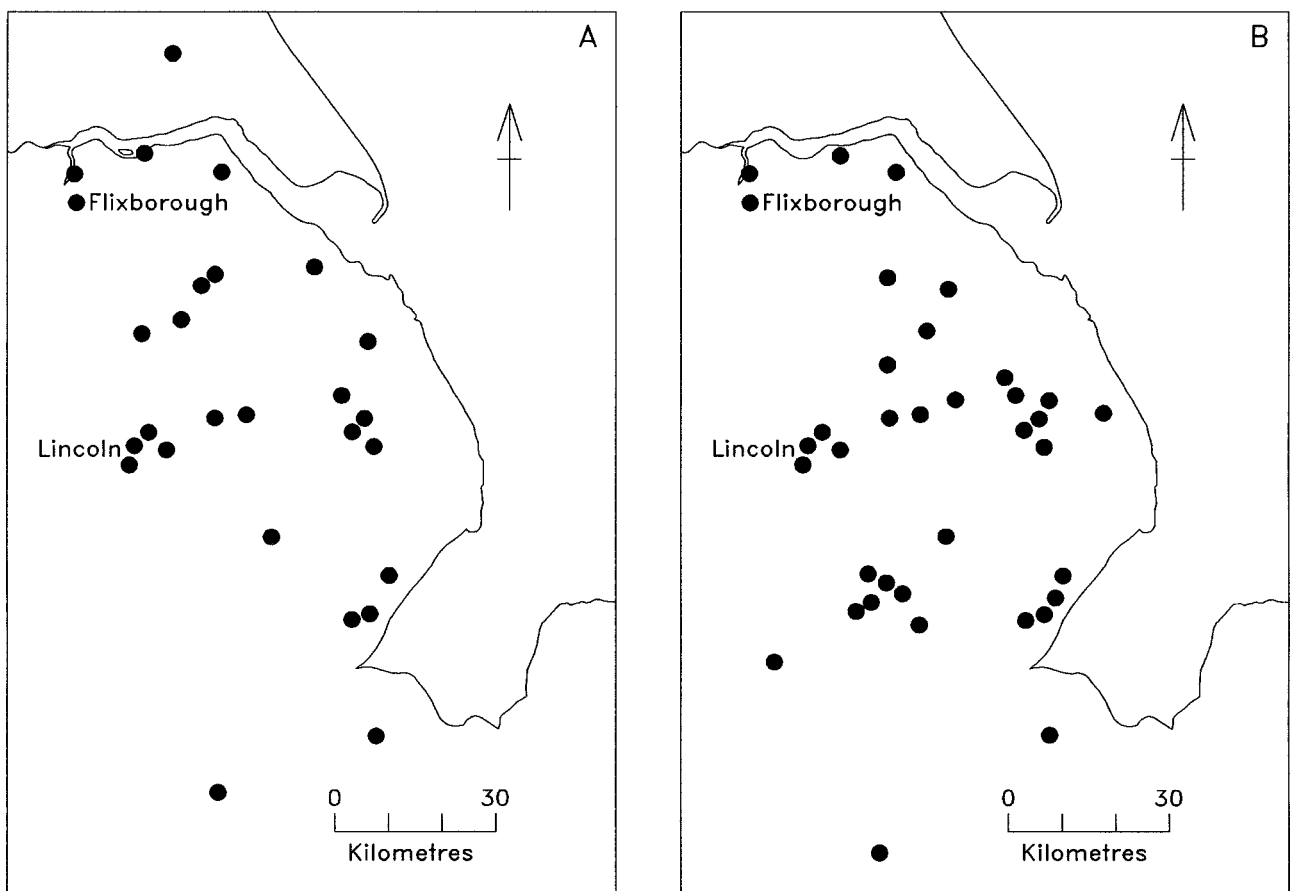


FIG. 7.8. Distribution of Lincoln-kiln type shelly ware pottery, in Lincolnshire and around the Humber estuary: A. Rouletted type (late ninth – tenth century); B. bowls with in-turned rims (mainly mid tenth century), after Vince and Young, volume 2 (M. Frankland).

largest from the entire occupation sequence, and the huge quantities of animal bones from certain refuse dumps, such as context 3891, demonstrate both the extensive and intensive consumption of animal resources from the settlement's linked territories. The consumption of large quantities of wood and animal resources very much contrasts the minimal evidence for regional contact provided by the contemporary pottery wares. Indeed, the evidence from the structural, animal and craft-working elements of the archaeological assemblage suggests a settlement relying largely on its own resources for subsistence and social display (see Loveluck, this volume, Chapter 9).

Nevertheless, a range of artefacts, which appeared for the first time in Period 6, suggests that the level of regional exchange was still significant in the tenth century. Within the large refuse dumps sealing building 7 (contexts 3891 and 3610), a series of lead weights was recovered which are thought to relate to the exchange of silver bullion (Wastling, Volume 2, Chapter 13; Kruse 1992). These weights range from small cylinders (RF

3727; FIG. 7.9\*) to perforated conical weights (RF 4147), presumably used with hand-held balances in the manner of Anglo-Saxon and Viking Age examples (Kruse 1992). No contemporary coinage, minted between the 880s and the 970s, was recovered from the Flixborough excavations, and it is highly likely that silver was used as an exchange medium based on its weight and intrinsic value, whether in the form of residual ninth-century pennies, still found in deposits of Period 6, or as silver ingots. A silver 'finger' ingot, which could date from the late ninth or tenth century, was found as an unstratified find at Flixborough (FIG. 7.9\*); and it is like many contemporary examples from the Scandinavian-influenced parts of northern Britain, Wales and Ireland (Bayley 1992b; Graham-Campbell 1992; Sheehan 1998, 151–157; Sheehan 2001, 51–59; Redknap 2000).

It can be surmised that the recovery of these small lead weights and silver ingot reflects the settlement's integration within the wider Anglo-Scandinavian zone of England; although, examples of identical lead weights have also been found at Cheddar, in southern England,

within deposits dating from the late tenth to eleventh centuries, suggesting a wider use alongside coinage (Rahtz 1979, 287–288). It is not possible to assess the geographical extent of the contacts reflected by the silver ingot and the lead weights from Flixborough, as they provide no indication of their ultimate origin. They could have been used in the exchange of specific items or commodities derived from local, regional or long-distance contacts. Hence, the ‘anonymous’ nature of these artefacts could hide the fact that the tenth-century settlement was still integrated within relatively wide exchange networks, facilitated by the Humber estuary and its feeder rivers, to York and beyond. However, no early tenth-century coinage from York seems to have reached the settlement.

The large, hemispherical or bell-shaped lead weight (RF 3884), with an iron handle, from refuse dump 3891 was probably also used to weigh a commodity or commodities for exchange (FIG. 7.10\*). It bears some similarities to later steelyard weights, although it is very different in the setting of the looped iron handle. The iron loop from RF 3884 was fixed to the top of the lead weight and was set at right angles, extending away from the lead hemisphere, rendering it useless as a potential steelyard weight. The context of its use during Period 6 must currently remain a mystery.

Taken together, the small numbers of Torksey-type and Lincoln pottery vessels, the lead weights and the silver ingot probably reflect the settlement’s integration within regional lines of communication, based on the Rivers Trent, Humber and possibly the Ouse; as well as the existing Roman road network. If the tenth-century settlement had maintained direct contacts with individuals from across the North Sea or from southern England via the east coast, those contacts were not manifested in any identifiable imported commodities. Instead, exchange links and transactions for goods produced regionally or further afield were mitigated through a new relationship with the emerging towns of the tenth and eleventh centuries.

A similar relationship with these emerging centres was also suggested in the provision of certain specialist craft-working services and products at the same period. Specialist artisans, such as fine metalworkers and textile manufacturers, concentrated more and more in the new urban centres during the tenth and eleventh centuries, due to the greater potential for creation of wealth and social mobility (Schofield and Vince 1994, 121; Verhulst 1999; Dutour 2003, 158 and 210–211). They could both ‘sell’ their services and products in the modern sense, and also work for increasingly, urban-based Anglo-Scandinavian elite patrons, within a socially-embedded context; whether in towns such as York, under the tenth-century Norse- or Dublin-Viking kings; or in the eleventh-century towns of Cnut’s time. In order to procure specialist products and services, people from rural centres would have had to travel to the new towns. Indeed, rural aristocrats obtained ‘urban’ residences and plots from

the tenth and eleventh centuries onward, to facilitate and benefit from linkage between the increasingly differentiated urban and rural worlds, not only in England but also across western Europe (Dutour 2003, 196–197).

Exchange transactions in return for specialist services and goods, procured predominantly from urban centres, would provide one context for the use of silver bullion as an exchange medium around the Humber, in the later ninth and tenth centuries. It also suggests one mechanism for movement of other commodities into the rural hinterland, in small quantities. Obviously, other mechanisms of dispersion may also have operated, such as rural markets, and these are discussed below. If the new towns of the tenth and eleventh centuries were providing services and goods for their rural hinterlands, at least on a limited level, then the evidence from Flixborough may well reflect the emergence of the relationship between rural and urban centre which would later characterise the central Middle Ages. Indeed, the reappearance of coinage at Flixborough from the 970s may reflect such interdependence. The latest Anglo-Saxon coin from Flixborough is a penny of Edward the Martyr from the late 970s, and silver coinage was struck at Lincoln and other mints from the time of his father, Edgar, King of Wessex and England (Archibald, Volume 2, Chapter 13). The re-appearance of coinage at Flixborough, in the late tenth century, could further reflect links with towns like Lincoln, as did the arrival of Lincoln Fine-shelled ware pottery in the late tenth or early eleventh centuries, found in the latest refuse deposits of Phase 6iii. In contrast to later medieval towns, however, foreign luxury goods were not funnelled into the hinterlands of tenth- and eleventh-century urban centres like Lincoln and York (see section 7.4 below).

### ***7.3 Evidence of regional and long-distance contacts from the faunal remains***

***by Keith Dobney and James Barrett***

It is clear from the numerous other lines of evidence from the Flixborough finds assemblages that the inhabitants had a wide variety of both regional and long-distance contacts, differing in scale and intensity during different periods of occupation (Loveluck, above). As a probable high-status centre, and even a site with possible royal associations in its later history (Roffe, Chapter 8, and Loveluck, Chapter 9, this volume), the vast majority of the animal resources would have most likely arrived as food rents from ‘clients’. Maintenance of the personal ties of clientship at different levels ensured that there was a considerable movement and transfer of moveable wealth, especially of livestock and foodstuffs (McCormick 1992). Although many of these resources would probably have derived from neighbouring landholdings, access to goods that were rare or special was obviously sought and acquired from farther afield, in order to reinforce the



social standing and identity of the elite inhabitants at the settlement.

From a zoo-archaeological point of view, evidence of any trade and exchange in wild or domestic vertebrate resources on a local or perhaps regional scale is (in the vast majority of cases) difficult to establish. However, some inferences can be drawn.

#### *Was there a trade in large cattle?*

Biometrical analyses of the cattle bones from the site have provided some tantalising evidence for the possibility that, during the early-to-mid eighth century (Periods 2–3a) and even later, the cattle at Flixborough may not have been from local stock. FIG. 7.11 shows plots for published cattle shoulder (withers) height values from a range of broadly contemporary sites from England, Scotland, Ireland and the continent (where raw data or mean values were available). What is striking about all these data is the fact that the values for all periods at Flixborough (with the exception of Phase 6iii) are some of the highest recorded from both Anglo-Saxon England and the near continent at a contemporary date. Indeed, those from Periods 2–3a are the highest of any site presented.

The presence of unusually tall cattle could reflect differences in husbandry regimes between different sites.

Alternatively, it is a distinct possibility that these taller animals represent the presence of different varieties of cattle. These may have been animals that were highly sought after, commanded high monetary or prestige value and, therefore, were more likely to have been transported long distances. McCormick (1987) noted that cattle bones from early medieval royal sites in Ireland tended to be larger than average, which he suggested were considered status symbols by their owners, and might indicate competitive cattle breeding among the Irish aristocracy. The size of cattle is also continually stressed in the early Irish law codes (e.g. *TBC* LL 36.1323–6 from Kelly 1997).

There are no comparably large cattle from anywhere in the region, although several eighth- to eleventh-century sites have produced beasts at least approaching the size of those from Flixborough, further south in England. These include sites from the *wics* of Hamwic-Southampton (including Six Dials), Ipswich (Vernon Street); a high-status centre at Wicken Bonhunt, Essex; the urban centre at Thetford, Norfolk; and several sites of different types in London. On the continent, the presence of similarly large cattle has also been reported on three settlements: Dorestad and Rijnsburg, in the Rhine delta area of the Netherlands; and Birka, in Sweden. Most of the imported objects which arrived at Flixborough,

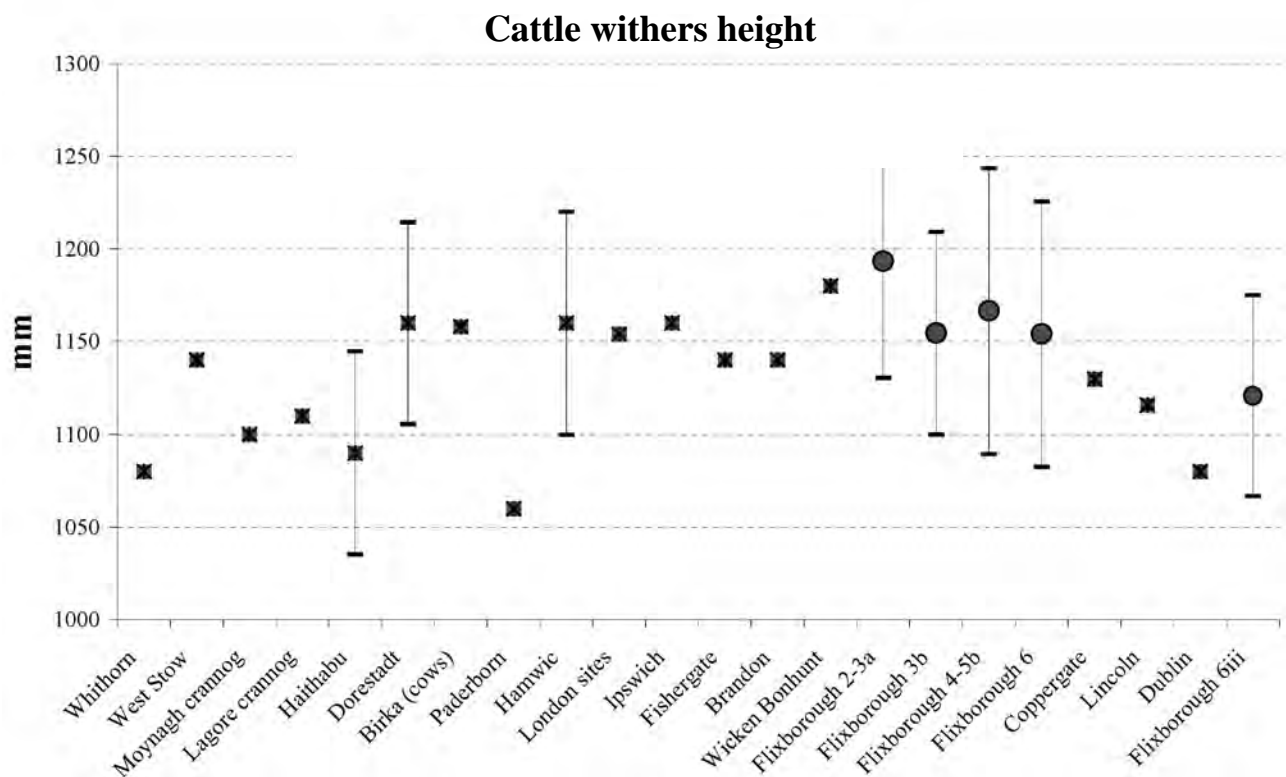


FIG. 7.11. Mean cattle withers' heights values from the various Flixborough phases and comparative sites from England, Scotland, Ireland, Denmark, northern Germany and the Netherlands (K. Dobney, D. Jaques and C. Johnstone). The sites are arranged in rough chronological order from left to right. High and low bars, where present, represent  $1 \times$  standard deviation. For the sake of clarity, the various Flixborough occupation phases have been shown as circles, whilst the comparative site data are shown as squares.

between the late seventh and mid eighth centuries, were also derived from or funnelled through the Rhine delta area (Loveluck above); and in this context the presence of tall cattle at eighth-century Dorestad is particularly interesting. In contrast, no similarly sized cattle have yet been discovered at other settlements along the coasts of the Channel/North Sea or the Baltic; whether early towns, such as Hedeby-Haithabu, Schleswig-Holstein; or terps, such as Feddersen Wierde, Lower Saxony.

The possibility, therefore, exists that large varieties of cattle were introduced to regions of England, such as that bordering the Humber, directly from the European mainland (on the basis of the evidence from the Low Countries). This phenomenon has also been proposed for the Late Roman period. Perhaps the large animals recorded from Flixborough, and at the other sites in the south and east of the England, represent an 'improved variety/breed' of cattle, shipped specifically from the continent to England, and destined for the estates of high-status individuals, in an attempt to improve local stocks or to increase social standing.

#### *The Flixborough black rat*

The remains of one particular, unwelcome wild species (which was almost certainly accidentally introduced to the site) provides a further and more intriguing insight into wider trade and exchange networks. Thus, from the entire suite of plants and animals that were recovered from Flixborough, only a single bone provides any possible direct evidence for the importation of an exotic species. This was a large *Muridae* femur, identified as a black rat (*Rattus rattus*), which was recovered from a well-sealed context of early to mid tenth-century date (Period 6). This specimen was originally recovered during hand-collection/dry-sieving procedures, and it was assumed that further black rat remains would be present in the extensive numbers (>1000) of then unprocessed wet-sieved samples. However, despite the subsequent careful processing and sorting of the wet-sieved assemblage, no further specimens of black rat were recovered, leading to the present conclusion that black rats were extremely rare at Flixborough, and only present during the early-to-mid tenth century.

Although previous finds of this species in England (e.g. Rackham 1979; Armitage *et al.* 1984; Dobney and Harwood 1999) have proven its introduction to Britain during Roman times, no other well-stratified remains of black rat occur in England, from the fifth to ninth centuries AD. The next oldest, well-stratified record of black rat from the north of England is not found until the mid-ninth-to-early-tenth centuries AD, at Coppergate, in York, coinciding with the establishment of the Viking town of *Jorvik*. On the basis of this hiatus, it has been suggested that the black rat became extinct in northern Europe, during the sixth to eighth centuries AD (Armitage 1994), and that it was only re-introduced by the Vikings into newly established and thriving urban centres.

The absence of the black rat, despite extensive sieving programmes, from pre-tenth-century deposits at Flixborough; from eighth- and ninth-century contexts at nearby Fishergate (*Eoforwic*), York; and from deposits of the fourth to seventh centuries at the rural site of West Heslerton, North Yorkshire (Richardson pers. comm.); appears to support the hypothesis that the black rat was indeed absent from Britain from late Roman times until the early tenth century AD. The rarity of rat remains at Flixborough, even when it does eventually appear (during the early-mid tenth century), implies that no viable population was ever established at the site, despite the availability of large middens containing vast quantities of waste from animal carcasses.

On the basis of this evidence, it would appear that the single specimen from Flixborough represents a contemporary (but accidental) foreign import. This could indicate either direct or indirect links to the continent, in the latter case perhaps via other urban centres within the region, where black rat populations were already established, such as York (O'Connor 1991, 257–258). In the light of evidence from pottery and other finds from tenth-century Flixborough, the absence of black rat remains in all but early-to-mid-tenth-century deposits also appears to indicate regional, rather than continental links. These links were probably with the growing urban centres of the region, i.e. York or Lincoln, where black rat remains have also been found in Anglo-Scandinavian deposits. Perhaps the local and regional exchange of goods, such as Torksey-ware pottery by boat, would have facilitated the accidental transportation of the black rat, once it had begun to flourish again in the growing towns of the region.

#### *The fish trade*

Fish remains are one of the clearest indicators of the growth of trade in staples, both local and long-range, in early historic Europe. Cured gadids and herring were transported around the continent, particularly from the eleventh century on (e.g. Jones 1988; Barrett *et al.* 1999; Enghoff 1999; Perdikaris 1999; Enghoff 2000; Locker 2001, 281). Smaller-scale trade of herring was probably common several centuries earlier, based on evidence from Fishergate, York (O'Connor 1991, 263–267), and Bury St. Edmunds, Suffolk (Locker 1981). One might hypothesise that towns such as York would have been supplied by rural estates on the Humber estuary, but there is no convincing evidence for fish trade at Flixborough. Marine *taxa* make up less than one percent of the sieved assemblage. The most abundant relevant *taxon*, herring, produced only 11 bones, and cod and haddock are represented by two specimens each. Two bones of ling from the hand-collected assemblage could be interpreted as evidence for fish trade, given that this species was later exported from more northerly waters (Wheeler 1977, 406; Barrett 1997). As discussed in Chapter 5, however, it is more likely to represent an anomalous inshore catch

of what is typically, but not exclusively, a deep-water species (Wheeler 1969, 284).

The fish species recovered from Flixborough – principally salmonids, smelt, eels, flounder or plaice, pike, cyprinids and perch – would all have been available in the lower reaches of the River Trent or in the Humber estuary. For the species which are sufficiently abundant, butchery analysis also suggests that entire fish were transported to the site. Although it is possible that fish were acquired by local trade or brought to the settlement as payment in kind, there is no direct evidence to indicate that the inhabitants of the settlement were not self-sufficient in the provision of fish from its immediate hinterland.

#### **7.4 Comparative trends and contexts for exchange and commodity movement**

**by Christopher Loveluck**

The settlement deposits from Flixborough undoubtedly present a dynamic picture of changing patterns of contact between, at least, some of the inhabitants of the settlement and the wider world, between the seventh and the late tenth centuries. These patterns may have been influenced by a range of social factors: for example, the changing demographic and social character of some of the inhabitants through time; changing patterns and contexts of regional, inter-regional and long-distance exchange and commodity movement; and changing roles of urban centres in relation to the rural societies in their hinterlands. Furthermore, in certain periods within the settlement's history, our ability to observe the arrival and movement of artefacts and commodities, and to suggest the mechanisms by which they were exchanged or moved, is undoubtedly affected by visibility biases within the mobile material culture. For example, in Period 6 the true extent of long-distance exchange contacts, probably mitigated through tenth-century towns, may be hidden purely due to the absence of coinage. The weights and silver ingot that suggest exchange of silver bullion, to facilitate exchange transactions, do not enable identification of silver which had changed hands or moved, unlike the coinage of the eighth and ninth centuries. Add to these social and visibility factors the difficulty of identifying whether some imported luxuries from ninth-century deposits had arrived during the seventh or eighth centuries, and the complexities of interpreting the data are clear.

On the basis of earlier preliminary and provisional publications relating to Flixborough (Whitwell 1991; Loveluck *et al.* 1998), a series of researchers have sought to define the context of the arrival of imports and the movement of raw materials or finished goods, both to and from the settlement. The researchers concerned have discussed the Flixborough evidence particularly in relation to two broader research themes. These comprise,

in the first instance, the demonstration of the intensification of production and exchange by social elites, during what has been termed the 'long eighth century' (Moreland 2000a, 94–96). The second general theme has related to the interpretation of the evidence for exchange, and the apparent material wealth from Flixborough, against a background of artefact scatters (primarily metalwork and coinage) containing similar finds, discovered by metal detector and previously labelled 'productive sites' (Richards 1999b; Leahy 2000, 51; Ulmschneider 2000a and 2000b). The latter artefact scatters have often become linked with notions of seasonally or temporarily occupied sites, and the development of markets; although they also undoubtedly reflect plough-soil assemblages from permanently occupied settlements too (see Loveluck, this volume, Chapter 9).

The illustration of the intensification of landscape organisation, production and exchange by elites between the late seventh and early ninth centuries, and the place of the Flixborough evidence within that process, have been set within models of interpretation derived from the disciplines of history and social anthropology (Moreland 2000a). These models, influenced by the legacy and amendment of the theories of the Belgian historian Henri Pirenne (1939), followed by the work of Grierson (1959), Polanyi (1978), Friedman and Rowlands (1978), Hodges (1982), Moreland (2000b) and others, have stressed the socially embedded nature of production and exchange until the ninth century. That is to say, it is suggested that the vast majority of production and exchange activity, and redistribution of raw materials, was conducted within the context of social relationships not involving market-led exchange for 'profit', in the modern sense of the word.

Exchange is seen as linked predominantly to maintenance of social position, between social equals or between various levels of 'lord' and client, often involving exchange of gifts (Mauss 1950; Gregory 1982). At the same time, movement of finished products is often viewed within the context of movement of resources between landholdings, as redistribution between estates of a single landowner, or via barter and gift exchange relations, between secular and ecclesiastical elites (Grierson 1959, 128–129; Loveluck 1994; Loveluck 1995, 90–91). The markets that were founded are viewed within the context of ecclesiastical *minster* hierarchies, and the consolidation of the power of elites, through control of land and its resources (Moreland 2000a, 102–104). Only for the ninth and tenth centuries has the development of 'market-led' exchange and trade been stressed, within the context of the stimulation of regional trade, markets and urban hinterlands (Hodges 1982, 162–184; Hodges 2000, 116–117; Dutour 2003, 150–151).

Using this paradigm, the evidence from Flixborough has been viewed as representative of intensification of production and exchange in imported luxuries and raw materials, on a suggested seventh- to ninth-century

ecclesiastical centre, i.e. a monastery, possibly with a linked market, at the top tier of the rural settlement hierarchy (Moreland 2000a, 94–96 and 103). At no time was the representativity of the excavated evidence from Flixborough considered by Moreland, with a view to understanding the scale of conclusions that could be drawn from it. For example, neither size of excavated areas nor the nature of deposits, nor preservation conditions were examined for their impact on attempts at understanding the evidence.

Critical evaluation of the source material is absolutely essential in order to compare evidence from Flixborough with other excavated sites, and to interpret potential contexts for commodity movement and exchange. The quantities of imports from the period between the late seventh and mid ninth centuries could be regarded as exceptional, and could be placed within theories of *minster* social and economic hierarchies, if the assemblage was treated largely as an unstratified group of finds, and fitted into models which emphasise the role of kings, ecclesiastical elites, and anthropological ‘prestige-good’ exchange networks (Blair 1995, 38–47; Blair 1996a, 9–10; Moreland 2000a). Indeed, such an interpretation could be valid, based on the evidence of some of the imported luxuries and craft-working, without considering the totality of the evidence (see Loveluck, this volume, Chapter 9). The real issue, however, is the extent to which the imported wealth at later seventh- to ninth-century Flixborough was really exceptional, in comparison with contemporary settlements. It could, merely, appear to be exceptional because of the excavation and recovery of huge, well-preserved refuse deposits, which were shielded from subsequent plough damage, dispersion and weathering (Loveluck 2001, 96).

If compared to other seventh- to ninth-century phases of rural settlements (and some cemeteries) around the Humber estuary, subjected to excavation on different scales, it is immediately evident that the range of imported items at Flixborough is part of a Humber-wide pattern. Frisian *sceattas* have been found on both the north and south banks of the estuary, as have Carolingian silver *deniers* (see Loveluck, above). Small numbers of imported pottery vessels, from the continent and Ipswich, have also been found at Beverley (Watkins 1991, 71–72), and Driffield (Mortimer 1905, 294), in East Yorkshire; Wharram Percy (Slowikowski 1992, 29; Slowikowski *et al.* 2000, 67–70), in North Yorkshire; and Riby Cross Roads (Didsbury 1994, 247–248), Barton-upon-Humber (Didsbury 1998, 311), and Holton-le-Clay (Young pers. comm.), in addition to Flixborough, in northern Lincolnshire (Fig. 7.1). Fragments of lava querns from the Eifel region of Germany were recovered from all the excavated settlement sites, mentioned above. Furthermore, fragments of imported glass vessels were also found at Lurk Lane, Beverley (Henderson 1991, 124); Wharram Percy (Price *et al.* 2000, 124); and Riby Cross Roads (Drinkall 1994, 276–277), in addition to Flixborough. It is the

large number of glass drinking vessel fragments at Flixborough, and perhaps to a lesser extent the quantity of discarded coinage, that appears to mark out the settlement as special.

