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**VIKING AGE URBANISM IN SCANDINAVIA AND THE DANELAW:
A CONSIDERATION OF BIRKA AND YORK**

2 volumes

Volume 1, text and tables

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PhD thesis

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ABSTRACT

This thesis examines the nature of Early Mediaeval trading and manufacturing settlements in Scandinavia, and in the Scandinavian-influenced area of England. Using previously unpublished material from the 1990-1995 excavations at Birka, in Sweden, resulting from the author's work on the excavation report from the Birka Project, it provides an analysis of the development, and character of this Viking Age settlement. This forms the basis for an assessment of the nature of various contemporary non-rural settlements in Scandinavia, and thus of the context of the settlement at Birka.

The history and archaeology of the central places of the northern and eastern Anglo-Saxon kingdoms are then considered, with an examination of York forming the core of the second part of the thesis. The physical and socio-economic transformation of these settlements at the end of the ninth century is discussed, and the resultant tenth century patterns compared with the political and socio-economic patterns revealed in the contemporary and earlier Scandinavian settlements.

The thesis concludes with an examination of the similarities and differences between the Early Mediaeval settlements of Scandinavia and the Danelaw, and considers which can be recognised as 'towns'. It assesses the nature of the Scandinavian impact upon the development of urban settlements in the North and East of England, and the degree to which this elucidates the socio-politics of urban development within the Scandinavian world.

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CHAPTER I

INTRODUCTION: THE POLITICS OF URBAN DEVELOPMENT IN THE VIKING AGE

This thesis attempts to examine the interrelationship between political and urban development in the Viking Age, and the degree to which this relationship determined the creation of urban settlements and shaped their form. It does so by focusing upon the excavation results from two settlements, at Birka, in Sweden, and York, in England, and placing them in their chronological and geographical contexts. An argument is made that differences between the physical, social and economic organisation of Late Iron Age Scandinavian and Middle Anglo-Saxon settlements reflect real and profound differences in the social and political priorities of the two cultures. Changes in the nature of some trading and manufacturing settlements of the Danelaw in the late ninth and tenth centuries bring them into closer conformity with patterns established in Sweden and Denmark at least a century earlier. This, it is argued, represents a deliberate manipulation of settlement morphology and organisation to establish political control over an alien population.

In order to establish the parameters of the discussion, Chapter II of the thesis looks at the theoretical and conceptual difficulties of discussing urbanism in relation to an historical period both scantily documented and ideologically important for our own society. It summarises past approaches to the definition and conceptualisation of urbanism, and defines a contextual approach to, and definition of, urbanism and its attendant phenomena in the light of theoretical developments in archaeology. The relevant theoretical developments are summarised in Appendix A.

Chapter III presents the documentary history and archaeology of Birka. In addition to a summary of the published archaeological material in Swedish and English, a hitherto unpublished report by the author on excavations carried out between 1990 and 1995 in the central area of the settlement is also included. The supporting evidence for this case study is presented in appendices B, C, D and E. Based upon the evidence, technical questions on the dating of the occupation and abandonment of the

site, its population levels and subsistence needs are discussed, as are issues surrounding its socio-economic and political organisation. A number of salient characteristics of the settlement are extrapolated from the archaeological and historical evidence.

Birka must be understood and examined in the context of contemporary Scandinavian sites. An attempt to do this is made in Chapter IV. This is a field that is rapidly changing, as new excavation evidence becomes available. It is also one where many sources are not easily available in Britain. Although the evidence is not comprehensive, there emerges nonetheless a picture of a settlement pattern characterised by a variety of settlements fulfilling different functions, within the context of a society that valued trade and manufacturing very highly. Some settlements, such as Löddeköpinge, focused upon the production of a very limited range of goods, e.g. textiles or boats, while others, such as Ribe, were multi-functional, characterised by production of a wide suite of crafts, and by evidence for large scale trading over a wide geographical hinterland. These differences were reflected in variations, not necessarily consistent, in the form and organisation of the settlements. Only two or at most three of these settlements fulfilled the contextual definition of a 'town' outlined in Chapter II, amongst them Birka.

Having established the Scandinavian background to the discussion, Chapter V looks at the evidence for the nature and extent of trading and manufacturing settlements within the area Scandinavian influence in England. This chapter is focused upon the excavated and documentary evidence available for post-Roman settlement in the city of York. The nature of the Middle Anglian settlement in and around the walls of the Roman fort and *colonia* is discussed, as is the transformation of the organisation and morphology of the occupation in the late ninth and early tenth century. This discussion then forms the core evidence against which the much more scanty excavated material from other settlements in the Danelaw, such as Northampton, is compared.

Chapter VI, in conclusion, draws together the material from Chapters III to V, to look at the relationships, if any, between Scandinavian forms of urbanism and the development of urban settlements in the Danelaw during the Viking Age. It

concludes that, although the Danelaw towns are not copies of the earlier Scandinavian towns, they were, nonetheless, formed by Scandinavian political and social values, as a development of a conceptual model of urbanism first formulated nearly 150 years earlier in Scandinavia. The political role of the Danelaw towns can therefore be used to illuminate the reasons for the creation of towns in Scandinavia, and their role in the emergence of the Mediaeval kingdoms of Sweden and Denmark.

A number of practical difficulties arise along the way in this thesis. The first and most important is of dating. The dating of many of the relevant sites, particularly those from Scandinavia where contemporary, local numismatic material is scanty, is heavily dependant upon radiocarbon analysis. A number of the sites have only one or two radiocarbon dates, which in themselves provide a hopelessly inadequate sequence. Birka is one of these. In addition, particularly in older reports, the majority of these dates are not calibrated, or if calibrated, the fact or manner of calibration is not specified. Where the dates are quoted as uncalibrated, the standard deviation may not be specified, or only a single mean or median date given, rather than the two standard deviations that are conventional. It is often not clear what the source material for the date was. When these complications are added to the fact that the standard deviation values for radiocarbon dates in the Viking Age tend to be too wide to allow the determination of a relative point within the three centuries of the period, it must be admitted that the radiocarbon dates quoted in the following text are often extremely variable. All dates are quoted in the text as in the original reports, hence their presentation varies from section to section and chapter to chapter of the thesis. It has not been possible to standardise them. Appendix F contains a list of all the relevant dates.

Another problem is that the terms used to refer to settlements in site reports and other texts often reflect the excavator's preconceptions, rather than a standardised terminology. The question of a definition of urbanism and the 'town' is entered into in more detail in Chapter II, but throughout the rest of the text, a variety of terms have been used for settlements which fall outwith this definition, but are nonetheless unusual in their context. These terms have been defined in response to the nature of the evidence, to encompass a variety of settlements with overlapping functions. At the most basic level, the term 'non-rural settlement' refers to a settlement whose

archaeology indicates that its primary economic activity was not agricultural subsistence, and which may therefore have been dependant upon a hinterland to sustain it. This term could therefore include a broad range of sites, from religious centres, to manorial sites, to specialised manufacturing sites and 'towns'.

The term 'trading settlement' refers to a settlement whose archaeology reveals the presence of more import and/or export goods than would be expected on a contemporary, local, rural site, i.e. more trade goods than would be expected for on-site consumption. This could potentially include a site where the relatively high level of trade goods was a reflection rather of high status than of particularly high levels of trading activity, but that issue would in such a case be raised during discussion in the text.

A manufacturing settlement would therefore be, similarly, a settlement where the archaeological evidence indicates a level of production of any craft or crafts beyond that which would logically be necessary for the consumption of that settlement. Such sites do not, of course, need to be towns, and may or may not specialise in one particular area of production.

Despite these problems, this thesis draws together new and unpublished material with data deriving from the published sources, to try to pinpoint just what, if anything, characterised the Scandinavian Viking Age 'town', through an analysis of both their physical and socio-economic aspects. By establishing the nature of the relationship between them, it provides a means to move on to assess to what degree Scandinavian Viking Age concepts of urbanism coloured the development of the Danelaw towns.

CHAPTER II

CONCEPTS OF URBANISM: TOWARDS A CONTEXTUAL UNDERSTANDING OF THE PHENOMENA OF URBANISM

'Remember that the world is one vast graveyard of defunct cities, all destroyed by the shifting of markets they could not control, and all compressed by literature into a handful of poems. The emperor only does what ordinary time does. He simply speeds things up'

Alasdair Gray,
Five Letters from an Eastern Empire
1995:37

Urbanism is a factor in all our lives, and architecture is the environment in which we live. Where architecture is defined as the thing built, the structure, or the art or science of building, it is one of the material elements which surrounds, expresses and defines human behaviour. The ability to create artificial environments in which we can thrive physically and socially is one of the reasons for the success of humanity as animals, and one of the most important characteristics which we use to define our identity as individuals, as social groups and as humans. Under the circumstances, it is hardly surprising that the built environment has attracted a great deal of analytical attention from archaeologists, and remains a hugely productive, and controversial, area of study.

The intimate and integral relationship between urbanism, and trade and manufacturing has been recognised from the earliest studies of the phenomena. Geographical, historical and archaeological studies alike have attempted to analyse and articulate the causal and organisational relationships between the economic and physical aspects of large settlements and to thus define the nature of towns. Richard Hodges comments, comprehensively, 'Nucleated settlements, urban complexes or market-places are the nodes in ... exchange networks...' (Hodges 1982, 20), but definitions of urbanism relate strongly to the material database with which the scholar is preoccupied, and historical and archaeological studies of urbanism and its economic bases have often produced widely disparate definitions of the phenomenon of urbanism, ranging from the purely and singularly documentary and legal, to groups of more than ten defining characteristics.

II.1 HISTORICAL CONCEPTS OF URBANISM

Understandably, the approach of historians to the problem of the definition of urbanism has commonly been based on historical sources. The great synthetic European historian, Henri Pirenne, typified this approach. Arguing that the fifth century migrations of Germanic tribes into the Roman Empire had minimal effect on urban life in the northern part of the Empire under the Merovingian kings, he postulated that there was a complete breakdown of urban organisation during the reign of the Carolingians, following the movement of Islam into the Mediterranean coasts of Spain and North Africa (Pirenne, 1992). Pirenne presented an astonishing picture of chaos under Charles Martel's essentially Germanic and military rule, stating 'We must not forget that he burned the cities of the Midi, and by so doing definitely destroyed what still remained of the commercial and municipal organisation.' (*op. cit.* 243). He perceived this situation as continuing beyond the reign of Charlemagne, to that of Louis the Pious: 'That commerce was extinct was due to the fact that there were no longer any outlets for it, since the urban population had disappeared...' (*op. cit.* 252). Markets fell outside his definition of urban (*op. cit.* 253-255) because of the lack of 'resident merchants of artisans' (*op. cit.* 255). Despite the lack of an explicit definition of a town, city, or urban life, terms unselfconsciously and apparently contradictorily applied in his text, Pirenne seems to have implied that towns per se existed only where documentation recognising the distinction between urban and rural existed. This was a definition which, though simple, was vulnerable to the vagaries of documentary survival and intensely ethnocentric in its parameters.

The major weakness of this approach is its rigidity. Pirenne's adherence to this point of view led him to underestimate particularly the importance of the northern trading centres in his comprehensive examination of the development of early Mediaeval Europe (*op. cit.* 186-284), as the documentation led him to see urban centres only within Carolingia. This is a highly abstract paradigm, which makes no attempt to change our perceptions, and must distance the scholar from the patterns in the material and documentary evidence which do not conform to the patterns of the late

Mediaeval and modern cultures upon which the model is constructed. Its limitations have become increasingly clear as archaeological evidence and social theory have revealed the complex physical expression of even apparently simple social and physical differences, such as population size and density, access to resources, and climate, between modern and earlier societies. The great attraction of this theory, however, is its recognisability. In avoiding the problems of dealing with socio-political differences of culture, it produces models which can be compared relatively easily with modern society, and provides a basis for a simplistic evolutionary approach to the advent of urbanism in societies. Settlements can be seen as ‘proto-urban’, ambiguously poised on the edge of somehow becoming modern. In recent years, some Scandinavian Mediaeval archaeologists have continued to maintain and develop aspects of this model, among them Axel Christophersen (1989), whose work is further discussed below.

Among historians of the Mediaeval towns of North-western Europe, Susan Reynolds’ attempt to define the causal elements behind the symptoms of the documentary sources was particularly lucid move away from the dangers of legalism, and was adaptable to the nature of both historical and archaeological data. Initially (Reynolds 1977, ix), she demanded a recognition that the nature of towns is fluid in all modern experience, and that, therefore, it cannot be expected that towns in the past will be rigidly defined, or were historically rigidly defined. From this basis, she proposed two essential attributes which could be used to provide a working definition, in awareness that ‘there is no need to worry too much about borderline cases when considering a category which cannot be hard and fast’ (*ibid.*). The first characteristic was that ‘a significant proportion ... of its population lives of trade, industry, administration and other non-agricultural occupations’ (*ibid.*) and the second that ‘it forms a social unit more or less distinct from the surrounding countryside’ (*ibid.*).

This definition was refined further in a paper examining the nature of Domesday towns (Reynolds 1987) which supported the contention that the terminology of large settlements in Domesday book was extremely flexible, with the Old English terms *byrig* (*burh*, *burg*), *port*, *wic* and *ceaster* being translated variously as Latin *urbs*, *portus* and *civitas* (*op. cit.* 297), and with the same settlement being referred to by more than one term in the same document (*op. cit.* 299). Reynolds rebutted the

legalistic interpretation of the Latin *burgus* (from the colloquial OE *burg*) by pointing out the anachronism of assuming a particular consistent legal and constitutional definition for any term on a universal basis in the eleventh century (*op. cit.* 298). Her emphasis was on the town as an economic and non-agricultural centre providing a convenient focus for central place religious, administrative and legal functions, and with a distinctive identity *vis à vis* the surrounding countryside (*op. cit.* 295), arguing that the very looseness and flexibility of such a definition gave it peculiar comparative value, by detaching it from the detailed physical, legal and social conditions predicated by particular historical and geographical circumstances.

The attractiveness of a such flexible and non-culturally specific definition is very clear to an archaeologist working with early Mediaeval material in Europe, where the local culture, religious beliefs and geographical conditions were so widely variable, and as such, this definition was adopted by Helen Clarke and Björn Ambrosiani for their work on towns in the Viking Age (Clarke and Ambrosiani 1991, 3). This very general definition is sufficiently flexible to fail to exclude any settlement in which the authors might be interested; its relativism allows the natural patterns in the archaeological material to be studied without abstract limitation. A serious terminological problem develops out of this, however, in that many of the archaeological settlements which are thereafter studied by Clarke and Ambrosiani under the definition ‘town’, such as Skien in Norway (*op. cit.* 67) are not settlements which we would intuitively recognise as such, and which do not fit with our acquired understanding of the word ‘town’. Even though the definition is made explicit, the incompatibility of the defined term, with its historical bases, and the commonly understood term, can lead to misunderstanding.

One of the aspects of urbanism, for example, which is neglected by Reynolds definition, but which is important in archaeological terms, is the relative size and density of population in an urban settlement. It is stated that: ‘Its [the town’s] social distinctiveness probably derives partly from the greater density and size of its population (though some agricultural villages may be larger than some towns)...’ (Reynolds 1977, ix). Population levels in early Mediaeval settlements are often difficult to determine from the documentary evidence, which may be one of the reasons for the underemphasis on this characteristic, but size is crucial to our own

perception of an urban settlement, and the emergence of increasing archaeological evidence for specialised non-urban settlements in the Early Mediaeval Period, such as Dankirke and Helgö (see Chapter IV.1.1), suggests that additional characteristics could be incorporated into Reynolds definition without losing the adaptability which is its strongest characteristic.