Nevertheless, even the presence and survival of the glass vessel fragments, and the easily transported and re-deposited coinage, were influenced by one overriding factor – the presence of ‘rubbish heaps’. Despite the fact that all excavated seventh- to ninth-century phases of settlements around the Humber have produced imports, the site at Flixborough is the only excavation to have recovered sealed and well preserved refuse deposits on any scale. Hence, the exceptional survival of the large number of fragments from glass drinking vessels could also be a reflection of the shielding of the deposits from later physical and chemical erosion, to a certain extent. Amongst the group of excavated sites of this era, in the region around the Humber, only Wharram Percy, Thwing, and Lurk Lane, Beverley have been excavated over larger or similar surface areas. With all these excavation- and deposit-related factors at work on the archaeological evidence, it becomes far less easy to automatically assume the character of the Flixborough settlement as an ecclesiastical centre, and the context of its relations with the wider world.

Only Driffield and possibly Beverley, among the sites discussed above, were associated with any contemporary textual label alluding to their character, for the period between the seventh and ninth centuries AD. Driffield is assumed to have been a royal vill of the Northumbrian kings, and Aldfrith of Northumbria died there in AD 705 (Loveluck 1996, 44–45; Swanton 1996, 41); whilst the site at Lurk Lane, Beverley, has been associated with a possible monastery founded there by St. John of Beverley at the end of the seventh century, possibly at a pre-existing settlement (Colgrave and Mynors 1969, 457). With the exception of a ditch, however, probably dating from the eighth century, the excavated evidence for settlement activity at Beverley is dated no earlier than the early ninth century (Armstrong and Evans 1991, 8–9).

John Moreland (2000a, 96) has assumed an ecclesiastical character for the Flixborough settlement, largely on the basis of building 1a – the possible mortuary chapel – and the presence of styli, suggesting a level of literacy. The exchange and artisan activity from the settlement sequence as a whole was then fitted into an ecclesiastical context, led by a model driven by ecclesiastical written sources and social anthropology. It has become evident, however, that churches and mortuary chapels were far from the preserve of settlements deemed variously as ‘ecclesiastical’ or monastic, either in England or its nearest continental neighbours – France, Belgium or the southern Netherlands (see Loveluck, this volume, Chapter 3; Zadora-Rio 1995, 148; Loveluck 2001, 110–111). Nor should literacy, manifested in the form of styli, be assumed to indicate a *minster* settlement (Pestell, Volume 2, Chapter 3; Loveluck 2001, 113;

Loveluck, this volume, Chapter 9). John Blair also sees the rich (largely imported) elements of the mobile material culture from Flixborough as a reflection of its character as a *minster*, set against a background of their acknowledged role in exchange and the foundation of markets (Blair 1995, 47–48; Blair 1996a, 9). Yet again, however, the archaeological evidence has not been analysed within the context of the archaeological dynamics of the site, or the other excavated settlement assemblages from the Humber region.

If the archaeological evidence for regional and long-distance movement of artefacts, finished products and raw materials is examined on its own terms, one is left with the following observations. The range of imported artefacts at Flixborough is exactly the same as on nearly every settlement subjected to sample excavation, in northern Lincolnshire and East and North Yorkshire, for the period between the late seventh and mid ninth centuries. Only two of these settlements have been associated with contemporary documentary labels within those centuries. The quantities at Flixborough could be exceptional, but they could also be a reflection of preferential deposit survival. The character of some of the imports, especially the glass vessels, could be far more representative of the social context and purpose of exchange than their number. The glass vessels were predominantly drinking vessels (Evison, Volume 2, Chapter 2), a probable reflection of their use within one of the most important, contemporary aristocratic rituals in England and throughout western Europe; namely, public feasting (Loveluck 2003; Loveluck 2005). Their presence certainly suggests a high-status social element within the population of the settlement.

The presence of that high-status group is reflected more in the domesticated and wild animal remains, and the craft-working evidence than in the evidence for exchange. The imported glass drinking vessels were part of a feasting kit, amongst other aristocratic traits linked to conspicuous consumption (see Loveluck, this volume, Chapter 9). The glass vessels played a role as part of this kit, predominantly between the late seventh and early ninth centuries. Dynamic change in patterns of consumption, production and exchange is also evident within the latter period: possible importation of an improved breed of cattle is suggested at the turn of the eighth century (Dobney, Jaques and Johnstone, this volume, Chapter 5). Production of a special, fine quality textile occurred only between the early and middle decades of the ninth century, and a small surplus may have been exchanged (Walton Rogers, this volume, Chapter 6). The desire to satisfy the internal needs of the ranked society within the settlement is suggested, rather than production, movement and exchange of goods for the benefit of any linked settlements or landholdings. When put against the evidence for huge consumption of animal resources, and craft production to support lifestyles on the settlement, the imported items and the level of exchange represented

were probably small in scale. Imports were consistently available, however, whether through networks to the trading site at Fishergate, York (Kemp 1996); seasonal beach trading sites on the Humber estuary (Loveluck 1996, 44); or at intermittently used sites of exchange, inland from the estuary (Leahy 2000, 78).

Hierarchical models to explain the purposes of exchange and the movement of products between the seventh and ninth centuries have emphasised control of the exchange of exotic luxuries from the top echelons of society downwards, as a way of enhancing and reinforcing the social position of elites, emanating from kings and the ecclesiastical and secular aristocracies (Hodges 1982; Hodges 2000; Moreland 2000a, 101–103). Around the Humber estuary, the key zone for long-distance exchange in north-east England, all settlements received imported luxuries. Assuming that elites would have had preferential access to luxuries, whether they comprised the leading family or families on a given settlement, or leading members of all kinship groups, it could be expected that the trans-Humber distribution of luxuries reflects internally ranked societies, where access was limited to the few, not the many.

However, the general anthropological and textually driven explanatory models, which suggest how societies ought to work on a grand scale, do not take into account regional and local diversity. The Humber was the major 'entry point' region for imported goods in the north of England, and an increasing number of sites of exchange are becoming apparent around the estuary, in addition to the possibly more controlled centre at York. Furthermore, we should not think that continental and other Anglo-Saxon traders were totally bound within socially embedded exchange 'contracts' between institutions or royal or aristocratic patrons. Indeed, in his last work Adriaan Verhulst demonstrated the complexity of exchange, noting the 'selling' of items and commodities in the modern sense, alongside embedded exchange between individuals and institutions, and redistribution within estate networks, in northern France, Belgium and Frisia (Verhulst 2002). There is no reason to suspect a more limited range of options for exchange, conducted by continental or southern English seafarers around the Humber, or elsewhere in eastern and southern England, during the eighth and early ninth centuries. In these circumstances, exchange transactions conducted on the margins of the Humber estuary and its feeder river systems, like the Trent, could have ensured supply of imported luxuries to a greater proportion of the social spectrum, than in regions less visited by foreigners.

Differential levels of abundance and rarity of imported luxuries in different regions could also have created different notions of their value. For example, in a region like that around the Humber, or Kent, their possession may not have indicated wealth and social status to the same degree as their possession in the inland heart of Mercia. At the same time, however, relative absence may

also have promoted alternative ways of expressing wealth and alternative media (objects, products or animals) for exchange (Loveluck 1996, 46; Loveluck 2001, 111–112). In this context, it is interesting to observe that coin finds and imports are rare in central Mercia and in Bernicia. In the latter region, settlements identified as the central settlements of royal *vills*, such as Yeavinger and Milfield, are associated with large enclosures, for the possible storage of livestock as a signifier of wealth. Hence, there may not have been the same demand or use for imports in different areas of England; and it is the complexities of different regional societies within England, which have to be probed in order to appreciate possible contexts of exchange on the part of certain inhabitants of a settlement like Flixborough, between the seventh and ninth centuries.

Many of the assumptions made within general explanations of how seventh- to ninth-century societies worked, within western Europe, need to be amended to factor in the complexities now evident in both the archaeological and historical sources of evidence, at the regional and local levels. With regard to exchange and trade, kings may not have played as active a role in its regulation as has been suggested. Indeed, Verhulst has recently observed that the interest of the Carolingian Frankish kings was mostly limited to control of toll collection at the boundaries of their territories, and regulation of markets. They do not appear to have been so concerned with supply of luxuries to different sections of society, merely its taxation (Verhulst 2002, 129–131). Since most of the currently favoured explanations of how Anglo-Saxon kings and elites controlled exchange are heavily influenced by perceived Frankish parallels, the English models may also need reform. Furthermore, the relative balance between the number of transactions conducted via ‘market-led’ exchange, for ‘profit’, and social-alliance related exchange, probably turned in favour of profit-led exchange only during the course of the ninth and tenth centuries, but it may be a mistake to deny the potential for its significant existence beforehand. In this context, the recognition of an increased number of apparent beach trading sites, all with discarded imports and usually including pottery and coins, demonstrates a potential complexity perhaps beyond the ability of kings to regulate totally. They have been found at Meols, Wirral (Griffiths 2001, 22–25); Bantham Ham, Devon (Fox 1955, 55–56; May and Weddell 2002, 420); Sandtun-West Hythe, Kent (Gardiner *et al.* 2001); and probably North Ferriby, East Yorkshire (Loveluck 1996, 44); all have finds dating from within the seventh to ninth centuries, and some also have finds from earlier and later periods.

The increased recognition of seasonal or intermittently used trading sites leads on to the issue of the comparison of artefact assemblages, excavated at Flixborough, and similar ranges of artefacts found by metal-detectors as scatters of surface material (also see Loveluck, this volume, Chapter 9). Considerable attention has been

given to these surface scatters in recent years, and due to the frequent recovery of relatively large collections of coinage and dress accessories, they have been described as ‘productive sites’; perhaps one of the most unhelpful terms in British archaeology. The artefact scatters almost certainly represent a range of different types of site, as noted by Leahy and others (Leahy 2000, 51; Richards 1999b), whether temporarily occupied sites of exchange or ploughed-out permanent settlements. However, a consistent association has been made between these, predominantly metalwork scatters and the sites of ‘markets’, whether they were located at permanent settlements or otherwise (Ulmschneider 2000a and 2000b). This hypothesis has grown from sample excavation on the sites of some of the artefact scatters, which have not yielded significant evidence of occupation, such as Barham in Suffolk (Hamerow 1999, 198–9); more extensive excavation of other apparently periodically occupied trading sites, such as Dorney-Maidenhead, Berkshire (Hiller *et al.* 2002, 69–70); and detailed analysis of locations and the nature of certain metal-detected assemblages (Leahy 2000, 78).

Both Julian Richards and Katharina Ulmschneider have discussed parallels amongst the coinage, dress accessories and imported pottery, between the excavated assemblage from Flixborough and metal-detected scatters. The former demonstrated the inadequacy of the term ‘productive site’ by comparing excavated surface areas and overall totals of the above artefact types, alongside metal-detected scatters (Richards 1999b, 76–79); whilst the latter compared the metal-detected data from Lincolnshire with excavated results from Flixborough (Ulmschneider 2000b, 63–72). Both approaches used overall artefact totals, divorced from other material culture from the settlement and the stratigraphic and depositional circumstances of recovery, in order to render the Flixborough data superficially comparable to the unstratified metal-detected scatters. In these circumstances, Ulmschneider fitted the coinage, imports, dress accessories and craft-working evidence into a textually led argument of an association of these artefact types with periodic market sites, sited at *minster* and, to a lesser extent, other royal and aristocratic centres; and at pre-arranged sites of exchange (Ulmschneider 2000a and 2000b, 72–74).

This is a very neat hypothesis, and it is likely that most of the above types of artefact and craft activities were to be found at *minster*, royal, and aristocratic settlements, as well as on seasonally occupied sites of exchange. The key problem for purposes of interpretation is ‘how many coins and imports indicate the existence of a “market” or a regulated site of exchange?’ The metal-detected data were compared with those from the excavated sequence at Flixborough because it appeared to give them a possible context, in terms of one of the types of site from which they could have derived. If divorced from associated finds and deposits, the total

number of coins from Flixborough appears large – 67 from the period between AD 700 and 1000 (Archibald, Volume 2, Chapter 13). Indeed, it is significantly larger than most totals from metal-detected coin scatters. The same is true for imported pottery fragments, and all comparative artefact types. Yet, this number of artefacts is a small proportion of the overall material culture assemblage of thousands of artefacts and bone fragments, from the excavated deposits at Flixborough. Indeed, given the nature of the deposits, the 67 coins and other imports are unlikely to reflect the existence of a market or site of exchange at Flixborough itself. The value of the excavated settlement sequence at Flixborough, with regard to metal-detected scatters, lies in our ability to set the coinage, imports and dress accessories against the backdrop of overall activities on the settlement.

This is not to say that coinage and import scatters cannot represent market sites. More importantly, it is necessary to realise the potentially unrepresentative nature of the metal-detected data, against the backdrop of other activities that may have been undertaken on the sites from which they derived. Many may have been involved more in agricultural production and craft-working at the level of the household than exchange. At present, it is very difficult to judge the extent to which our assumptions are representative. For example, Flixborough was a permanently occupied settlement site from the seventh century onward, if not earlier. When all the mobile material culture is considered, the use of certain imports was undoubtedly important at different times, as was the potential export of finished products. But overall, exchange transactions were probably small in scale and intermittent, placed against other activities undertaken within the settlement. In contrast, at North Newbald and Dorney-Maidenhead, convincing arguments have been put forward for these sites being intermittently used, primarily for purposes of exchange and perhaps, craft-working (Leahy 2000, 77–78; Hiller *et al.* 2002, 70). The growing complexities in our evidence from the seventh to ninth centuries with regard to exchange, and the sheer range of permanent and periodically occupied sites involved should, above all, warn against uncritical emphasis on the role of institutions, such as *minsters*, just because of their high visibility in historical sources.

It remains to consider the part played by exchange and trade in the life of the inhabitants of Flixborough during the tenth century. This was a period within the settlement's occupation sequence influenced by two important phenomena: namely, archaeological visibility factors (see Loveluck, this volume, Chapter 9); and the changing influence of towns on their rural hinterland, and hence the creation of a new relationship between 'town' and 'countryside'. Without the vertical stratigraphic sequence recovered at Flixborough, and the relatively limited quantity of diagnostically datable tenth-century material culture, it would have been extremely difficult to identify the presence and the importance of the tenth-century

deposits. The diagnostic tenth-century finds were predominantly fragments of wheel-thrown pottery manufactured at the growing town of Lincoln, and within the Torksey regional tradition, together with some weights linked to silver bullion exchange, and some pin-beaters. The only tenth-century coin was recovered as a metal-detected find, in the form of a worn penny of Edward 'the Martyr', minted in the late 970s (Archibald, Volume 2, Chapter 13).

The array of imports at this time was very limited. None can be described as luxuries or evidence of the display of significant 'portable wealth'. The pottery was a low-value commodity, and the lead weights were used within the context of exchange transactions involving silver, either at the settlement itself, or more likely at the *stather* moorings linked to the settlement, in the Trent floodplain; or at the urban centres of Lincoln or York. That direct contact may have been conducted with York may be suggested by the presence of the black rat at Flixborough, during the tenth century; it was present in York from the late ninth to early tenth centuries, and may have been re-introduced via Scandinavian trade routes (Dobney and Barrett above; O'Connor 1991, 257–258). Indeed, the importance of the river and estuarine waterways may be reflected in the presence of the probable tenth- to eleventh-century hoard of wood-working tools, and clench bolts, interpreted as shipwright's tools and evidence of boat- or ship-building (Darrah, this volume, Chapter 3).

It is striking that relations with newly emerging urban centres were certainly maintained, seen in predominantly low-value items. Exotic luxuries do not appear to have moved out of the towns as they probably had done during the eighth and ninth centuries, in the case of York. Hence exotic luxuries stayed in the towns, and the rural world witnessed different media of expressing wealth (see Loveluck, this volume, Chapter 9). Exchange was also conducted within the context of periodic rural markets, documented at key estate centres in the Domesday survey. For example, the leading thegn, *Ulf Fenisc*, possessed a market at Barton-upon-Humber, in North Lincolnshire, in 1066 (Foster and Longley 1924, 106). The transactions could have taken the form of direct barter, and purchase using coin or bullion. The 'selling' of surpluses, in the modern sense, is certainly demonstrated in contemporary texts of the period, such as *Aelfric's Colloquy* (Swanton 1975, 110–112). Nevertheless, the absence of portable luxuries at Flixborough, during the tenth century, is certainly not a function of the lack of receipt of urban products and visitors. A similar absence of portable wealth is also seen at the contemporary settlement of Goltho, Lincolnshire (Beresford 1987). There, as at Flixborough, imported goods included Lincoln pottery wares (Coppack 1987, 134–135) and silver pennies of Kings Edgar and Cnut (Archibald 1987, 188). In one sense, the 'lordly residences', which Flixborough and Goltho had become during the tenth century, were

provisioned, to a certain extent, like their later medieval successors. Yet, the absence of imported luxuries provides a contrast.

Apparent rural poverty in exotic luxuries may be explained away by the possibility that rural aristocrats increasingly had urban residences, as well as their rural estate centres. Such an occurrence is certainly documented increasingly from the tenth and eleventh centuries in western Europe (Verhulst 1994, 42–43; Dutour 2003, 196–197). And within the context of the regions bordering the Humber, Dublin-Viking and Norse elites had been largely urban-based in York, during the tenth century. In these circumstances, methods of social display between town and country could have diverged as urban and rural identities became defined. The display of exotic

portable wealth may have been a trait more associated with an urban elite identity, than its rural counterpart. This would explain the limited discard of such portable wealth in rural hinterlands. Aristocrats with both rural and urban residences could, therefore, have used different ‘badges’ of rank, specific to their different social worlds. In the case of the excavated settlement at ‘Flixborough’ (which probably equates with North Conesby), tenth-century rural elite identity was displayed through local resources, primarily feasting and hunting (see chapter 9). There would have been no need for the lord of the settlement to bring trappings of an urban elite *persona*, to his rural estate (if the lord of North Conesby held urban landed possessions).



## 8 Historical Context within Lindsey and Possible Estate Structures

*Sarah Foot and David Roffe*

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### **8.1 The historical setting of the seventh- to tenth-century settlement within northern Lindsey**

*by Sarah Foot*

The classic account of the early history of Anglo-Saxon Lindsey is Sir Frank Stenton's 1927 paper, which offers the historian the somewhat depressing conclusion that 'the insignificance of the part played by Lindsey and its kings in early English history is perhaps less remarkable than might at first appear'.<sup>1</sup> Recent attempts to rediscover this seemingly 'lost' kingdom have included thorough reappraisals of the sources for Lincoln and Lindsey between the fourth and the ninth centuries, which have necessitated some reshaping of Stenton's conclusions. Lindsey remains, however, one of the most obscure Anglo-Saxon kingdoms, largely because of the paucity of surviving written evidence.<sup>2</sup> There is no immediate documentary context for the Mid Saxon settlement at Flixborough. The place-name is first attested in Domesday Book; none of the few extant pre-Conquest charters for Lincolnshire relates to lands in Flixborough's immediate vicinity,<sup>3</sup> nor are there any Anglo-Saxon sources for the settlement to the east of the excavated area around North Conesby, which may have been the focus of Late Saxon and Anglo-Norman settlement.<sup>4</sup> Nevertheless, the Flixborough settlement can be located historically within a series of interlocking spheres – economic, political and religious – both in relation to its setting in northern Lindsey and in comparison with other Mid Saxon settlements elsewhere in England.

#### *Geographical location and its economic significance*

The Mid Saxon settlement at Flixborough had its focus on the summit of windblown-sand spurs, which now overlook the floodplain of the River Trent. Although lying at some distance from Ermine Street (which ran almost

due north from Lincoln to the Humber), Flixborough had direct access both to the riverine traffic of the Trent (a significant route for communication and transport in the post-Roman period) and to the North Sea via the Humber. The settlement was thus potentially well situated within local and long-distance exchange networks, and the excavated finds, indeed, show this settlement to have been fully integrated within both spheres of economic activity.

The written evidence for regional and long-distance exchange in the Mid Saxon period is slight and none of it relates directly to northern Lindsey. Historical interest within this period has focused on the *emporia* (in Old English *wic*), sites of production and exchange, often created with the co-operation or direct involvement of local rulers, who benefited by collecting tolls from ships and merchants trading there.<sup>5</sup> Bede described the *civitas* at London as an '*emporium* for many nations who come to it by land and sea', and alluded to the presence there in the later 670s of a Frisian merchant, dealing in slaves.<sup>6</sup> London's *wic* lay not within the walls of the Roman city of London, but in an open area to the west on the Strand, its name preserved within the modern Aldwych; similarly the *emporium* at York was outside the city at *Eoforwicceaster*.<sup>7</sup> In his poem on the bishops, kings and saints of York, Alcuin described the city as a place to which 'divers peoples and kingdoms all over the world come in hope of gain seeking wealth from the rich land'.<sup>8</sup> The young Frisian deacon Liudger studied with Alcuin in York before the latter joined the court of Charles the Great in 781/2; the *Life of Liudger* alludes to a colony of Frisian merchants in the city of York at the time of his stay.<sup>9</sup> There were other *emporia* around the south and east coast of England at Hamwic (precursor of the later settlement at Southampton), Fordwich and Sandwich in Kent, and at Ipswich in Suffolk.

There is, however, as Peter Sawyer has noted, no evidence of a *wic* in Lincolnshire; the one place-name tentatively thought to denote a *wic*, Wigford south of

Lincoln, has produced no archaeological evidence between the Roman period and the late tenth century; nor indeed does Lincoln itself appear to have had much contact with the coastal regions in the Mid Saxon period.<sup>10</sup> If the creation of *emporium* is rightly to be attributed generally to local royal inspiration, then Lindsey may have suffered here from having an apparently short-lived, independent royal line and being swallowed up within an expansionist Mercia, whose kings (at least in the eighth century) were set rather on the exploitation of London and the Kentish ports.<sup>11</sup>

The significance of the shipping route between London and eastern Kent and the regulation and taxation of commerce by eighth-century Mercian kings is reflected in a group of ten mid-eighth-century charters in favour of religious communities (eight of them granted by the kings Æthelbald and Offa) and dealing with the remission of tolls on ships using the port at London or ports in Kent.<sup>12</sup> Susan Kelly, who has made close study of these texts, has argued that they may best be understood within the context of Mercian royal policy, and probably also the imitation of Carolingian models. Although issued only during a brief period between the 730s and 760s, these texts point to the commercial significance of London during this period and the interest of the religious community at Minster-in-Thamet and the bishops of Rochester, London and Worcester in exploiting the potential of long-distance trade.<sup>13</sup> The interest of the Mercian kings in acquiring, and exploiting, ports granting access to cross-channel trade – perhaps in emulation of the West Saxon promotion of similar exchange from Hamwic<sup>14</sup> – may have been a significant motivation behind their territorial expansion into the kingdoms of Kent and Essex. Unfortunately the absence of equivalent charters for the Humber region makes it impossible to determine whether the rather earlier Mercian acquisition of the kingdom of Lindsey brought with it a similar interest in the Humber as a trading zone.

Much, arguably too much, has been made of the evidence for Mercian interest, and participation in, trade with the Carolingian empire provided by a single celebrated letter sent by Charles the Great, king of the Franks, to the Mercian king Offa in 796.<sup>15</sup> This letter seems at least in part to have marked the resolution of a dispute between the two kings over a failed marriage alliance. This disagreement apparently threatened at one time to close the Frankish channel-ports to English shipping, before the wiser counsels of Gervold, abbot of St Wandrille prevailed. He was also responsible for collecting the imposts and taxes at various ports, especially Quentovic.<sup>16</sup> Charlemagne's letter touches on various economic issues, including the problem of traders who disguised themselves as pilgrims when travelling through Frankish lands in order to avoid paying tolls, and the proper treatment of honest merchants travelling openly to whom the king offered his protection. The same letter touched further on the precise dimensions of the

cloaks (see Walton Rogers, Chapter 6, this volume) being exported to Francia from Offa's realm, as well as 'the black stones' (*petrae nigrae*), which Offa had begged to be sent to him, and the arrangements for their selection and transportation.<sup>17</sup> The black stones are now conventionally identified as lava quern-stones (black because of the volcanic grits within them) from the Eifel mountains, in the Rhineland. They have been excavated from Mid-Saxon sites at Hamwic; in the Thames valley; Mercia and eastern England (especially Ipswich), including Flixborough. Lava stones were shipped to England primarily from Frisian trading sites at Dorestad;<sup>18</sup> and their presence at Flixborough serves once again to link this Mid-Saxon site with long-distance trade in this period, but not to associate that activity with royal direction or interference.

The potential benefits kings could gain from involving themselves directly in exchange and its regulation are obvious.<sup>19</sup> From the acquisition of prestige goods for gift-giving and ostentatious display, through the placing of legal restrictions on the activities of traders and the places where trading was done, to the control and royal supervision of coinage, kings could demonstrate their economic influence over their subjects and neighbours. This is demonstrable in the better-documented kingdoms of southern England through charters such as those granting trading privileges discussed above, or those that relate to inland or coastal salt production.<sup>20</sup> There are also scattered references to royal control of buying and selling, and to the treatment of traders in early Anglo-Saxon law-codes.<sup>21</sup> The student of Lindsey is here doubly disadvantaged in that not only did the kingdom's native royal line leave no surviving record of its activities, but there is no extant law-code from early medieval Mercia either. King Alfred reported in his own code that, in incorporating the best he had found among the laws of King Offa. A letter of Alcuin written in 797 refers to the 'good moderate and chaste customs (*mores*) which King Offa had established for his people', which may plausibly be seen as further allusion to that king's code.<sup>22</sup> It has been suggested that there may be a connection between this code of Offa's and the *capitula* issued by the papal legates who visited Mercia and Northumbria in 786, a set of precepts dealing primarily with matters of faith, ecclesiastical organisation and with the election of kings, but including a chapter relating to the payment of tithes, a ban on usury, and on the importance of having just and equal weights and measures for all.<sup>23</sup> Bearing in mind the apparent fate of the short-lived, independent Lindsey royal line, it may well in fact be more appropriate to seek to locate the Flixborough settlement within a non-royal but still high-status context; this site might have been an aristocratic estate centre, or for part at least of its history an ecclesiastical site (see Loveluck, this volume, Chapter 9). Neither hypothesis can, however, be tested from the written sources. We shall come to the possible religious

contexts shortly, but need first to return once more to the central problem for the historian of Mid Saxon Lindsey, the paucity of the evidence for its royal line.

### *Political contexts*

The relative invisibility of early Anglo-Saxon Lindsey within the written sources for the seventh to ninth centuries has inevitably coloured historians' perceptions of this region, since the inadequacy of the sources is less easily circumnavigated than it is readily explained. As in other eastern kingdoms, the potential repositories of Lindsey's historical record were disrupted both by Danish settlement in the ninth and tenth centuries and by the shifts in religious patronage following West Saxon expansion and conquest in the tenth century.<sup>24</sup> These difficulties throw into sharp relief the problem of identifying an historical setting for the Flixborough settlement, lying as it did in a border zone of disputed territory until the later seventh century. That Lindsey was ever an independent kingdom (and not rather an administrative province created by its Mercian overlords<sup>25</sup>) has previously been disputed, although Steven Bassett's argument for the separate existence of this kingdom now enjoys general consensus.<sup>26</sup> Nevertheless, it is clear not only that the independence of Lindsey's kings was short-lived, but further that the brief period of their rule cannot securely be located in time.

We need to articulate the political contexts within which Lindsey's early history may be read, namely the place of the Lindsey region within the disputed trans-Humbrian zone during the sixth and seventh centuries; the (undatable) evidence for Lindsey's independent royal line; the fate of the province within the expanded kingdom of Mercia in the later seventh and eighth centuries; and the impact of the ninth-century Danish wars and subsequent Scandinavian settlement on Lincolnshire. Such a discussion will necessarily involve the rehearsing of some territory familiar to historians of this period, although it must be noted that the information accumulated here may do little or nothing to elucidate an historical background for Flixborough itself.

### *The Humber region*

Attention has already been drawn to the significance of Flixborough's geographical location near the confluence of the Trent and the Humber. The settlement thus lay at the northern margin of the *provincia Lindissi*,<sup>27</sup> in Old English *Lindesig*,<sup>28</sup> a province whose religious, and possibly also administrative, focus may have lain around the *Lindum*, or pool at Lincoln, from which the region took its name. Yet its position also placed Flixborough centrally within a region that straddled the Humber, a region that may be seen to have had some cultural affinities, if not a separate identity. There may in Lindsey, as in Elmet, have been some degree of British influence (perhaps even a degree of continuing British political control) into the sixth century.<sup>29</sup> Myres's argument that

the term *Humbrenses* represented a people who lived on either side of the Humber has not been accepted by historians (the term being used rather to relate to those who lived on the northern bank of that river).<sup>30</sup> Even so, it is important to remember that the Humber did not become a fixed boundary separating the peoples of southern Deira from northern Lindsey (or the northern parts of the greater Mercia) until after 679.<sup>31</sup>

Control of the southern banks of the Humber passed between Mercia and Deira frequently during the seventh century, the Lindsey region being the focal point for several of the Northumbrian-southern English wars in the period.<sup>32</sup> From the involvement of the Deiran king Edwin in the conversion of the people of Lindsey c.630, it seems probable that Lindsey was under Northumbrian control at that time, and thus it seemingly remained during the reign of Oswald (d. 642).<sup>33</sup> Mercia appears to have controlled the southern bank of the Humber after Oswald's death (when the kingdoms of Northumbria were once again ruled separately), until the death of its own king Penda in 655 at the battle of *Winwæd*. The reassertion of Northumbrian control in 655 was short-lived, for the Mercians overthrew their Northumbrian overlords in 658, and their king Wulfhere regained control of Lindsey at some point thereafter.<sup>34</sup> Although the trans-humbrian region remained a disputed zone in the third quarter of the seventh century, Northumbria regained Lindsey for only one brief period after 673–675.<sup>35</sup> The long-running dispute between the two Humbrian powers was settled finally after the Mercian victory at the battle of the River Trent in 679, and was marked with an enduring peace settlement brokered by Theodore, Archbishop of Canterbury. From this point the Humber represented the boundary between the kingdoms of Mercia and Northumbria, and Lindsey fell firmly and permanently within the Mercian orbit.<sup>36</sup> Peter Sawyer has drawn attention to the fact that Lincolnshire is not recorded as being involved in any military conflicts at any time between 679 and the onset of Viking attack in the ninth century; Mercian overlords had to suppress rebellions in other areas over which they extended their control, but not apparently in Lindsey.<sup>37</sup>

The southern shift in political control need not have brought all Northumbrian influence in Lindsey to an abrupt end; the cult of the Northumbrian king Oswald was still promoted at Bardney in Lincolnshire, for example, and continuing economic contacts are suggested by the limited circulation of Northumbrian coins in the province, in the eighth and ninth centuries.<sup>38</sup> Effective consolidation of Mercian power in the region was, however, dependent on the successful harnessing of local aristocratic loyalties to the Mercian cause, a task which could have been seriously impeded had an independent Lindsey royal line still attracted a following. Unfortunately, there can be no certainty about precisely when Lindsey's kings ruled.

*Lindsey's kings*

In none of the early medieval accounts of the struggle for control of the Humber region is there any mention of the role of Lindsey's own kings. That Lindsey had once had kings is suggested by Bede's description of the territory of the *Lindisfari* as *prouincia Lindissi* (province being the appellation he normally used for kingdoms), by the fact that Lindsey had bishops of its own, by the inclusion of the people of *Lindesfarona* in the Tribal Hidage, and above all by the existence of a genealogy for the rulers of the *Lindisfearna*.<sup>39</sup> The tribute-taker's survey known as the *Tribal Hidage* probably dates from some point in the mid-later seventh century, although it now survives only in an early eleventh-century manuscript. It rates Lindsey at 7000 hides (equivalent in size to the southern kingdoms of Essex and Sussex), and may derive from a period in which Lindsey and other smaller Midland peoples were separate entities on the borders of a reduced Mercia.<sup>40</sup> The names of some of Lindsey's *reges* are found in the royal pedigree for Lindsey that survives as part of the Anglian collection of genealogies, but none of the kings named in that genealogy is otherwise identifiable in any other source as a king of Lindsey.<sup>41</sup> Shorter than the other pedigrees in the Anglian collection, the Lindsey royal line comprises just eleven generations from Aldfrith, son of Eatta, back to Woden. Among the various suspicious features of this genealogy are the inclusion of the celebrated Northumbrian names Beda and Biscop (reputedly father and son), and the Celtic name Cædbæd (Irish *Cathbad*). Although it was once thought that Aldfrith, who heads the genealogy, was contemporary with Offa of Mercia, this view can no longer be sustained;<sup>42</sup> nor did Aldfrith of Lindsey have his own coinage, separate from that issued by his namesake, the Northumbrian king, 685–705.<sup>43</sup>

If any historicity is to be attributed to the names found in the Anglian pedigree for Lindsey, their tenure may most plausibly be located in the earlier period of Germanic rule in Lincolnshire. The inclusion of the British name Cædbæd just might point to a stage of assimilation between the conquering Anglian and native British populations, but one should be cautious of reading too much into this or any of the other names in the genealogy. Lindsey may still have had its own kings at the time of the compilation of the Tribal Hidage, kings who ruled subject to Northumbrian and Mercian overlords, while control of the region was still disputed. We might look for the demise of this independent royal line (or the demotion of the family to the status of ealdormen), once Lindsey had fallen permanently within the Mercian orbit, perhaps during or after the reign of Æthelred of Mercia (675–704).<sup>44</sup> While the high value and status of the finds from the excavation at Flixborough might tempt one to try to associate this site with royalty in the Mid Saxon period, there is so little known of Lindsey's kings that this seems profitless speculation.

*A Mercian province*

Since Lindsey was already incorporated within greater Mercia before the period of greatest Mercian expansion, during the reigns of Æthelbald (716–757) and Offa (757–796), it may reasonably be presumed that those kings continued to exploit the resources of the province, particularly its access to long-distance trading routes. However, it appears that one significant motivation behind Mercian eighth-century expansion was the acquisition of southern English trading-places facing the continent, and insofar as the sources reveal a pattern to the activities of both these kings, the focus of their energies was directed more towards the south and east, than towards the Humber region.<sup>45</sup> There are no extant charters issued by any Mercian king relating to lands in Lincolnshire, so it is not possible to determine how Æthelbald, Offa or Cenwulf (796–821) exploited Lindsey's land and resources, nor how they treated the local nobility. It may be assumed that ealdormen and thegns from Lindsey were among those who witnessed the charters of the Mercian kings, but no such men can be identified.<sup>46</sup> One ealdorman called Cuthbert (who attested charters of Offa and his son Ecgrif between 792 and 796) leased a ten-hide estate at Swineshead in Lincolnshire from the church of *Medeshamstede* in the late eighth century, but he need not have been ealdorman within Lincolnshire.<sup>47</sup> Although it is clear from the evidence for the locations at which royal councils were held in the eighth century that each of these kings perambulated widely within his extended realm, none of these councils was held within the Lindsey province.<sup>48</sup>

One can only guess as to how Lindsey was administered in the second and third quarters of the ninth century. It cannot have benefited from the relative instability of Mercian rule at this time: the rapid succession of short-lived rulers, no longer claiming descent from King Penda, but seemingly elevated from the ranks of the Mercian ealdormen;<sup>49</sup> and the loss of Mercian control of the south-eastern territories to West Saxon rule.<sup>50</sup> Again, however, the invisibility of the region within the written sources makes it difficult to offer any convincing interpretation. Briefly, in 829, Lindsey found itself technically subject to West Saxon control, after King Ecgrif, in the words of the chronicler, 'conquered the kingdom of the Mercians and everything south of the Humber';<sup>51</sup> in the same year he led an army against the Northumbrians to Dore in North Derbyshire, where the Northumbrians offered him peace and submitted to him. Mercian independence was, however, reasserted in the following year, when Wiglaf regained his kingdom, and it seems unlikely that the West Saxon king had devoted much specific attention to his most distant province during this brief period of overlordship.

### *The Danes in Lindsey*

Where Lincolnshire finds more central place in ninth-century affairs is in its shared experience, with the other eastern and coastal areas of Britain, of hit-and-run raids by bands of Viking ships, sporadically from the 790s, with increasing frequency after 830, and yet further after the arrival of the 'great army' in 865, and its conquest and subsequent settlement of the eastern regions. One of the earliest reported raids, that recorded in the northern recensions of the Anglo-Saxon Chronicle for the year 794, may have been an attack on the Humber region. The chronicle reported that the heathens ravaged in Northumbria in that year, and that they 'plundered Ecgfrith's minster at *Donemuthan*'. One of the leaders of this band was killed there, and stormy weather destroyed several of their ships so that many men drowned, while those who reached the shore alive 'were immediately killed at the mouth of the river'.<sup>52</sup> Simeon of Durham (writing in the twelfth century), identified this minster with Jarrow, but it has been suggested that it lay, in fact, by the mouth of the Yorkshire Don, which issues into the Humber.<sup>53</sup> Only one of the episodes of ninth-century Danish raiding recorded in the Anglo-Saxon Chronicle certainly involved Lincolnshire, namely the occasion in 841 when 'many men in Lindsey, East Anglia and Kent were killed by the enemy'.<sup>54</sup> We can, however, reasonably surmise that Danish ships attacked the southern banks of the Humber and took their shallow-draught ships inland up Lincolnshire rivers, in search of moveable wealth, particularly from Lindsey's minsters.<sup>55</sup>

The arrival of the 'great army' signalled a change in the Danes' intentions. This was a notably larger and more coherently organised army than the small raiding bands that had earlier attacked England's shores; the leaders of the great army were kings and earls,<sup>56</sup> their forces sufficiently large to disperse over England and fight on several fronts at once, apparently with conquest and – it later emerged – settlement in mind. It is possible, as Sawyer has suggested, that Mercia lost control of Lindsey soon after 865. Certainly by the end of 870 both East Anglia and the southern part of Northumbria were under Danish control, and the Danes may thus effectively have laid claim to the territory in between.<sup>57</sup> It was from a winter base in Lindsey, at Torksey, that the Danish army made its decisive attack on Mercia in 874, driving its king Burgred over the sea, and setting up in his stead a puppet-ruler, Ceolwulf ('a foolish king's thegn' according to the West Saxon chronicler, but more plausibly in fact a descendant of the Mercian royal house<sup>58</sup>). Settlement followed the overthrow of the native royal lines; in 876 in Northumbria, and in 877 in Mercia, when the Danes shared out the land giving some of it to Ceolwulf. It is presumably from this time that the Danish settlement of Lincolnshire may be dated.<sup>59</sup> The political separation of the eastern regions subject to Danish control was confirmed in the treaty agreed between Alfred of

Wessex and the Danish leader in East Anglia, Guthrum, whom Alfred had defeated at the battle of Edington in 878, and was further accentuated by the general submission of 'all those not subject to Danish rule' to King Alfred in 886.<sup>60</sup> The continuing distinctiveness of the 'Danelaw' into the Late Anglo-Saxon period is clear from the separate provision made in law for its inhabitants, well beyond its conquest by the West Saxons and the creation of a kingdom of the English.<sup>61</sup>

The absence of written sources makes it difficult to gauge the impact of Danish settlement on Lincolnshire, but the quantity of Scandinavian place-names in the shire offers one measure of its extent. The place-name Flixborough itself has, in its first element, the Danish personal name *Flik* (together with the OE *burh*).<sup>62</sup> Some of the men of Scandinavian origin mentioned in the chronicle-narrative of Edward the Elder's wars may have come from Lincolnshire, but none can specifically be associated with the region.<sup>63</sup> It is likely, that as elsewhere in areas settled by the Danes, those religious communities in Lindsey that had not been forced to disband early in the period of most intense raiding, found it difficult to sustain their conventual existence into the tenth century, but this is an argument from silence.<sup>64</sup> The relics of St Oswald were removed from Bardney in 909 and reburied at the Mercian minster of Gloucester,<sup>65</sup> which might indicate that there was by then no monastic congregation at Bardney sufficient to protect the cult of their saint.<sup>66</sup> The episcopal see in Lindsey would certainly appear to have been disrupted during the First Viking Age; we can identify no bishop for this diocese between the 870s and c.953.<sup>67</sup>

Under Scandinavian control, the Humber was a less significant political boundary than it had been in the seventh and eighth centuries: with lands on both sides of the river controlled by Danish settlers; and with the political axis at York, the Humbrenian region again had a distinct identity and common interests. Lincoln was for at least a part of the period of Danish rule a centre of some importance; coins were minted by the Scandinavian kings at Lincoln, including the St Martin's coins (modelled on and contemporary with the St Peter's coins issued in York), and a series issued by Sihtric, king of York 921–7 may have been minted in Lindsey.<sup>68</sup> The process by which the West Saxon kings brought the Danish areas under their own direct control was a gradual one. Edward the Elder (899–924) conquered the southern part of Lincolnshire, Kesteven, when he finally took East Anglia in 917 and assumed direct rule over the rest of Mercia on the death of his sister, Æthelflæd (widow of ealdorman Æthelred) in 918. But Lindsey probably remained subject to the Danes until Northumbria was brought under West Saxon rule by Æthelstan in 927 on the death of Sihtric, and was again ruled from York in the years immediately after Æthelstan's death in 939, when the Norse king Olaf Guthfrithsson took control of York and conquered the five boroughs (Derby, Lincoln, Leicester, Nottingham and Stamford).<sup>69</sup> Coins were struck

at Lincoln and Stamford for Olaf, indicating that this area was under his control. Lindsey was brought permanently under West Saxon rule in 942, when the Anglo-Saxon chronicler reported that King Edmund overran Mercia as far as the River Humber, regaining control of the five boroughs and liberating the Danish inhabitants of those regions who had for a long time been 'in bonds of captivity to the heathens' under Norse rule.<sup>70</sup> Hereafter Lindsey, with the rest of Lincolnshire, was a part of the kingdom of the West Saxons, but the region was directly administered by local landowners and continued to reveal evidence of its Scandinavian past.<sup>71</sup>

We have now traced the political history of the region of Lindsey from the later sixth to the mid-tenth centuries, yet we are no closer to establishing anything of the history of Flixborough itself, for which there is no extant documentary evidence before the Domesday survey of 1086.<sup>72</sup> There remains the ecclesiastical sphere, as yet largely unexplored, that might serve to shed a little light on the possible contexts within which the Flixborough settlement site could be understood.

### *Religious contexts*

The possibility that the Flixborough site might best be understood in a monastic context was raised when the excavations were first brought to public attention.<sup>73</sup> The finds suggested not only a wealthy site, importing luxury goods and commodities from a long distance, but also a literate one. Not only was there a collection of styli (used for writing on wax tablets), but there was a silver finger-ring inscribed with the first half of the alphabet (probably once one of a pair) and the enigmatic lead plaque, bearing seven Old English personal names that could have commemorated the names of the dead, or have been attached to a reliquary.<sup>74</sup> That no early sources mention the existence of a minster at Flixborough at any time between the seventh and ninth centuries need not, necessarily, be thought an impediment to this interpretation.<sup>75</sup> Inevitably this possibility has led some to try and equate this site with one of the documented but insecurely located early minsters of the Humber region. Tempting as it is to hope that we could hereby find a documentary context for this site, these sources should be approached with caution.

The conversion of Lindsey is better documented than other events in this kingdom's shadowy past. According to Bede, Edwin of Deira sent his Bishop Paulinus to convert Lindsey from paganism *c.* 630 and he went first to the household of the *praelectus* Blæcca in the city of Lincoln and built a 'stone church of remarkable workmanship' in the city, ruined in Bede's day but still testimony to many miracles.<sup>76</sup> The success of the mission to Lindsey was marked with a mass, outdoor baptism in the River Trent near Littleborough, and Paulinus' work was continued by a deacon called James. Lindsey had its own bishop (who had charge also of Middle Anglia and Mercia) only after 655, and there were bishops for Lindsey

alone from 678. Doubt surrounds the identification of the episcopal see in Lindsey; according to the twelfth-century John of Worcester, the seat was established *in civitate Siddena* by Æthelwine, bishop *c.* 680–92, and an early ninth-century church council identified Bishop Eadwulf among the witnesses as *Syddensis ciuitatis episcopus*.<sup>77</sup> Attempts have been made to locate this episcopal seat at Caistor, Louth, and in the southern part of the city of Lincoln.<sup>78</sup> Since the appellation of this place as a *civitas* strongly suggests that it was, in common with other early Anglo-Saxon sees, located in a former Roman town,<sup>79</sup> no attempt can be made – even mischievously – to locate Lindsey's bishopric at Flixborough.

The experience of other kingdoms would suggest that the initial, successful, conversion of a kingdom would rapidly be followed by an expansion of ecclesiastical institutions in the same region, both minsters created for the further evangelisation of the lay population, and those established to satisfy the pious aspirations of the local nobility. (The latter's admirable devotion was in no way dampened by the availability of ready 'tax-perks' for the pious in the shape of grants of bookland for their newly founded minsters.<sup>80</sup>) Lindsey's first bishop, Æthelwine, appointed by Æthelred of Mercia, was from a notable Lindsey family which reflected just this sort of aristocratic spirituality: Æthelwine's brother was Abbot of Partney and a sister, Æthelhild, was an abbess nearby.<sup>81</sup> The minster at Bardney played a prominent role in the history of the Lindsey region, as – initially reluctant – custodian of the relics of King Oswald of Northumbria.<sup>82</sup> There were certainly other early minsters on the Humber estuary, conceivably one at nearby West Halton (associated with St Æthelthryth of Ely, to whom the parish church there is dedicated),<sup>83</sup> and at Barrow-on-Humber, where Chad had founded a minster on an estate of fifty hides granted by King Wulfhere of Mercia.<sup>84</sup> The latter community was, however, already apparently in decline in Bede's day, and may well not have survived the eighth century.<sup>85</sup> Although these references serve to illustrate the energy of the monastic life in Lindsey in the pre-Viking Age,<sup>86</sup> they help to contextualise the settlement at Flixborough only in the broadest of senses.

If the monastic life were genuinely as popular among the seventh- and eighth-century English aristocracy as Bede would seem to imply, then it would not be surprising if there had been many more minsters active than those that were mentioned in contemporary sources. Bede tended to write about monastic houses directly associated with the conversion of a particular kingdom or region; minsters where notable saints had lived or performed miracles; those (like Bardney) that housed the relics of significant saints; and those whose members were known to him personally, or to the band of informants who supplied his information for regions other than Northumbria. Otherwise our information about early monastic houses comes from the eighth-century saints' lives (which focus inevitably on the minsters or confederations of

minsters with which their subjects were directly associated); from odd references in the Anglo-Saxon Chronicle; from contemporary letters; or from charters, recording grants of bookland for the foundation of minsters, or the incrementation of their estates. Yet, as we have already had cause to lament, there are no surviving charters for Lincolnshire that shed any light on the early history of Flixborough.

No surviving eighth-century saint's life refers to any site that could plausibly be equated with Flixborough, but later legends about St Æthelthryth of Ely, preserved in the twelfth-century *Liber Eliensis*, have been linked with this area, although with nearby West Halton, not with Flixborough itself.<sup>87</sup> Æthelthryth had the distinction among early Anglo-Saxon nuns of having contrived to preserve her chastity throughout two unsuccessful marriages before she entered the religious life.<sup>88</sup> While she was travelling back to her native East Anglia after leaving her second husband, Ecgrith, king of Northumbria, she was said to have stayed in Lincolnshire at a hamlet 'on an island almost surrounded by fen called *Alftham*', where she stayed for some days and founded a minster before travelling on to Ely.<sup>89</sup> A minster with an apparently similar name (*Ælfetee*) was mentioned in the northern recensions of the Anglo-Saxon Chronicle for the year 763 as the place where Pehtwine was consecrated Bishop of Whithorn, and it has recently been suggested that this minster might be located not, as was traditionally thought, in County Durham, but in the Humber region.<sup>90</sup> Even if one could have confidence in the identification of *Alftham* with the West Halton estate-complex, the evidence is insufficient to equate the excavated Flixborough settlement with any putative minster founded by St Æthelthryth of Ely.<sup>91</sup>

It is equally unlikely that Flixborough could be equated with the elusive minster at *Donæmuthan*. This house was mentioned in a letter datable to 757–758 from Pope Paul I to Eadberht, king of the Northumbrians and his brother Ecgrith, Archbishop of York, warning them both about the alienation of three minsters (Stonegrave, Coxwold and *Donæmuthe*) from ecclesiastical control.<sup>92</sup> A minster at *Donæmuthe* was attacked by the Danes in 794, according to the Anglo-Saxon Chronicle. Simeon of Durham identified this minster as Jarrow,<sup>93</sup> but the case was made persuasively by two independent articles, published in 1985, that this identification is wrong and that the minster should be sought at the mouth of the Yorkshire Don. Sadly, our two authors thereafter disagree: one has suggested it be sought and has located it near Doncaster at Stainforth;<sup>94</sup> the other has proposed Adlingfleet, which he has equated with the *Ælfetee* of the Anglo-Saxon Chronicle for 763.<sup>95</sup> This brings us back full circle to the rather unsatisfactory Æthelthryth material, but does not resolve our problem. It is safer to assume that, if Flixborough ever housed a minster community, that congregation found no place in the extant written record.

## Conclusion

Our putative religious contexts thus amount to little more than the economic and political ones explored earlier. In the absence of any documentary record for this site predating the Norman Conquest, there are no historical clues as to how the rich range of finds should be interpreted. We are left with an unresolvable dilemma: the nature of the finds has led others to assume that this was a minster. Yet there are no agreed mechanisms for identifying a minster site on purely archaeological grounds.<sup>96</sup> Economically, this would seem a trading site of some significance. Other known monastic sites were involved in long-distance exchange (compare for example the archaeological evidence for the minster at Whitby, or the charter evidence for the Kentish minsters mentioned above), but there is no reason why this should not also have been the case at a purely secular aristocratic estate centre. The apparent wealth of the occupants and those who came to Flixborough to trade might tempt us to look for a royal context for this site; again the historical evidence (or lack thereof) urges caution, for Lindsey's royal line can only have wielded power for a short part of the period during which this site was occupied. Lindsey's role in the history of midland and northern England may have been less obscure than Stenton suggested, but it remains tantalisingly opaque, as does the historical context for Flixborough.

## 8.2 Flixborough – the later history

### by David Roffe

The Flixborough site lies in the present parish of Flixborough, but it is situated fifty yards south-west of the now ruined mortuary chapel of North or Little Conesby, and was, presumably, formerly in the territory of the now deserted village of that name. The settlement seems to have been depopulated in the course of the fourteenth or fifteenth century, probably as a result of emparking, but before that date was a hamlet in the township of Flixborough (*FA*, iii, 185). The ecclesiastical status of North Conesby is complex, but there is little to suggest any foundation of more than local status. In the fifteenth century there were institutions to two manorial chapels at 'Conesby' by the rector of West Halton (Owen 1975, 18). That to Holy Cross was to a benefice which was also associated with Crosby and Gunness, and was presumably located in South Conesby, a mile and a half to the south-east. St John the Baptist's chapel, to which concurrent institutions were made, may thus have been situated in North Conesby. At the same period, tithes were rendered from 'the wood of Conesby' to the rector of Halton (Cragg 1913, 76).<sup>97</sup> Nevertheless, there is an earlier medieval reference to a church in North Conesby. In 1274 Ralph de Bokesford was presented to the rectory of North Conesby by Isabella, widow of Philip d'Arcy (*Gravesend*, 59).<sup>98</sup> Local tradition has maintained that

institutions made to Flixborough were in fact made to this church (Dudley 1931, 82–3). However, the advowson of Flixborough was in the gift of a cadet branch of the d’Arcy family, and in 1274 the living was held by Master William de Montfort (*Gravesend*, 351). There were clearly two churches in the late thirteenth century, and that at North Conesby may have occupied the site of the mortuary chapel.<sup>99</sup> The church of Conesby, like that of Flixborough, was apparently an ordinary parish church when it first appears in the historical record.

The tenurial status of North Conesby from the late eleventh century was more exceptional. Throughout much of the Middle Ages the settlement was one of the main estates of the d’Arcy honour (*Book of Fees*, ii, 1076). The fee is first recorded in Domesday Book in a complex series of entries. In 1086 Norman d’Arcy held four manors in ‘Flixborough’, with inland in Thealby (GDB, 361v). Comparison of the entry with the corresponding one in the Lindsey Survey of 1115 indicates that the estate included North Conesby (*LDBLS*, L1/14), and this makes sense of a further entry in Norman d’Arcy’s Domesday *breve*. Towards the end of the description of his lands in Lindsey it is recorded that he held 9½ bovates in Crosby and ‘Conesby’ which were inland of ‘Conesby’ (GDB, 362). The land was clearly in South Conesby, which throughout its history was joined with Crosby to form a vill, and the Conesby to which it belonged was therefore North Conesby (*Lincs DB*, 363).<sup>100</sup> The principal manorial centre of Norman d’Arcy’s estate would thus appear to have been in that settlement rather than Flixborough. Indeed, it was North Conesby which was kept in demesne into the fourteenth century. Subject to early subenfeoffment,<sup>101</sup> the Flixborough element was in all likelihood sokeland in 1086.<sup>102</sup> Domesday Book records that three sokemen held 2 carucates of the fee,

and it would seem that they held three of the four manors under the capital fee.<sup>103</sup> The identifying name ‘Flixborough’ of the Domesday manors was evidently that of the twelve-carucate hundred, the Lincolnshire equivalent of the vill from the tenth to the twelfth centuries, rather than that of the estate.<sup>104</sup>

In 1066, the estate, with its berewicks of Thealby, Crosby, and South Conesby, was held by a certain Fulcric, Norman d’Arcy’s principal *antecessor* from whom he probably derived title. Fulcric also held a manor in Walcot to the north, and Winterton with a berewick in Roxby to the east, and may have had rights in Normanby (in Burton-upon-Stather), for Norman d’Arcy had a claim on land there in 1086 which had been in the possession of three unnamed brothers before the Conquest (GDB, 376v).<sup>105</sup> Fulcric can probably be identified with individuals of the same name who conferred title to various estates in North Lincolnshire on the Archbishop of York, Geoffrey de la Guerche, and Siward the priest (GDB, 339v, 369v, 371).<sup>106</sup> He is not otherwise known, but he would appear to have been not one of the great ‘king’s thegns’ of the shire, but a holder of land, probably often from such magnates, of some local importance.<sup>107</sup>

Neither are there earlier references to his four manors in North Conesby and Flixborough, but their pre-Conquest tenurial context can be reconstructed from the interrelationship of their various elements in the eleventh century with surrounding estates. The structure of Fulcric’s manors mirrors that of the soke of West Halton, which was held by Earl Hugh of Chester in 1086 in succession to Earl Harold (see Fig. 8.1). The West Halton estate comprised inland in Walcot, and soke in Winterton, Coleby, Haythby, Thealby, Crosby, and South Conesby. It probably also included Burton-upon-Stather, for although the settlement is not fully described in

CHESTER	D'ARCY	PETERBOROUGH	BURON	TAILLEBOIS	FERRERS
<b>West Halton</b>					
Walcot	<b>Walcot</b>	<b>Walcot</b>	Walcot		
		Alkborough		<b>Alkborough</b>	
Winterton	Winterton		Winterton		Winterton
	Roxby				
Coleby			<b>Coleby</b>		
Haythby	Haythby	Haythby			
	<b>N. Conesby</b>				
	Flixborough				
Thealby	Thealby				
Crosby } S. Conesby }	Crosby } S. Conesby }				
Burton					
	Normanby				
					<b>Whitton</b>

NOTE: manorial centres are **emboldened**; other lands are inland or soke thereof.