II.2 ARCHAEOLOGICAL CONCEPTS OF URBANISM

Largely because of the nature of archaeological evidence, archaeological concepts of urbanism have tended from the early days of the discipline to be multi-factorial and articulated through the medium of the archaeologist's theoretical stance (see Appendix A).

Vere Gordon Childe was one of the earliest authors to attempt to develop an archaeological definition of the nature of urbanism. Working within the culture historical paradigm characteristic of archaeological thought in the first half of the twentieth century, his own understanding of cultural development was profoundly shaped by Marxist evolutionary models of political history. It was within this context that he presented an influential article on 'The Urban Revolution' in 1950, examining the concept of the 'city' in the light of the archaeological record. The framework into which the 'city' was fitted was one of an hierarchy of three stages - 'savagery', 'barbarism' and 'civilisation' in which the latter was characterised by urban life, and the others by hunter-gathering and agriculture respectively. Urbanism was seen as arising naturally, if rapidly, when population density reached a certain level under certain geographical circumstances; in the case of his article, the circumstances were provided by the limited area of the flood plains of the Near East (Childe 1950, 4-8). This data was then compared with material from the Mayan culture of Mexico, and a number of characteristics of 'cities' deduced from the results (*op. cit.* 6-18).

The characteristics which emerged from this article were many and detailed; it was an approach and a specific 'bundle of criteria' which were to have a long-lasting impact upon the archaeological aspects of the study of urbanism. Firstly, a city must be relatively large and densely populated; Childe quoted estimates of Sumerian urban

populations between 7 000 and 20 000 (*op. cit.* 9-11). Secondly, the city must contain specialist classes who were not agricultural workers at all (*op. cit.* 11). Thirdly, occupants of a city must tithe or pay tax on their surplus production to an imaginary deity or divine king (*op. cit.* 11-12), while, fourthly, monumental public buildings in the city symbolised the concentration of the surplus (*op. cit.* 12). Fifthly, a ruling class with preferential access to the surplus would be evident (*op. cit.* 12-13), and sixthly, literacy would be necessary for recording the surplus gathered (*op. cit.* 14). Further, this would lead to the development of exact and predictive sciences (astronomy, arithmetic, geometry) necessary to control the surplus production through the creation of calendars (*op. cit.* 14). ‘Conceptualised and sophisticated’ naturalistic styles of art, not abstract styles, would emerge in the wider society (*op. cit.* 15). The surplus production would be used to pay for the importation of foreign raw materials, both luxuries and industrial needs e.g. metal, in cities which were inherently dependant upon long distance trade (*op. cit.* 15-16). In return for the surplus extraction, the city provided security in a state based on residency not kinship, meaning that craftsmen were no longer itinerant, as Childe believed they had previously been (*op. cit.* 16). These ten factors were seen as a basic and cross-cultural definition of a city.

The clear dangers of this theoretical approach were twin. Firstly, its circularity. The characteristics which emerged were ones which were to a degree natural to the database, but the material in the database was determined by the author’s inarticulate, pre-existing concept of what a ‘city’ looked like. Only ‘cities’ were included in the material bases of a study which aimed to define what a ‘city’ actually was. Secondly, the essentially descriptive nature of the approach concealed a heavily value-laden agenda. Urbanism was seen as a natural development inevitable at a certain level in the evolutionary ‘progress’ of humanity on an upward trajectory towards more complex and ‘higher’ stages of social evolution. The theory avoided the discussion of process, and made generalised and inexplicit links between the social and the physical, for example tithing, deity, monumental building and urbanism, which were determined by the theoretical presumptions of the author rather than being an inherent and essential element within the material.

Importantly, however, Childe avoided including specific physical characters in his

urban definition (apart from monumental building), on the basis that many such characteristics, for example a bounding wall, communal sewerage, building on more than one storey, were visible in other settlements which he did not perceive as ‘cities’ (*op. cit.* 16). The essentially social nature of urban life was recognised in this definition, which attempted to tread the fine line between identifying social characteristics of urbanism, and predetermining their necessary expression in the archaeological record of a specific site. This was an element in the definition of towns which was to be neglected in many other archaeological works on urbanism.

In response to, or indeed reaction against, this highly detailed approach, Colin Renfrew adopted a radically simplified definition of urbanism in his monumental work on the emergence of civilisation in the Cyclades (Renfrew 1972). Working within a systemic understanding of the operation of human culture, Renfrew adopted a definition first proposed by Clyde Kluckhohn, where an urban centre was one with two of three characteristics, covering literacy, a monumental ceremonial centre and a population over 5 000 (*op. cit.* 7). Urban life was, as in Childe’s work, inextricably linked as a defining characteristic to a stage of ‘civilisation’. These three elements made for ease in determining the forces acting within the systems of the prehistoric islands to develop an urban culture, but failed to define settlements which were multi-functional. One is bound to ask whether a literate settlement of over five thousand people who were all employed in subsistence agriculture could be called a city, despite falling within the parameters of the definition, and similar doubts would arise about a monumental ceremonial centre with written records, but no permanent population.

The historico-legal definition, mentioned above, of a town as a settlement with a town charter, has never been entirely compatible with the archaeological source material. Where it has been used, it has frequently been only one in a group of topographical, economic and legal characteristics which went to define ‘the town’; an important example of this approach is Martin Biddle’s attempt to define Anglo-Saxon towns (Biddle 1976, 100), where the characteristics listed were: defences, planned street system, market, mint, legal autonomy (i.e. town charter), central place function, relatively large and dense population, diversified economic base, plots and houses of urban type, social differentiation, complex religious organisation, and a judicial

centre. The elements chosen in this list suit the material with which Biddle was working, and attempt to incorporate both social and physical characteristics. It also established parameters which define a settlement which we can recognise as a town in the terms of our modern use of the word, but in its very specificity, it is a definition which excludes many settlements which we would intuitively recognise as urban, and which lie outwith the cultural and chronological bounds of this database.

Richard Hodges in his essay on the economics of Early Mediaeval Europe (Hodges 1982) also developed a polythetic approach to urban communities. He stated:

‘An urban community is a settlement of some size and population which is markedly larger than communities concerned with subsistence alone; the majority of its inhabitants, moreover, are not engaged in full-time agrarian pursuits. Such a community should include the presence of more than one institution...’ Hodges (1982, 23)

This neat and flexible definition is one which is relatively easily identifiable in the archaeological record, but which notably does not mention that the population of the settlement should be permanent. That this should be an oversight is difficult to believe when the author proceeds to discuss the question of seasonal markets (*emporia* type A - Hodges 1982, 50). Although the definition allows the author to analyse the archaeological material in a way which is congruent with its natural limitations, the question again arises whether we would recognise as urban a seasonal fair. This is not to argue that the parameters of the essay are wrongly placed, more to raise the question of whether, in this case, ‘urban’ is the correct terminology to apply to this type of site. Hodges stated clearly that he chose the definition because it ‘distinguishes beyond doubt the *emporia* which are to figure prominently in this book’ (*op. cit.* 25).

The difficulties associated with attempting a definition of the ‘town’ which relates to both our understanding of the term, and to the archaeological and historical material, without providing a controlling framework which rigidly defines the patterns emerging from our research on Early Mediaeval towns are sufficient that a number of archaeologists have abandoned the attempt. Of particular importance in the light of the subject of this thesis are the Scandinavian archaeologists, whose approach to the material is coloured by the awkward temporal position of the Viking Age on the cusp

between Prehistory and the Mediaeval period in mainland Scandinavia. Mediaeval archaeologists working backwards in time towards the roots of urbanism, particularly in Sweden but also in Denmark, have hotly debated the existence of urban settlements in the Viking Age, given that their definition of towns has been dominated by the Mediaeval sources. Anders Andrén, for example (Andrén 1985) tied urbanism to feudalism in an essentially Marxist and evolutionary approach, defining urban centres by the existence of centralised feudal institutions. Axel Christophersen, examining the emergence of towns in Norway, followed an explicitly historical definition, where the existence of legal market rights defined the urban centre (Christophersen 1989). Both these approaches, despite their detailed differences (see below), excluded the possibility of a 'pre-historic town' as being a contradiction in terms, and leaned heavily on elements of definition already present in Childe's definition of forty years earlier.

II.3 RECENT THEORETICAL RESEARCH INTO THE ARCHAEOLOGY OF URBAN DEVELOPMENT IN EARLY MEDIAEVAL EUROPE

Although the past three decades of archaeological work in North-Western Europe have been particularly characterised by an expansion of excavation within an urban context, the amount of analytical synthesis of this material has been relatively small. Large Viking Age settlements have been excavated from Russia (Brisbane ed. 1992, Clarke & Ambrosiani 1991, 107-172) to Ireland (Bradley ed. 1984; Wallace 1984, 1985, 1992; Clarke 1998). The information from a great many of these sites has, however, yet to be incorporated into a wider understanding of the development of urbanism in Europe. Such theoretical assessments of the material as do exist have tended to focus upon either Scandinavian Mediaeval or upon Anglo-Saxon and Frankish settlements.

The area of north-western Europe relevant for this thesis covers major cultural and historical differences that had a profound impact upon the process of urbanisation. Crucial to our understanding of the development of towns in Scandinavia and the Danelaw is the realisation and articulation of these differences, of which one of the most important is undoubtedly the historical fact that Scandinavia lay outwith the

Roman Empire, while the Danelaw lay was within it. Although no part of northern Europe could be wholly excluded from the Roman sphere of influence, Sweden and Norway were sufficiently distant from the Empire that the impact was indirect. Thus, in Scandinavia, the prehistoric Iron Age continues uninterrupted until the beginning of the Mediaeval period in ca. AD 1050.

Christian conversion came relatively late to Scandinavia. Although it was undoubtedly a gradual process, with at least two centuries of active missionary work preceding the official conversion of Denmark under Harald Bluetooth in the 960s, Norway under Olaf Tryggvason and Olaf Haraldsson in the late tenth and early eleventh century, and Sweden, under Olaf Skötkungen also in the early eleventh century, the chronological association of the conversion with the other radical changes in society occurring at the end of the first millennium seems to have exaggerated its impact. Conversion took place as a result of organised missions by the Roman Catholic church¹ from the bishopric of Hamburg and Bremen by men such as Anskar, and Adam of Bremen. The church brought with it a highly organised, urban system of bishoprics, literacy in Roman script, a separation of the spiritual and secular² and a centrally focused idea of kingship tied in with the concepts of consecration and divine right, which served to change the ideology behind many central aspects of the organisation of Scandinavian society.

For many years, academics believed that the development of towns in Scandinavia was associated with the development of the state, and the latter with the historical events surrounding the conversion to Christianity. Sigtuna³, in Central Sweden, was seen to exemplify the relationship between Church and urbanism, with its central church of St Gertrud, outlying churches and chapels, and historical connection with Olaf Skötkungen (Bäck and Carlsson, 1994, 110). It has also been argued that the rise

¹. It has recently been suggested that it is possible that some areas of Sweden were influenced by missions from the Eastern Orthodox Church, particularly the island of Gotland, which had close links to the Scandinavian colonies in Russia during the Viking Age (Sjöberg, 1985:69-77, and Jörn Staecker, 1996, pers. comm.).

² The Icelandic sagas seem to indicate that, while paganism was commonly practised, the spiritual and the secular were integrated in the person of the local chieftain or *goði*, and that this gave the chief additional authority.

³ The first Central Swedish coinage was minted in Sigtuna by Olaf Skötkungen, and bore the legend 'Situna Dei', i.e. God's Sigtuna.

of urbanism was functionally linked to the introduction of a feudal system of economic administration, in the period after the turn of the millennium (Andrén, 1985, 253-4).

The contemporaneity of these major shifts in the social organisation of Scandinavia, and thus in the archaeological record led to questions of urbanism and state development being seen as essentially Mediaeval and historical problems, and thus reduced the purely archaeological input which might have been expected by approaching them from their prehistoric roots rather than from their high Mediaeval successors. This approach has exaggerated the differences between prehistory and Mediaeval archaeology as disciplines, and caused an important intellectual gap in research between the Late Iron Age (i.e. the Viking Age), which was the preserve of Prehistorians, and the Early Mediaeval Period (i.e. post mid-eleventh century), which was the preserve of Mediaevalists. This gap can be exemplified by the ongoing debate about the relationship between Sigtuna and Birka in Central Sweden (see chapter IV.1.2.2) (Bäck and Carlsson, 1994, 110; Tesch, 1990, 23).

Outwith Scandinavia, debates during the past decade about the development of urbanism have been carried out in the shadow of Richard Hodges' re-examination (Hodges 1982) of Henri Pirenne's thesis of the pivotal interrelationship of Mohammed and Charlemagne (Pirenne 1939, 1992) in the socio-economic development of early Mediaeval Europe. Working within the context of a systemic paradigm, Hodges nonetheless made an attempt to incorporate the role of historic individuals as catalysts and initiators, into a description of the economic basis of urbanisation. The eventful years of the late eighth and ninth centuries, with Charlemagne's reign ended by his death in AD 814, civil war against his son Louis the Pious from c. AD 830 to Louis' death 840, thereafter resolved by treaty of Verdun 843, which split the empire between Louis' three sons, are used as an explanation for the fact that there were 'no signs of *widespread* urban growth before the later eighth or early ninth century' (Hodges 1982, 188, italics mine) in Carolingia. The thesis uses the term '*emporia*' for those settlements which existed at an earlier date, defining them as urban (*op.cit.* 23), but seeing them as rooted in the control of long-distance

trade (*op. cit.* 65), and fulfilling a redistributive role in a tributary society. Emphasising the wealth of the early Mediaeval peasant (*op. cit.* 136-7), and the homeostatic nature of human culture, he draws the conclusion that: 'craft activities are only integrated to underpin a competitive market system when this system in England and in Scandinavia is vigorously encouraged by central authority' (*op. cit.* 163). The role of the church in the creation of this centralised authority, both through the secular struggle to contain its power, and in the development of the sacred nature of kingship (*op. cit.* 191), is seen as central to the development of the so-called 'secondary' state (i.e. the states outwith the old Roman heartland - England and Scandinavia). With regards to the nature of these states, he states: 'the central place is not a feature of the Anglo-Saxon, Scandinavian, Irish or indeed Carolingian system of political control; it is an innovation dating from relatively recent centuries' (*op. cit.* 190), on the understanding that peripatetic kingship was common to all these polities. The logic of the connection is not entirely clear, however, since the peripatetic kings may have moved from one central place to another.

Discussing early urbanism, the *emporia* were divided into a three part typology by Hodges. Type A was an early, vestigial, seasonally occupied market, epitomised by the enigmatic sixth to seventh century settlement at Dorestad, and Löddeköpinge in Sweden (*op. cit.* 51). Type B demonstrated planned streets and dwellings over earlier 'clusters of structures', with increased numbers of 'alien traders' (*op. cit.* 52) and a native work force, typified by eighth century *Hamwic*. Type C was seen as emerging following the decline of the international trading rationale, and based upon a regional economy and local diversification. This would be demonstrated by a relative decline in imports, and the emergence of central place functions, possibly with associated defensive works.