FIG. 8.1. Table showing interlocking estate elements in the north-west of Manley Wapentake, Lincolnshire, in 1086 (D. Roffe).



Domesday Book, the Earl of Chester appears to have held it as a parcel of the manor of West Halton in the later Middle Ages, and it therefore seems likely that it was an integral element of the estate in 1086 (*Monasticon*, vi, 314; *RH*, i, 340a). Norman d'Arcy's holdings also find an echo in the composition of the Abbot of Peterborough's manor of Walcot and Erneis de Buron's fee in Coleby (GDB, 346, 349, 362v). In the light of the complexity of tenurial structure in the area, recurring patterns of tenure of this kind suggest a common origin for the estates. Although all four were apparently independent in the historic period, it seems clear that they had formerly constituted a single organisation. Such patterns of development are well-attested in the Northern Danelaw and, indeed, occasionally documented (Roffe 1995, 108), and it would appear that in the present case the rights that the church of West Halton retained in the manors of South Conesby, Crosby, and Walcot were a vestige of the older and larger estate complex.

Alkborough and Whitton, to the north, may also have come within its bounds. The settlements were held by William Malet and Siward Barn respectively in 1066, and they were clearly independent manors in the eleventh century (GDB, 350v, 353v),<sup>108</sup> for both lords were important king's thegns.<sup>109</sup> But tenurial links with Walcot and Winterton raise the possibility that they too had formerly belonged to the larger estate (GDB, 346, 353v). With the exception of the Winterton element, the area so defined has a distinct topographical identity. Bounded by the Trent to the west, the Humber to the north, and the Winterton Brook to the east, it occupied a promontory which rises to almost 200 feet at its highest point to dominate the surrounding low land and water of the Isle of Axholme and the Humber Levels. The strategic importance of the feature is signalled by the interests of Earl Harold, Siward Barn, and William Malet in the land in 1066. The West Halton complex commanded communications between the North and the Midlands, and, with Axholme, must always have been a key area in the pre-Conquest period.<sup>110</sup>

Its antiquity is revealed by what can be perceived of the forces that led to its fragmentation. There was clearly no simple process of booking, the creation of independent estates by royal charter, for that almost invariably involved discrete parcels of land. If it played a part at all, it was probably confined to the granting of Alkborough and Whitton, the only discrete manors in the area.<sup>111</sup> Rather, the division of the estate element by element suggests that tribute and dues were initially taken in a central court and were only subsequently territorialised (*Lincs DB*, 11–12). The evolution of the Domesday estate structure was evidently a protracted process in which the rights of the lord were only slowly alienated or eroded. Nevertheless, it is clear that fragmentation of the primitive estate was already under way in the late ninth and early tenth centuries. At that time, the area was settled by the Danes, and it seems likely that Danish kings took

over primary estate centres. However, the occurrence of distinctive place-names formed from a personal name compounded with ODan *-by*, 'settlement', a generally early Anglo-Scandinavian place-name element (Cameron 1975, 115–38), suggests that individuals were beginning to acquire several rights on the ground. Thus, in the Halton complex six of the dependent settlements exhibit *-by* names, of which four are compounded with a Scandinavian personal name. Coleby incorporates the name *Koli*, Crosby – *Krókr*, Roxby – *Hrókr*, and Thealby – *þjóðulfr* (Fellows Jensen 1978, 41, 43, 65, 74). As an entity, the complex must pre-date this process of naming: it was almost certainly in existence in some form as early as the Mid Saxon period.

A contemporary reference to it is probably to be found in the *Liber Eliensis*. It records that some time in the late seventh century St Æthelthryth, alias Etheldreda, left her husband King Egfrith of Northumbria to return to her native East Anglia. On the way she crossed the Humber to Winteringham (Lincs.) and then, breaking her journey, repaired 'to a hamlet situated on an island almost surrounded by fen called *Alftham* (*ad viculum divertens, in modum insule paludibus fere circumdatum Alftham nominatum*)' some ten furlongs (*stadiis*) away. She stayed some days and then founded a monastery there (*ibique*), before resuming the journey that was to take her to Ely, Cambridgeshire (*Liber Eliensis*, xxx, 30).<sup>112</sup> Given the late form, it is difficult to be certain of the meaning of the name *Alftham*.<sup>113</sup> If the *viculus* of the account is to be taken as an accurate description of the place, as opposed to a literary device (the wildness of the area may be a topos designed to emphasise the saint's heroism), then the suffix is likely to be the OE *ham*, 'land hemmed in by water or marsh', rather than OE *ham*, 'estate'. The first element is probably OE *elfitu*, *ælfitu*, 'a swan', and *Alftham* would thus translate as something like 'island frequented by swans'. *Ælfete*, 'swan island' or 'swan stream', appears as the name of a monastery in the Anglo-Saxon Chronicle for the year 763 when Pehtwine was consecrated Bishop of Whithorn there (*ASC*, *s.a.*, 763; Ekwall 1959, 166). The place is now usually identified with Elvet Hall in County Durham, but a case has recently been made for a site within the Don, Trent, and Humber river system (Richardson 1985, 15–22; Parker 1985).<sup>114</sup> *Alftham* itself is only directly paralleled by Altham in Lancashire and Elvetham in Hampshire, and it cannot be identified with any place-name or by-name in the Winteringham area. It may, nevertheless, represent the early name of the West Halton complex of estates, some eight to ten furlongs to the west.

Something of the status of Conesby within it can be suggested. In 1066 Fulric, its lord, may have been tenurially independent of Harold in Halton, but it cannot be doubted that he came under the influence of the earl. West Halton was the most substantial estate in Manley Wapentake, and its lord, as king, the most powerful man in England after the death of Edward the Confessor.

Whether he held the estate as earl or otherwise cannot be determined with certainty, but it seems likely that it was a comital manor with wide administrative functions.<sup>115</sup> Most eleventh-century soke centres of the type appear to be of great antiquity: they typically have early OE name forms and are closely related to pagan Saxon cemeteries (Everson 1993, 98; *Lincs DB*, 40). The antiquity of the sokeland associated with them in 1086 is not always so easy to determine. Although the freedom of the sokeman was clearly limited, lords could transfer tributary lands to others at will (*Lincs DB*, 20). It is often clear, though, that an inner core of elements indicated by interlocking pattern of tenure, frequently grouped in sixes and twelves, was related to the estate centre from an early date (Roffe 1990a, 52–3). The West Halton complex of estates conforms to this pattern. The name Halton, seemingly connoting ‘settlement on alluvial land by a river’ (Ekwall 1959, 213),<sup>116</sup> is not from the earliest stratum of English place-names, but the type is represented in pre-Danish estate names (albeit Scandinavianised) such as Kirton-in-Lindsey and Ruskington (Fellows Jensen 1975, 184–5), and early burials were found within the estate in the parish of Burton-upon-Stather (Leahy 1993, 39–42). Nevertheless, there is nothing to demonstrate unequivocally that it had always been a central place, but the villas associated with it were probably primary, for there are close to twelve elements within its putative pre-Conquest confines (Roffe 2000b, 12).<sup>117</sup>

Whatever the earlier estate centre, Conesby was apparently subordinate to it at the time when it received its name. Unlike most of the surrounding *-by* names,<sup>118</sup> its specific is not a personal name. The first element is derived from ODan *kunungr*, ‘king’, and the name signifies ‘king’s settlement’ (Fellows Jensen 1975, 42).<sup>119</sup> The OE equivalent is Kingston, and there the settlements so named do not appear to have been primary estate centres (Bourne 1987).<sup>120</sup> Conesby was apparently a similar type of name. At a time when other settlements were acquiring a distinct identity of their own, it indicates a subsidiary element that remained in the hands of the king along with the estate centre. The philologically-identical Coningsby in the South Riding of Lindsey appears to have been similarly subordinate, there to the ancient estate of Horncastle (GDB, 339, 349v, 360v, 363v, 370v).<sup>121</sup> Given the absence of earlier evidence, the status of the Mid-Saxon settlement on the Conesby site can only be a matter of speculation, but its apparent dependence in the late ninth or early tenth centuries may suggest an equally auxiliary position at the earlier period.

The place-name Flixborough provides a tantalising, if equivocal, clue to the function of ‘the king’s land’ in the wider whole. It is a compound of the Scandinavian personal name *Flik* and OE *burh*, ‘fortified place’. This is the only known *burh* in the Halton complex,<sup>122</sup> and it is possible that it was the ‘fortified place’ of the estate. Such sites were typically distinct from estate centres in the Mid Saxon period. However, a note of caution must

be struck. The generic *burh* was used of any type of fortification and, moreover, was given to sites throughout the Anglo-Saxon period. It is, then, equally possible that the name was coined some time in the Late Saxon period by English inhabitants to distinguish a manorial complex belonging to a lord called Flik (Fellows Jensen, 1975, 204).

## Notes

- 1 F. M. Stenton, ‘Lindsey and its kings’, in *Essays presented to Reginald Lane Poole*, ed. H. W. C. Davis (Oxford, 1927), pp. 136–508, reprinted in *Preparatory to Anglo-Saxon England*, ed. D. M. Stenton (Oxford, 1970), pp. 127–37, at p. 137.
- 2 B. Yorke, ‘Lindsey: the lost kingdom found?’, in *Pre-Viking Lindsey*, ed. A. Vince (Lincoln, 1993), pp. 141–50, at p. 141; my own paper in the same volume seeks to define an historical framework in which to set the archaeological evidence for the region: ‘The kingdom of Lindsey’, *ibid.*, pp. 128–40.
- 3 Domesday Book, I, for Lincolnshire (Foster and Longley 1924; Roffe 1992, Alec to ed., London); Loveluck and Cameron, Chapter 4, this volume. Peter Sawyer has compiled a useful list of Anglo-Saxon charters for Lincolnshire as appendix 5 to his *Anglo-Saxon Lincolnshire*, History of Lincolnshire III (Lincoln, 1998), pp. 231–4. It seems implausible that the early monastic sites of Lincolnshire were not endowed with land granted permanently by means of charter as minsters were elsewhere in southern England (and indeed that the lay aristocracy in Lindsey did not also avail themselves of the opportunity to acquire booked land when they could). Yet the discontinuity of monastic sites and the influence of Scandinavian settlement from the later ninth century onwards might be thought to have had the same effect on the preservation of monastic archives in Lincolnshire as it apparently did in Northumbria, whence there survive no authentic charters predating the First Viking Age.
- 4 Conesby may be understood as a Scandinavian adaptation of the Old English place-name *cyninges-burh*, the king’s stronghold or fortification: Sawyer, *Anglo-Saxon Lincolnshire*, p. 85; Cameron, Chapter 4, this volume; Roffe below.
- 5 R. Hodges, *Dark Age Economics. The Origins of Towns and Trade, AD 400–1000* (London, 1982), pp. 43–5; I. Wood, *The Merovingian Kingdoms* (London, 1994), pp. 301–2; R. Hodges, *The Anglo-Saxon Achievement* (London, 1989).
- 6 Bede, *Historia ecclesiastica*, II. 3 and IV. 22 (ed. and trans. B. Colgrave and R. A. B. Mynors, *Bede’s Ecclesiastical History of the English People* [Oxford, 1969], pp. 142–3 and 404–5).
- 7 A. Vince, *Saxon London*; Sawyer, *Anglo-Saxon Lincolnshire*, p. 174.
- 8 *Alcuin. The Bishops, Kings, and Saints of York*, ed. and trans. P. Godman (Oxford, 1982), lines 35–7, pp. 6–7.
- 9 Altfred, *Vita S. Liutgeri*, I. 11–12 (ed. G. H. Pertz, MGH, SS, II [1829], pp. 403–19, at p. 408; trans. Whitelock, *EHD*, no. 160).
- 10 Sawyer, *Anglo-Saxon Lincolnshire*, p. 174. Steane and

- Vince, 'Post-Roman Lincoln: Archaeological evidence', in *Pre-Viking Lindsey*, ed. Vince (1993), pp. 71–9, at pp. 77–8.
- 11 See further below.
  - 12 S. Kelly, 'Trading privileges from eighth-century England', *Early Medieval Europe*, 1 (1992), 3–28, at p. 26.
  - 13 Charters in favour of Minster-in-Thamet are listed in Sawyer, *Anglo-Saxon Charters*; there is also one extant grant of King Eadberht II of Kent in favour of the minster at Reculver, granting the abbot and his church remission of toll on one ship at the port of Fordwich: S 1612; see Kelly, 'Trading privileges', pp. 6 and 10–11.
  - 14 Hodges, *The Anglo-Saxon Achievement*, p. 69.
  - 15 The letter is preserved with the Alcuin correspondence: *Alcuini siue Albini epistolae*, ed. E. Dümmler, MGH, *Epistolae Carolini Aevi*, II (Berlin, 1895), no. 100; it has been translated by D. Whitelock, *English Historical Documents I, c. 500–1042* (2nd edn, London, 1979), no. 197.
  - 16 The role of Abbot Gervold as negotiator between Offa and Charlemagne both in the abortive marriage alliance and in disuading Charles from carrying out his threat that 'no one from the island of Britain and the English race was to land on the sea-coast of Gaul for the sake of commerce' was reported in the ninth-century *Gesta sanctorum patrum Fontanellensis coenobii*, ed. F. Lohier and J. Laporte, Société de l'histoire de Normandie (Rouen and Paris, 1936), book XII, ch. 2; trans. Whitelock, *EHD*, no. 20. Alcuin as intermediary, Keynes, 'Changing faces: Offa of Mercia'.
  - 17 *EHD*, 197.
  - 18 R. Hodges, *Dark Age Economics* (London, 1982), pp. 123–5.
  - 19 Philip Grierson pointed out long ago how unwise is the presumption that high-status goods and commodities found archaeologically at a distance from their place of origin, or mentioned in written sources were transported through trade and not as a result of plunder or gift-giving: 'Commerce in the Dark Ages: a critique of the evidence', *TRHS* 5th ser. 9 (1959), 123–40. There is a broad-ranging discussion of the Mid-Saxon economy and the interest of rulers in its control in D. A. Hinton, *Archaeology, Economy and Society. England from the Fifth to the Fifteenth Century* (1990), ch. 3, 'Princes and power'.
  - 20 For example Sawyer, *Anglo-Saxon Charters*, nos. 102 (AD 716x716, an exchange of salt-pans in Worcestershire between Æthelbald, king of the Mercians and the church of Worcester), 23 (AD 732, a grant by Æthelberht II, king of Kent of land by the river Lympe for boiling salt), 219 (AD 884 a grant by Æthelred, ealdorman of Mercia of land in Worcestershire with appurtenant salt-workings).
  - 21 For example the laws issued jointly by two late-seventh-century Kentish kings Hlothhere and Eadric refer to the harbouring of 'a stranger, a trader or any other man who has come across the frontier', and to the need for sound witnesses to vouch for a man of Kent buying property in London: Hlothhere and Eadric, chs. 15–16 (ed. F. Liebermann, *Die Gesetze der Angelsachsen* [3 vols., Halle, 1903–16] I, 11; the laws of the West Saxon king Ine (which survive only as an appendix to the laws of King Alfred), mention the penalties for selling freemen or slaves overseas, the necessity for traders to act in front of witnesses, the problems of stolen property: Ine, chs. 11, 25, 25.1 (*ibid.* I, 100); King Alfred legislated about the need for traders to come publicly before the king's reeve, and made arrangements for slaves to sell their property: Alfred, chs. 34 and 43 (*ibid.*).
  - 22 Alfred, int. 49.9 (ed. Liebermann, *Die Gesetze*, I, 46); Alcuin letter to ealdorman Osbert, ed. E. Dümmler, *Epistolae Karolini Aevi*, II, MGH, *Epistolae* IV (Berlin, 1895), pp. 178–80, no. 122; *EHD*, no. 202. For the suggestion of a connection between the report of the legates and Offa's code see S. Keynes and M. Lapidge, *Alfred the Great. Asser's Life of Alfred and other contemporary sources* (Harmondsworth 1983), pp. 305–6, n. 5, and P. Wormald, 'In search of King Offa's law-code', in *People and Places in Northern Europe 500–1600*, ed. I. Wood and N. Lund (Woodbridge, 1991), pp. 25–45.
  - 23 The report of the legates is best edited by Dümmler, *Epistolae Karolini Aevi*, II, pp. 19–29, no. 3; the chapter cited is ch. 17. Wormald has drawn attention to the extent to which this chapter (and others) depends on scriptural citation: 'In search', p. 31.
  - 24 Yorke 1993 'Lindsey'.
  - 25 W. Davies and H. Vierck, 'The contexts of the Tribal Hidage: Social aggregates and settlement patterns', *Frühmittelalterliche Studien* 8 (1974), 223–93.
  - 26 Bassett 1989; Foot 1993; Yorke 1993.
  - 27 Bede, *HE*, preface.
  - 28 'The island of the people of Lincoln': Yorke, 'Lindsey', p. 143.
  - 29 Yorke, 'Lindsey', p. 143. Eagles, 1989.
  - 30 Wallace-Hadrill, *Commentary*, pp. 226–8; Hunter-Blair, 'The Northumbrians and their southern frontier'.
  - 31 Foot, 'The kingdom', p. 135.
  - 32 Hunter-Blair, 'The Northumbrians and their southern frontier', pp. 117–8. See also Stafford, *The East Midlands*, pp. 96–101, Yorke, *Kings and Kingdoms*, pp. 81–3.
  - 33 Bede, *HE*, II. 16; II.5 and III. 11. Foot, 'The kingdom', p. 135.
  - 34 Bede, *HE*, III. 24. Yorke, 'Lindsey', p. 144.
  - 35 Following a battle reported by Stephen, hagiographer of Bishop Wilfrid: *Vita S Wilfridi*, ch. 20. Bede reported King Egfrith's conquest of Wulfhere of Mercia in 678: *HE*, IV. 12.
  - 36 Bede, *HE*, IV.12. Foot, 'The kingdom of Lindsey', p. 135.
  - 37 Sawyer, *Anglo-Saxon Lincolnshire*, p. 84.
  - 38 Blackburn, 'Coin finds' in *Pre-Viking Lindsey*, ed. A. Vince (Lincoln, 1993); Archibald, volume 2, Chapter 14; Pirie, volume 2, Chapter 14.
  - 39 Campbell, *Essays*, p. 88; Foot, 'The kingdom', pp. 128–9.
  - 40 Brooks, 'The formation of the Mercian kingdom', pp. 167–8. The evidence of the Tribal Hidage for the status of Lindsey has been considered by Sawyer, *Anglo-Saxon Lincolnshire*, p. 76.
  - 41 Dumville 1976. Foot 1993.
  - 42 The supposition depended on the identification of Aldfrith with one of the witnesses named among those subscribing to Offa of Mercia's confirmation of a South Saxon charter 786x796: *Charters of Selsey*, ed. S. E. Kelly (Oxford, 1998) no. 12 [Sawyer, *Anglo-Saxon Charters*, no 1183].

- The identification with Aldfrith was made by Stenton, *Preparatory to Anglo-Saxon England*, p. 130, but the witness is more plausibly identifiable as Offa's son Ecgfrith; see Foot, 'The Kingdom', p. 133 and Kelly, *Charters of Selsey*, p. 54.
- 43 Grierson and Blackburn, 1986, p. 166.
  - 44 This would make the Lindsey pedigree cover approximately the same time-span as the other royal lines included in the Anglian collection.
  - 45 Keynes, 'Changing faces'; Wormald, 'The Age of Bede and Æthelbald'.
  - 46 Sawyer, *Anglo-Saxon Lincolnshire*, p. 82.
  - 47 S 1412, AD 786x796; Sawyer, *Anglo-Saxon Lincolnshire*, p. 82.
  - 48 An attempt has been made to identify the royal vill *Bearuwe* at which councils were held in 743 and 814 with Barrow-on-Humber (Sawyer, *Anglo-Saxon Charters*, nos. 99 and 177), but such an identification seems unlikely: Sawyer, *Anglo-Saxon Lincolnshire*, p. 78.
  - 49 S. Keynes, 'King Alfred and the Mercians, in *Kings, Currency and Alliances. History and Coinage of Southern England in the Ninth Century*, ed. M. A. S. Blackburn and D. N. Dumville (1998), pp. 1–45, at p. 5 and n. 17.
  - 50 Anglo-Saxon Chronicle, s.a. 823 (*recte* 825); S. Keynes, 'The control of Kent in the ninth century', *Early Medieval Europe* 2 (1993), 111–31
  - 51 Anglo-Saxon Chronicle, s.a. 827 (*recte* 829); this passage is deliberately reminiscent of Bede, for it is in this entry in the context of Ecgerht's conquest of the Mercians that the chronicler reproduced Bede's list of seven kings who had held *imperium* (from *HE*, II. 5) and then described Ecgerht as *bretwalda*. See Keynes, 'Rædwald the bretwalda', in *Voyage to the Other World: the Legacy of Sutton Hoo*, ed. C. Kendall (1992), pp. 103–22, and the literature cited there.
  - 52 Anglo-Saxon Chronicle, s.a. 794 DE.
  - 53 M. S. Parker, 'An Anglo-Saxon monastery in the lower Don valley', *Northern History* 21 (1985), 19–32. The possible identification of this minster will be explored further in the next section. See also W. Richardson, 'The Venerable Bede and a lost Saxon monastery in Yorkshire', *Yorkshire Archaeological Journal*, 57 (1985), 15–22; and Roffe below.
  - 54 Anglo-Saxon Chronicle 841. Sawyer, *Anglo-Saxon Lincolnshire*, p. 90.
  - 55 Sawyer, *Anglo-Saxon Lincolnshire*, p. 90.
  - 56 ASC, entry for 871 refers to two kings at battle of Ashdown *Bacsecg* and Healfdan. Other leaders called earls.
  - 57 Sawyer, *Anglo-Saxon Lincolnshire*, p. 96.
  - 58 Keynes, 'Alfred and the Mercians', pp. 1–45.
  - 59 Sawyer, *Anglo-Saxon Lincolnshire*, p. 97.
  - 60 Alfred-Guthrum treaty, translated Keynes and Lapidge, *Alfred the Great*. This treaty has conventionally been dated 886–890. The general submission is reported in the Anglo-Saxon Chronicle, s.a. 886 and in Asser, *Life of King Alfred*, ch. 83, ed. W. H. Stevenson, *Asser's Life of King Alfred* (Oxford, 1904; new impression, 1959), p. 69; transl. Keynes and Lapidge, *Alfred the Great*, p. 98.
  - 61 The term *dena lagu* was coined in the laws of Æthelred. The first king to lay claim to the kingship of the English was Æthelstan, 924–939, who acceded to the kingdom of the Mercians as well as to that of the West Saxons after the death of his father and half-brother Ælfweard in 924 and went on to take-over Northumbria in 927. The North was, however, only brought permanently under West Saxon rule after the death of the last Norse king in York, Erik Bloodaxe in 954.
  - 62 For discussion of the meaning of the place-name Flixborough, and that of neighbouring North Conesby, see Cameron, Chapter 4, this volume and Roffe below. For Scandinavian place-names in the surrounding region, see Cameron *et al.*, *The Place-names of Lincolnshire, II–IV* (Nottingham, 1991, 1992 and 1996); Sawyer, *Anglo-Saxon Lincolnshire*, pp. 102–15.
  - 63 Sawyer, *Anglo-Saxon Lincolnshire*, p. 100.
  - 64 It has been conventional to interpret the absence of references to continuing minsters in northern and eastern England beyond *ca* 870 to the effects of Danish raiding and settlement; for one approach to the broader difficulties of constructing arguments about this issue from the silence of the sources see Foot, *Veiled Women I. The Disappearance of Nuns from Anglo-Saxon England* (Aldershot, 2000), ch. 3.
  - 65 A Thacker, 'Chester and Gloucester: early ecclesiastical organisation in two Mercian burhs', *Northern History* (1992), 199–211, at pp. 203–6
  - 66 Sawyer (*Anglo-Saxon Lincolnshire*, p. 98) has argued that the paucity of Scandinavian place-names in the vicinity of Bardney might suggest that the community not only survived the First Viking Age (albeit in a reduced state) but even contrived to retain control of some of its property.
  - 67 Foot, 'The kingdom', p. 137; Sawyer, *Anglo-Saxon Lincolnshire*, pp. 96–7.
  - 68 Ian Stewart, 'The anonymous Anglo-Viking issue with sword and hammer types and the coinage of Sihtric I', *British Numismatic Journal* 52 (1982), 108–16.
  - 69 The chronology of this campaign, which is not reported in the West Saxon chronicle, is obscure. A narrative is provided by Simeon of Durham, *Historia Regum*, on the basis of a now lost northern chronicle; see Smyth, *Scandinavian York and Dublin*, I; Sawyer, *Anglo-Saxon Lincolnshire*, pp. 122–3.
  - 70 Anglo-Saxon Chronicle 942.
  - 71 This is evident, for example, in the personal names of the ealdormen and thegns of the region and the administrative division into wapentakes. See Sawyer, *Anglo-Saxon Lincolnshire*, pp. 125–43.
  - 72 The Domesday evidence for Flixborough is discussed by David Roffe below.
  - 73 Ben Whitwell, 'Flixborough', *Current Archaeology* 126 (1991), 244–7.
  - 74 Michelle Brown and Elisabeth Okasha, 'The inscribed objects'. Both the ring and the inscribed plaque can be dated to the late eighth or early ninth centuries on palaeographical grounds (Brown and Okasha, volume 2, Chapter 4.
  - 75 This issue will be discussed fully in Chapter 9, this volume.
  - 76 *HE*, II. 16
  - 77 John of Worcester, *Chronicon*, s.a., 679; Council of *Clofesho* 803
  - 78 Foot, 'The kingdom of Lindsey', p. 136 and references cited there.