Although hugely important in its time, a number of important criticisms can be made about this analysis. Not the least of these is that the ever increasing information available about seventh to ninth century settlements in England and Scandinavia suggests that they were geographically varied, and that the systemic-economic approach to the history of the area generalises beyond what is acceptable. The simple typology of intermittent *emporium* A, permanent *emporium* B, and the truly urban C (*op. cit.* 50-52), no longer fits the evidence without straining, nor does the

evolutionary model (*ibid.* 65). There is increasingly less evidence for the existence of the type A *emporium* as a precursor of types B and C - the two type sites which Hodges used, Dorestad and Löddeköpinge, are neither of them particularly convincing. Evidence for the nature of sixth to seventh century settlement at Dorestad is slight to the point of non-existence, and the seasonally occupied settlement of sunken-featured buildings at Löddeköpinge, although unquestionably a precursor of a Mediaeval market town, is also undoubtedly contemporary with sites such as Birka. It seems likely, given the relatively small amounts of imported material at Löddeköpinge and its large amounts of textile working evidence (Ohlsson 1976), that it was a site with a primary specialised function, possibly the production of sailcloth (Andersson 1996, 42-55) in a socio-economic network of contemporary settlements with varying roles.

The weakness of the evidence for type A undermines Hodges understanding of the nature of the type B *emporium*, which can no longer be seen as a natural evolution from an earlier form of market settlement. The implications of the creation of these settlements are therefore even more striking than Hodges states (Hodges 1982, 52), given that they appear to represent planned settlements established on essentially green field sites. Again, more recent evidence from one of the type sites, at Hedeby, on the Danish-German border, weakens Hodges argument. Previously believed to have been a type A *emporium* of the eighth century, succeeded by a large, planned, type B *emporium* of the ninth to eleventh centuries, doubt has been cast on the dating of the putatively earlier (type A), unplanned settlement of sunken-featured buildings south of the main settlement (see chapter IV for the details of this argument). It now seems probable that the two settlements are contemporary, demonstrating functional rather than chronological differences.

The proposal that a 'type B' settlement is not based in the regional economy of its area, as well as on long-distance trade, is also unconvincing. Whether the regional economy was specialised prior to the existence of such a settlement is, of course, difficult to prove, but the very existence of a site such as Hedeby, or *Hamwic*, must inevitably have forced specialisation in the regional economy, whether via a medium of redistribution through a king, or a more open market. Neither does their long-distance trade appear to have been shaped solely by personal relationships between

outstanding leaders as Hodges suggested (*op. cit.* 53). These settlements, once established, seem to have had a life and momentum of their own, and the archaeological evidence does not seem entirely to sustain Hodges' statement that:

'For political reasons, at least, the systems appear to have flourished and declined according to the trade-partnership extant between the leaders of the territories involved, though these partnerships may have operated within a wider political and economic framework.' (*op. cit.* 53)

When these issues are taken into account, the archaeological distinction between a 'type B' and a 'type C' *emporium* becomes so slight as to be essentially indistinguishable. The desire to chronologically categorise sites whose cultural and historical contexts were so widely variant may potentially be inappropriate.

The theoretical basis of the book also has weaknesses. The systemic paradigm does not explain, as indeed the author admits, and it is taken for granted that human culture 'is a homeostatic device' (*op. cit.* 153) and thus inherently conservative. Informed by these assumptions, urbanisation can only be seen as the result, or symptom, of instability. The author attempts to deal with this by presenting individual leaders as the motivators of, and catalysts for, change within the systemic framework. However, the evolutionary paradigm and the concept of the spread of ideas such as coinage through systems from a single source (*op. cit.* 105-107) tend to force the material into generalisations which fail to give sufficient weight to the local context of the material record. Thus, for example, Hodges in his discussion of coinage and trade cannot resolve the issue of the 'hack silver' economy of the Scandinavian world, which treated coin as bullion weight, was self-evidently not centrally controlled, and yet functioned as a highly effective medium of exchange in both regional and long-distance trade (*op. cit.* 116-117). It is a problem which can only find its resolution in the acceptance of the cultural independence of the Scandinavian sphere of influence, and the specific context of its economic development.

In a final attempt to resolve some of the problems raised by the application of a systemic approach, albeit modified, to the Viking Age urban sites of the Scandinavian world, Hodges argued that the regional economies of the mainland Scandinavian countries were only fully mobilised following the involvement of the church. He said:

‘Moreover, as at Ribe, Aarhus, Roskilde, Schleswig, Lund and Sigtuna, we can ... see the influence of the church in the propagation of the market principle. Its role, like that of the kings, appears to have been a powerful force. In the first place, the Christian missionaries must have realised the wealthy rural vein to be tapped and also appreciated that their power lay in isolating the communities rather than permitting the dangerous pursuit of long-distance trade, with all its concomitant spiritual connotations.’ (*op. cit.* 173)

This association of the church with the advent of true urbanism is one which continues to have a profound effect upon Scandinavian studies of urbanism, and the link between the church and the settlements which he named cannot be denied. Whether that link was causal, however, remains unproven. Ribe was an early, important and non-Christian trading and manufacturing settlement; the establishment of Sigtuna post-dated the earliest mission to Sweden by over a century, and pre-dated the construction of the first church in the town by nearly a century (Bäck & Carlsson 1994, 107-110); the very name of Lund strongly suggests that it was an important pagan centre. The reaction of the church to the situation in the various areas where early churches were established does seem to have been related to the peculiar circumstances of each area.

Hodges’ refusal to countenance the concept of proto-urbanism has also attracted critical attention. John Hines (Hines 1994, 7-26), arguing that settlements are ‘essentially economically-adapted artefacts’ (*op. cit.* 8), which developed in a processually logical manner, proposes a case for a proto-urban sequence based on the function of the trading settlement as an indicator of increasing economic strength and complexity (*op. cit.* 7-26). In pinpointing the ambiguity of Hodges’ denial of proto-urbanism, in the light of his failure to clarify the use of the term ‘town’ as a past-state, or as an analytical category (*op. cit.* 17), Hines touches on the issues raised above in the discussion of archaeological concepts of urbanism. An analytical category reflecting our own perceptions of a ‘town’ is cut-and-dried, absolute, and clearly defines a settlement as either urban or non-urban, but the archaeological record, in all its relativity and complexity, yields a material pattern more shifting and ambiguous than can be understood in terms of such a category. Hines therefore argues that a proto-urban sequence is essential to our understanding of the origins of urbanism in North-western Europe, and that “‘real” towns’ only emerged with the collusion of the various forces of Church, Crown and trade (*op. cit.* 22-23). This, of course, is a thesis

which is vulnerable to the newly emerging evidence from Scandinavia, as was Hodges' assertion of the relationship between the mobilisation of Scandinavian economies and the Conversion (see above). The reiterated assertion of the importance of understanding the processual role of specialised settlements existing both prior to, and although Hines does not mention it, contemporary with, the early settlements which we might recognise as urban, is, however, of great importance. To debate whether these should be called proto-urban is, perhaps, merely a matter of terminology.

Hodges' *Dark Age Economics* presents a strong argument that truly urban society 'has characterised western Europe since about 900' (Hodges 1982, 152) and not earlier, but in recent years, as more information has become available, it has become debatable whether there really ^{was} a ^{qualitative} change in the nature of settlement at the beginning of the tenth century. At the beginning of the 1980's, discussion about post-Roman urbanisation was based primarily upon British archaeological evidence, which has been augmented during the past decade by substantial new material from Scandinavia.

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The existence of urbanism in Scandinavia during the Viking Age has been a point of debate among Scandinavian archaeologists and historians over the past twenty years, as a natural result of the research gap which derives from the period's awkward position on the cusp between the prehistoric and Mediaeval disciplines. Competing definitions of urbanism result from scholars' different approaches to the problem: working backwards from a wholly or predominantly documentary and Mediaeval definition, as epitomised by the work of Anders Andrén (Andrén, 1985) and Axel Christophersen (Christophersen, 1989), or working forwards from a prehistoric and archaeological analysis of settlement, such as Björn Ambrosiani and Helen Clarke's examination of *Towns in the Viking Age* (Clarke and Ambrosiani 1991).

Both of these approaches have weaknesses. Anders Andrén's fascinating analysis of the rise of urbanism in Denmark (Andrén, 1985) is essentially Marxist in its approach, tying the advent of towns to the emergence of feudal relations of power, and the institutionalised exploitation of the peasantry in the feudal state, his argument being that the subsistence trade necessary for the support of towns had rent collection and

tithing as its basis. Towns are classified on the basis of their numbers of churches, and the links these demonstrate to the surrounding countryside and royal power. This is an interpretation which, despite its value-laden, almost post-processual paradigm, has strong similarities to many aspects of Hodges' interpretations, and many of the same limitations. The danger of this approach is the seductive circularity of the argument that urbanism is inevitably linked to feudalism, which takes for granted the concept that no pre-feudal settlement can be a town, implicitly pre-empting any possibility of locally developed urban traditions within Scandinavia.

Axel Christophersen, on the other hand, examines the relationship between exchange, kingship and urban development in a model proposed in 1989 (Christophersen, 1989) for the development of towns in Norway, which addresses some of the criticisms of Andrén's ideas by suggesting that trade is the motive power behind the beginning of urbanism, but only insofar as it is an integral part of society. Thus, rather than towns leading to trade, as per Andrén, or economically motivated trade leading to towns, as per Hodges, trade, towns and the emergence of feudalism are integrally linked in the movement from a gift exchange society, to an economic society in an analysis which owes much to Polanyi's concept of trade as 'embedded' in society (Polanyi 1968). Again, this analysis was carried out within the context of the framework established by Hodges. It is important, however, that Christophersen also ties the emergence of urbanism to feudalism, in his case through the emergence of truly feudal kingship, and dates the emergence of true towns to after the millennium.

Helen Clarke and Björn Ambrosiani, in contrast, approach the question of the post-Roman urbanisation of Scandinavia from an archaeological perspective (Clarke and Ambrosiani 1991). Their work, however, is largely descriptive; although it states that 'the accepted hypothesis now is that towns began to develop in response to their immediate hinterlands with which they were closely integrated' (*ibid.* 50), it fails to draw conclusions about why urbanisation occurred in Scandinavia, and whether towns were a development, or if they were founded (*ibid.* 173-4) coming instead to the conclusion that as yet the archaeological material does not sustain a secure conclusion on these points. The authors attempt to tie the location of some sites, particularly Birka, to the presence of royal authority in the immediate vicinity (*ibid.* 75), following the model of royal links established by Hodges (1981,55), but this is weakened, as

they admit, by dearth of documentary evidence (Clarke and Ambrosiani 1991, 175). That there were towns in Scandinavia prior to the development of a feudal society is taken for granted. The question of whether there are local differences in the physical expression of urbanism in the different areas of north-western Europe, and whether these could be used as a means to approach the questions of the socio-political source and function of the settlements, is not addressed.

The Scandinavian theoretical approaches to the definition of urbanism suffer not only from the dichotomy between prehistoric and Mediaeval archaeology demonstrated above, but also from a series of concealed oppositions and assumptions. Anders Andrén, in proposing a criticism of the thesis that trade causes the development of towns, offers instead the suggestion that the establishment of towns leads to the development of trade (Andrén, 1985). Axel Christophersen rebuts this with the idea that urbanism is the province of feudal kings, and their mechanism for controlling trade and traders. However, neither seriously re-examines the nature of kingship and allegiance in the Scandinavian countries during the proto-historic period, instead tending to assume that, whatever its roots, feudal kingship and the feudal system in Scandinavia functioned similarly to the institution in mainland Europe.

This may, indeed be true. It is interesting, however, that Snorri Sturlason, in the *Ynglingasaga*, examining the history of the kings of Norway, commented that kings were lords over ships and sea. This is a later perception of the role of Viking Age kings and therefore not necessarily accurate, but it differs from the 12th century perception of kingship extant when Snorri was writing and must therefore be taken seriously. An article by Herman Lindkvist argues from this basis that ‘‘kings’ in the Mälaren during the late Viking Age engaged more in external appropriation than internal exploitation’ (Lindkvist 1991:140). Some internal power base must, however, have existed for these kings to provide subsistence for retainers, and to enable their control of settlements such as Birka, whose sustenance would have required the surplus of much of the Mälar valley.

That proto-historic kingship, trade, and urbanism are linked does seem likely from both the literary and archaeological evidence. The trade versus kingship/military might opposition does not, however, seem to be a productive approach to the

development of urbanism in the Viking Age; the role of Viking Age leaders appears to have been much more complex, and could perhaps be characterised as ‘merchant kingship’, based on an active interest in high status trade⁴, subsistence trade and military extortion.

Martin Carver, in a series of lectures based largely on archaeological material from the Classical world, proposed the thesis that cities could be interpreted as *Arguments in Stone* (Carver 1993), the physical arena in which the values of politics and authority were played out in the manipulation of the material environment. He argued that the reason for the difficulties encountered in attempting definitions of urbanism which have more than local significance is that ‘a town is not a species of artefact, but a species of idea’ (*op. cit.* 3), i.e. the town has never been a single entity, forming rather a forum for the expression of conflicting ideas and values in different geographical and historical contexts. This definition, or lack of definition, has the advantage of rendering valid our intuitive understanding of the varying characters of specific towns, the product, as they are, of individual histories. The changing morphology of a settlement, its process, therefore becomes the focus of attention, as changing values over time express themselves, or elect not to express themselves (*op. cit.* 50-62).

Carver struggles nonetheless with his lack of definition. Rooting the debate in the Classical world, he is able to say that ‘it began, no doubt, with the invention of the polis...’ (*op. cit.* 3) and thereafter to discuss settlements such as wics, *emporia* and burhs in the context of ‘non-urban strategies’ for the expression of power (*op. cit.* 56-61). But why he concludes these to be non-urban, and how they might therefore relate to the creation of urban settlements in northern Europe is left unclear. The logical, and rather attractive, conclusion to this proposal is that the study of urbanism per se should be abandoned altogether, and the study of settlements left uncategorised. Unfortunately the author does not follow the issue that far. It is, however, a point which will be returned to at various points throughout this thesis.

⁴ A commonly used kenning for ‘king’ in the skaldic poetry which survives from the Viking Age is ‘ring-giver’.

II.4 TOWARDS A CONTEXTUAL UNDERSTANDING OF URBANISM IN NORTH-WESTERN EUROPE

An attempt must clearly be made to address the crucial and complex issue of the marrying of the modern perception of an urban settlement with both the pattern of the material record, and what it can yield of the social understanding of the culture which shaped it. Introducing historical documentation into our definition of urbanism, as Biddle did (Biddle 1976), is a start, but it cannot be allowed to be crucial to that definition, or the historian's problem (see above, II.1) arises again, and urbanism cannot exist in prehistoric societies. In order for an analysis to be comprehensible and relevant to ourselves, while also reflecting the reality of the archaeological data, it must somehow combine elements from both. The data must be allowed to generate its own, natural and appropriate patterns, which must, however, be made understandable in our terms. That this thesis deals with material from the past of north-western Europe (albeit a pagan society much different from our own), and that documentation exists which refers to this society in terms which, though in a dead language (Latin), have resonances in our common speech, is a great advantage.

An article by Knut Helle (Helle, 1994) examines the contemporary literary evidence for the nature of settlements in Scandinavia, drawing attention to the wide variety of Latin terms used, from *vicus* to *civitas*, depending upon which aspect of the settlement most interested the author. Thus, while both *portus* and *vicus* were terms which designated the function of a settlement, as a trading place, or its inhabitants as merchants, and could equally well be applied to a small settlement as to a large, *civitas* meant a 'truly urbanised settlement' (*op. cit.* 21)⁵. The documented eleventh

⁵ *Oppidum* was also ambiguous, while *urbs* had defensive connotations, and Adam of Bremen modifies *civitas* several times with either *magnae* or *maximae*

- *Royal Frankish Annals* (Buchner ed 1966, 78,88) AD 804, AD 808 *portus* of Sliesthorp
- *Vita Anskarii* (Buchner ed 1961, 16-133) AD 865-876 written, Birka, Schleswig, Ribe
- *Orosius* of King Alfred AD 890s (Lund ed 1983,23-4) Skiringssal (Sciringesheale) in S. Norway
- *Adam of Bremen History of the Bishops of Hamburg-Bremen* AD 1070s uses *Vita Anskarii*

century use of the Old Norse of the term *kaupangr* in reference to Trondheim (*op. cit.* 22) probably implied 'town' by that period, although its explicit meaning is 'market'. All these terms relate to vocabulary in the modern European languages - L *portus* - English 'port', L *civitas* - E 'civilised', 'civilisation', ON *kaupangr* - Swedish 'köping', 'att köpa' (market, to purchase), which although they can be misleading, can also deepen our understanding of the implications of the historic terms. It is undoubtedly worth re-emphasising here the caution raised by Susan Reynolds (1987) in her assessment of the ambiguous and imprecise contemporary use of the terminology of urbanism in Early Mediaeval Europe.

Any definition of a town, then must include elements of the contemporary perception, drawn from both the archaeological record and the historical documentation, where it exists, and explicitly articulated elements of our own understanding of 'the town'. First and foremost, it is crucial to our understanding of a town that it is somehow seen as exceptional, or different to the majority of other contemporary settlements, in both its physical/functional and ideological aspects. A town is not a village, nor a farm. The most basic physical and functional differences appear in the area of size and subsistence; towns contain large numbers of people relative to other contemporary settlements, and many of these are not directly and personally dependant upon agriculture for their subsistence. Establishing an absolute minimum population size, as Colin Renfrew did in his study of emergent urban society in the Aegean (Renfrew 1972, 7), is, however, a distraction from the essentially relative and contextual nature

Royal Frankish Annals *portus* merchants' settlement, trading place, Sliasthorpe

Vita Anskarii *portus* Schleswig and Birka

vicus Scheswig and Birka and Ribe, settlement of merchants, trading place, often used in N.

France/Netherlands

urbs of Birka

Adam of Bremen *portus* Ribe

oppidum, Birka

civitas Birka, Hedeby/Schleswig

Orosius *portus* Skiringssal and Hedeby

Adam of Bremen -

civitates maximae, Jylland - Hedeby/Schleswig, Ribe, Aarhus, possibly Roskilde on Sjaelland,

Skara in Götaland

civitates magnae - Odense on Fyn, Trondheim, Sigtuna

metropolis civitas/civitas prima - Lund in Skåne

civitates - Birka, Viborg in Jylland, Wig in Oslofjord (Oslo or Tønsberg?)

NB written in 1070s.

of urbanism as a phenomenon, and urbanisation as a process.

Another cross-cultural and basic aspect of the urban settlement is its function, both ideological and physical, as a means of control. On an individual structure level, architecture is a means of controlling nature, particularly climate and access by other organisms, whether animal or vegetable. This aspect of the control of nature is multiplied by gathering buildings in close proximity, so that the environment in which an individual lives their daily life becomes increasingly constructed and artificial. Control extends also to the movement of the population, and to their productive and destructive activities; observation of production is easy, and therefore taxation of production and control of products by one or a few individuals become more feasible than they would be among a dispersed population. The relative ease of control of production allows for control of trade, augmenting again the possibilities of taxation, and also leading to a potentially increased control of both the non-urban population, and incomers to the society. Axel Christophersen has examined the relevance of this control of trade and production to the development and creation of urban settlements in Norway during the Viking Age (Christophersen 1989, 109-145), arguing that the establishment of towns was linked closely to the development of royal power, and the need to centralise the production of the valuables which had previously been used in a system of redistribution and gift exchange to maintain the status of a more extensive elite of chieftains.

Conversely, however, the urban settlement is also a focus for threats to any centralised authority which may try to control it. The very characteristics which make the town a means of control of the many by the few, also allow it to be used as a destabilising factor in conflicts by elite groups, or in disruptions of the established social order by the mass of the population. As such, the town characteristically forms a focus of ideological control, in both religious and political aspects. It is, of course, unusual for the religious and socio-political aspects of life to be as unintegrated as they are in modern society; the Icelandic *þing* met at the turn of the first millennium to vote on whether the society as a whole should convert to Christianity, offering both political and religious reasons for and against the change, and not distinguishing between the validity of the two types of argument. Although Iceland was a non-urban society at that time, parallels for an integrated religious and political role in an urban

elite are not difficult to find; the position of the British monarch as head of the Church of England is a residue of a long-standing religious understanding of the established order as the will of God, reflected historically in the common occurrence of aristocratic sponsors of religious houses and livings.

An important characteristic which relates more to the process of urbanisation than to the urban settlement in itself is its extensive impact upon its supporting society. The creation of a relatively large, dependant settlement alters the agricultural production of its society from subsistence to surplus; if that economic change has not already occurred, or cannot be made, the town will not survive. This is articulated by, among others, Hans Andersson in his summary of the monumental survey of Swedish Mediaeval towns, *Medeltidsstaden* (Andersson 1985, 172), where the development of urbanism is linked to the development of the Danish and Swedish states.

The town is a built environment, and as such, it is physically expressive of the functional and ideological roles outlined above. These physical reflections are necessarily dependent upon the historical and cultural context of the specific settlement, but some general characteristics are likely to occur. As a result of its role as a means of control, a town will probably show elements of planning, which will not necessarily be static, but may well change over time as the balance of power and function within the settlement shift. Planned aspects of the town may well include zoning of different functions, as was visible, for example early twelfth century Trondheim⁶, where fine metal working was concentrated in one, somewhat peripheral, area, having moved from its original, late tenth and early eleventh century focus near the waterfront.

Another common element of town planning which particularly reflects the control of population is the definition of an urban boundary. This may have a legal as well as, or instead of, physical status, defining the area within which certain activities may take place, and certain persons have rights. The legal rights of medieval towns are well documented, and strong circumstantial evidence suggests that similar special

⁶ This information is derived from a paper given by Tom Saunders at the Medieval Europe 1997 conference, in Bruges, under the title 'Gifts, trade and markets: the shifting place of exchange in medieval society', 4.10.97

rights may have applied to various Early Medieval towns (Hodges 1982, 54-55, quoting *Laxdaelasaga*, *Anglo-Saxon Chronicle* AD 787). Physically, this boundary is often, but not always, represented by a wall or rampart with restricted accesses, sometimes defensible, sometimes not. The clear and explicit separation between 'town' and 'country' is a demonstration of the differentness, the exclusiveness, of the town, and a reflection of contemporary perceptions from inside and outside the wall.

Within the town itself, two important and conflicting elements must be resolved within the architecture. Firstly, the town is full of 'townspeople', urban dwellers who have limited access to space and resources, both physically and economically, because of their dependence upon others for subsistence. Secondly, because of the settlement's role as a focus of ideological control, it is likely that the occupants will have varying status and access to resources. The limitation of access to resources, and any control of the occupants by authority may tend to have a unifying effect upon the architecture, producing limited designs within controlled parameters, such as standardised plot size, common building materials, and conformity in size of living area. In reaction to this situation, the occupants may make deliberate attempts to differentiate and individualise their own buildings, by decoration, internal organisation and other elements within their control. The unifying elements of the architecture will also be mitigated against by the variation in personal circumstances and access to constructional expertise of the occupants, and the requirements of their different occupations; architecture, as the dominant physical element of the town, will probably become a very important means of displaying relative status (see chapter VI for a more detailed discussion of the social role of architecture).

The tendency towards standardisation within urban architecture may also be counteracted by the presence of buildings whose function reflects the role of their occupants within the socio-political structure, or by buildings which have a communal function. Thus, the English Mediaeval town skyline would be dominated by the powerful physical statement of the Norman castle, reflecting the position of its occupant as an active and eminently powerful individual, but also acting as an icon of aristocratic political power. The cathedral or church, though a communal building,

made an equally powerful statement about the presence of God legitimising the focus of political power, and the role of the priest in the heart of the community. Both internal variation and repetition are characteristic of urban architecture.

The process of urbanisation should also be visible in a wider field of material culture. The action which puts in train the process of urbanisation, the planning or establishment of an urban settlement, or the gradual agglomeration and increase of complexity in an existing settlement, transforms the whole of surrounding society from non-urban to urban. The town must be sustained, and in the material record, this dependent settlement should be visible not merely as an artefact in itself, but also in the development of subsistence trade, if such did not exist before. The town must be fed, watered, clothed, warmed, housed and organised, all of which have both physical (resource-based) implications, and sociological implications. The sustenance of the town requires a mental act of acceptance of its existence by the society as a whole. Björn Ambrosiani (pers. comm.) has suggested that the agricultural surplus of the whole of the Mälar valley would be required to support the estimated 700-1000 population of the Viking Age town of Birka. It should not be assumed, however, that urbanism is an inevitable result of a certain density of agricultural occupation, or level of agricultural production; David Caldwell suggests that the lack of urbanism within the Mediaeval Lordship of the Isles on the west coast of Scotland was a deliberate cultural choice, and that alternative, non-urban, specialised settlements performed some specific functions which were elsewhere aspects of urbanism⁷.

The weaknesses caused by forcing the archaeological material into patterns which fit relatively simple theoretical paradigms, or by creating definitions which include the desired material, but fail to reflect our intuitive understanding of the relevant concepts, can be avoided by attempting to understand the archaeological record in its immediate context. The use of theoretical paradigms to illuminate that context should never be exclusive; different theories are appropriate to different aspects of settlement archaeology. Thus, the value-laden, post-processual approach to the use of symbols in archaeology (see Appendix A) can be particularly effective in the understanding of

⁷ This information is derived from a paper given by David Caldwell at the Medieval Europe 1997 conference, in Bruges, under the title 'A Scottish alternative to urbanisation', 1.10.97

domestic architecture (an exemplary case of such a study is Linda Donley's paper on the symbolic decoration of the Swahili house - Donley 1982). In contrast, Tom Saunders' Marxist analysis of modes of production in Trondheim gives a fascinating glimpse into the relations between town and monarch in eleventh and twelfth century Norway (see above, p.29). But to espouse only one theoretical perspective in an attempt to understand so complex a subject, is to court oversimplification.

*mixed
metaphor*

Rather than present a limiting definition of a 'town', and thereafter exclude material which does not conform to it, it would seem more productive in the circumstances of this thesis to look at two specific settlements in their local contexts. Both these settlements, York and Birka, conform to the social pattern discussed above as essential to our recognition of towns, but many of the other settlements which formed their social, chronological and geographical context would not now seem recognisable to us as such. No typology will be proposed, but instead an attempt will be made to assess the degree to which these two towns can be understood to reflect, passively or actively, the socio-cultural patterns of Scandinavian society, and the implications that has for our understanding of the role of such settlements in the contemporary Scandinavian world.

CHAPTER III

BIRKA: A PORT IN THE KINGDOM OF THE SVEAR

*'Proponerat enim eis vicum memoratum Birca quod ibi multi essent negotiatores divites et abundantia totius boni atque pecunia thesaurorum multa.'*¹

Rimbert *Vita Anskarii*
Waitz (ed.) 1884, 41

III.1 HISTORICAL SOURCES

Contemporary historical sources for towns in Viking Age Sweden are few, and refer primarily to the settlement of Birka, which formed the centre for the first recorded mission to the country. There are two major historical sources which refer to the settlement at Birka. The primary, and near contemporary, source is Rimbert's *Vita Anskarii*, the hagiography of Anskar, known as the 'Apostle of the North'. Derived from this, and other sources in the Archbishopric of Hamburg-Bremen, is Adam of Bremen's History of the Diocese of Hamburg and its Bishops, which includes a geographical description of the 'Islands of Scandinavia' (Adam of Bremen, *Gesta Hammaburgensis ecclesiae pontificum*, book 4, trans. Tschan 1959:186-223).

Rimbert's Life of Anskar was written immediately following Anskar's death in the late ninth century, and from his personal knowledge of Anskar and of Sweden (to which he had travelled at Anskar's behest). He was writing at a time when the archepiscopate of Hamburg-Bremen had particular political difficulties within the church, and when its influence was being eroded by competition over the Scandinavian countries. As Anskar's successor as archbishop, the sanctity of Anskar and the impact of his missions to Denmark and Sweden were the most important of Rimbert's assets in the manoeuvring required to preserve the diocese. It was therefore of great importance that the missions should be documented, and Anskar's claim to canonisation reinforced. The personal background and piety of Anskar's young life are described, and his call to the church through a vision of the Virgin Mary. It was only after some time as a monk and teacher at the monasteries first of

¹ 'He offered them the town of Birka, because there were many rich merchants there, an abundance of all types of wares, many valuables and much money' (my translation).

Corbie, and later New Corbie, that he was called to the mission field in Denmark, following the baptism of King Harald of Denmark, by the Emperor Ludwig, son of Charlemagne, in AD 826 (Rimbert *Vita Anskarii*, trans. Svenberg 1986, 22-25). In company with another monk, Autbert, Anskar travelled to Denmark, and it is clear from Rimbert's description both of the conditions of their calling, and their own states of mind, that Anskar travelled with martyrdom in mind.

Towards the end of the 820 s, following the death of Autbert from illness, Anskar was recalled to court, to be sent out on a mission to Sweden, following a request from the Swedes (*op. cit.* 26). In company, again, with monks from New Corbie, he travelled north along with a trader, and following an attack by pirates after which some of his associates turned back southwards, he completed a journey to Birka on foot (*op. cit.* 27). Birka is described as a *portus regni* (*op. cit.* 87), that is, a port in the kingdom (of the Swedes). This initial description is expanded by indications of the importance of Birka in chapter 11, where the text says: '*Ubi benigne a rege eorum, qui Bern vocabatur, suscepti sunt...*' (Rimbert, *Vita Anskarii*, Waitz ed. 1884, 32)². Some sentences later, it is made clear that the settlement had a reeve, or sherriff: '*Inter quos etiam*³ *praefectus vici ipsius et consiliarius regis admodum illi amabilis Herigarius...*' (*ibid.*)⁴.

This initial visit to Sweden is said to have lasted one and a half years, when Anskar was recalled by the Emperor to fill the newly created archepiscopal seat of Hamburg, with responsibility for the Scandinavian countries (Rimbert, *Vita Anskarii* trans. Svenberg 1986, 30-31). One of his first acts was to send a bishop to Sweden to fill his place; precisely where this bishop was sent is not specified, but it is said that he was well received by the king and the people, and began to build a church (*op. cit.* 32). Given that the only place thus far named in relation to Sweden is Birka, and that the king was linked with Birka, it seems probable that Bishop Simon (previously known as Gautbert) was based in Birka.

Difficulties followed, and Bishop Simon and the Church were driven out of Sweden. In chapter 19, Rimbert follows the story of the Christian reeve, Hergeir, and his miracles and

² 'They were warmly received *there* by the king of the land, who was called Björn' (italics and translation mine)

³ Rimbert refers here to those who had converted to Christianity.

⁴ 'Among them was the reeve of the town, Hergeir, who was the king's advisor, and highly valued by him...' (translation mine).

life, leading to the tale of the attempted sack of Birka by an exiled Swedish king, Anund. Importantly, this provides more descriptive passages about the settlement. Anund offers the town to his Danish followers '*quod ibi multi essent negotiatores divites et abundantia totius boni atque pecunia thesaurorum multa*' (*op. cit.* 41)⁵. The Danes provided 21 boats and Anund himself 11, and attacked the settlement by surprise when the king was absent and the aristocracy had no time to gather. According to Rimbert, Hergeir and the population of Birka took refuge in the fort which was near the town, which was '*non multum firma*' (*op. cit.* 42)⁶ and negotiated a ransom of one hundred pounds of silver. This failed to satisfy the Danes, although Anund accepted it, because '*unumquemlibet negotiatorem plus ibi habere, quam sibi oblatum fuisset...*' (*op. cit.* 42)⁷. The town was saved from total destruction by a miracle, and by Anund's argument that the town had once had a church, and was therefore protected by Christ⁸.