- 79 Campbell, *Essays in Anglo-Saxon History*, pp. 105–7.
- 80 An abuse criticised by Bede in his letter to bishop Ecgberht of York in 734, but seemingly widespread within and without Northumbria.
- 81 Bede, *HE*, III. 11; Yorke, ‘Lindsey’, p. 144. Sawyer has suggested (*Anglo-Saxon Lincolnshire*, p. 65), that if Æthelild’s minster was indeed – as seems likely from Bede’s account – a double house, then Æthelild was probably a member of the royal house of Lindsey; for the relationship between double houses and royal princesses see Foot, *Veiled Women I*, pp. 36–45.
- 82 Bede, *HE*, III. 11.
- 83 D. Stocker, ‘The early church in Lincolnshire’, in *Pre-Viking Lindsey*, ed. A. Vince (Lincoln, 1993), pp. 101–22 at p. 114; Sawyer, *Anglo-Saxon Lincolnshire*, p. 66; see further below.
- 84 Bede, *HE*, IV. 3.
- 85 Sawyer, *Anglo-Saxon Lincolnshire*, Barrow on Humber, p. 100.
- 86 A much fuller account may be found in Stocker, ‘The early church’.
- 87 The author of the *Liber Eliensis* had access to a now lost Old English Life of St Æthelthryth: Blake, *The Liber Eliensis*, Camden Society, 3rd ser. 92 (1962), p. 30. The identification was made with some confidence by Ben Whitwell, ‘Flixborough’, p. 247. For a more cautious reading of this source see C. Fell, ‘Saint Æthelthryth: a historical-hagiographical dichotomy revisited’, *Nottingham Medieval Studies*, 38 (1994), 18–34.
- 88 Bede, *HE*, IV. 19.
- 89 *Liber Eliensis*, 5.13, ed. Blake, p. 30.
- 90 W Richardson, 1985; see below with *Donaemuthan*.
- 91 David Roffe discusses this evidence in detail below.
- 92 *EHD*, 184.
- 93 Simeon of Durham, s.c. 294, 21.
- 94 Parker 1985, 32.
- 95 Richardson, p. 20.
- 96 Compare the difficulty of determining the function of the site at Brandon in Suffolk; see C. P. Loveluck, ‘Wealth, Waste and Conspicuous Consumption: Flixborough and its importance for Middle and Late Saxon rural settlement studies’, in H. Hamerow and A. MacGregor, eds., *Image and Power in the archaeology of Early Medieval Britain*, pp. 104–115 (Oxford, 2001); Loveluck, Chapter 9, this volume.
- 97 The reference may be to South Conesby: no lord is named in the account, but the commutation of suit to the Le Straunge court in Burton-on-Stather would suggest that the compotus relates to the Chester fee in that settlement. There are later deeds relating to ‘Conesby Park in the parish of West Halton’ (LAO FL Deeds 772). In 1410, however, Conesby was ‘infra parochia de Flix’ (LAO, Monson vii/43/573).
- 98 The entry is identified as ‘Coningsby’, but the d’Arcy family never held land in that settlement or anywhere nearby. The inquisition was conducted by the archdeacon of Stow, and Conesby must therefore be the referent. This living may also be the demesne tithes to which Geoffrey de Gunness was instituted in the early thirteenth century (*Welles*, i, 134–5). See also Sutton, Lincoln Record Society, 76 (1986), where the church is called a chapel.
- 99 An illustration of ‘the church of Flixborough’ in the *Gentleman’s Magazine*, October 1786, 82, may represent a medieval building on the site. The Mr Green who drew the picture merely reports ‘The strange position of Flixborough church and steeple, in the county of Lincoln, will be sufficient reason for furnishing you with drawings of them, though I am not able to say a word about their history’.
- 100 In *LDBLS*, and the *DB Lincs* translation which follows it, both Conesbys are identified as North Conesby. The mechanism of entry formation, however, precludes such an equation (Roffe 1990a, 47–52).
- 101 Flixborough, held for two knight fees by William d’Arcy, was ‘old enfeoffment’, that is of or before the reign of Henry I, in the scutage returns of 1242/3, while Conesby was not (*Book of Fees*, ii, 1076–7). In 1166 all but two small fractions of fees of the d’Arcy enfeoffments were old (*Red Book*, i, 386).
- 102 Demesne was usually the last type of land to be permanently demised. For a spectacular example, see Roffe 1997, 54–6.
- 103 Multiple manor entries of the Flixborough type are found throughout Domesday Book, but are particularly common in the accounts of the northern counties. They signify extended groups of tenurially dependent estates held under an overlord who is usually either the first one named or, as in the Flixborough entry, the only one named (*Lincs DB*, 13). For a full discussion of tenure, see Roffe 2000a, 17–48.
- 104 For a full discussion of the complexities of place-naming in the Lincolnshire Domesday, see Roffe, 1990a, 47–52.
- 105 A Fulcric and his two brothers held four manors in Lea with sokeland in Heapham and Somerby in the wapentake of Corringham (GDB, 347). The brothers were probably Wege, who appears as a joint holder of an estate in Eastlound and Graizelound (GDB, 369), and Grimbald, who likewise appears in Winterton (GDB, 371).
- 106 The name is relatively rare in Domesday Book, and all occurrences are in close proximity where not in the same vill.
- 107 The division of his lands between a number of tenants-in-chief in 1086 probably indicates pre-Conquest tenurial relationships (Roffe 1990b, 157–72). The Fulcric who held land on the Isle of Axholme was almost certainly a man of Siward Barn (GDB, 369, 369v).
- 108 Alkborough only came into the honour of Chester in the next century through marriage (*Chester Charters*, no. 17).
- 109 Siward held with sake and soke (GDB, 337). The pre-Conquest activities and status of William Malet can only be dimly perceived, but it can not be doubted that he moved in the highest ranks within the county of Lincolnshire and probably beyond (Keats-Rohan 1997).
- 110 For a general account of the part that Lindsey played in the relations between north and south, see Sawyer 1998, Chapters 4–7.
- 111 The fact that Walcot, an element of the Halton estate, was in the parish of Alkborough (Owen 1975, 15) suggests the grant or assumption of ecclesiastical dues by a booklord at some period. For the relationship between bookright and tithe, see Roffe 1996, 107–20.
- 112 The *Liber Eliensis* was compiled in the twelfth-century, but its author seems to have drawn on an Old English life of Saint Æthelthryth. Doubt has been expressed about the

- historicity of this source (Fell 1994). However, the account reveals a remarkable awareness of local topography in an area where the refounded Abbey of Ely had no lands (its nearest estates were 80 miles away), and the account of the foundation of a monastery at Threkingham/Stow that follows the *Alftham* episode, not considered by Fell (pers. comm.), can be independently corroborated (Roffe 1986). On balance, it seems likely that the *Liber Eliensis* preserves an authentic seventh- or eighth-century tradition.
- 113 I am grateful to Professor Barrie Cox for the following observations on the place-name *Alftham*.
- 114 The site is identified as *Donæmuthan*.
- 115 For the identification of comital estates in Lincolnshire, see Roffe 1993, 9–10.
- 116 The qualifying ‘West’ is late and serves to distinguish the settlement from the remote and tenurially unrelated East Halton in Yarborough Wapentake.
- 117 Landscape numerology is an analysis that usually borders on pyramidiocy. For an attempt to formulate a coherent approach, see Roffe 2000a, 12. Estate centres are seemingly additional, and in the present instance West Halton must be omitted. Linked settlements, such as South Conesby and Crosby, were constituted as single villas and are therefore counted as one element. This leaves a total of twelve villas, excluding Winterton and including Whitton and Alkborough.
- 118 Haithby is the only other exception; it connotes ‘the settlement on the heath’. It was presumably a secondary habitation site and probably a late one.
- 119 Cox (1994, 49–50) has suggested the -by element is secondary, replacing an original *burh*, ‘fortified place’. There is no evidence for this assertion beyond analogy with Coningsby where a similar development is hypothesized on the single occurrence of the personal name Stephanus de Conigeburc in 1210 (ibid, 41).
- 120 J. Bourne, ‘Kingston Place-Names: a Preliminary Report’, *Journal of the English Place-Names Society* 20, (1987–1988), 13–38.
- 121 A similar, albeit vestigial, pattern of interlocking elements can be perceived in the soke of Horncastle. The status of Coneythorpe and Coneysthorpe in Yorkshire is directly comparable.
- 122 The early spellings of Alkborough indicate that its generic was either OE *beorg*, ‘hill’, or OE *bearu*, ‘wood’ (Cox 1994, 40).

## 9 Changing Lifestyles, Interpretation of Settlement Character and Wider Perspectives

*Christopher Loveluck*

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### ***9.1 Frameworks of interpretation and dynamic settlement sequences***

Interpretation of the nature of the excavated settlement at Flixborough has been a subject of considerable speculation since the announcement of the discovery of the remains, in the early 1990s. Initial interpretations put forward by archaeologists and historians were conditioned by the prevailing, textually-led approach which had driven the development of 'Middle Saxon' settlement archaeology, between the 1940s and 1970s; namely, excavation at sites associated with Anglo-Saxon documentary labels, describing the nature of settlements at precise 'snapshots' in time (Loveluck 2001, 120–121). The settlements with by far the greatest number of documented labels were monasteries. Hence, they were the settlements that attracted most of the attention of archaeological pioneers researching the settlement archaeology of the period between AD 650 and 1000. The excavated remains from monastic settlements, such as Whitby, North Yorkshire (Peers and Radford 1943, 27–88; White 1984, 37–38); Monkwearmouth and Jarrow, Co. Durham (Cramp 1969, 21–66) seemed to corroborate textual descriptions of structures, activities, items and raw materials linked to monasteries, particularly those which enjoyed patronage from Anglo-Saxon royal families (Colgrave and Mynors 1969). Perhaps inevitably, therefore, the finds associated with these sites were viewed, and are still regarded as characteristic of monastic centres, often referred to as *minsters* (Blair 1996a, 9).

The criteria used to support identification of monastic settlements archaeologically have comprised two groups of traits, relating to settlement situation and the built environment on the one hand; and mobile material culture on the other. Perceived characteristics in the former group included riverside, coastal or promontory locations; formal planned layouts with a central cult focus or foci, the presence of stone buildings at major centres; and use

of an enclosure or enclosures to define sacred space (Cramp 1976, 204–207; Stocker 1993, 101–114; Blair 1996b 98–104). Mobile material culture suggested to be typical of monastic settlements has included evidence of literacy, long-distance exchange contacts, craft-working and certain dress accessories linked to gender (Blair 1996a, 9; Gilchrist 1994, 32). First attempts at interpretation of the character of the settlement in Flixborough parish focused particularly on the evidence for literacy (FIG. 9.1\*), receipt of imported luxuries, craft-working, and the presence of a possible mortuary chapel or church. As a consequence, the settlement remains were interpreted as those of an undocumented monastic settlement (Whitwell 1991, 247; Yorke 1993, 146, Blair 1996a, 9–10; Moreland 2000a, 95–96). The combinations of traits listed above are undoubtedly found on monastic settlements. Huge questions remain, however, relating to the representativity of our sample of seventh- to tenth-century excavated evidence from settlements.

The exclusivity of material culture traits previously perceived to be characteristic of monasteries has to be reassessed within the context of sample bias in excavation, and what might be expected at secular aristocratic settlements, which were usually a lesser concern of the clerics who provided the Anglo-Saxon written sources. In the past, expectations of the archaeological manifestation of a royal or aristocratic rural centre have often been driven by the results of Hope-Taylor's excavation of the settlement at Yeavering, Northumberland, thought to be the site of the main settlement within the Northumbrian royal *vill*, named as *Ad Gefrin* by Bede (Hope Taylor 1977). The relative poverty in the material wealth at Yeavering, and the initial paucity of evidence for craft-working seemed to contrast markedly with material recovered at documented monastic settlements. Thus, the criteria derived via expectations from textual sources and targeted excavation of monastic sites seemed to reinforce ideas of the, perhaps exclusive, association of the previously listed combination of characteristics with monasteries.

Yet, with the publication of the textile-, iron- and non-ferrous metalworking evidence, found on the opposite side of the road from Hope Taylor's excavations at Yeavinger (Tinniswood and Harding 1991), the differences between this royal centre and many sites identified as monasteries become much less marked. Furthermore, the area comprising Northumberland, Borders and Lothian, corresponding broadly to the northern, Northumbrian kingdom of Bernicia, is a zone which currently appears poor in terms of discarded portable wealth, between the fifth and eleventh centuries AD (Loveluck 2002, 139 and 147). This is a zone of eastern Britain which does not seem to have used coinage extensively as an exchange medium before the ninth century, and wealth may have been expressed far more in livestock, as suggested by the enclosures associated with the settlements at Yeavinger, Milfield and Sprouston. Only the excavations at the coastal fortified centre at Dunbar, East Lothian, have yielded more significant quantities of artefacts (Perry 2000), and the same may be true of Hope-Taylor's unpublished excavations from Bamburgh. Hence, with the discovery of the craft-working zone at Yeavinger, any apparent contrast in discarded portable wealth between this settlement and monastic settlements can be viewed as a reflection more of a regionally-specific trend, than material culture patterns related to settlement character. Within the regions of Britain where portable wealth was discarded more abundantly, such as the eastern coastal regions from the Humber southwards, artefact trends on elite settlements could have been rather different, depending on geographical circumstances, and the social make-up of settlements.

Until the 1980s and 1990s, and an expansion in the number of excavations and publications, it was not possible to make even a preliminary assessment of whether the artefact and structural profiles from monastic sites were exclusive to them, or a function of a wider range of geographical and social influences. The discovery of undocumented settlements, such as Staunch Meadow, Brandon, Suffolk (Carr *et al.* 1988, 376–377); and Flixborough did, to some extent, open the debate over the wider occurrence of evidence for literacy, long-distance exchange and specialist craft-working on seventh- to ninth-century sites, but it has proved very difficult for archaeologists to escape the influence of textually-led interpretations of their evidence. Indeed, some historians have taken an increasingly active role in the interpretation of archaeological data. Hence, John Blair has criticised archaeologists for having too narrow a concept of a 'monastery' or *minster*, in terms of how such a settlement might be reflected in archaeological remains, particularly in relation to artefact and structural evidence (Blair 1996a, 10). This criticism has also resulted in his reinterpretation of the archaeological evidence from St. Peter's, Northampton (Williams *et al.* 1985), and Cheddar, Somerset (Rahtz 1979), suggesting

that they represented monastic sites rather than secular aristocratic centres, although Cheddar was subsequently 'secularised' as a West Saxon royal centre (Blair 1996b).

From an archaeologist's perspective, however, an awareness of the broad range of characteristics that might be found on 'monastic' settlements, as defined by historians, does not necessarily increase the resolution of archaeological interpretation using those broader criteria. Indeed, they are so broad that nearly all settlements at the top level of the rural settlement hierarchy could be interpreted as *minsters*. The key problem for the differentiation between complex ecclesiastical and secular settlements, as they are manifested archaeologically, is that we cannot be sure of the exclusivity of certain traits in the built environments, burial practices, activities, and artefact profiles on materially wealthy settlements, whether monastic or secular. Such assessments of exclusivity in the excavated data can only come from detailed archaeologically-led analysis of the material culture and biological profiles from seventh to eleventh-century settlements, with appropriate consideration of the influence of regional diversity and deposit representativity.

The potential for dynamic transformation within settlement histories adds further complexity to problems of interpretation. The thematic analyses of the trends in structural character and the use of space, provisioning, craft-working, and trade and exchange at Flixborough have demonstrated dramatic changes through time. These changes could relate to a complex combination of factors: namely, transformations in settlement character; alterations in the territories linked to the settlement and estate management strategies; and changing relationships between the settlement and sites of exchange, accompanied by the emergence of new rural and urban elite identities (see sections 9.2 and 3 below). The timing of changes in lifestyles, identifiable within the occupation sequence, did not correlate with the threshold between the artificially defined chronological eras of the 'Mid Saxon' (mid seventh to mid ninth centuries), and 'Late Saxon' or Anglo-Scandinavian (mid ninth to mid eleventh centuries) periods. A series of transformations took place within the period between the late seventh and early to mid ninth centuries, as they also did between the mid ninth and late tenth centuries; and the ability to observe these changes was not influenced significantly by non-comparable refuse strategies in different phases. On the basis of provisional analysis of the material culture profiles from the settlement, a history of dynamically changing settlement character has been suggested previously for the Flixborough settlement sequence, and its likelihood is again discussed below (Loveluck 1998, 159–160; Loveluck 2001, 115–117).

Other researchers working within more historically driven and 'grand narrative' contexts have been loathe to accept the possibility of changing settlement character within the 'Mid Saxon' period, or 'long eighth century'



from the late seventh to mid ninth centuries (Blair 1996a, 9–10; Moreland 2000a, 95–96). The possibility of changing settlement character, especially involving monastic settlements, has been entertained only after the long-perceived threshold of the mid to late ninth century, i.e. the chronological division between the Mid and Late Saxon periods; for example, at Cheddar (Blair 1996b). This may be a consequence of the period between the mid seventh and ninth centuries having been viewed as a discrete chronological era, representing a perceived continuum in terms of social developments within Anglo-Saxon England. Furthermore, past correlation of documentary labels with archaeological remains, combined with the notion of relative stability and prosperity – particularly for monastic institutions – has led to a general reluctance to acknowledge the possibility of transformation in the character of individual settlements, within the period from AD 650 to 850 approximately.

Similarly, although for different reasons, transformations led from local and regional developments have rarely been considered within general models of the social evolution of early medieval Europe, often favoured in Britain. Local changes can be ignored as ‘exceptions’ to otherwise grand schemes of interpretation. Indeed, within such general models the vocabulary relating to the scale of what is considered ‘regional’ often relates to large geographical areas; for example, the countries bordering the North Sea as a whole, when considering generally perceived social and chronological trends (Wickham 2000, 345; Hodges 2000; Hamerow 2002). The reality of local and micro-regional trajectories of development, which diverged from perceived general models, is certainly recognised (Wickham 2000, 346; Verhulst 2002). Yet, the desire for synthetic interpretation at the general level, combined with current national traditions in archaeological interpretation and practice, and the financial expense of archaeological excavation and publication have perhaps promoted a lack of desire to discuss the effects of local and regional complexities in favour of perceived general trends. The consequences for the analysis of dynamic settlement sequences, such as that suggested at Flixborough are twofold, when placed within the context of such general models.

First, general frameworks have tended towards a superficial analysis of detailed archaeological problems which influence parameters of interpretation: for example, surface-areas of excavations; recording and sampling procedures; studies of deposit formation; and the nature and representativity of deposits for wider comparative analysis. Against the aims of presenting general theories of how societies functioned on the scale of Anglo-Saxon England; the Frankish Kingdoms or Europe as a whole (Hodges and Moreland 1988; Hodges and Whitehouse 1983; Theuvs 1999), attention to these site-specific phenomena has been ‘glossed over’ amidst the desire for wider levels of social analysis.

Secondly, the general explanations, borrowing from

Marxist and social anthropological analyses, have emphasized regulation of societies through control of exchange and production by elite groups. Within the context of Anglo-Saxon England, evidence of the possession of rare luxuries and control of specialist artisan activity has been used to identify such control, linked to settlements of high-status individuals, families or communities. They regulated, and were in turn controlled by, a series of horizontal and vertical social relationships between equals, more powerful superiors, and clients. The equation of wealth and place in the social hierarchy with access to imported luxuries and control of craft production and distribution, has led to the use of partial and somewhat ‘normative’ criteria for evaluating ‘high’ and ‘low’ social status within assessments of how societies functioned, and why they changed. Dynamics of lifestyles and patterns of production observable in categories of evidence, such as animal bones, and more rarely botanical remains, have rarely been integrated with analyses of artefacts, structural and mortuary remains. This is partly a consequence of the perceived limited value of small or badly preserved animal bone assemblages for wider interpretation. Yet, similar discrimination in terms of value for wider interpretation has rarely been applied to exotic luxuries or craft-working evidence. Furthermore, regional trends (if recognised at all) have been subordinated to perceived widespread trends, which may appear ‘general’ only because of the large, but potentially superficial scales of analysis.

Hence, by using such general ‘top-down’ approaches, and assumptions of homogeneity in use and value towards material culture, it has been possible to interpret the changes witnessed during the earlier part of the Flixborough occupation sequence as a reflection merely of intensification of production during the eighth and ninth centuries, on a settlement viewed as a monastery because of the presence of a mortuary chapel and styli (Moreland 2000a, 94–97). Issues of comparability of deposits for interpretation within individual settlement histories and between sites were not considered, nor were potential influences of regional trends on interpretation. The presence of a building with burials was used to suggest monastic character, despite the increasingly widespread occurrence of such buildings and graves on most seventh- to tenth-century settlements excavated on any scale in England, France, Belgium and the southern Netherlands (discussed in Chapter 3). Evidence of literacy was linked directly to a monastic identity (Moreland 2000a, 96). Potential use of styli by clerics at secular centres was not considered, nor was any potential change in settlement character entertained, within the period between the late seventh and ninth centuries.

The combined legacy of the application of textually-led interpretations of seventh- to eleventh-century settlement evidence and general synthetic theories of social evolution in England has been to minimise the expectation of dynamism within settlements and societies,

at the local and regional levels. That is to say ‘regions’ on the level of parts of modern-day countries, rather than ‘regions’ on the scale of areas such as the North Sea littoral countries, Scandinavia and the Baltic. The key aim of the discussion in the remainder of this chapter is to demonstrate the dynamism that could exist at the local and regional levels of society, using the data from the occupation sequence from Flixborough. The previous chapters in this volume have analysed different aspects of structural character, use of space, the nature of deposits, their representativity relating to the settlement as a whole, and their potential for wider interpretation. This was followed by assessments of trends in the organisation of daily life; namely, provisioning, exploitation of the surrounding landscape and possible linked landholdings; and patterns of craft-working and exchange through time. In so doing, the parameters of comparative analogy were defined, and trends were discussed in relation to regional patterns around the Humber estuary, and patterns evident on previously defined ‘types’ of settlement in ‘Anglo-Saxon’ areas of England and southern Scotland, dating from the period AD 600 to 1050.

Consequently, the stage in analysis has now been reached when it is possible to integrate all the different strands of evidence from Flixborough, to evaluate the overall lifestyles reflected on the settlement between AD 700 and 1000 approximately. Critically, by examining changes in lifestyles through this period, it is possible to examine the possibility of dynamic change within the context of one settlement and locality in the Early Middle Ages. Furthermore, conclusions can also be drawn on the changing importance and character of different aspects of life, whether relating to methods of social display, patterns of production, exchange networks and changing links between rural and emerging urban centres, and the expression of social identities by the inhabitants. Examination of all aspects of the lifestyles of the inhabitants then enables comparison against regional patterns, and perceived wider trends in Anglo-Saxon societies. It is within this more holistic context that the exclusivity of traits previously linked to certain types of settlement can be re-assessed, and phenomena of wider importance can be examined within their western European setting.

## ***9.2 Lifestyles and interpretation of settlement character, AD 700–1000***

The occupation sequence and deposits at Flixborough provide a framework or ‘laboratory’ within which to observe lifestyles on the settlement from AD 700 to 1000, with a reasonable degree of confidence (see Chapter 2). Before the early eighth century, discard strategies within the excavated area do not provide sufficient certainty to claim that the trends observable were shared by the settlement as a whole. Although, in terms of overall totals of finds and their range, the dress accessories, continental imports, animal bone assemblage and craft-working

evidence from pre-early eighth century Flixborough would still be considered those of a ‘high-status’ settlement on any other rural site of the period, according to the generally applied criteria of the day. This realisation highlights two recurrent trends which emerge clearly from the thematic analyses of previous chapters. Firstly, the vast quantities of material recovered from the deposits of the eighth, ninth and tenth centuries at Flixborough dwarf those retrieved from any other rural settlement sequence of the same period in England. Secondly, because of the equation of certain artefact types with ‘high social status’ (and not merely specific settlement character), interpretation of settlement remains from the mid seventh to mid ninth centuries, in particular, has seen a profusion of settlements that have been deemed of ‘high-status’. Hence, if settlements are not interpreted as ‘monastic’ from this era, they are often given the more neutral status-related label.

The profusion of the label ‘high-status’ has resulted from the ‘normative’ equation of high social status with access to specific imported luxuries and control of production, without assessment of regional patterns and the variations in notions of value that could have existed as a result. This lack of questioning with regard to perceived ‘badges’ of wealth and rank has then been imported into methodologies of assessing settlement ‘status’ and character, with the result that entire settlements and their inhabitants are often described under the term ‘high-status’. Indeed, as items suggested to reflect ‘high social status’ normally occur on most settlements, it becomes difficult to identify settlements which might be of ‘low social status’. Such oversimplicity is a consequence of the uncritical application of anthropological concepts, which have resulted in the attribution of universal, status-related values to specific items and activities, divorced from local and regional contexts. No doubt, this was not the initial intention of those scholars using such theoretical frameworks, but the legacy for interpretation of settlement character, social status and lifestyles in Mid Saxon England has been to homogenise internal settlement dynamics under single status-related labels, linked to quantity of wealth and perceived status indicators.

The examination of lifestyles within the occupational history of Flixborough has the paramount aim of evaluating changes in the character of life through time, set against the background of a community whose physical remains may reflect changes in the social make up of the settlement, and wider social changes in the locality and trans-Humber region. As such, evaluation of all aspects of the material culture profiles (structural, artefactual and biological) from different periods is specifically aimed at the comprehensive reconstruction of patterns in provisioning, consumption and production on the settlement. Activities of all elements of the settlement’s inhabitants, whether ‘high’- or ‘low’-born, are of course included in the interpretations. Lifestyles

evident on the settlement are best described according to the periods when common trends were apparent. For the period between AD 700 and 1000, this results in a fourfold chronological division:

- the eighth century (Period 3 of the occupation sequence, and indications from deposits of Period 2 suggest the same patterns, without the same degree of site-wide confidence)
- the early to middle decades of the ninth century, until at least the early 860s (Period 4)
- the later ninth to early tenth century (Period 5)
- the tenth century (Period 6).

By comparing the patterns of life on the settlement and how they changed, it is possible to evaluate whether the attribution of uniform labels, relating to social status and settlement character, is appropriate to the Flixborough occupation sequence.

### *9.2.1 The eighth century: feasting, hunting and conspicuous consumption*

When reviewing the way of life evident on the settlement during the eighth century (and probably from the later seventh century until the early ninth century), all the traits observable in the artefact and vertebrate assemblages point to a series of practices, representative of the support of an aristocratic lifestyle or *habitus*, within the social fabric of the settlement (Bourdieu 1994, 19–23). Both Periods 2 and 3 of the occupation sequence represented a general continuum in the use of space within the excavated area of the settlement; and during Period 3 refuse originating from both within and beyond the area of the excavations was discarded in middens outside buildings, and in larger refuse deposits in the shallow valley, in the centre of the site (Loveluck, this volume, Chapter 2; Loveluck and Atkinson, Volume 1, Chapters 3 and 4). Hence, this stable use of space, in terms of building plots and discard of rubbish, provides discrete spatial parameters for the reconstruction of how people lived.

Two activities, in particular, reflect an aristocratic presence, whether permanent or periodic: namely, evidence for feasting and hunting. Evidence for feasting and conspicuous consumption was partly provided by glass drinking vessels probably imported from the Rhineland, Belgium or northern France, and fragments of approximately fifty such vessels were found throughout the occupation sequence. They were smashed on the settlement, and worked into floor and then domestic refuse deposits, from the end of the seventh century. Their recovery from deposits within buildings occurred during the eighth century alone, particularly in the southern half of the site; in later centuries fragments were found only in external refuse deposits. This does not suggest use of these glass vessels only on important public occasions at a single, central location. They were, it seems, used by occupants of most of the excavated buildings, which can

be interpreted as houses. Their use, however, may have been confined to leading members of households associated with individual buildings; or instead, members of a single aristocratic kindred whose immediate family and dependants occupied individual buildings.

Alongside the glass vessels, as one element of the accoutrements of feasting, cattle also reached their peak during the eighth century, as a proportion of the domesticated animals consumed at that period. Cattle represented approximately 50 percent of the animals killed on the basis of ‘minimum number of individuals’ calculations at this time, a higher proportion than at any other period in the settlement’s history (Dobney, Jaques and Johnstone, this volume, Chapter 5; and Volume 3). The cattle were also the largest, in terms of stature (biometrically), from any site dating from the ‘Mid Saxon’ period in England. This suggests the possibility that they were imported via Flanders or the Rhine mouths area (Dobney, Chapter 7), like the majority of imported artefacts from the settlement. Nearly all the cattle were adults or ‘sub-adults’, and while many may have been used for traction, the arrival and killing of a significant proportion of the animals may represent provisioning as a ‘render’ from other holdings, within a wider composite estate. Overt consumption of beef within the context of public feasting, or private consumption within households led by an aristocratic element, would certainly provide a context for such provisioning. Indeed, very similar patterns of beef consumption and cattle provisioning have been suggested from cattle assemblages with high proportions of mature animals from the rural settlements at Portchester Castle, between the eighth and eleventh centuries (Grant 1976, 275); Wicken Bonhunt and Staunton Meadow, Brandon, from the eighth to tenth centuries (Crabtree 1994, 50; Crabtree 1996, 65–66); and from the Mid Saxon *wic* settlement of Hamwic-Southampton (Bourdillon 1994, 123–124).

The elite pastime of hunting, and potentially falconry (Dobney and Jaques 2002, 15–19), is manifested in a range of wild species, recovered in numbers (see Volume 3). Amongst wild bird species, cranes, wild geese, ducks and black grouse are particularly numerous, followed by other waders. These species have been found in significantly greater quantities than at other Anglo-Saxon settlements. This is a feature relating to the nature of refuse management, deposit survival and preservation conditions at Flixborough, and it is reflected in all finds assemblages from the site. The closest similarities to this profile of wild bird species have come from Staunton Meadow, Brandon and Wicken Bonhunt (Crabtree 1996, 62–63; Dobney and Jaques 2002, 10, Table II). Amongst wild mammal species, roe deer, pine marten and hare are represented, seen to reflect the prey species of the wetland fringe and underwood in the vicinity of the settlement (Loveluck, this volume, Chapter 4; Dobney, Barrett *et al.* this volume, Chapter 5). In addition to these animals, however, the settlement was in receipt of significant

quantities of bottle-nose dolphins, probably from a population in the Humber estuary. They may have been acquired by active hunting in the waters of the estuary, via hunting trips from the settlement; or alternatively they could have been rendered or exchanged for purposes of consumption on the settlement. Their number and the experience of bottle-nose dolphins in estuarine waters makes it unlikely that they represent beachings on the estuary, or on sand banks in the Trent delta – Trent Falls (Dobney, Jaques, Barrett *et al.*, this volume, Chapter 5); although, it is possible that some dolphins swam up the Trent, as is the case occasionally today (Buck 1997, 100.3).

An assortment of Anglo-Saxon textual and iconographic sources, dating from the eighth to eleventh centuries, demonstrates the importance of feasting and hunting as ‘arenas’ for the cementing of bonds between social equals, within and between kinship groups, and between lords and clients (Fletcher 2002, 27–28 and 189–192; Hayden 2001, 58–59). Hence, the feast hall is the ‘theatre’ for feasting and gift-giving to promote loyalty in war, in the epic poem *Beowulf* (Heaney 1999, 32–41); and the scene of hierarchical dining in a hall is a recurrent image of eleventh-century images within the English *Cotton Tiberius* collection (Fig. 9.2), and on the Bayeux tapestry. In this context, dolphins may have been a delicacy specifically related to feasts, and access to them was certainly sought by the social elite from, at latest, the ‘Late Saxon’ period (Gardiner 1997, 175); and after the Norman Conquest access to whales or *merswin* was controlled by royal authorisation (*ibid.*, 179–184). It is not in doubt too that porpoises or dolphins were paid as renders to estate centres, in the tenth and eleventh centuries (Hooke 1998, 51). At Flixborough, it is less clear whether they reflect consumption restricted to an elite household, bearing in mind the local nature of the resource. Nevertheless, exploitation patterns did change through time, suggesting elements of a possible ‘elite signature’ in dolphin consumption (Dobney, Jaques, Barrett *et al.*, Volume 3; Fig. 5.1 and see below).

Amongst the top social strata of the English aristocracy, specific prey species were also particularly sought after, in relation to hunting and falconry. Cranes seem to have been one such species in relation to falconry, amongst other wild bird species either netted or taken with hunting birds (Swanton 1975, 111; Loveluck 2001, 115). For example, in a letter written between AD 748 and 754, Ethelbert, king of Kent, wrote to St. Boniface in Germany asking specifically for a pair of falcons which would attack cranes (Emerton 1940, 179). A crane also appears to be a specific target amongst other wild, wetland birds, on the eleventh-century *Cotton Tiberius* calendar illumination for October (Fig. 5.3) – an image of an aristocratic pastime in a landscape uncannily representative of that around Anglo-Saxon Flixborough. They remained an especially favoured prey for falconry among the aristocracy, throughout the Middle Ages; as is

resoundingly demonstrated in a letter written by Edward I (Plantagenet), King of England from 1272–1307, to an official of his household praising a falcon that had taken cranes (Prestwich 2003, 35). Again, like dolphins and porpoises, cranes were also a favoured ‘feast food’ in the medieval period (Rackham 1986, 37).

Taking a wider perspective, the conspicuous consumption of cattle and pigs, often as young animals at optimum age for meat quality, was also a recurrent trend at documented secular aristocratic foci of the eighth and ninth centuries in Germany and France. Markedly higher proportions of wild animals species were also consumed at these secular residences, as ‘feast foods’, in contrast to ecclesiastical centres (Loveluck 2005). The continental written sources, like their counterparts from England, also emphasize the key roles of the ‘feast’ and ‘the hunt’ as mechanisms of social display for royal and aristocratic dynasties (Nelson 1992, 68–69). The patterns of consumption at the Carolingian palace at Paderborn, Westphalia, and the fortified aristocratic residence at Karlburg, northern Bavaria, provide good illustrations (Doll 1999, 445–448; Ettel 1998, 83; Vagedes 2001, 306–315; Fig. 9.3). Furthermore, French researchers have noted a particular tendency for the killing and consumption of wild animals, especially wild birds, in much higher proportions on sites deemed to be secular aristocratic residences or ‘seigneurial’, in contrast to monastic sites (Yvinec 1993, 492–496; Lepetz *et al.* 1995, 179). The similar pattern relating to wild bird species at eighth-century Flixborough has also been viewed as a secular aristocratic signature (Dobney and Jaques 2002, 13–14; Dobney, Jaques, Barrett *et al.*, this volume, Chapter 5); although in regard to domesticated livestock, the English taste seems to have been for older meat. Consequently, despite the relatively small proportion of animal bone assemblages provided by wild animals and birds, their significance in terms of secular aristocratic social practices was hugely disproportionate to their number.

The range of artisan activity on the settlement is relatively limited, compared with the remains from the ninth century on the site, suggesting that the level of specialist production was geared to cater for the needs of the inhabitants of the settlement alone. This involved wood-working, black-smithing, textile manufacture and limited non-ferrous metalworking. Indeed, the activities of artisans during this period at Flixborough were exactly comparable to sites such as Yeavinger (Tinniswood and Harding 1991), Riby Cross Roads (Steedman 1994), Wicken Bonhunt (Wade 1980) and Portchester Castle (Cunliffe *et al.* 1976) – see chapter 6. Such artisan activity supporting daily life did not only support an elite lifestyle for some of the inhabitants. The better-drained land was certainly cultivated immediately surrounding the settlement, on the sand or escarpment. This is certainly indicated in the presence of iron ploughshares, and a significant proportion of slaughtered, mature cattle had

probably been used for traction before death. Similarly, the majority of sheep, pigs and domesticated fowl were probably reared in the immediate landholding around the settlement. A proportion of the pigs, however, may have been brought from subordinate woodland landholdings from as far away as Axholme, if the later records of the extent of *Fulcric's* eleventh-century Domesday estates provide any hint of the ecological resources available to inhabitants of an eighth-century settlement, located in modern-day Flixborough parish (Loveluck, this volume, Chapter 4; FIG. 4.4).

Consequently, even though the resources of the settlement's territories, and the skills of artisans, were used disproportionately in the support of an elite lifestyle for one or a number of leading households, the settlement cannot be characterised as a 'consumer' site, alone. A complex range of activities by the whole social spectrum of the inhabitants has resulted in a composite material culture profile which can be described as one of 'conspicuous consumption,' in terms of how resources were used, and how they were thrown away. Indeed, the apparent profligacy with which fine and complex artefacts were discarded is a key feature of Periods 3 and 4 on the settlement.

Both archaeologists and historians, in Britain and mainland Europe, have often suggested that iron and non-ferrous metal artefacts were of such high value that they would have been recycled in most instances. Such an explanation seemed to explain why relatively few artefacts have normally been found on archaeological excavations, and this appeared to be reinforced by textual analyses of continental estate inventories, from the eighth and ninth centuries, which suggested that iron tools were rare even on royal estates (Duby 1962, 77; Chapelot and Fossier 1980, 24). Yet, this is not borne out at Flixborough, or on an emerging series of archaeological sites across western Europe, dating from the seventh to tenth centuries AD (see 9.3 below). The idea of the scarcity of iron tools in continental estate inventories has also recently been subject to amendment by Adriaan Verhulst (2002, 78–79). Profligate discard, however, on the scale found at eighth-century Flixborough does seem to reflect control over raw materials, and the skills to work them, to the extent that the inhabitants could afford to throw complex artefacts away in refuse deposits.

Having considered the overall archaeological signature of life on the eighth-century settlement, it remains to put forward an interpretation of its nature. The totality of the archaeological remains reflects the support of a lifestyle which can be described only as 'aristocratic'; and this is best placed within the context of a secular rural estate centre. It was built around ostentatious display and leisure pursuits, enabled by the conspicuous consumption of the resources of the surrounding landscape and region, and the centrifugal pull of imported luxuries to the settlement. There is nothing to suggest the necessity for a monastic element on the site. This is not to say, however, that a

building or focus serving an ecclesiastical function did not exist, during the first half of the eighth century. Building 1a, built on a gravel and dry-stone footing, was certainly used as a burial focus for part of its existence; and it possibly reflects a role as a mortuary chapel for a leading family on the settlement (Loveluck, this volume, Chapter 3). Differentiation in burial zones is certainly evident with two known locations, one in building 1a, and the other in a larger grave group to the south, excavated by Kevin Leahy (Geake and Mays, Volume 1, Chapter 8), and it is possible that a range of burial locations was available depending on social rank within the settlement and region.

The presence of a building associated with burials has been one of the criteria used by some researchers to suggest that Flixborough was a monastic centre. Yet, increasingly if the scale of excavation is sufficiently large, buildings associated with burials, probably equating to mortuary chapels, oratories or churches, are found on most settlements: Yeavinger (Hope Taylor 1977); Thwing (Manby forthcoming); Bramford (Reynolds 1999, 144) and Staunch Meadow, Brandon (Carr *et al.* 1988, 374) to name a few, not including documented monastic centres. This pattern is also becoming apparent on most extensively excavated settlements in immediately neighbouring continental countries; particularly France and Belgium (Zadora Rio 1995, 146; Loveluck 2005). Indeed, multiple burial foci and religious buildings within single settlement agglomerations are becoming evident on settlements which had both aristocratic and communal foci, as at Serris, Seine-et-Marne (Foucray and Gentili 1995, 139–143; Foucray and Gentili 1998, 199–200; FIG. 9.5). In such circumstances, it has become impossible to distinguish secular rural settlements and smaller monasteries, occupying a leading place in their local settlement hierarchies, on the basis of buildings associated with burials (Zadora-Rio 1995, 148). Bearing in mind the documented influence of northern France on Anglo-Saxon Christian practices in the seventh and eighth centuries, it is not unlikely that mortuary chapels or even multiple burial and religious foci, existed on certain secular rural estate centres. Indeed, the two buildings identified as a church and mortuary structure, associated with grave groups at Staunch Meadow, Brandon, could be interpreted in just such a way (Carr *et al.* 1988, 373–374).

The previously suggested association of the mortuary chapel with monastic identity, at eighth-century Flixborough (Blair 1996a, 9–10; Moreland 2000a, 96), can therefore be viewed within the context of British textually-led approaches to the settlement archaeology of the seventh to ninth centuries AD. It is also worthy of note that evidence of literacy, in the form styli or inscribed artefacts, was entirely absent from eighth-century deposits. The first styli were found in deposits from the very end of Period 3, dating from the early ninth century, from the uppermost level of spreads which formed the

‘activity surface’ for life within the excavated area, during Period 4. Indeed, the vast majority of styli were found in ninth- and tenth-century contexts. This places the onset of their discard, and probably their use, at a point approximately a hundred years later than the construction and use of building 1a as a burial focus.

### 9.2.2 *The early to mid ninth century: a settlement housing specialist artisans and a partly literate community*

Patterns of life on the settlement from the early to middle decades of the ninth century (probably until at least the early 860s) represent a major change in a range of aspects of the material culture profile from the settlement. These are manifested particularly in the range and quantities of tools and debris from specialist craft-working; spectacular changes in animal husbandry and exploitation patterns; and the presence of styli and inscribed artefacts, reflecting a literate element within the population of the settlement.

The differences in the lifestyles reflected in comparison with the eighth century are certainly not a reflection of different refuse strategies in the excavated area; although there was a slight change in layout of buildings. The long-lived building plots of the eighth century were maintained, albeit with slightly smaller replacements, and a third line of smaller buildings was added in the central part of the site, on the area of the central refuse dumps from the end of Phase 3b. This use of space was maintained until the buildings in the central shallow valley had been demolished, at which point huge refuse dumps were created in the centre of the site, and the western ditch was completely filled-in over a short period of time, marking the end of Period 4 (Loveluck, this volume, Chapter 2). It is possible that these depositional events marked a clearance and levelling of settlement features in the excavated area. Site clearance is suggested, rather than organised discard of craft-working and domestic waste, by the throwing away of the largest quantities of highly decorated dress accessories – brooches, strap-ends, hooked tags and pins, in the occupation sequence. When datable on stylistic grounds, these artefacts tended to be attributable to the period between the late eighth and mid ninth centuries. The latest coins sealed within these deposits had also been struck between the late 850s and early 860s.

The quantity of craft-working debris, and the range of specialist production, increased across all those activities witnessed on the settlement, during the ninth century. This was particularly the case in relation to the manufacture of textiles, and Penelope Walton Rogers has demonstrated that a finer quality textile was being produced on the settlement during Period 4, indicated by a new textile manufacturing kit (Walton Rogers, this volume, Chapter 6). The quantities of spinning and weaving tools dwarf those from any other period at Flixborough, and the quantities are such that fine quality clothes could have been provided for the inhabitants of

the settlement, in addition to the exchange or ‘sale’ of a surplus (Walton Rogers, Chapter 6). Alongside the textile production, undertaken by women, non-ferrous metal-working increased on the settlement, in terms of the range and quantities of metal worked. This is represented by crucible and mould fragments, fine tools, such as the ‘locking tongs’ (FIG. 6.5\*) and files, and scrap metal off-cuts. Particularly notable is the arrival of lead as a raw material, during this period. It is manifested mainly in the form of lead sheet, melt, and sometimes, in ingots. It formed the most abundant non-ferrous metal worked on the settlement during the ninth century, and probably reflects receipt of the raw material from the Peak District, via the River Trent. Other activities represented include iron-smithing, wood-working, and leather-working.

In contrast to the eighth-century evidence for exchange networks reaching to the Continent, the ninth-century deposits reflect integration primarily within exchange networks linked by the East Midlands, Humber and east coast waterways. Hence, lead arrived from the Peak District via the Trent; Northumbrian coinage arrived from the north bank of the Humber; Mercian and West Saxon silver coinage, probably struck in London or Rochester, arrived either via the routes along the North Sea coast or via the Midlands, through Mercia; and the largest assemblage of Ipswich ware pottery found in northern England, to date, arrived from the *wic*-settlement in East Anglia (Blinkhorn, Volume 2, Chapter 12). Contemporary continental imports are difficult to demonstrate compared with the eighth century, with regard to glass vessels and coinage. Indeed, the items imported from beyond the immediate Humber region were predominantly raw materials, pottery and base coinage, during the first half of the ninth century. Prior to this period, the majority of the pottery on the settlement had been the products of East Midland traditions, and imported pottery from the continent had been minimal (Young, Volume 2, Chapter 12; Vince, Volume 2, Chapter 12). In comparison, the quantity of pottery imported during the first half of the ninth century increased significantly, although it was predominantly from Ipswich and possibly, Lincoln.

The trends amongst the evidence for craft-working and exchange contacts suggest that indications of an increased range and scale of artisan activity were inextricably linked with a probable increase in the frequency and range in regional and inter-regional contacts. Certain commodities may have been procured directly from places of origin, while others could have been exchanged or purchased at the trading settlement at York. A need to go to York to obtain items, or to exchange or sell surpluses, would certainly account for the presence of base Northumbrian *stycas* in the otherwise intrinsic-value, silver coin-using zone, south of the Humber. The few continental imports, which can be shown to have arrived in the ninth century, were probably procured via the same sources as the preceding century, i.e. via York

or beach-trading sites. The array of regional and long-distance contacts, however, need not have been very different from the eighth century. Only the nature of the imported items changed.

The changes witnessed in artisan practices and the nature of imported artefacts and materials are made more manifest by major changes evident in animal husbandry regimes, and exploitation patterns of wild animals (see Chapter 5). The predominance of cattle as a proportion of the domesticated livestock, seen in the eighth century, was reversed, with predominantly mature sheep replacing them as the chief domesticate found on the settlement. A change to a breed of cattle of smaller stature is also suggested, as is a small increase in very young calves (Dobney, Jaques and Johnstone, this volume, Chapter 5; Volume 3). The mature age profile among the sheep, together with the evidence of fine quality textile manufacture, and probably an increased scale of production, invites the observation that there may be a direct correlation with the new predominance of mature sheep and wool production. In addition to the reversal in the proportions of sheep against cattle, there was also a considerable decrease in the occurrence of wild species, particularly bird species, with the exception of ducks (Dobney, Jaques, Barrett *et al.*, this volume, Chapter 5; volume 3). That is to say preferred, documented and illustrated prey species of the Anglo-Saxon secular aristocracy were significantly scarce.

The period between the early and mid ninth century was also the era when a literate element was undoubtedly present in the population of the settlement. That element was represented by styli and by inscribed artefacts which suggest a date of production between the end of the eighth and early ninth centuries, on the basis of close palaeographic similarities with charters of Offa of Mercia (Okasha and Brown, Volume 2, Chapter 3). Even so, the majority of the styli and both the inscribed artefacts were found in re-deposited contexts from the late ninth and tenth centuries, or they were unstratified finds. Like building 1a, with its associated burials, the evidence for literacy has been used previously to make a case for the settlement being a monastery. Indeed, it cannot be doubted that inscriptions in Roman and sometimes, runic script, are concentrated at documented monasteries (Peers and Radford 1943, 40–47; Cramp 1984, 124–203; Page 1995, 307–9 and 317–25). The equation of the literacy associated with styli and monastic sites was also promoted by the preferential targeting of documented monasteries for excavation, reinforcing an impression that such literacy might be exclusive to such settlements. Yet, the literacy associated with styli related either to tuition or estate management rather than book production, which was a preserve of major monasteries (McKitterick 1989, 139–141).

The extent to which small numbers of literate clerics were resident at major secular and ecclesiastical *vill* centres during either the eighth or ninth centuries is

unknown. Although prohibition of laymen ministering in their own churches suggests that priests were present at such settlements, at least intermittently (Morris 1989, 75). The extent to which a proportion of secular aristocrats were literate is also unknown, although some are known to have been educated in monasteries, such as Aldfrith, King of Northumbria between AD 685 and 705 (Farmer 1983, 201). Above all, however, the presence and use of styli within the context of estate management is probably most likely at ninth-century Flixborough, whether those using them were clerics or laymen (see Pestell, Volume 2, Chapter 3). Furthermore, the inscribed lead plaque, with the names of seven individuals, both male and female, probably inscribed between the late eighth and early decades of the ninth centuries, could represent the presence of a reliquary from an ecclesiastical building at a secular estate centre as much as a monastery. In summary, therefore, the evidence for literacy in the form of styli, a small inscription and an unstratified ‘alphabet’ ring, is not an unambiguous indication of monastic settlement character on its own.

In conclusion, the lifestyles of the inhabitants between the early and middle decades of the ninth century undoubtedly show a great contrast with the pattern of life during the eighth century. In the latter period, activities of the inhabitants were geared to the support of an aristocratic component within the population, characterised by ostentatious display in consumption of resources and ‘leisure’ pursuits. During Period 4, however, the focus of activities changed to provisioning for the support of an increased level and scale of artisan activity, and the potential distribution of some of its products within the immediate region linked by the Humber and East Midlands river systems, at the very least. Large-scale consumption of cattle, some of which may previously have arrived as food rents had ended, and evidence for exotic components of ‘feast kits’, such as glass vessels was far less abundant, in terms of indications of contemporary use. Exploitation of wild resources had also decreased substantially, especially in relation to wild birds, suggesting that hunting and falconry were no longer important for provisioning or leisure. Yet, the resources of the wetlands and the opportunities to harvest them, whether in the wetlands themselves or on their better-drained fringes, were certainly present in the immediate surroundings of the ninth-century settlement. In short, the trappings of what can be described as a ‘secular’ elite lifestyle, in terms of ostentatious display by conspicuous consumption and leisure, were no longer present.

The nearest analogy to the levels of exploitation of wild animal species at ninth-century Flixborough comes from the continent, from Karlburg, in Bavaria. There, a poly-focal settlement was established by the eighth century, with a fortified aristocratic residence – the ‘Karlburg’; an adjacent farming and craft-working settlement – the ‘Villa Karlburg; and beyond the ‘villa’,

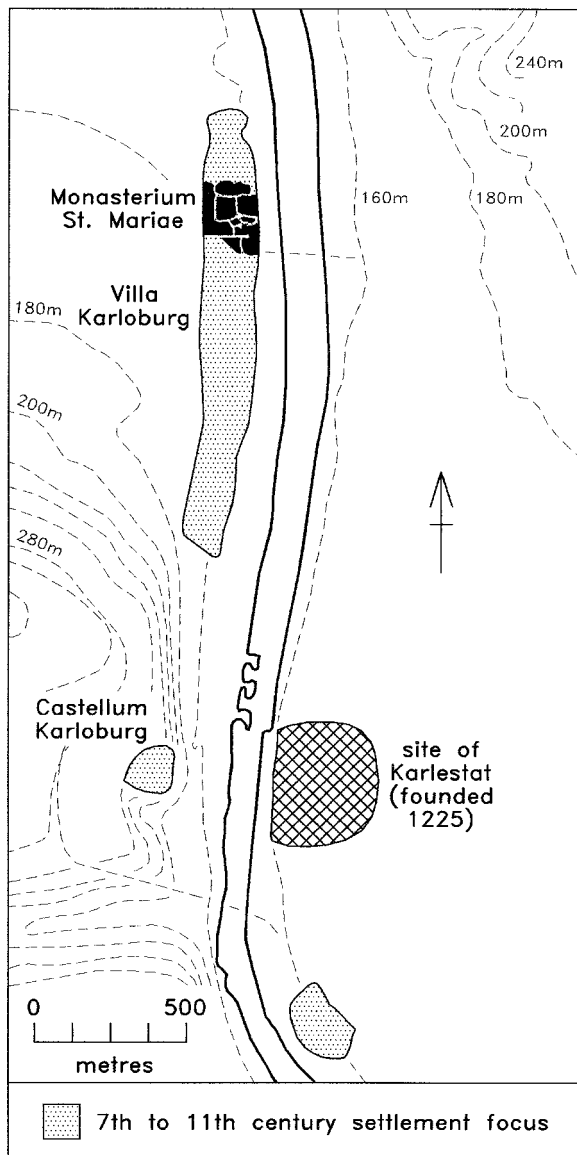


FIG. 9.3. Schematic plan of the poly-focal settlement of Karlburg, near Würzburg, northern Bavaria, after Ettel 2001 (P. Copeland).

a monastery dedicated to St. Mary (Ettel 1998, 75–78; Ettel 2001, 32–41; FIG. 9.3). Within deposits from the monastery and the farming settlement only 0.9 percent of the animals killed were wild; whereas 10.7 percent of the animals consumed in the fortified residence were from wild species (Ettel 1998, 83; Vagedes 2001, 314). Such a disparity viewed in terms of horizontal stratigraphy at Karlburg is seen vertically at Flixborough, between the eighth and ninth centuries (and again even more clearly in the tenth century, with the return of the wild species). Indeed, Dobney and Jaques have suggested that this considerable decrease in the exploitation of wild birds could be a component of a ‘monastic’ material culture

signature (Dobney and Jaques 2002, 13).

A combination of traits amongst the artefact and bone assemblages could, therefore, be used to suggest an ecclesiastical or ‘monastic’ identity for the Flixborough settlement, during Period 4 of the occupation sequence. The extent of ecclesiastical influence, however, is extremely difficult to ascertain. A more intensive level of specialist production and commodity distribution, as a result of the increased use of certain products of the settlement’s landholdings, is certainly demonstrated. This was associated with the presence of styli, possibly representative of greater attention to estate management. Such indications of increasingly intensive production and resource exploitation have been viewed as indicative of ecclesiastical influence (Moreland 2000a, 96). Furthermore, the faunal assemblage can also be viewed within an ecclesiastical context. Yet, the type of settlement suggested in the archaeological remains could represent an estate centre, linked to a monastic institution. It need not have become a monastery itself. What can be stated most clearly is that the trappings of a secular aristocratic lifestyle had largely disappeared; hence, resources such as cattle, wild ‘feast’ species, and luxury dining vessels were used far less extensively. Given the ambiguity of the evidence of styli as an indicator of ‘monastic’ or ‘ecclesiastical’ settlement character, it could be argued that the ninth-century settlement remained a secular centre, geared to the support of an elite who were more rarely resident. Thus, the dramatic decrease in the consumption of beef and wild species could be a reflection of increased absence of a secular elite household, rather than transformation to a religious settlement.

Nevertheless, the lifestyle witnessed at ninth-century Flixborough is certainly far more similar to that seen amongst the remains from documented monasteries in England and on the continent, rather than secular aristocratic or royal rural residences. It is perhaps more sensible, however, to view any transformation from a secular to ecclesiastical site within the context of change from a secular to ecclesiastical estate centre, where production and estate management for the benefit of a parent institution were the main functions of the settlement, possibly administered by a small number of clerics. It has to be admitted, however, that the difference in physical reality between an ecclesiastical estate centre with a small group of clerics, and a small monastery, may have been minimal and all but indistinguishable in their archaeological representations.

A context for production linked to a monastic centre may be provided by the hypothesis put forward by David Roffe (Chapter 8), where he suggested that North Conesby may have been part of a series of estates, on a regional scale, linked to a possible monastery at West Halton. There is no surviving evidence for any linkage before the eleventh century, and a relationship was proposed by extrapolation backward from the Domesday survey. Yet, a link to West Halton is possible in the ninth century, as



it is too for the eighth century. Possibility of a relationship between the eighth-century settlement and West Halton should not be seen as totally contradictory to the secular aristocratic lifestyle found on it. Within major monastic estate networks hierarchies of lordship existed, involving secular aristocrats of high rank living on estate centres owned by monasteries, in return for a render to the senior landholder. This was the case with regard to the relationship between the *Ealdorman* Humberht of Wirksworth, and the Mercian royal abbey of Repton (Hart 1975, 102). Indeed, it is equally possible that the secular aristocratic families gave estates – or parts of them – to local monasteries, creating the later illusion of extensive monastic estates, as they are extrapolated back from Domesday.

### *9.2.3 The mid to late ninth to early tenth century: diminished production on a 'low-status' settlement?*

After the site clearance at the end of Period 4, probably sometime after the early 860s (see Loveluck, this volume, Chapter 2), an almost total break in the use of space occurred, in relation to the previous building plots of the eighth and ninth centuries. The small, post-hole buildings constructed in the south of the excavated area were sited on totally new plots, with the exception of building 29 (Phase 5a). A large open midden accumulated in the area of the shallow valley, traversed by gravel paths (Fig. 2.16), and two separate zones of fired-clay ovens and haylofts occupied the north-east and north-west of the site, respectively. Subsequently, small buildings replaced some of their predecessors from Phase 5a, on the same plots; whilst buildings were also raised over the central midden and paths. Open refuse areas were then created to the north and south of these buildings, associated with the first deposition of Torksey and Lincoln Kiln-type, wheel-thrown pottery; this probably reflects their construction sometime in the late ninth or early tenth centuries (Phase 5b). Overall, this period in the settlement's history was characterised by neither conspicuous consumption of wealth, nor intensive artisan activity, nor inter-regional exchange contacts.