The final important piece of information about Birka which is embedded in Rimbert's text is in chapters 26 and 27. Here, on a return visit to re-establish the Christian presence after years of intermittent trouble from the inhabitants of the town, Anskar seeks permission from the king, and is told that because the people drove out the priests, the *Ping* must decide whether he is to have permission to preach again. First a meeting of the aristocracy investigated the question by the casting of lots (Rimbert, *Vita Anskarii*, trans. Svenberg 1986, 55), and then the *Ping* met in Birka to discuss the matter openly. The positive decision which was taken had then to be confirmed by the meeting of another *Ping* in another part of the country, before the mission proceeded (*op. cit.* 55-56).

Rimbert, in emphasising the authority and extent of Anskar's mission to Sweden, gives a near contemporary picture of a settlement whose many functions included three very important urban elements. Birka was an administrative centre with both parliamentary (*Ping*) and royal presence; it was a notably wealthy trade centre with 'many rich merchants';

⁵ '...because there were many rich merchants there and an abundance of all types of wares, and many valuables and much money.' (translation mine)

⁶ 'not very strong' (my translation)

⁷ '...every merchant there owned more than had been offered to them' (my translation).

⁸ '*...ibi etiam ecclesia olim constructa est, et cultura Christi a multis ibi christianis excolitur, qui fortissimus est deorum et potest sperantibus in se quoquo modo vult auxiliari.*' (Rimbert 1884, 43) '...there was once a church built there, and many Christians worship Christ there, who is the strongest of the gods and can help those who believe in Him in any way He will.' (translation mine)

it had a ritual function and church. The size of Anund's attacking force of 32 ships also suggests that the settlement at Birka had a substantial population.

Adam of Bremen wrote in the late eleventh century, while he was employed as a teacher in the diocese of Hamburg, a History of the Archbishops of Hamburg which was designed to demonstrate the natural right of the archepiscopate to ecclesiastical authority over the Scandinavian countries, and its precedence in relation to the later establishments in those countries. Its description of the initial missions to Denmark and Sweden is openly derived from Rimbert (Adam of Bremen, *Gesta Hammaburgensis Ecclesia Pontificum*, trans. Tschan 1984,37), and its greatest value as a source is therefore its geographical 'Description of the Islands of Scandinavia', which comprises the fourth book in the volume (*op. cit.* 204-239).

Adam refers in passing to Birka, as if its site were well known, but fails to describe it in detail (*op. cit.* 220, 228), in contrast to Uppsala (*op. cit.* 224). However, given that his interest is in the religious status of Sweden, this concentration upon the putative pagan religious centre of the country is understandable; he also fails to describe Sigtuna, although he mentions it as a 'large community' (*op. cit.* 221) once, and in passing once more (*op. cit.* 224). The fact that he does not refer to Birka as a community at all, merely as a geographical reference point, suggests that he either knew nothing about it, or that the site was no longer populated.

III.2 SITE LOCATION

A site on the island of Björkö, in Lake Mälaren, in Central Sweden (see fig. 1) has been identified for nearly 800 years with the town of Birka (Ambrosiani 1992:14) which is described in Rimbert's *Life of St Anskar*. From the eighteenth century, however, this identification has been a matter of dispute, due largely to the pivotal historico-political role which Anskar's Birka has been perceived as filling in the history of Sweden as a nation (*ibid.*). Regardless of the precise identity of the site on Björkö, it has been clear since the seventeenth century, when Johan Hadorph, the State Antiquary, visited the island, that this is a Viking Age centre of unique wealth and complexity, and first importance in the archaeological record of the country, and as such, the site was bought by Riksantikvarieämbetet (the Central Board of National Antiquities) in the early years of this

century, and fieldwork there has been tightly controlled.

The site is located on an island, Björkö, in Lake Mälaren, presently occupied by two farms, and a total of nine people (rising to as many as 20 during the summer). The Viking Age occupation concentrated on the northern edge of the island (see fig. 1), around a natural harbour, with a hill fort immediately to the south. The occupied area is bounded by a semi-circular rampart, probably of the tenth century, outwith and under which lie extensive barrow cemeteries. The eastern part of the rampart and associated cemeteries have been ploughed out, but much still remains visible on the northern side of the town, in the area called *Herslanden*. Estimates of the size of the settlement, based on the cemetery excavations carried out by Hjalmar Stolpe in the late 1870s, suggest a population of between 700 and 1000 per generation (Ambrosiani 1985:107). Finds from the excavations carried out by Stolpe in both the occupied area and the cemeteries suggest that the site was abandoned abruptly in the last quarter of the tenth century.

Assessments of the rate of isostatic readjustment of the Swedish landscape indicate a substantial rise in land level relative to sea level since the last ice age. Practically, the result of this process of geological change has resulted in a relative fall of sea level of around 5m since the beginning of the ninth century (Ambrosiani 1985, 66-8), with the result that the site of Birka, which during the Viking Age was situated on a very small island in the centre of a sea inlet and surrounded by other small islands, now lies on an island twice the size it was eleven hundred years ago, in a very large fresh water lake. The economic and strategic implications of this geographical change were substantial, and are discussed further below.

III.3 PREVIOUS EXCAVATIONS ON BJÖRKÖ

III.3.1 Johan Messenius

A description of the earliest towns in Sweden, published in 1612, was the first piece of research to attempt to locate the town of Birka, and to consider the island of Björkö the most likely site. The work was carried out by J. Messenius, in a volume published in 1612, entitled *Sveopentaprotopolis, thet är the fem förnämste och älste Sweriges och Götes*

*hufvudstäder, såsom äro Ubsala, Sigtuna, Scara, Biörcköö och Stockholm*⁹. The identification of these towns, apart from Birka, was obvious, but the discussion of the site of Birka takes an entire chapter. Based on the birch trees which give the name of Björkö - i.e. 'birch island' to the island), and the fact that the modern name is etymologically the same as the name used in the historic sources (see above), Messenius decided that Birka was more probably located on Björkö than on Öland, the other location which was then suggested. Messenius' work forms the published starting point for the long debate which continues to this day, over the identity of the settlement on the Mälär island.

III.3.2 Johan Hadorph

Hadorph was appointed as the Swedish state antiquary in 1668, and shortly thereafter sent travelling throughout the country, identifying archaeological monuments. His work included the framing of the first antiquities laws in Sweden, but of more particular interest is his description of the site of Birka, and a collection of loose finds from the plough soil, including iron objects, a spindle whorl, a boat rivet and whetstone fragment. He mentions that the area of the settlement was under crops, and marked by the content of charcoal in the soil, which contributed to its great fertility.

III.3.3 Alexander Seton

Seton, as is clear from his name, was a Scot by origin. His tragic life was characterised by two overriding passionate concerns - an ongoing dispute with his family, involving his periodic incarceration for probably non-existent mental illness, and a commitment to the archaeology and history of Sweden. His excavations on Björkö in the mid-1820s, shortly before his death, were carried out in the barrow cemeteries, and resulted in the first map of the cemeteries, made by J. Wilhelm Gerss. A monograph on his work was published by Dagmar Selling (Selling 1945), but the excavations themselves were poorly recorded, and the majority of the material derived from them (which is held in the National Historical Museum in Stockholm) must be considered unstratified. Oral tradition, however, identifies at least one of the relevant mounds, now known as 'Setons hög', i.e. 'Seton's mound', which lies in Hemlanden cemetery, east of and towards the northern end of the rampart. This, Seton's grave III, was a very large barrow, with a raised stone on the top, containing a rich

⁹ This title, which is not easy to translate directly into English, can be most nearly translated as: 'The Five Proto-Cities of the Svear: being the five foremost and eldest capital cities of Sweden and the Goths, which are Uppsala, Sigtuna, Scara, Birka and Stockholm'. Translation mine.

cremation with weapons and horse equipment, therefore probably of a man and horse. It should be noted that even at the time, Seton's haste and lack of care in excavation attracted criticism (*op. cit.* 43-45).

III.3.4 Hjalmar Stolpe

Hjalmar Stolpe's first encounter with the site on Björkö came about as a result of his early training and research interests in entomology. The island was known as a good place to find amber (and thus fossilised insects), and Stolpe's initial desire was to locate what he believed to be a natural source of amber. Very shortly after his arrival at the island in 1871, however, it became clear to him that the area which was yielding the amber was an archaeological rather than geological site, and his interests were diverted into the examination of the settlement (Stolpe 1872, 85)

Following the excavation of a number of irregular pits, to examine the nature of the deposits in the 'Black Earth', Stolpe systematically strip-trenched the urban area of the site over a period of some five seasons (Hyenstrand 1992:29-36). His own excavation notes and diaries, which are not extensive, suggest that the trenches, which were between four and six feet wide, were excavated in a series of squares, with each shovelful of earth examined, and the depth below topsoil of each find noted (*op. cit.* 31 & 45). This, for its time, admirable system seems to have been sabotaged by a number of factors: firstly, Stolpe was not always present on site, and as a result, notes and finds were not consistent. Secondly, his diaries make it abundantly clear that he had no understanding of the stratigraphy which he was excavating, although he recognised it as a varying deposit (Stolpe 1872, unpublished material quoted in Hyenstrand 1992:43), and thus no idea that the depth of finds from the topsoil was not necessarily significant for their interpretation. Thirdly, at some undefined point during later years, when the finds were in the keeping of Statens Historiska Museet (the National Historical Museum) in Stockholm, some of the original labelling was lost, and only *c.* 40% of the 'Black Earth' finds numbers are now identifiable.

Stolpe's own understanding that his grasp of the Black Earth material was inadequate led him, in the years after the World Archaeological Congress of 1874, to concentrate his efforts upon the cemeteries of Birka. Here, the lessons which he had learnt in the area of the settlement were put to good use, and the excavations were a model of precision and discipline, with plans of the graves showing skeletons, structural remains and finds in situ

and to scale. The relative simplicity of the depositional sequences among the funerary monuments gave him a clear understanding of the processes at work in the archaeology of the cemeteries ¹⁰, and, although the excavations were not published during his lifetime, the records were assessed by Holger Arbman during the 1920s (see below, III.3.5), published by him in 1943, and the burial customs further analysed by Anne-Sophie Gräslund (1981).

Between 1873 and 1895, Stolpe excavated approximately 1100 graves in all the cemeteries surrounding the site. The later analyses in the light of a deeper typological understanding of the artefacts revealed that the cemeteries began with scattered, small groups of graves, which Gräslund has suggested may have been family or ethnic groups (Gräslund 1983, 73). These appear to have grown together over the years until a complete or near complete ring of graves surrounded the settlement. A number of Vendel Period graves excavated by Stolpe and by later excavators, particularly Birgit Arhennius, may have been associated with an earlier farm or farms on the island (*ibid.*), although in the light of recent excavations, this conclusion may have to be rethought.

The burial customs associated with the graves showed significant deviation from the prevailing Viking Age custom of the Mälars area, which is consistently of cremation under a mound. Among the graves at Birka, 566 were cremations and 544 were inhumations (*op. cit.* 50); both the cremations and the inhumations might be marked with a mound or stone setting, accompanied or not, and the cremations included urn burials, cist burials and cremation spreads, while the inhumations included coffined and uncoffined, and chamber

¹⁰ '...late autumn 1876. The soil of the field in question consists of gravel covered by a layer of humus of varying thickness, at its thickest where it borders on the black earth. To a depth of 1.5 or 2.5 *fo*t the gravel is usually loose in texture, but below this level it becomes solid, and a pointed iron bar must be used to dig through it. However, the graves penetrate this hard subsoil to a depth of 0.5 to 2.5 *fo*t; through this happy circumstance it is possible to rediscover the original sides, usually before encountering any of their contents. This obviously makes excavation considerably easier. As soon as a firm vertical face has been found, it is easy to establish the orientation of the grave, and all four sides are soon located. Beginning at one corner the loose filling is carefully removed with a knife until the firm bottom is reached, and the work continues in this manner over the entire grave. When nails are found, they are not moved but carefully bypassed, so that when all the nails in the grave have been exposed, a clear picture of the coffin is revealed and measurements can be taken. The nails are usually at the bottom of the grave and point inwards, although sometimes they point upwards, in which case they apparently joined the bottom of the coffin to the sides. Horizontal nails are commonly found at the corners 0.5 or 1 *fo*t above the bottom, and nails pointing downwards are sometimes found at various heights along the sides. ... Sometimes (indeed as often as not) there are no nails at all, and the walls of the coffin at best only appear as dark lines produced by the decaying of the wood. Sometimes a number of smallish stones are found wedged together outside this dark line, suggesting that the coffin was built in the grave pit. Sometimes there is no trace of a coffin, and it would seem that the body was simply laid in the ground.' (Stolpe 1878, 672, translated by and quoted in A-S. Gräslund 1981, 2-3)

burials (Arbman 1943, and Gräslund 1983). Debate has raged since Stolpe's time on the significance of the variation in the burial rites at Birka, and this will be discussed in more detail below (III.6.2).

III.3.5 Holger Arbman

Holger Arbman worked at Birka during the early 1930s, initially examining the rampart and an area called Kyrkvreten in an attempt to locate the site of Anskar's early church, and later excavating in the area of the hill fort, particularly a plateau to the west of the fort, which he identified as Birka's garrison, on the basis of a lack of what he considered 'typical female equipment' (Arbman 1939, 63).

In 1932, a two metre wide trench was cut through the town rampart near its southern end (Arbman 1939, 67), which revealed two phases of construction. The earlier of these was a low rampart c. 0.5m high, with a stone facing on its inner side, with a gravel core and surfacing of turves; to quote Arbman: *'Denna låga grusvall har ej i det skicket kunnat fylla någon funktion form försvarsverk, fienden skulle ledigt ha promenerat över den'*¹¹ (op. cit. 68). The wall was therefore faced on either side with post and plank walls which survived as parallel rows of stone-filled post-holes and rows of nails in the topsoil (op. cit. 67-69). The section drawing which Arbman published also raises the possibility that there may have been a very slight ditch on the outside of the wall, although he does not seem to have observed this, and it may be an artefact of land surface wear immediately outwith the rampart (op. cit. 69, see fig. 44). The second phase of the wall saw it raised by c. 0.5m, with a stone facing on the outside.

The excavations at the so-called Kyrkvreten yielded no evidence of an early church, or any other substantial structures, and the likelihood is that this levelled area at the southern end of the extant rampart is, in fact, a Mediaeval field. If the early Viking Age chapel was here, no clear evidence survives.

The excavations around the hill fort were of particular interest. West of the hill fort lies a slight, concave slope down towards the lake. This is the most vulnerable approach to the hill fort, and had already attracted Stolpe's attention, though with no real results. In 1934,

¹¹ 'This low gravel wall in this form could not have fulfilled any defensive function; the enemy would have

Arbman put in two trenches at right angles to each other (*op. cit.* 62) which revealed two periods of occupation on the site. The earlier consisted of a thick layer of ash towards the top of the slope, which contained large amounts of animal bone, scorched, burnt and unburnt, but otherwise virtually no finds. This contained and covered a number of post-holes in the natural subsoil, which he interpreted as being contemporary with the ash deposits. The whole was interpreted as the site of a beacon (*ibid.*).