In terms of the exploitation of animal resources, no differences could be found with patterns from Period 4, earlier in the ninth century (Dobney, Barrett, Jaques and Johnstone, this volume, Chapter 5). Although, perhaps significantly, fewer animal bones were discarded in the extensive refuse dumps of Phase 5b, and this may skew the analysis. Potentially, however, by the later ninth century the inhabitants of the settlement were not able to manage domesticated animal resources on the level of earlier decades of the century, and the eighth-century lifestyle of conspicuous consumption of larger cattle and wild 'feast' species was completely unattainable. Patterns of craft-working showed considerable change in this period. The central refuse dumps of Phase 5a yielded

quantities of the fine-textile manufacturing tools, as used in Period 4, but it is difficult to be certain of their use in Period 5. If they were used, the scale of production was much diminished. Some iron smithing was evident, but again it is impossible to demonstrate continuity of other metalworking. From Phase 5b, however, it is possible to demonstrate a distinct change in the pattern of craft-working. Artisan activity had diminished to a level to cater for the needs of the inhabitants alone. This was especially evident in the appearance of a new much heavier loom-weight, designed to produce a much coarser textile (Walton Rogers, this volume, Chapter 6).

At the same time, the extensive inter-regional, waterborne links observable during the earlier ninth century appear to have reduced to very limited trade within the region of Lincolnshire and the lower Trent valley. The Torksey ware vessels arrived only in relatively small numbers from further down the Trent, and Lincoln pottery wares also arrived in small numbers, having been back-packed overland (Young, Volume 2, Chapter 12). Coinage no longer arrived after the 870s, hence inter-regional contacts are less visible archaeologically; and no continental imports can be shown to have arrived in the later ninth or early tenth centuries. Some transactions, however, may have been facilitated by the new 'Anglo-Scandinavian' medium of weight-related bullion exchange, using hack silver or silver ingots. Limited access to Lincoln products suggests the emergence of a relationship between the rural settlement and the developing late ninth- to early tenth-century town, or at least contact with people who had been or come from Lincoln. Although, it would be totally inappropriate to suggest that the town impinged significantly on rural life at the settlement, between the later ninth and early tenth centuries.

This era in the history of the settlement at Flixborough is particularly important, if rather unspectacular in the lifestyle of the inhabitants. It was a phase of relative poverty, and given the tendency to ascribe a single status-related label to seventh- to eleventh-century settlements, it provides an interlude when the settlement was producing for subsistence needs amidst an occupation sequence characterised varying by ostentatious aristocratic display and intensive production. The socio-political circumstances within the trans-Humber region, during the later ninth century, may provide the immediate context for the changes witnessed on the settlement at this time. With the sharing out of at least parts of southern Northumbria and the East Midlands among a Scandinavian military elite, large and long-established estate territories were broken up into multiple elements. Consequently, the internal links of large estates were disrupted, lessening the ability to support rural centres geared to intensive production, via provisioning from far-flung landholdings that had rendered particular raw materials or items. Faced with the disruption of estate networks, and thereby an inability to support numbers of

artisans beyond the productive capacity of the new estate units, settlements within those new territories would have needed to adjust to the changed circumstances, involving the use of the resources in their immediate surroundings for the subsistence needs of the inhabitants. Such circumstances are probably reflected at Flixborough, during Period 5.

Break-up of large estates, or at least division of control over them from one institution to groups of individuals, also provides the setting for the discussion of the origin of the two nearby estate centres of Flixborough and North Conesby. The excavated settlement is located within the modern parish of Flixborough, and this name was associated with the site during its excavation and the early years of analysis. Yet, the settlement subjected to partial excavation was not situated within or on the fringes of medieval and modern Flixborough. It was located at the western end of the medieval settlement of North Conesby, and with the benefit of hindsight the excavated remains should probably be equated with the early medieval phases of North Conesby. The two settlements were both centres linked to territories in the reign of Edward the Confessor, as described in the Domesday survey (see Chapters 4 and 8, this volume), but they are only several hundred metres apart. It is unknown whether the two settlements and their territories were once part of a single, larger estate unit. The place-names Flixborough and Conesby are either wholly Scandinavian or have a Scandinavian element. Flixborough having the Old Norse personal name *Flik* and the Old English *-burh*, meaning fortification, and Kenneth Cameron believed that the Norse element probably replaced an Old English word or personal name (Cameron, this volume, Chapter 4; Cameron 1998). Conesby was formed from two Old Danish elements: *kunungr*, meaning 'king' and *-by*, meaning village or settlement, hence 'king's settlement' (Cameron, *ibid*). These names were probably associated with the two settlements from sometime between the mid to late ninth and tenth centuries.

Without excavation within the village of Flixborough, it is impossible to know whether the place-names were allocated to two existing, and nearly juxtaposed settlements, or whether they belonged to one existing settlement and one new foundation, having divided up a territorial unit. The place-names both indicate settlements of importance in the surrounding landscape and region, one a defended site and the other the holding of an unspecified 'king'. It is also possible that both settlement foci had been founded before Period 5, perhaps even at the end of the eighth century. The division of an existing estate and donation of part of it to a monastery, like West Halton, would provide a scenario for the existence of two rural centres in such close proximity, for much of the ninth century: one settlement housing and administering an intensively managed ecclesiastical estate; and the other housing the original secular aristocratic family living off

their remaining landholdings.

If the excavated site of 'Flixborough' at North Conesby was associated with the name 'king's settlement' during the late ninth century, it certainly did not have a material culture profile to match any aristocratic or royal presence. Indeed, the indications are that life comprised production at the level of providing for the immediate needs of a farming community. If the landholding and settlement had been granted to a member of a Scandinavian military aristocracy, or a Scandinavian- or later, a West Saxon-king, it is certainly not reflected in the lifestyle observable in the large refuse deposits from this period. Absenteeism and distance from any social elite are suggested, perhaps as a consequence of an association between the Scandinavian elite, urban residence and identity, ensuring presence at rural centres only intermittently. Yet, the complete replacement of even the vast majority of minor names in the Flixborough area – topographic features and field names (Cameron, this volume, Chapter 4) – may counter the argument of a lack of Scandinavian presence on a regular basis, in what was becoming the 'countryside'. Even allowing for acculturation and mass adoption of Scandinavian language elements by the Anglo-Saxon population, such a total replacement mitigates against the likelihood of rare visits by exclusively urban-based, Scandinavian elites, in the later ninth and early tenth centuries. The absence of the trappings of conspicuous consumption, and the ability to support it, were perhaps the result more of disruption of long-lived estate networks than anything else.

#### 9.2.4 The tenth century: the return of conspicuous consumption and a rural elite identity at a manorial centre

Sometime during the first half of the tenth century, the building plots associated with Period 5 were abandoned, representing a break in the use of space as radical as that seen at the end of Period 4. The small buildings of the later ninth and early tenth centuries were demolished in favour of the largest buildings seen within the excavated occupation sequence. Refuse deposits also accumulated outside the buildings, for example between buildings 7 and 34 (Fig. 2.18). During the middle of the century, however, much of the excavated area became a refuse zone, immediately to the west of the latest buildings on the site – buildings 32 and 33, constructed on a north south alignment. The quantities of refuse were huge, and animal bones made up by far the greatest component of the material discarded. The eastern extremities of the latest buildings were beyond the excavated area, and the overall impression of the sequence from this era (Period 6) is of a gradual eastward movement towards the site of what became All Saints' church, and the deserted medieval settlement site of North Conesby. It has already been suggested that this movement may have been influenced by the construction of a proprietorial church in stone, on the more stable foundations of the ironstone

escarpment, rather than the windblown sand. There would appear to be little doubt that by the tenth century, the remains of the excavated settlement should be associated with the settlement that was described as the manorial centre of North Conesby in the Domesday survey. By the late tenth century, the whole of the excavated area was a refuse zone on the periphery of the settlement.

From the early to middle decades of the tenth century, the lifestyle supported was again one of ostentatious display and conspicuous consumption. Yet, there were some distinct differences with the period from the later seventh to early ninth centuries, relating to the trappings and material culture kits used for display. Feasting and hunting were again the key social activities in life on the settlement, but the use of portable, intrinsically valuable glass vessels, metalwork and other imported luxuries were not a feature of eating and drinking, as they had been in the eighth century. The alternative form of display to these luxury components of mobile material culture was provided by the built environment of the settlement; specifically, the large size of the buildings. In comparison with the leading household or households of the eighth century, the leaders of the tenth-century settlement put their emphasis on the size of the 'theatres' of consumption, rather than the 'props'. Hence, the means of social display of the tenth century were provided by local resources of the associated estate, in terms of conspicuous use of timber and both domesticated and wild animals.

Amongst the domesticated livestock the ratio of cattle consumed set against sheep and pigs again rose, although not to the level of the eighth century and the stature of the cattle exhibited continuity with the smaller cattle seemingly introduced in the ninth century (Dobney and Barrett, this volume, Chapter 7, Fig. 7.11). The proportion of sheep amongst the domesticated livestock also fell. Wild species were more abundant in the consumption pattern from Period 6 than at any other time in the occupation sequence, seen particularly in the consumption of wild bird species from the wetlands and their drier margins, and also in a level of dolphin consumption akin to the eighth century (Dobney and Jaques 2002, 13–14, especially fig. 2; and see Chapter 5, this volume, Fig. 5.1). Fish exploitation was relatively consistent throughout the occupation sequence relating mainly to freshwater, and a few marine species also found in estuarine waters (Barrett, this volume, Chapter 5). Again the pattern in the exploitation of wild species, particularly birds, reflects patterns at contemporary secular aristocratic or 'seigneurial' sites in western Europe, north of the Alps and Pyrenees (Yvinec 1993, 496–501; Vagedes 2001, 314). Species known to have been especially sought by aristocrats for hunting / falconry and feasting were again prevalent, for example, cranes and dolphins. In short, with the exception of the slightly lower level of beef consumption (again predominantly from mature animals), the lifestyle reflected was that of the eighth-

century: aristocratic dining and leisure for a proportion of the inhabitants, with all the population working towards the support of that lifestyle as well as their subsistence needs.

Evidence for artisan activity was limited in diversity, with iron smelting evident for the first time, as well as smithing, together with continued production of the coarser, probably woollen textiles first seen in the later ninth century. It is extremely difficult to demonstrate contemporary non-ferrous metalworking during Period 6. The level of production was very limited in comparison with the early to middle decades of the ninth century, and represents catering for everyday needs of the households on the settlement. Although, the wood-working tools found within the hoard in the two lead tanks (Figs 6.6 and 6.7), and clench bolts from the later ninth and tenth centuries also suggest a specialised form of wood-working not seen before; potentially, boat-building (Darrah, this volume, Chapter 3). The location for such activity is most likely to have been adjacent to riverside moorings or jetties on the River Trent, and both Flixborough and North Conesby almost certainly possessed these landing-places or *stathers* (see Cameron and Loveluck, this volume, Chapter 4). A riverside jetty, wood-working/boat building and maintenance area, and possibly fish traps, can be envisaged below the settlement on the Trent, linked to the settlement by a raised trackway (Gaunt, this volume, Chapter 4), similar to the example with associated tools excavated at Skerne, on the River Hull, near Driffield, East Yorkshire, on the north bank of the Humber (Dent *et al.* 2000, 214–242). Overall, the affinities of the artisan signature from the tenth century are undoubtedly akin to those found on other published settlements interpreted as secular estate centres or 'manors' of the tenth to eleventh centuries (see Chapter 6).

Accompanying the lifestyle of ostentatious consumption and its immediate support, evidence for the extent of integration within trade and exchange networks is difficult to gauge. It would appear, however, from the sparse number of identifiable imported products, compared to the periods from the late seventh to mid ninth centuries, that imported items played a very limited role, whether in everyday life or on special occasions. The elite lifestyle supported on the tenth-century settlement, and the means of social display were truly 'rural', in the sense that intensive production of commodities and their exchange were focused on the towns, during the tenth and eleventh centuries. Imported luxuries do not appear to have reached the 'countryside' in northern Lincolnshire, in the way that they had in the seventh, eighth and earlier ninth centuries. Instead, imported commodities and luxuries seem to have stayed in the urban centres of the trans-Humber region, namely York and Lincoln. The reason for exotic imports staying in these towns, during the tenth century, may have been the concentrated presence of Scandinavian; Hiberno-

Norse; and more intermittently, West Saxon elites in the urban centres, particularly at York. Their wealth and power-base were probably more geared to portable wealth, particularly for the war bands of the Dublin Viking and Norse kings of York; hence, exotic portable luxuries could have played a far greater role in definition of status and identity, within the urban and increasingly mercantile centres (see Chapter 7).

A greater role for imported luxuries, within the construction and conduct of urban elite identities could have inhibited the flow of such luxuries to rural centres. Thus, expression of wealth and social position by rural lords was propelled along a different trajectory; namely, ostentatious display in consumption of the resources of their estates. Nevertheless, a direct relationship between rural and urban centres was undoubtedly maintained. Small quantities of wheel-thrown pottery – Torksey and Lincoln types – arrived at ‘Flixborough’, via the Trent and overland routes. Acquisition of the products of specialist artisans or their skills, no longer available from craftsmen resident on the settlement, would probably have been achieved by travelling to a town. Although, the proportion of the population who conducted any journeys may have been minimal, possibly limited to the leading family of the settlement and their immediate following.

Transactions appear to have been conducted via weight-based exchange of silver bullion for much of the tenth century. No newly minted coinage arrived at the excavated site between the 870s and the 970s, and lead weights related to bullion transactions were only found in tenth-century deposits. Direct and intermittent contacts were possibly maintained with both Lincoln and York. The presence of the black rat at this period suggests the possibility of direct contact with York (Dobney, this volume, Chapter 7), via the Humber waterways; or instead, direct contact with shipping from York, via the boats and moorings belonging to the settlement. Black rats have been found at York to date, only in a tenth-century context, and they may have been re-introduced via Scandinavian maritime networks (O’Connor 1991, 257–258; Dobney and Harwood 1999, 377–378). The role of intermediate sites of exchange, i.e. fairs or markets, is difficult to know, although markets were certainly located at major estate centres, such as the previously mentioned market of *Ulf Fenisc* at mid eleventh-century Barton-upon-Humber (Foster and Longley 1924, 106). Such markets would certainly provide a mechanism for the dispersion of commodities made in towns, without the necessity for travel to an urban centre.

In conclusion, therefore, the lifestyle exhibited at the tenth-century settlement, which was probably the manor of North Conesby, reflects considerable complexities and changes in society during the tenth century, with the development of rural and urban elite identities and the trappings associated with them. It may be an illusion,

however, to believe that lives on rural centres some distance from towns were not influenced by them directly, whether in transactions to provision towns, or in the passage of people between them, especially members of leading families. Rural aristocrats increasingly held urban landholdings from the tenth and eleventh centuries across western Europe (Dutour 2003, 196–197). If members of the regional aristocracy did travel to towns regularly, they could not, or chose not, to display the imported luxuries more evident in urban elite identity, at their rural centres. At ‘Flixborough’/North Conesby, the products of towns could have arrived indirectly, via exchange transactions at rural markets, or via direct contacts with the waterborne traffic of the River Trent and Humber estuary.

### 9.3 Some wider perspectives

The opportunities for analysis and interpretation provided by the settlement sequence at ‘Flixborough’ do not only have great relevance to the settlement and social history of England, in the early Middle Ages. Indeed, the importance of the approaches applied and the phenomena observed can be appreciated only when placed within their wider western European context. This wider perspective enables the exploration of a range of themes and social forces active at the local, regional and supra-regional levels, in the later first millennium AD. Within the context of this volume two groups of themes relating to approaches and interpretation are particularly relevant: namely, issues relating to patterns of discard and deposit interpretation; and reconstruction of lifestyles and interpretation of settlement character and complexity.

#### 9.3.1 Patterns of discard and archaeological interpretation of early medieval settlement deposits

At ‘Flixborough’, the quantity and quality of material thrown away, within the context of organised refuse disposal and demolition, created an exceptional sequence of vertically stratified settlement deposits. The key to understanding the full range of human actions reflected within them was analysis of the representativity of those deposits for interpretation; that is to say, whether the huge assemblages reflected life only in the excavated area, or the settlement as a whole. All understanding and interpretation of archaeological deposits are of necessity undertaken via the analysis of the use of space, site-formation processes, patterns in the discard of artefacts and biological remains, site taphonomy, and preservation conditions (Schiffer 1987; Lee Lyman 1994, Brown 1994, 1–7; Hill 1995; Ervynck 1999, 129–133). The discard strategies followed at Flixborough allowed the detailed analysis of all the components of stratigraphic units/contexts on a scale not possible for other English rural settlement sequences of the same era. As a consequence,

the reconstruction of what Schiffer described as the *waste streams* behind deposit accumulation was possible. It could be established, via studies of artefact and bone fragmentation, that huge quantities of material were moved into the excavated area, between the eighth and tenth centuries, within the context of communal refuse strategies.

This demonstration of the importation of material, holding the key to interpretations of lifestyles through time, showed that the remains could be regarded as representative for wider settlement interpretation from the eighth to late tenth centuries. Critically, it also demonstrated that the horizontal surface area of excavations is not always the determining factor in the scale of interpretations possible from archaeological deposits. Such a view is contrary to those expressed by supporters of excavation strategies with large surface areas but less intensive deposit analysis, along the continental North Sea coast, from the Netherlands to Denmark (Hamerow 2002; Nissen-Jaubert 2003, 28). It was not possible to draw conclusions on overall settlement layout at Flixborough, but it was possible to define the use of space within the excavated area as a communal refuse zone. As a consequence, lifestyles could be reconstructed comprehensively, from the examination of integrated material culture profiles. More widespread application of intensive deposit analysis on rural settlements is beginning to demonstrate that radical changes over short time-periods may be a recurrent trend across western Europe. Such cycles of change have also been noted at Rigny-Ussé, Indre-et-Loire (Zadora-Rio and Galinié 2003, 26–27). The identification of this dynamism in settlement histories is a direct consequence of chronological frameworks provided by vertical stratigraphic relationships; deposit survival; and excavation, recording and analytical practices.

In addition to demonstrating detailed circumstances of deposit formation and its consequences for the scale of interpretation, the trends in discard at Flixborough also showed the varying significance and value of specific forms of artefact for archaeological interpretation.

In the analysis of archaeological deposits, certain types of artefact deemed to be diagnostically datable, within relatively short time periods, are routinely used as dating indicators in the creation of site chronologies. Coins, dress accessories dated stylistically, and pottery are the most often used chronological markers within settlement sequences. They are routinely used to provide spot-dates and assessments of the degree to which deposits have been re-worked or contaminated, and hence their reliability for interpretation is assessed. At Flixborough, however, the quantities and condition of other forms of material culture, such as worked bone and unfired clay artefacts, and animal bones, suggested alternative viewpoints with regard to reliability for interpretation, than those provided by coins or pottery sherds. For example, in analysis of the huge dump 3758 (see Chapter

2), there were several residual coins and pottery sherds, but it also contained over 16 kilos of unfired clay loom-weights of a type not found prior to that period of the occupation sequence, in excellent condition. It was the loom-weights which provided the indication that the majority of material in the deposit was contemporary, in contrast to the residuality suggested by a few residual pot sherds and coins. It cannot be assumed, therefore, that often-used artefact types, such as pottery, have automatic primacy in assessment of deposit integrity. All components need to be analysed to come to a judgement on representativity for interpretation.

Variable arrival and discard of artefacts also had an impact on the archaeological visibility of deposits from certain periods, notably the tenth century, and this has huge implications for the identification of tenth- to eleventh-century phases on settlements and within unstratified artefact scatters, from eastern England (Loveluck 2001, 117–120). It also demonstrates the problem of over-reliance on particular types of evidence in identification of the *floruit* of settlements. At Flixborough, early analytical attention focused on the metalwork – dress accessories and coinage – most of which was dated stylistically or from minting details to the eighth and ninth centuries (Whitwell 1991; Blackburn 1993, 82–83). Furthermore, the quantity of tenth-century pottery was much smaller than the quantity of diagnostic pottery from the eighth and ninth centuries. On their own, it could be assumed from the metalwork and pottery that occupation dwindled on the settlement, during the tenth century. Yet, this would be to ignore the largest buildings in the occupation sequence and the most conspicuous consumption of animal resources.

It is only the presence of the huge stratified tenth-century deposits that enables the demonstration of the scale and nature of activity at that time. The relative scarcity of diagnostically datable material, especially decorated metalwork, is not a phenomenon limited to Flixborough. Likewise, tenth-century decorated metalwork has only been encountered in very small quantities in forty years of excavations at Wharram Percy (Richards 1997, 239). In such circumstances, use of Scandinavian motifs, in particular, may have been a feature more of urban rather than rural identity; language and place-names reflecting Scandinavian influence in the ‘countryside’ (Loveluck 2001, 120). If the settlement at Flixborough had been ploughed out to leave an unstratified assemblage, like so many surface scatters recovered by metal detector, it is highly likely that an eighth- and ninth-century occupational history would have been ascribed to the settlement. The much smaller quantity of tenth-century pottery could have been used to suggest its demise in the tenth century. The trend for surface metal-detected scatters to be equated with the ‘Mid Saxon’ period could be, therefore, highly deceptive. Their apparent eighth- to ninth-century zenith could be a function of the high archaeological visibility of their

metalwork, rather than their real occupational histories.

Two final, and inter-linked themes relating to discard patterns are best set within a broader western European setting: namely, the existence of settlements where discard of artefacts appears truly profligate; and the theory that recycling of rare resources was important. In the past fifty years, early medieval rural settlements have begun to appear where large numbers of complex and valuable artefacts were consistently discarded in refuse deposits. They include Flixborough, in England; Lagore Crannog, County Meath, in Ireland (Hencken 1950); and Distré, Maine-et-Loire (Valais 1997), Hamage, Nord (Louis 1997), and Charavines-Colletière, Dauphiné (Colardelle and Verdel 1993), in France. They appear as exceptions to the rule, when compared to excavated material from contemporary rural settlements as a whole. The ability to be able to afford to throw away the tools and weapons at Flixborough, Lagore, Distré and Colletière can be seen as a direct reflection of the aristocratic social standing of a proportion of their inhabitants. Yet, it is difficult to be certain whether the pattern of ostentatious display and discard at these sites is purely a function of their aristocratic status. At Lagore and Colletière, the restricted depositional opportunities at these waterside settlements, and the waterlogged conditions, certainly promoted exceptional survival. Nevertheless, the quantity of tools, weaponry, coins and luxury items thrown away still demonstrates wealth, abundance and discard of valuable non-organic artefacts, as at Flixborough and Distré (Hencken 1950, 5–11; Colardelle and Verdel 1993, 28–59).

The key question which we face in the interpretation of these sites with abundant discarded wealth is again that of their representativity for wider interpretation; since there are other royal, aristocratic, and ecclesiastical elite sites which have yielded much poorer ranges of structural, artefact and biological remains. It is very difficult to assess what was 'normal' in terms of the consumption, utilisation and discard of resources. This is especially true in relation to old assumptions about scarcity of certain raw materials and the need to recycle them. The theory of extensive re-cycling was developed as a consequence of two apparently complementary observations, made by historians and archaeologists respectively. Historians such as Georges Duby, Robert Fossier and the archaeologist Jean Chapelot all noted the scarcity of iron tools and artefacts in ninth-century *polyptychs* and the *Brevium Exempla* estate inventories from northern France. On this basis, iron tools were assumed to be scarce (Duby 1962, 77; Chapelot and Fossier 1980, 24). At the same time, archaeologists rarely seemed to find large quantities of discarded ironwork, especially tools and weapons, or precious metals. Hence, recycling was an obvious answer to scarcity in the textual and archaeological records.

The documentary sources, however, have been subject to recent re-evaluation by Adriaan Verhulst, who

demonstrated convincingly that iron artefacts were not as rare as had been assumed. Communities of specialist ironworkers rendered or sold iron tools, weapons, and other artefacts to linked institutions, on a regular basis and significant scale (Verhulst 2002, 76–79). This re-examination of the textual evidence could place the sites where discard was abundant in a less exceptional light. Recycling may not have been as prominent an activity on the settlements of the highest social strata, where conspicuous 'throwing away' of valuable artefacts was one of the traits marking aristocratic rank. Equally, however, our views of the exceptional nature of settlement populations who extravagantly wasted resources may have been unduly conditioned by the readiness to equate absence of surviving refuse deposits, containing abundant artefacts, with a real scarcity of artefacts and resources on settlements.

### 9.3.2 Lifestyle patterns and transformations

When placed within a western European context, the lifestyles evident at 'Flixborough'/North Conesby, during the eighth and tenth centuries, show great similarity with those at settlements interpreted as secular aristocratic centres across western and central Europe. Material culture associated with aristocratic life, in the form of evidence for public feasting, hierarchical consumption within households, and hunting pursuits are key features of these settlements. Luxury drinking vessels, in the form of glass beakers and cups, are a consistent trait of the eighth- and ninth-century artefact signature associated with ostentatious eating and drinking. This was true of Flixborough; the Carolingian palace at Paderborn, Westphalia (Gai 1999b, 214–215); Distré, Maine-et-Loire (Valais 1997; Fillon and Valais 1997) and Lagore Crannog, Co Meath (Hencken 1950, 127–129). On their own, however, such luxury containers were not exclusive to secular aristocratic centres, neither in north-west nor south-west Europe, as the recovery of glass vessels from monastic sites has demonstrated (Stevenson 2001, 231–249).

Yet, monastic and other ecclesiastical sites seem to lack the biological profile of the secular centres, in terms of wild species (Yvinec 1993, 496–501). This can be particularly well illustrated at Karlbürg, Bavaria, where the monastic and farming settlement foci show almost no exploitation of wild animal resources; whereas at the 'Karloburg' fortified aristocratic residence, over ten percent of animals consumed were wild (Ettel 1998, 83; Vagades 2001, 314). The pattern of much more limited hunting or falconry is also found at Flixborough in the ninth century, when the settlement may have become an ecclesiastical estate centre or small monastery. In its eighth- and tenth-century phases, Flixborough holds the wild animal exploitation profile akin to the Karloburg residence, and other secular aristocratic centres, such as Paderborn, Westphalia (Doll 1999, 448); Colletière, Dauphiné (Colardelle and Verdel 1993, 27); and probably

also Lagore Crannog, in Ireland (Hencken 1950, 11).

It is also pertinent to note that there is very little evidence of young domestic animals at Flixborough, and when the number of calves killed did rise slightly, this occurred in Period 4 when the settlement may have been a small monastery or a monastic estate centre. The small number of calves slaughtered, however, is best interpreted as a reflection of an increase in the self-provisioning of the settlement in the first half of the ninth century, rather than the production of vellum for manuscripts. The character of literacy at Flixborough, in the form of styli, is much more likely to reflect estate management rather than the presence of a 'school', and a scriptorium could not have been provisioned by the small numbers of calves identified (McKitterick 1989, 141). The absence of young calves before and after the ninth century is also perfectly consistent with a provisioned, secular aristocratic centre proposed for these periods in the Flixborough settlement sequence. It is very difficult, therefore, to argue for any vellum production at Flixborough. Nor does it seem reasonable to suggest a use exclusively for vellum production in relation to the *lunette* knife, recovered from a mid to late ninth-century deposit (FIG. 6.4). Such a knife was associated with a possible parchment preparation area at the sixth- to ninth-century, Pictish monastery at Portmahomack, near Inverness (Carver and Spall 2004, 192–195), but the very limited evidence for possible vellum production at Flixborough suggests a more general use in leather-working for the knife (Ottaway, Volume 2, Chapter 8).

Other traits previously associated with 'monastic' or 'ecclesiastical' identity in England can also be questioned when compared with evidence from northern France. Contacts between the aristocracies of England and their nearest neighbours in northern France are known to have been maintained through the seventh, eighth and ninth centuries, at the levels of exchange, trade, and political and ecclesiastical influence. Given the various avenues of information flow, promoting Anglo-Saxon emulation of continental methods of displaying 'Christian elite identities', use of continental building traditions and architectural features should be no surprise on secular aristocratic centres, in addition to monastic sites. In this context, the use of the continental fashion of stone footings for important buildings at Flixborough and Dunbar (Perry 2000) can be viewed within a purely secular context. Furthermore, in northern France, residential buildings with stone footings were also associated with window glass: for example, at the aristocratic settlement at Serris, Seine-et-Marne. The window glass quarries from the latter site bear a striking resemblance to the Flixborough assemblage (Foucray and Gentili 1995, 139–143; Gentili, pers. comm.; FIG. 9.4\*). Furthermore, multiple ecclesiastical foci and grave groups are also being encountered on non-monastic settlements on the continent, again for example at Serris (Foucray and Gentili 1998, 198–200; FIG. 9.5). This should caution

against the automatic assumption that more than one church and burial focus in a single settlement equates with a monastery in England. Basic literacy amongst a significant proportion of the lay aristocracy of continental, western Europe has also been an acknowledged fact for a considerable period (McKitterick 1989, 222–223).

To conclude, the transformations seen in the character of the excavated settlement in Flixborough parish highlight the potential for dynamic change within individual settlement histories. This phenomenon is also illustrated more widely in continental western Europe, both in textual and archaeological evidence. Particularly important, is the wider recognition on the continent of the take-over of existing aristocratic estate centres and their transformation into major monasteries. For example, the estate centre of *Sithiu* at Saint-Omer, Nord, was transformed into the monastery of St. Bertin, in AD 651 (Barbé *et al.* 1998, 9–40). The reality of such settlement transformation from secular to monastic centre has rarely been given detailed attention in England, for the period between the seventh and ninth centuries. As at Flixborough, transformation from secular to ecclesiastical centre is also suggested archaeologically at Staffelsee, Bavaria. An aristocratic centre with a church on the island of Wörth in Lake Staffelsee, appears to have been given over for the foundation of the Staffelsee monastery, sometime in the first half of the eighth century (Haas-Gebhard 2000, 61–63). A later transformation from secular to ecclesiastical estate centre can also be seen at the previously discussed site at Distré, Maine-et-Loire (FIG. 9.6). The aristocratic centre and its estate became a priory of the monastery of Saint-Florent de Saumur, between AD 1030 and 1040 (Pelaprat 1992, 56).

For the tenth and eleventh centuries, particularly in England, the likelihood of transformation of settlement character is a more accepted fact, often equated with the onset of the 'Late Saxon' or 'Anglo-Scandinavian' period. The changes of the later ninth and tenth centuries at 'Flixborough-North Conesby' certainly reflect changes in this period; in this case likely 'secularization' of an ecclesiastical estate centre or small monastery. Such subdivision and secular take-over of assumed monastic estates are suggested regularly, within an English context, unlike transformation of existing secular centres into monasteries during the Mid Saxon period (Blair 1996b). Around the Humber estuary, it is possible that the estates of Barton-upon-Humber, North Lincolnshire, and Skipwith, North Yorkshire, underwent just such a transformation into the manorial centres recorded in the Domesday survey (FIGS 9.7\* and 9.8\*). The same is suggested through limited excavation at Kirkdale, North Yorkshire, where a monastic settlement had become an estate centre of the Anglo-Scandinavian aristocrat *Orm Gamalson*, by the mid eleventh century (Rahtz and Watts 1998; Rahtz 2000, 7). The lesson of the western European evidence, as a whole, suggests that it is inescapable to



FIG. 9.5. Schematic plan of the seventh- to tenth- century settlement at Serris 'Les Ruelles', Seine-et-Marne, after Foucray and Gentili 1998 (P. Copeland).



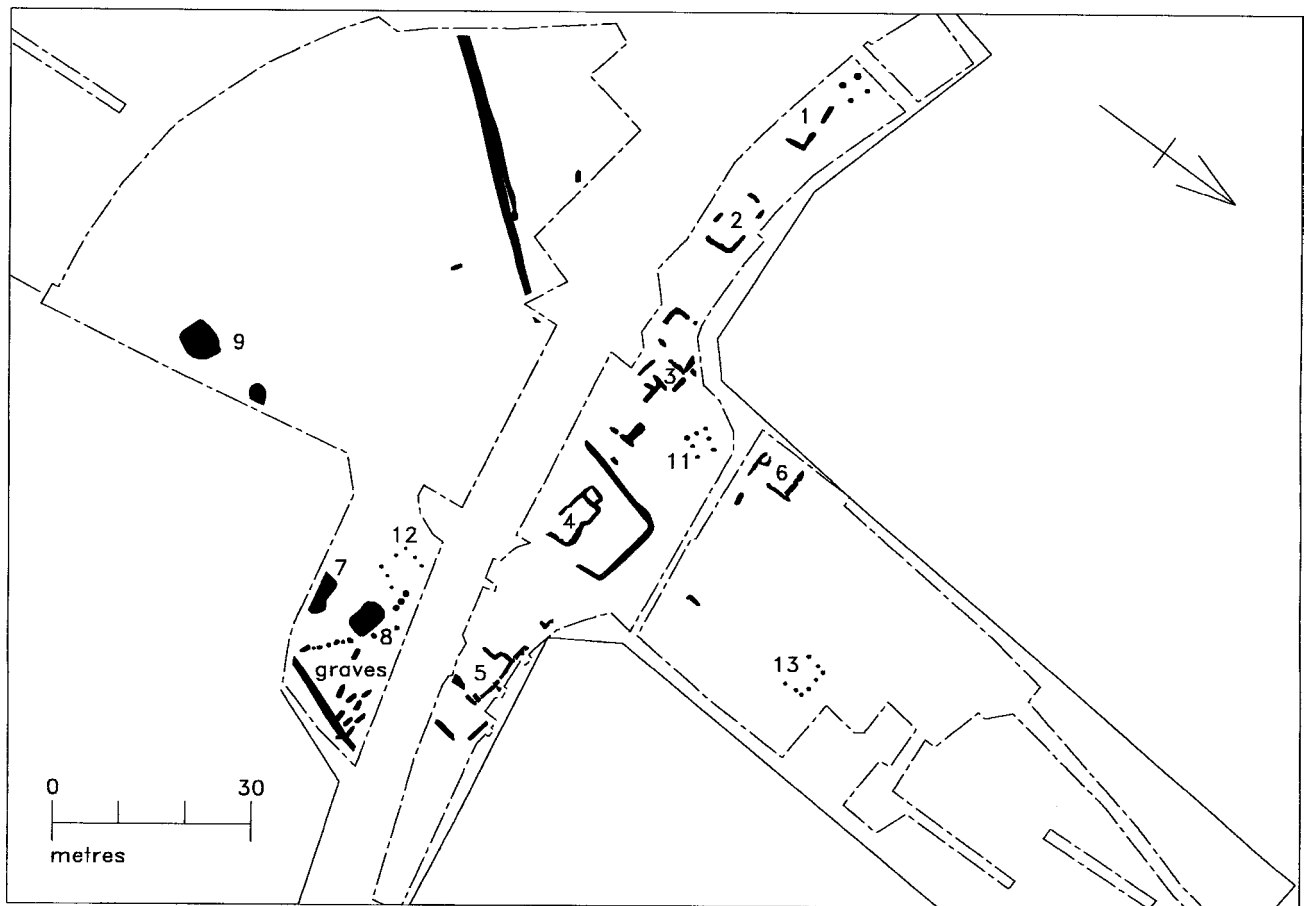


FIG. 9.6. Schematic plan of the ninth- to tenth-century phases of the settlement at Distré 'Les Murailles', Maine-et-Loire, after Fillon and Valais 1997 (P. Copeland).

avoid acceptance of the possibility that dynamic change and transformation of settlement character was a recurrent phenomenon associated with rural settlement, during the early Middle Ages.

#### 9.4 Final conclusions

If any lesson is to be learned from the exceptional settlement sequence at 'Flixborough-North Conesby', it is the recognition of the complexity and dynamic change that could take place within the occupational history of a rural centre, through the later first millennium AD. Indeed, the transformations that can be observed illustrate the inappropriate use of approaches to settlement interpretation, which have been a legacy of textually-led traditions and generalising synthetic models of social analysis. Shortly after the announcement of the discovery of the remains, historians in particular very quickly ascribed a single, universal label of settlement character to the remains, namely that of a 'monastery'. Within such textually-led paradigms no account was taken of the potential for dynamic change. The settlement also attained the equally general label of a 'high-status site'

almost immediately, due to the same tendency to homogenise the character of settlements, within the context of general models of social evolution and kingdom formation. Only the staged, exhaustive analysis of the archaeological deposits, and the integrated analysis of the material culture profiles, enabled the identification of radically changing lifestyles through time, and reassessment of past criteria for interpreting rural settlement remains dating from the seventh to eleventh centuries.

The lifestyles seen in the social relations of the inhabitants probably reflect dynamically changing settlement character, due to alterations in the social make-up of the inhabitants through time, and changing local and regional circumstances through the later first millennium. In England, the evidence from Flixborough-North Conesby provides the most comprehensive demonstration of the potential for settlement change over relatively short time-spans, between the seventh and eleventh centuries. Other settlements, however, also show distinctive indications of similar transformations in both England and other parts of western Europe (as illustrated above). The circumstances contributing to the formation and survival of archaeological deposits work against the

regular observation of the potential of dynamic change. Yet, when large refuse deposits and vertical stratigraphic sequences survive, its existence must be researched with appropriate integrated analysis of all the components of these deposits. It is even possible that dynamic change over relatively short time-periods was the norm, rather than the exception on settlements, during the second half of the first millennium AD.

If short-term dynamic change was a widespread phenomenon within individual settlement histories, localities and regions, then there are consequences for application of the general models of social evolution and interpretation, applied to remains of the early medieval period by scholars in Britain, the Netherlands, Scandinavia and America, over the past twenty years. They have been led by a combination of trends perceived from historical sources, and theories borrowed from sociology and social anthropology, which have tended towards 'normative', fixed roles and values towards the use of particular forms of material culture. As a corollary, the roles applied to institutions and settlements of particular 'types' and 'social standing' have tended to be fixed along defined trajectories of development, as a consequence of generally-held, and often textually-defined, preconceptions. Many of these models have been powerful analytical tools, when applied by exponents at

the general level (e.g. Hodges 1982 and 2000; Theuvs 1999; Moreland 2000a and 2000b), and they have certainly opened up new vistas with reference to interpretation of material culture and its significance. However, if lifestyles, personnel, and trajectories of development changed regularly on individual settlements due to the vagaries of family and wider politics, it becomes very difficult to fit these dynamic 'moving targets' for analysis into general models of behaviour. Furthermore, it is very difficult to come to a judgement on the point when dynamism at the level of the individual settlement, locality, and region impacts on the general models of social evolution, justified by observation from textual evidence and the use of sociological and anthropological theory to 'fill in blanks', when evidence is absent.

It is, no doubt, only with the results of detailed research at the level of settlements, localities and micro-regions (within countries), that it will be possible to evaluate the level of diversity and dynamism in local societies. The local and regional trends from studies in different European countries can then be placed against interpretations that might be expected from textually-led, general behavioural and evolutionary theories, to arrive at a more holistic judgement of the complexities of early medieval Europe.



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### Abbreviations to primary written sources for Chapter 8:

Alcuin	<i>The Bishops, Kings, and Saints of York</i> , ed. and trans. P. Godman (Oxford, 1982).
Altfrid	<i>Vita S. Liutgeri</i> , ed. G. H. Pertz, <i>MGH, Scriptores</i> , II (1829), 403–19.
ASC	<i>The Anglo-Saxon Chronicle: a Revised Translation</i> , eds. D. Whitelock, D. C. Douglas, S. I. Tucker (Cambridge, 1961).
Asser	<i>Life of King Alfred</i> , ed. W. H. Stevenson (Oxford, 1904; new impression, 1959).
Book of Fees	<i>The Book of Fees</i> , Public Record Office, 3 vols (1920–31).
Canterbury Charters	<i>Charters of St Augustine's Abbey Canterbury and Minster-in-Thanet</i> , ed. S. E. Kelly (Oxford, 1995).
Chester Charters	<i>The Charters of the Anglo-Norman Earls of Chester, c.1071–1237</i> , ed. G. Barraclough, Record Society of Lancashire and Cheshire, 126 (1988).
Councils	<i>Councils and Ecclesiastical Documents Relating to Great Britain and Ireland</i> , ed. A. W. Haddan and W. Stubbs (3 vols., Oxford, 1869–78).
DB Lincs	<i>Domesday: Lincolnshire</i> , eds., P. Morgan and C. Thorn (Chichester, 1986).
EHD	<i>English Historical Documents I, c. 500–1042</i> , ed. D. Whitelock, 2nd edition (London, 1979).
FA	<i>Inquisitions and Assessments Relating to Feudal Aids</i> , PRO, 6 vols (1899–1920).
GDB	<i>Great Domesday Book</i> , ed. R. W. H. Erskine (London, 1986).
Gravesend	<i>Rotuli Ricardi Gravesend</i> , ed. F. N. Davis, Lincoln Record Society 20 (1925).
John of Worcester	<i>The Chronicle of John of Worcester, II. The Annals from 450 to 1066</i> , ed. R. R. Darlington, <i>et al.</i> (Oxford, 1995).
LAO	Lincoln Archives Office.
LDBLS	<i>The Lincolnshire Domesday and the Lindsey Survey</i> , eds C. W. Foster, T. Longley, Lincoln Record Society 19 (1924).
Liber Eliensis	<i>The Liber Eliensis</i> , ed. E. O. Blake, Camden Society, 3rd ser., 92 (1962).
Lincs DB	<i>The Lincolnshire Domesday</i> , ed. D. R. Roffe, Alecto County Edition of Domesday, gen. eds A, Williams, G. H. Martin (London, 1992).
Monasticon	<i>Monasticon Anglicanum</i> , eds J. Caley, H. Ellis, B. Bandinel, 6 vols in 8° (London, 1830–46).
Red Book	<i>Red Book of the Exchequer</i> , ed. H. Hall, Rolls Series, 99, 3 vols (1899).
RH	<i>Rotuli Hundredorum</i> , ed. W. Illingworth, Record Commission (1812–18).
Simeon of Durham	<i>Historia Dunelmensis ecclesiae</i> , ed. T. Arnold, <i>Symeonis Monachi Opera Omnia</i> (2 vols., 1882–5), I. 3–135.
Sutton	<i>The Rolls and Registers of Bishop Oliver Sutton 1280–1299</i> , viii, ed. R. Hill, Lincoln Record Society 76 (1986).
Welles	<i>Rotuli Hugonis de Welles</i> , ed. W. P. W. Phillimore, Lincoln Record Society 3, 6, 9 (1912–4).

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*FIG. 1.2. The Humber estuary and Trent Falls (the delta of the River Trent) from the Lincolnshire Edge at Alkborough, 5km north of Flixborough (C. Loveluck).*



*FIG. 1.4. Topographic situation of Flixborough today, looking east across the River Trent towards the Lincolnshire Edge escarpment (C. Loveluck).*



*FIG. 1.5. Aerial photograph showing the sand spurs and shallow valley running into the centre of the excavated area (Humber Field Archaeology).*



*FIG. 2.2. View of the excavations, showing the spurs and buildings and refuse dumps in the central shallow valley (Humber Field Archaeology).*





FIG. 2.8. *Building 1b under excavation (Humber Field Archaeology).*



FIG. 2.14. *View of the excavated section of the boundary ditch (50), with bones visible in its fill (courtesy Terry O'Connor).*



*FIG. 2.16. Paths across central refuse dumps, Phase 5a (Humber Field Archaeology).*



*FIG. 2.21. Sixth-century Great square-headed brooch from the excavated area (B. Marsden; Humber Field Archaeology).*



FIG. 2.22. Gilt-silver disc brooch with zoo-morphic decoration from refuse dump 3758, manufactured during the late eighth – early ninth century (B. Marsden; Humber Field Archaeology).

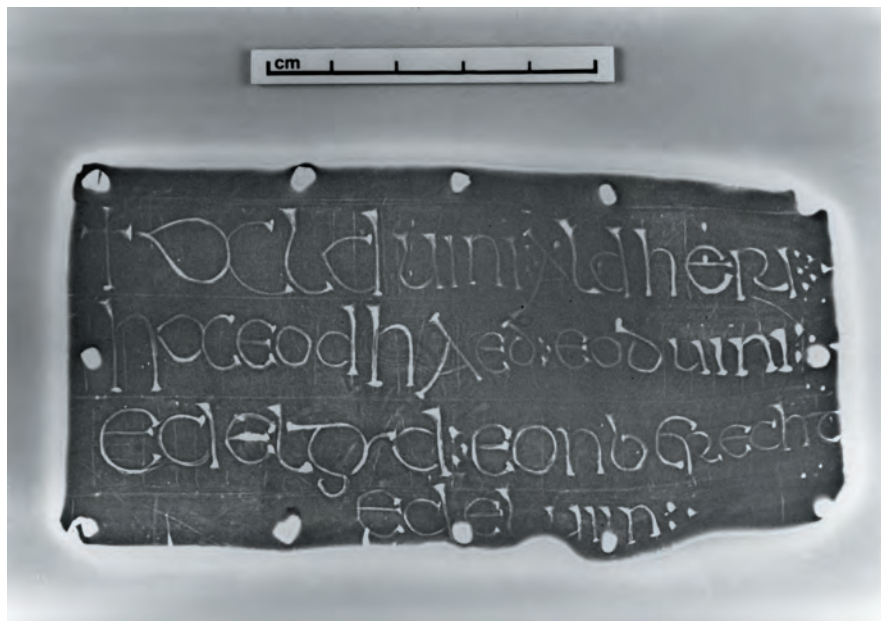


FIG. 2.23. Inscribed lead plaque dating from the end of the eighth or early ninth century, recovered from a late ninth- to early tenth-century refuse dump (courtesy of the British Museum).





*FIG. 4.3. Thorne Moors viewed from the Lincolnshire Edge escarpment (C. Loveluck).*



*FIG. 5.2. Plough share, found in an eighth-century pit on the Anglo-Saxon settlement (Humber Field Archaeology).*









*FIG. 6.1. Bone pinbeater from a mid to late eighth-century to early ninth-century refuse dump (B. Marsden; Humber Field Archaeology).*



*FIG. 6.2. Wood-working axe with a beech wood handle, from an early eighth-century occupation deposit (B. Marsden; Humber Field Archaeology).*



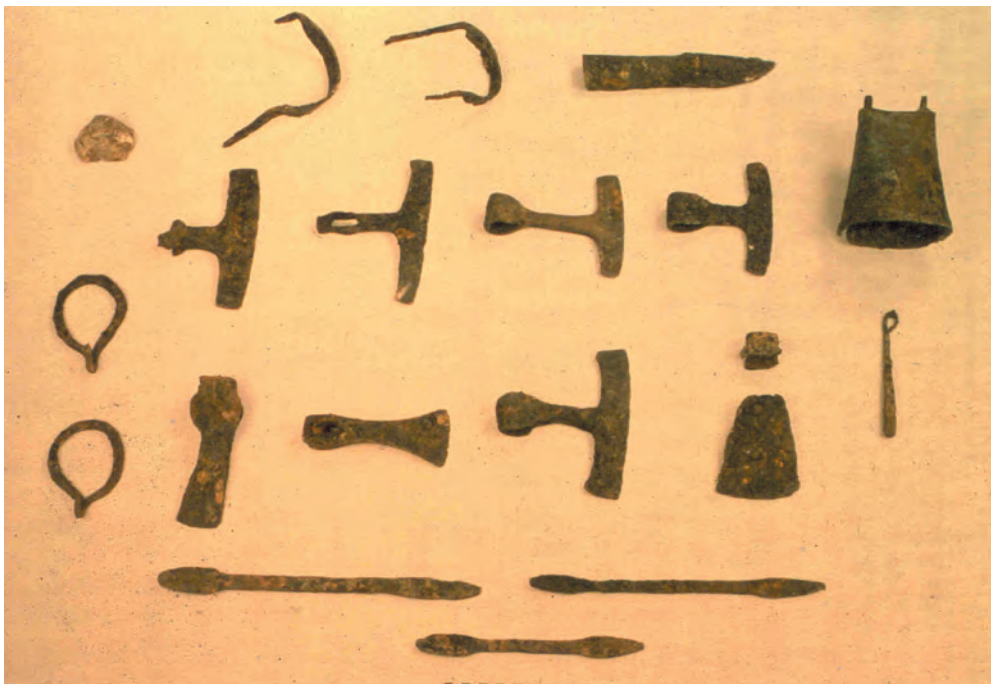
*FIG. 6.3. Single-edged wood-working adze from a mid ninth-century ditch deposit (B. Marsden; Humber Field Archaeology).*



*FIG. 6.4. Lunette knife for leather-working, from a mid to late ninth-century refuse deposit (B. Marsden; Humber Field Archaeology).*



*FIG. 6.5. Locking tongs for holding partially fabricated metal artefacts, from the mid ninth-century refuse dump 3758 (B. Marsden; Humber Field Archaeology).*



*FIG. 6.6. Hoard of wood-working tools, bell and billhook (or coulter) from the Anglo-Saxon settlement (Humber Field Archaeology).*



*FIG. 6.7. The two lead tanks which housed the hoard (Humber Field Archaeology).*



*FIG. 6.8. Spindle whorls from ninth-century phases of the Anglo-Saxon settlement (B. Marsden; Humber Field Archaeology).*





FIG. 7.2. Late seventh- to mid eighth-century sceatta coinage from Flixborough (M. Archibald).



FIG. 7.3. Cobalt-blue glass vessel fragment, imported from the continent, from an eighth-century context (B. Marsden; Humber Field Archaeology).

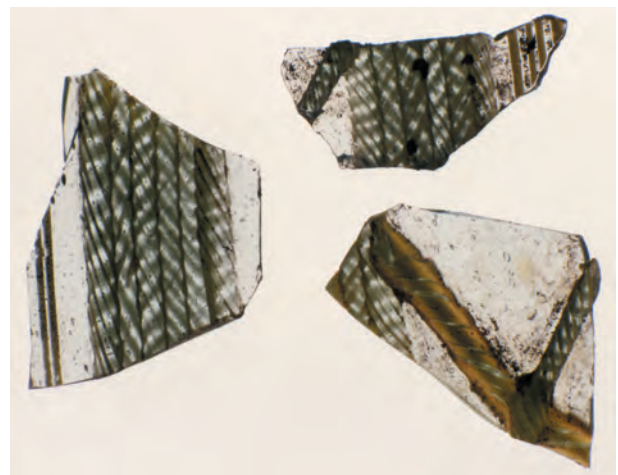


FIG. 7.4. Fragments of an imported, reticella-decorated glass vessel from Flixborough, eighth to ninth century (B. Marsden; Humber Field Archaeology).



*FIG. 7.6. Mid to late ninth-century West Saxon and Mercian pennies, recovered from the settlement (M. Archibald).*



*FIG. 7.9. Cylindrical, drum-shaped lead weight (right), from mid tenth-century dump 3610, and silver 'finger' ingot (unstratified) (B. Marsden; Humber Field Archaeology).*



*FIG. 7.10. Bell-shaped lead weight with iron suspension handle, from mid tenth-century refuse dump 3891 (B. Marsden; Humber Field Archaeology).*



*FIG. 9.1. A selection of styli from Flixborough (B. Marsden; Humber Field Archaeology).*



Soþlice hiledon forð heorolac on gean þæt iorep inrode. 7 frollon  
 on þa eorþan. 7 se eadmeoðdon piþ hine. lorep hioncneopða aþful  
 lice. 7 axode hi hpaþep heopa fæder þære hal. þe hi him forp 7 ædon  
 oþþe hpaþep heleofoðe. þa cpaðon hi geuind iþin þeop ure fæderu  
 7c heleofoþ. Ða iorep gereah hi se meoðneðan biþop beniamin.  
 þa cpaþ he. iþ þiſ ſecnaþa þe ge me forp 7 ædon. 7 eþ he cpaþ 7oð ge me  
 riſe þe ſunu min. 7 he ſeaþ 7 paſſiðe aſcypod þa c him frollon ceap  
 for hiſ biþopu þingon. 7 he eode in to hiſ bed cleofan 7 ſcōp. 7 þa he  
 þaſ 7e ſpæc. þa eode he ut to him 7 hi æton. On fundon þa 7e ſpæcraſ.  
 hi næſ nā aliſeð þa c hi æt 7e deſe æton. 7 him an oþer drence. 7

on fundon þa  
 eþre iſtan.



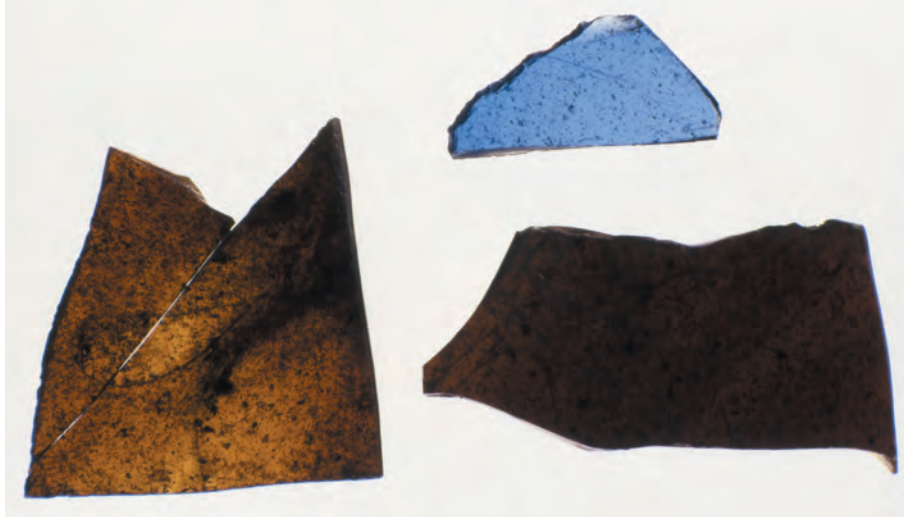
7 dioma lingue hebreæ ē: ut ebrietate pſacitate ponat ſicut ibi. In ſulliditſ ſiſ in ebrietate  
 germinat. haud dubiū qñ terra pluuiis irrigata.

Ðabead iorep hiſ ſepetam. 7 cpeþ ſille heopa ſaccas mid hpaþe  
 7 leſe heopa ælceſ feoh on hiſ agenne ſac. 7 min minne  
 ſylſpenan læfel. 7 þaſ hpaþeſ purd þe he ſealde. 7 do on þaſ  
 ſyngertan ſacc. 7 he dyde ſpa.

7 ſaculo peronē ul' ſollēn habet in hebreo. pcondi. i. poculo. qd etiam in yſara legit. Aquila ſcip  
 hum. Symmachus ſialam tñtulerunt.



FIG. 9.2. 'Feasting in the Hall', eleventh-century manuscript illumination (British Library BL, MS Cotton Claudius B.IV, f.63v).



*FIG. 9.4. Window glass from Period 4 (ninth century) at Flixborough (B. Marsden; Humber Field Archaeology).*



*FIG. 9.7. Settlement features around the tenth- or eleventh-century church at Skipwith, in the Humber levels, North Yorkshire (C. Loveluck).*





*FIG. 9.8. The mid to late tenth-century church of St. Peter, Barton-upon-Humber, North Lincolnshire (C. Loveluck).*