The second phase of occupation, finds-dated to post-AD 900, consisted of a gravel and stone terrace laid across the slope, over which lay some 0.3-0.4m of archaeological deposits.

Arbman remarked that: '*Det som giver dessa fynd en särprägel är den totala frånvaron av alla föremål, som direkt höra samman med kvinnor och kvinnlig slöjd; inga kvinno Smycken, inga saxar, inga nålhus, vävredskap e. dyl.*¹²' (*op. cit.* 63). He concluded that the occupants of this area were exclusively men. The large amounts of weapon fragments and pieces of armour led to the suggestion that this was the site of a garrison protecting the northern approach to the fort, and somewhat separate from the town.

This area was clearly occupied and used in a way which was dissimilar to the remainder of the settled area, but little is known of the stratigraphy of the plateau, or the nature of the structures which survived as post-holes only; it seems likely that excavation techniques were still insufficiently sophisticated for the technical problems posed by the dry deposits. In the light of the technical inadequacies of the excavation, it is difficult to be certain what the nature of the settlement on this terrace was. The schematic section drawing published by the excavator (*op.cit.* 64-5 and see fig. 2) suggests that there may have been other early structures predating the terrace, and that the stratigraphy on the terrace itself may have been complex.

Arbman's greatest achievement, however, was undoubtedly the cataloguing and publication of the results from the cemetery excavations which Stolpe had carried out (Arbman 1940-1943), descriptions and illustrations, with location maps of nearly 1100 graves .

III.3.6 Björn Ambrosiani & Birgit Arhennius

strolled freely over it.' (My translation).

¹² 'That which makes these finds unusual is the total lack of artefacts which can be directly associated with women and women's crafts; no female jewellery, no scissors, no needle cases, weaving tools, etc.' (My

An excavation was carried out between 1969 and 1971, on the shoreline of the Black Earth, under the joint direction of Björn Ambrosiani and Birgit Arhennius. This was the first excavation in the centre of the urban area since the unproductive efforts of Stolpe, but concentrated specifically on the shoreline, and the evidence there for marine structures and the economy of the settlement.

The excavation revealed a jetty extending into the harbour, and dating to the 10th century (see fig. 4). It was clearly not contemporary with the earliest settlement on the site (as dated from the unstratified finds from Stolpe's excavations), and seemed to reflect the position of a shoreline and harbour installations which were a metre lower than the level which would be expected for the beginning of the Viking Age (Ambrosiani 1973, 32).

The dating of the excavation is, however, its weakest point, and is exacerbated by the complex mixture of archaeological and geological stratigraphy which is characteristic of shoreline deposits. The report does not give a detailed description of the excavation methods used, but it seems probable that these were similar to the combination of spit and quadrat excavation which characterised the first year of the 1990-1995 excavations (Bäck & MacLeod, forthcoming). This, while a perfectly acceptable approach to simple, geological strata, is far from adequate for the understanding of more complex archaeological deposits, and the fact that fewer than fifteen layers were identified during three seasons' excavation strongly suggests that it should have been possible to acquire more information from the stratigraphy (Ambrosiani 1973, 11).

Birgit Arhennius

During the 1970s, the Archaeological Research Laboratory in Stockholm, under the direction of Birgit Arhennius carried out excavations in many of the more isolated cemeteries on the island. Excavations of five stone settings and one of the three large mounds at Ormknös (reported in Holmquist-Olausson 1993, 46-49) revealed a series of cremations with varying amounts of grave goods. The more richly equipped of the graves were dated to the mid-to late ninth century (*op. cit.* 46), while the more poorly equipped were dated to the Migration or Early Vendel Periods. Radiocarbon dating on material from the large mound indicated that its initial use as a cremation burial was from the very early Roman Iron Age, while the

excavators suggested that the covering barrow had been reshaped and enlarged in the Viking Age (*ibid.*).

Two poorly equipped inhumations and a cremation of a man and a horse were also excavated near Salviksgropen (in cemetery Ormknös B), which were finds-dated to the Early and Late 'Birka' Periods, and the Early Viking Age respectively (*op. cit.* 51-53). In this context, the Early Birka Period is AD 775-875, and the Late Birka Period is AD 875-975 (*op. cit.* 153).

In addition to these, excavations were also carried out in the Kärbacka cemetery, concentrating on three stone settings in the Stora Kärbacka end of the cemetery, and revealing an extremely wide date range for the use of this burial place. A rectangular stone setting A44 covered a cremation and possible secondary inhumation which were probably of Middle Viking Age date (*op. cit.* 62-64), as was a cremation under a circular stone setting with a surrounding ditch (grave 50), which yielded both finds and a radiocarbon date which suggested a tenth century dating for the burial (*op. cit.* 61-62). In contrast, a third stone setting, which was rectangular with a large central block, provided a calibrated radiocarbon date of BC 106 - AD 60 (2010 \pm 70 BP, one standard deviation, *op. cit.* 141 and see Appendix F), a securely Early Iron Age date (*op. cit.* 62).

The excavators concluded that these cemeteries served settlements outwith the urban centre of Birka, but on the same island, and had their roots in the Early Iron Age (*op. cit.* 65).

III.3.8 Lena Holmquist-Olausson

In recent years, particularly during the 1980s, excavation within the urban area has concentrated on the vicinity of the rampart and its adjacent terraces. Lena Holmquist-Olausson carried out a series of surveys and excavations which suggest the presence of a Roman Iron Age settlement and cemetery in the area of the northern part of the rampart, with the rampart itself having its origins in an enclosure palisade for a small terraced settlement of longhouses (Holmquist-Olausson 1993, 134).

At the northern end and highest end of the rampart, adjoining it on the inside, are a series of rectangular, stone set terraces which appear to be building foundations rather than graves (see fig. 3). One of these was investigated in 1988-9 by Holmquist-Olausson, in order to confirm the identity of the structures, and to establish their relationship to the rampart. A

sequence of structures was identified, beginning with the cremation burial of a young adult and a dog, charcoal from which was radiocarbon dated to AD 4-598 at one sigma (uncalibrated 1725 \pm 225 BP, one SD) (Holmquist-Olausson 1993, 95 and see Appendix F). This was covered by a charcoal rich deposit radiocarbon dated on the basis of two samples AD 315-770 (uncalibrated dates 1690 \pm 70 BP, one SD, and 1395 \pm 180, two SD, *op. cit.* 93, 141) associated with a possible hearth, thermoluminescence dated to AD 730 \pm 60 at one sigma, and a row of post-holes, radiocarbon dated to AD 47-692, which the excavator interpreted as a building. The charcoal rich layer extended beneath the rampart to the east (*op. cit.* 92). A piece of seventh century glass, and a single eighth century bead provided the only additional dating from this phase, which apparently spanned the period between the Late Roman Iron Age, and the Vendel Period.

This amorphous building was apparently succeeded by a three-aisled long house with a central hearth, and an entrance in middle of the south-western long wall, dated by two Islamic coins (AD 775-785, AD 835-865 - Holmquist-Olausson 1993, 98), various beads, and a thermoluminescence date from the hearth (AD 720 \pm 60 at one sigma - *op. cit.* 100) to the transition between the Vendel and Viking Periods. However, the thermoluminescence date from the hearth was virtually identical with that from the stratigraphically earlier hearth associated with the first building described above, and coins in the post pipe fills of post-holes in the south-western long wall (AD 904-5, AD 933-937 - *ibid.*) appear to indicate that it continued in use until an eventual destruction in the mid-tenth century. It must therefore be debatable whether this building was, in fact, eighth century in its foundation.

Under the threshold of this building was a richly equipped double burial of two men, the younger of whom lay over the older (*op. cit.* 116). It has been suggested that the upper, and younger, of the two skeletons was sacrificed (*ibid.*), although it is possible to interpret this either as a secondary burial, or as a disturbed burial redeposited in the fill of the grave. Confirmed human sacrifices are otherwise lacking in the Birka cemetery material, and are very rare indeed in the archaeological record of the Viking Age.

Holmquist-Olausson suggests that the long house was succeeded by a sunken-featured building, centred on the same hearth, with a second hearth to the north of this building (*op. cit.* 100 and 103). However, as the sunken-featured building appears only to have been observed in section (*op. cit.* 93), and the structural evidence for it was scant in the extreme, it

is entirely possible that this represented merely alterations to, and continuing use of, the long house.

Outside the sunken featured building and inside the area of the hall which preceded it, was a black smithing hearth, and a second hearth possibly associated with the few (10 in all) pieces of glass waste which were found on this site (*op. cit.* 104). Radiocarbon dates from the charcoal in the second hearth, and thermoluminescence dates from its stones were consistently ninth century (see Appendix F).

This period was generally associated with some evidence for craft production, loom weights, crucible fragments and glass bead waste, but all were present in very small quantities in comparison with similar material from the centre of the urban area. This may simply represent more efficient waste disposal systems in this area, an idea supported by the relative lack of depth of the archaeological deposits adjacent to the rampart. It may alternatively reflect a small scale and essentially domestic mode of production.

Ambrosiani argues that the slight stratigraphy of, and chronological division of finds from, the area adjacent to the rampart is indicative of a lack of continuity in occupation (Ambrosiani 1996, 41). He states that: '*Detta betyder troligen att de människor, som bodde uppe istadsvallsområdet, har flyttat in i stadskärnan. Kontinuiteten i långhusområdet saknas därför*'¹³. The broad range of the dates from the excavations cannot contradict this, but negative evidence, in this case from the finds, is difficult to evaluate, and it cannot yet be said that any discontinuity during the Viking Age is proven or, indeed, likely. It seems more probable that the area which may have formed a focus for an earlier Iron Age farm was absorbed into the expanding settlement to the south and west, and that the positioning of the defences, whenever they were constructed, respected this area of the settlement.

Holmquist-Olausson's thesis postulates a series of progressively more complex high status sites on Björkö, which culminate in the establishment of the trading settlement itself (*ibid.* 135) from this core of settlement 'where both a tradition and knowledge of trade had existed for a long time' (*op.cit.*). This is far from unfeasible, but the excavated evidence for these earlier settlements is limited; public disputes over the dating of the material from the isolated

¹³ 'This probably means that the people who lived up in the area of the town rampart have moved into the

cemeteries have occurred, and the dating of the initial settlement of the rampart area to the Early Iron Age is not uncontroversial. In her 1993 report, the excavator did not detail the sources of the radiocarbon samples on which the dating depends, and given that the supporting thermoluminescence datings were all eighth century or later, it remains possible that this settlement is actually an aspect of the multi-functional nature of the main Birka settlement.

III.4 1990 - 1995 EXCAVATIONS

III.4.1 Introduction

Between 1990 and 1995, the first extensive excavations of the 'Black Earth' (i.e. the densely occupied centre) of the Viking Age site since 1874 took place, under the direction of Björn Ambrosiani, and Kenneth Svensson. The author had responsibility, as Senior Supervisor, for on-site recording, and for the post-excavation analysis of stratigraphic and structural evidence. The basic data resulting from the excavations is presented in Appendices C, D and E. The analysis follows.

The aims of the Birka Project 1990 - 1995, as laid out in Ambrosiani's article on the planning of the project were:

...' to discover whether there was a coherent plot pattern in Viking Age Birka; the shapes of the plots; their permanency or otherwise; and the activities carried on within them. The ecological interaction between Birka and its hinterland during the two centuries of the town's existence, and the environmental changes in the town and beyond are also part of the strategy'. (Ambrosiani, 1992:83)

The wider academic implications of this rather specific agenda are substantial. A planned layout and permanency of plot boundaries clearly demonstrates control of the organisation and function of the settlement by an authority, while the activities carried on within the settlement provide evidence of why the site was needed and its function in relation to a hinterland. All these questions must be answered for an understanding of the development of Birka as a site, and its role in relation to the development of urbanism in north-west Europe during the Early Mediaeval period.

centre of the town. Continuity is therefore lacking.' (Ambrosiani & Erikson 1996, 41)

Isostatic readjustment in Central Sweden means that the land surface has risen approximately 5m since the beginning of the Viking Age (Ambrosiani 1985, 66-68) and the predictability of this rise allowed an approximation of the changing shorelines over the past thousand years to be made. Documentation from Hjalmar Stolpe's excavations of the 1870s was re-examined, and the excavation area located so that it would hopefully avoid the backfilled trenches (Ambrosiani 1992, 87-90). The excavation concentrated, therefore, on an area close to the centre of the natural harbour on which the settlement was sited, between the tenth century shoreline which was located during Ambrosiani and Arrhenius' excavations in 1969-71 (Ambrosiani et al. 1973) and the predicted position of Hjalmar Stolpe's trenches (Ambrosiani 1992, 33 & 87-89). An area near the modern road was chosen (see fig. 5). Cores were taken to assess the depth of the natural subsoil and archaeological deposits, and the initial trial trench located at a point where the height, at between five and six metres above present sea level, suggested that the shoreline would have been during the end of the eighth century and the beginning of the ninth century, and where the stratigraphy was deepest.

This site was chosen to maximise the potential stratigraphic sequence; the location on the putative late eighth century shoreline should have provided evidence of the earliest shoreline settlement, and also the latest. The depth of stratigraphy in this area (up to 2.2m) suggested that plough damage was less here than elsewhere. The trial trench also crossed the projected line of the jetty discovered during the 1969-71 excavations, and could therefore be used to determine whether the alignment of the urban plan, if such existed, was consistent.

III.4.2 The Organisation of the Site

In 1990, an area 10 x 5m, orientated NE - SW, was opened as a trial trench (Ambrosiani 1995, 19-49). The results of that season's excavations were sufficiently complex that it became immediately obvious that the excavated area was too small (*op. cit.* 38-9). The excavation was therefore expanded progressively in 1991 (see fig. 6) to the full extent of c. 350 m², when the site was divided into three areas, Southern, Northern and Eastern, based upon the natural divisions of the archaeology. The major, natural division in the archaeological deposits lay orientated north-south, and was the western edge of the parallel strip trenches excavated by Hjalmar Stolpe in the 1870s; the eastern third of the site was badly damaged by these excavations, which were initially believed to have lain further to the east. The Southern Area consisted of the southern of the two plots within the excavation

area, lying to the south of the 1990 trial trench, and essentially undisturbed by the excavations carried out by Hjalmar Stolpe during the 1870s. The Northern Area covered the northern of the two plots, including the deposits below the trial trench of 1990, but excluding the part of the plot damaged by Stolpe, which lay within the Eastern Area, which was itself defined by a long section marking the westernmost of the strip trenches excavated by Stolpe which lay within the excavated area. Excavation and post-excavation methodology is described in Appendix B, and in more detail in Bäck & MacLeod, forthcoming.

The stratigraphic analysis of the three areas was carried out separately to group level (see Appendix D), at which point, the matrices of the different areas were combined, in order to look at the deposit series over the site as a whole. The stratigraphic sequence of the Northern Area, which was excavated from the topsoil, to the natural subsoil, was the most complete sequence on the site, and as such, the sequences of the other two areas were adapted to it where there were (infrequently) ambiguities in the relationship between the sequences.

The results of the 1990 excavation were integrated into the structural sequences established in the Northern and Southern areas on the basis of their finds, geographical situation and level after all the other work was complete, as the relative lack of subtlety in the excavation of this area made it impossible to cross link s-units, groups or, sometimes, deposit series. It was, however, possible to allocate this material to periods, and nearly always to determine whether it lay inside or outside a building.

III.4.3 The Structural Development of Birka

III.4.3.1 Introduction

The total time span for the occupation of the shore line urban site at Birka was between two hundred and two hundred and twenty-five years, between second half of the eighth century, and the third quarter of the tenth century, dated from finds (see below, B1-B8). Change on site during this period was very rapid, with major shifts in organisation within the plots and associated changes in production and occupation. It must be emphasised, however, that at no time did these changes involve substantial shifts in the north-west - south-east plot boundaries or the location of access points from the littoral zone to the town, both of which were constant from the earliest occupation of the site.

The excavated area covered the whole of one plot, with a half of a second plot to the south also being partially excavated. The two were separated by a lane running eastwards from the shoreline, and another lane, also radiating from the shore line, bounded the site to the north.

The structural sequences are presented in order of their development from the earliest to the latest. Absolute dates were particularly limited, as there was very little organic preservation and thus dendrochronological samples could not be taken except in the earliest period B1. The dating for each structural sequence is discussed in detail, but it should be emphasised that the most disappointing aspect of the excavation was the dearth of dateable material, and many of the dates are therefore based upon finds paralleled on similar, better dated sites, such as Ribe, in Denmark, or on finds typologies based, sadly, on grave goods.

III.4.3.2 Summary

The first period of occupation (B1) consisted of the organisation of the shoreline: the construction and use of a jetty and hard standings, limitation of access to the waterfront, demarcation of a plot largely outwith the excavated area, and, slightly later, the establishment of a plot immediately adjacent to the waterfront structures, and in the excavated area. Throughout B1, the shoreline above the hard standing suffered intermittent flooding. This was followed, in period B2, by the occupation of the shoreline plot, as evidence of flooding disappeared. A small wattle building was constructed, and used for non-ferrous metalworking. The jetty foundation was extended, and a paved road laid out along the northern edge of the plot.

During period B3, two buildings were established on the plot. The northern building contained evidence for both industrial and domestic use, while the southern building appeared to have been a workshop. Non-ferrous metal working continued through this, and the following period, B4, during which the organisation of the plot remained the same. Period B5 saw the western, shoreward edge of the plot marked for the first time, with a slight boundary ditch, reducing the size of the plot, and inducing a corresponding shift eastwards in the two buildings. This was the latest period in which metalworking was evident.

From B6, upwards, part of a second plot, to the south of the line of the early jetty, was also excavated. Two buildings, probably parallel, but possibly at right angles to each other, were

on this plot. The northern of the two was completely excavated, and provided evidence for domestic occupation and small-scale glass working. During this period, the northern plot was almost completely abandoned, being used for dumping rubbish, and possibly for keeping animals. During B7, it was reoccupied, again with two buildings, but no clear evidence for craft production, while the southern plot contained at least one, apparently domestic, building which had been destroyed by fire, associated with a small hoard. Period B8 was the latest occupation of the site. It was substantially plough-damaged, but the structural patterns established in B7 continued, with two buildings on each of the plots. Abandonment of the site appears to have been abrupt.

III.4.3.3 Detailed Period Descriptions

- B1:**
- A5 natural subsoil, the surface of which contained some water-deposited animal bone and small finds
 - A6 structures relating to a plot to the east of the excavated area, including the ends of two boundary ditches and their fills, scattered structural remains of fence lines, and deposits on the surface of this plot.
 - A7 fence lines on the excavated area, marking the boundaries of the plot for the first time.
 - A8 laminated, water-deposited sands and gravels, mixed with domestic rubbish. Flood deposits over the surface of the excavated plot.
 - A9 clear and well constructed fence lines along the boundaries of the plot, post-dating A7.
 - A11 flood layers over the surface of the plot, interspersed with some evidence for drier conditions.
 - A14 early activity on the plot, and a renewal of the northern plot boundary (previously A9)
 - A15 fills in the eastern boundary ditches
 - A16 plot surface which post-dates the quay or hard standing foundations (A64), but pre-dates the first building on the plot (A2)
 - A17 material deposited in relatively dry conditions on a sandy beach
 - A64 stone packings forming the foundation of a quay or hard standing
 - A107 layers associated with first jetty construction and use

DATE: beads - Callmer's type B060 (Callmer 1977, 86) dendrochronologically dated to AD 760 - 780 in Ribe (Stig Jensen, pers. comm.), and type B016 AD 780 - 820 (Johan Callmer, pers. comm.)

combs - the combs and comb fragments from these deposits are of Vendel, 'Frisian' and early 'A' types, whose circulation can be dated to prior to the beginning of the ninth century: in A11 (S3043) Ambrosiani's type A2:8, AD 725-800 and (S2776) type C2 AD 750-800 (Michél Carlsson, pers. comm.).

dendrochronology - three dendrochronological samples were taken from A107 and A6, but the Central Swedish sequence does not extend sufficiently far back in time to fit in the samples. They are stored until it becomes possible to use them.

C14 - a series of six samples taken from every tenth annual ring in a sample of wood from A6 yielded a date of not earlier than AD 800 (see Appendix F)

DESCRIPTION:

The first period on the site consisted of a jetty orientated NW - SE (A107), with the foundations of two quays or hard standings (A64) directly to its north (see fig. 7). The stone-founded jetty was covered by a wooden superstructure which stretched westwards into the water of the Mälar, and the quays appear to have had initially a plank or brushwood covering, with a wattle edging, and later a surfacing of redeposited clay.

To the east of these structures, two drainage and boundary ditches extended 2m into the excavated area (A6). The southern of these had formed the foundation for three large posts, with a fourth (S1218) set in a post-hole at its western end. There was a break of one metre in the eastern part of this ditch, which was bridged by three stake holes. Between the two ditches, a series of major post-holes stretched in an irregular line orientated NNE - SSW apparently marking the boundary of a plot largely outwith the excavated area, to the east. Although one or two of the post-holes could potentially have been merely stone-filled pits, some had post pipes, and the remainder contained wood fragments in their lower layers, indicating that very large posts or piles had been driven into the clay subsoil, and presumably later been sawn off. The function of these, apart from their presumed role as boundary markers, is unclear. Their very large size and position on the littoral edge of the plot has led to suggestions that they may have been mooring posts, but it is difficult to understand the need for so many mooring posts in so small an area. The posts were not closely enough

spaced to form a pallisade.

In the later stages of this period, a series of fence lines (A7 & A9) were built immediately north-east of the jetty, continuing the line of the northern boundary ditch as far as the edge of the northern of the two quays or hard standings, and from the eastern end of the jetty foundation to the western end of the northern ditch. These delimited the plot within the excavated area for the first time, but there was no permanent occupation associated with them. The plot continued throughout this period to be periodically flooded, and the stratigraphy was partly natural, with layers of water deposited sand interspersed with anthropogenic layers of more organic rubbish.

Despite the stratigraphic difficulties caused by the flooding of the plot, it was clear from the sequence of structures in this area that period B1 represented a period of progressive reclamation of the shoreline through a process of rubbish dumping. It is of particular interest that the plot here was clearly marked out, and divided from the adjacent plot to the east prior to its being suitable for occupation. The rebuilding of the fence lines in deposit series A7 and A9 demonstrates that the reclamation took time, and that during that time, the plot, although unusable, had a geographical and, presumably, legal or customary identity.

The impression given by the structures throughout period B1 is that access from the waterfront into the town was tightly controlled from time of the establishment of the settlement. The fence lines which bounded the earliest, unexcavated, eastern plot, and later the plot within the excavated area, provided a substantial, though hardly insurmountable, barrier between the occupied area, and the features of the waterfront itself. It may well be that this was the physical representation of a legal barrier or control of access into the settlement, perhaps defining points where tax or toll would be paid. The fences also establish plot boundaries which, with little variation, persisted until the end of the settlement, indicating its planned nature, and the probability of some sort of urban authority controlling the organisation of the town.

The dating of this period is problematic. The finds, which are of the transitional Vendel-Viking period, suggested a date in the third or fourth quarter of the eighth century, although the disturbance caused by flooding meant that the duration of the period was impossible to assess. Judged from the isostatic readjustment curve for Central Sweden established during

the 1970s (Ambrosiani 1985, 66-68), the height of the front of the jetty, at 6m OD, indicated a dating to the early eighth century, which was substantially too early as judged by the finds. The series of radiocarbon dates from A6 (S1218) was sufficiently later than both these dates to cause surprise; control series are under analysis at present, but until they are available, the dating of period B1 must be said, very vaguely, to lie somewhere in the second half of the eighth, or first quarter of the ninth, century.

- B2:**
- A2 metal casting workshop in slight, shed-like building
 - A4 rubbish layers pre-dating fence line A10, deposited under increasingly dry conditions
 - A10 NW - SE orientated fence line along the northern boundary of the plot, and the associated first paving of the lane to the immediate north of the plot.
 - A13 rubbish layers on the surface of the plot, deposited under increasingly dry conditions
 - A20 deposits relating to the use of the second jetty
 - A21 construction of the second jetty
 - A22 rubbish layers in the area of the new, eastern lane
 - A24 fill of the subsidence over ditch g336/A6/B1, and use of the north-eastern corner of the plot, where the northern and eastern lanes join.
 - A27 boundary ditches and sills around the northern and eastern corner of the plot
 - A28 working surface outside A2, possibly covered by some sort of roof
 - A29 deposits resulting from metal working activities in A2
 - A71 water-deposited layers of domestic and industrial rubbish on the shore line, associated with the use of both the first and second phase of the jetty.
 - A108 layers associated with the second jetty construction and use

DATE: beads - Callmer's type B060 (Callmer 1977, 86) beads (AD 760-780) and Callmer's type B016 (*op. cit.* 81-82) (AD 780-820 - Ulf Kjellén, pers. comm.)

combs - the combs and comb fragments from this period are of Vendel, 'Frisian' and early 'A' types which can be dated to the second half of the eighth century. Specifically, in A22 (S1730) Ambrosiani's type A dating to the eighth century, in A29 (S1992) type C2, AD 750-800 (Michél Carlsson, pers. comm.).

coins - a clipped Abbasid dirhem (Madinat Jayy) AD 778-9 (F47620) (A27, g67, S1207) (Gustin & Rispling, forthcoming)

moulds - the oval brooch moulds are of Petersen's type 27, Jansson's variant A, which are the earliest of the Viking Age oval brooch types, commonly dated to the late eighth century and first decades of the ninth century (Björn Ambrosiani, pers. comm.)

C14 - the radiocarbon dates from period B1 (S1216, A6, B1) provide a *terminus post quem* of AD 800 for this period

DESCRIPTION:

Period B2 was an apparently short lived occupation of the plot, contemporary with a renovation and extension of the jetty (A21). A slight building, wattle walled on three sides and apparently open on the fourth, was constructed in the centre of the plot, respecting the position of the quay foundations from the previous period (A64, B1) (see fig. 8). The hut was provided with a central hearth, which was soon replaced by one in the north-western corner of the building. The floor was of clay, with an area of sand around and under the secondary hearth, and a small, bowl-shaped, warming hearth in the centre of the building, accessible from both hearths. Copious evidence of bronze casting, in the form of droplets, crucibles and moulds, was found in the occupation and rubbish deposits stratigraphically associated with the building.

The northern edge of the plot was bounded by a new fence line of planks and stakes, and a surfacing of the northern lane which cut away all the underlying stratigraphy down to the natural subsoil. This lay slightly to the north of the earlier northern boundary ditch (A6, B1) and northern fence line (A9, B1), and extended past the eastern end of the northern of the two quay foundations (A64, B1). It seems likely that this fence line stopped at a point adjacent to the northern of the quay foundations where the ground was too wet for occupation, as, at a slightly later date, it was extended with wattle panels so that it stretched the full length of the north-eastern side of the excavated area.

The jetty was extended eastwards, and the level of the foundation raised, possibly to allow it to extend further out into the water, possibly to accommodate larger boats. Its orientation also shifted marginally northwards. This foundation (A21) was clearly stratigraphically later than the post-hole in the previous period (S1218, A6, B1) which provided the problematic

radiocarbon dates referred to above.

The evidence from the finds in the rubbish layers both within building A2, and on the surface of the plot surrounding it, indicated that this building was industrial in function. This does not exclude a domestic function, however, and it is important to note that, despite the small size and relatively insubstantial construction of A2, there is no archaeological evidence that it was other than permanently occupied.

The dating and duration of this period is problematic, as was period B1. The finds were very similar to those from B1, with the addition of moulds from the production of P27 oval brooches of the late eighth or very early ninth century. An Arabic dirhem provides a *terminus post quem* of c. AD 780, and the C14 dates from the previous period push this even later, to c. AD 800. This has serious implications for the dating of some of the accepted finds typologies, as the majority of the finds would still indicate a dating in the later decades of the eighth century, rather than the first decades of the ninth.

The duration of the period is difficult to assess, but the very slight evidence of use of the central hearth in A2 suggests that the occupation of this building was not lengthy, and the succeeding reorganisation of the plot in period B3 followed the first occupation within, perhaps, as little as two or three years.

- B3:**
- A1 fence foundation on the northern plot boundary, and contemporary rubbish deposits in the northern lane.
 - A12 renovation of building A66
 - A18 earliest rubbish layers in the northern lane, containing fragmentary remains of the wooden paving of the lane.
 - A19 reuse and renovation of workshop A2, contemporary with building A66, and possibly just a lean-to shed against the more substantial building.
 - A23 deposits accumulated during the use of A19
 - A26 rubbish deposits in the northern and eastern lanes.
 - A30 substantial rebuild of workshop, post-dating A19
 - A31 deposits accumulated during the use of A30

- A32 rebuild of workshop, post-dating A30
- A34 rebuild of workshop A32
- A36 rubbish in the northern lane, contemporary with, and probably deriving from, the use of building A68
- A39 areas of deposits in the Eastern Area, isolated by later disturbances, but phased to B3 on bases of both the underlying stratigraphy, and the finds, particularly jewellery moulds.
- A66 the earliest building in the northern half of the plot, stratigraphically post-dating A2
- A68 renovation of A66 following a fire
- A69 renovation of A68
- A70 rubbish layers accumulated over the shoreline and western part of the plot
- A72 sill stones and a post-hole marking the western plot boundary
- A73 deposits accumulated during the use of workshop A19, contemporary with A32 and A34

DATE:beads - still Callmer's type B060 (Callmer 1977, 86) beads, so at least the beginning of the period should be before AD 800 (Ulf Kjellén, pers. comm.)

combs - in A36, type C2, dateable to the eighth century (Michél Carlsson, pers. comm.)

moulds - P27(A), P37 dateable to the late eighth and early ninth centuries (Björn Ambrosiani, pers. comm.)

DESCRIPTION:

Period B3 saw the substantial reorganisation of the plot (see fig. 9), with the replacement of building A2 with a narrower, but longer building A19, which retained some of the structural elements of the earlier structure, including its corner hearth, which became central in the new building. The south wall of this new building was one meter to the south-west of the earlier building A2. A19 extended over the quay foundations (A64, B1) which A2 had respected, indicating that these had ceased to function, and implying that for the first time, there was dry, or intermittently dry, land to the west of the shoreline structures.

To the north of and immediately parallel to building A19, was constructed a larger, more strongly built structure, A66. This building, which had stout posts at the corners, two rooms,

foundation sills of small stone packings, and hearths in both of the two rooms, appears to have shared a long wall (the southern) with the A19, which continued to be used for bronze casting and fine metal working. A door between the two was located about half way along this wall; the spread of deposits between the two, and the presence of small warming hearths in the south-eastern room of the northern building, suggest that activities were shared between the buildings. The northern-western room of the northern building, whose deposits contained little industrial debris, but more ceramics, may have been domestic in character. A shift in character of the deposits along the central long axis of this room, from more compacted and laminated to less so, seems to indicate the possibility of a wall bench along the northern wall of A66.

This period also included the continuing renovations of these buildings, with the insertion of a wall bench along the southern wall of the southern building or workshop in A23, and the movement of the hearth into the eastern end of the building. The northern building A66 suffered damage by fire, which was repaired in A12, when the floor of the eastern room was also resurfaced with sand, and a new hearth constructed close to the southern wall.

For the first time, differential rubbish disposal was evident during period B3. Although analysis of the finds from the excavations is incomplete, it was evident that the area to the west of the southern building was particularly rich in crucibles and scrap metal, while the northern lane contained extremely large amounts of moulds. When this pattern is examined in more detail, it may indicate that the southern building was used for the necessary refining and remelting of metal, while the northern building was used for the process of casting. It is clear even at this preliminary stage that copper alloys and precious metals were worked on the site, and that the primary production from this plot was of cast copper alloy jewellery, particularly oval brooches (Torbjörn Jacobsson & Björn Ambrosiani, pers. comm.).

It is not clear whether the second jetty (A21, B2) continued to function as a jetty during this period, although it is probable. The increasing dryness of the land to the west of the plot due to isostatic readjustment must have limited its function considerably, but it is likely that the far end of the jetty continued to be useable. The jetty did, however, continue to be used as an important access, presumably both to this plot and to the waterfront, as was evident from the relative lack of rubbish build up over the jetty foundation as compared with the northern lane, and the high degree of fragmentation of the finds from that area.

The dating of this period cannot be determined with any precision. The continuing presence of the Callmer's type B060 (Callmer 1977, 86) beads in the lower levels of the period, and the early forms of jewellery from the workshops in B3 initially suggested a date from just prior to the end of the eighth century to the first decades of the ninth century. This must be reconsidered in the light of the underlying C14 date from A6 (B1) to AD 800 or later. However, this date implies that the established finds typologies cannot be used in any way to date the site at Birka, and leaves the question of the dating of B3 completely open.

- B4:**
- A3 rubbish layers accumulated in a northern access lane in an area of subsidence
 - A25 activity layers containing evidence for metal working, but badly damaged by later intrusions.
 - A35 rebuild and new use of workshop A34, with associated rubbish layers on the southern part of the plot, continuous from the workshop into the open area.
 - A37 renovation and use of the northern building, post-dating A69
 - A38 repeated fills and uses of the north-eastern corner of the plot
 - A74 rebuild and use of workshop A34/A73, and associated layers on the shore line
 - A75 entirely new northern building
 - A76 renovation of northern building A75
 - A77 resurfacing and use of the northern lane
 - A78 use of workshop A74, and rubbish layers associated with its use
 - A79 plot boundary parallel with the shoreline, on the western edge of the plot
 - A80 renovation of workshop A74
 - A81 renovation of northern building A76
 - A82 renovation of workshop A80, and its use
 - A83 renovation of workshop A82
 - A84 renovation of northern building A81, and its use
 - A86 use of shoreline part of plot, relating to the boundary fence A79

DATE:weights - a single cubo-octahedral weight dateable to post AD 860 (Ingrid Gustin,

pers. comm.) was found in A45, and may be intrusive, as the succeeding period B5 has none.

coins - a clipped Abbasid dirhem of uncertain origin (F77243) dated to AD 760-809 was found in A82 (Gustin and Rispling, forthcoming)

moulds - moulds for cruciform brooches with 'Valsta' type details were found in the later deposits of this period.

DESCRIPTION:

The fourth period included the latest deposits surviving under the area of Hjalmar Stolpe's excavations (i.e. in the Eastern Area of the excavation). These deposits were stratigraphically isolated from the remainder of the period, and have been grouped to this period on the basis of their structural relationship, and the finds from the industrial rubbish layers.

The established pattern of two parallel buildings on the plot continued during period B4 (see fig. 10). The southern building was substantially rebuilt (A35), with a new southern wall line, presumably based on sill beams as it was only marked by the extent of the occupation layers within the building. Along the inside of this wall was a wall bench, with a central hearth just north of the bench at the eastern end of the building. A large second hearth was present at the western end of the building, where the pattern of deposition within the workshop area suggested that the building may have had an open western end; the layers, which were thin and laminated within the area bounded by the northern and southern walls, extended without break westwards, but changed character, becoming more diffuse, deeper and less laminated outwith the enclosed area of the workshop. This is the type of change which would be expected if the workshop were a roofed, but open-ended, shed.

The northern building was also reconstructed (A75), again with two rooms, but with the hearth in the north-western room moved further towards the west end of the building, and a narrower wall bench along the southern wall of that room. During this period, the walls of the northern building appeared to have been founded on sill stones; evidence from sites with better organic preservation such as York (Addyman & Hall 1991, 204, 221) indicates that this construction technique was widespread in the Scandinavian cultural sphere. It was impossible to determine the length of this building, which extended out of the north-western edge of the excavated area.

The relative fall in sea level had by this time extended the plot substantially to the west, and for the first time during this period, the plot had a boundary fence on its north-western edge (A79). The line of the fence was marked by post-holes, sill stones, and a distinct shift in the character of the deposits; to the south-east of the fence line they were more compacted and fragmented than to the north-west of the fence line. The establishment of this boundary is of particular interest, as it re-emphasises the fact that plot boundaries were created before plots were occupied, as seen already in period B1. The new land revealed by the rise of the coastline was initially used as part of the excavated northern plot (in periods B2 and B3), but the creation of fenceline A79 marked the withdrawal of this new land from the use of the occupants of the plot, and thus demonstrates the control of land holding by an authority other than the occupants.

Implicit in the presence of this western fence line was also the suggestion that during period B4 at the latest, the jetty (A21, B2) ceased to function as a jetty, and became merely an access to the shore. If the area to the west of the plot was sufficiently dry to justify the definition of a new plot boundary, then the jetty could no longer be accessible by boat.

Metal working continued during this period, concentrating, as formerly, on the production of jewellery and similar small objects of copper alloy and precious metals. The differential deposition of industrial rubbish also continued to be a feature, with the yard area to the west of the southern, workshop building yielding large amounts of crucible fragments, in contrast to the noticeably larger amounts of mould fragments in the northern lane.

The dating of this period is dependant upon a clipped Abbasid dirhem (F77243) which gave a *terminus post quem* of AD 809 to the renovation of the southern building A82, in the later half of B4. This renovation was preceded by a renovation (A80), and a rebuild (A74) of the southern building, and succeeded by a further renovation (A84), but it is not possible to assess the duration of each, and the duration of the period as a whole is therefore difficult to determine.

- B5:** A41 the eastern end of the southern building on the northern plot
 A85 gable line and contemporary rubbish layers on the northern part of the
 northern plot

- A87 gable line, renovation of A85 and contemporary use of the northern part of the northern plot
- A88 use of shoreline yard and western workshop end
- A89 fence line and fills in boundary ditch
- A90 gable line, renovation of A87, and charcoal surfacing of the northern part of the northern plot, with an ash footpath
- A91 use of A87, prior to A90
- A92 renovation of the workshop A88, with use and contemporary rubbish disposal on the plot and shoreline, prior to A90
- A93 house on a new plot to the west of the excavated area.
- A94 use of house A93
- A95 use of the southern building A92, with associated deposits across the whole surface of the northern plot, contemporary with A90.
- A96 truncation of the yard surface, and later fills and levelling, with associated use of the yard.
- A97 use and destruction of the southern building A92/A95

Contexts excavated in 1990-1

S32 - the upper levels of A94

DATE:combs - fragments from early deposits in the period include an identifiable type A3 (in A93, S3297) dateable to the mid-ninth century (Michèl Carlsson, pers. comm.)

weights - no cubo-octahedral, or spherical with flattened poles, so probably before AD 860/70 (Ingrid Gustin, pers. comm.)

coins - none

DESCRIPTION:

The beginning of period B5 was defined by the cutting of a boundary and drainage ditch (A89) along the northern part of the north-western boundary of the plot, and turning at a right angle to meet the north-western end of the southern building (A88) (see fig. 11). This was accompanied by a substantial reorganisation of the plot: the northern of the two buildings shifted at least five metres eastwards (A85), leaving an open yard surface defined on its north-western and south-western edges by ditch A89, on its north-eastern edge by the northern lane, and on its south-eastern edge by the gable of the northern building. A shallow ditch crossed by three stepping stones (g594, A85) ran parallel to the gable line, and the

position of the stepping stones suggested that the gable had a central doorway, although this feature was not clearly visible until the renovation of the gable line (A87) later in the period. The rubbish layers which derived from the use of A87 (A91) were truncated by a cut (A96) running north-west - south-east at right angles to ditch A89, which probably represented an attempt to improve the drainage of the yard.

To the south of this yard, a much less clearly defined yard area (A88) was incompletely bounded to the north-west by a loose group of post and stake holes contemporary with and related to the cut of ditch A89 (and also in A89), and to the south-west by the southern lane. To the south-east, the deposits in this area (A92) became a part of the southern building without a sharp transition, suggesting that the workshop had probably continued to have an open north-western end, as during period B4.

A renovation of the northern building and yard (A90) succeeded the initial use of A87 and A88. The care with which the yard was resurfaced with charcoal and then laid out with a path of ash, probably covered with wattle or timber paving, emphasised the functional differences between the northern and southern parts of the plot during this period. The northern gable (all that survived of the northern building) was strongly constructed with load-bearing corner posts, and a central doorway served by the path crossing the yard. The deposits which built up on the renovated yard surface A90 were, despite the unusual character of the yard, impossible to separate from the deposits deriving from the use of the southern building (A95), indicating that the whole of the plot continued to be used as a single functional complex. The end of the period was defined by the destruction (A97) of the two buildings whose use was A95.

To the west of ditch A89, the southern corner of a building (A93) was visible for the first time. This building, which respected and thus post-dated the line of the ditch, extended only 1.75m into the excavated area, and little could therefore be distinguished of its function or architecture. It appeared to have a double wall line, with a post and wattle south-western wall lined with a second line of smaller posts and wattle. The floor and occupation layers of the building extended as far as the outer wall, indicating that it was probably not merely an external fence line. An open area lay to the south west of this, diffusely defined along its south-eastern edge by breaks in the stratigraphy suggesting a fence or some other sort of barrier. A renovation or repair of this building, A94, followed an identical pattern. The path

over the northern yard (g686 & g711 in A90) appeared to lead from the northern building on the northern plot towards this building on the western plot.

The finds in this period indicated that metal working continued on the northern plot throughout B5, although the absolute amounts of industrial debris declined sharply in the later deposits, particularly A97 and A95. The apparently newly occupied western plot, in contrast, yielded few finds over all, and only small amounts of those were metal working debris, which suggested that the western building A93/A94 was differently organised than those on the northern plot, despite the relationship between the two plots suggested by the path in A90.

The dating of the period is typically difficult. B5 was the least extensive of all the periods excavated, and produced neither coins nor dateable weights. Such comb fragments as could be typed suggested a mid-ninth century date entirely compatible with the *terminus post quem* provided by the early ninth century coin found in the preceding period B4. The absolute numbers of weights found in this period were lower than in the earlier periods, suggesting either a shorter duration for the occupation, or reduced activity on the plot, or both (I. Gustin, pers. comm.).

- B6:**
- A44 rubbish in the southern lane between the northern and southern plots.
 - A49 fragmentary structural remains of a building in the northern part of the southern plot.
 - A50 construction levels for A49 and A55, levelling of underlying structures.
 - A51 sunken oven constructed near the northern boundary of the southern plot.
 - A53 destruction by fire of buildings A49 and A55.
 - A54 levelling of the southern plot following fire A53.
 - A55 fragmentary remains of a building, consisting of posts from two right-angled wall lines, and the charred remains of a wall bench.
 - A61 building parallel with A49 and A55, on the southern part of the southern plot, and destroyed in the same fire.
 - A62 fills and reinforcements of the southern plot, over an area of subsidence.
 - A63 structural details relating to an otherwise unexcavated building under A49 and A55 on the northern part of the southern plot.
 - A98 rubbish deposits rapidly accumulated over the whole of the northern plot,

during a period of apparent abandonment.

A99 slight evidence for continuing use of a workshop in the area of A95/A97 (B5).

A100 rebuilding of the northern building on the northern plot after A98.

A101 abandonment of the whole of the northern plot, after A99

A102 plot boundary and associated rubbish deposits in the northern lane, contemporary with A99.

Contexts excavated in 1990-1

S42, S45/6 - ash layers within A49

A27(1990) - charred wood, the north-eastern wall of building A49

S39, S43 - rubbish layers over the surface of the plot

A35(1990) - a wooden sill, wall or fence line

A25(1990) - stake holes forming the north-western wall of A99

A28(1990) - ash, wood layers S47

A26(1990), A29(1990), A30(1990), A31(1990), A34(1990) - post holes

A32(1990) - layer of decayed organic matter S49, the north-western end of A99

DATE:weights - a number of cubo-octahedral weights in the earliest deposits of the period suggest a *terminus post quem* of c. AD 870 (Ingrid Gustin, pers. comm.) for the start of the period.

coins - a undateable silver blank was the only coin found in B6 (Ingrid Gustin, pers. comm.)

DESCRIPTION:

Period B6 included the earliest excavated deposits in the southern plot. The beginning of the period was marked by the levelling of underlying structures here to form a surface (A50) for the construction of two or three buildings (A49, A55 and A61) (see fig. 12). A61, a post and sill stone structure, lay on the southern part of the plot, and extended out of the excavated area; from the small extent of the excavated part of the building, it was difficult to determine its alignment, although the pattern established in the earlier periods of the northern plot would suggest that A61 was orientated north-west - south-east. On the northern part of the southern plot, it was unclear whether one two-room building, or two buildings were

constructed; the area between the two structures, which formed a passage c. 1m wide, may or may not have been roofed. On the western part of the plot, A49 was a roughly square, post and sill beam building with a wall bench along the south-western and north-western walls, and a hearth in the corner of the bench. The northern corner and north-eastern wall of A49 were marked by a line of charred wood (A27(1990)), and a hearth or small oven in this corner (A23(1990)) probably also belonged in this period. The structure on the eastern part of the plot (A55) was less intact, but also appeared to have been roughly square, of similar construction. A small furnace or sunken oven (A51) was constructed in the eastern corner of A55. All the buildings on the plot were destroyed by the same fire (A53 and A54)

Cullet, sherds of vessel glass, and glass bead making debris were found in relatively large amounts in the destruction levels of structure A55 and the furnace A51 (Ulf Kjellén, pers. comm.). Although the absolute amounts were small in comparison with, for example, the bead maker's workshop excavated in Ribe (Jensen 1991, 37-39), they were noticeably greater than the background levels found throughout the deposits at Birka, and therefore suggest the possibility that A51 was used for small scale bead manufacturing.

The northern and western plots during this period appear to have undergone a drastic reduction in the level of activity. Extensive mixed rubbish deposits built up over the whole of the northern plot (A98). They were succeeded by the ephemeral remains of a small building (A99) on the southern part of the plot, which may, from its contents, have been either a latrine or a byre. The north-western end of A99 was marked by a row of stake holes (A25(1990)). A very short-lived building (A100) on the northern part of the plot was rapidly covered by layers of rubbish (A101) which continued to build up around and inside the slight structure A99, and over the whole of the plot. A fence line (A35(1990)) extended from the northern corner of A99, north-westwards towards the western plot, but was rapidly covered by rubbish deposits.

The rubbish deposits which covered the northern plot during this period contained large amounts of domestic debris, particularly bone, but only residual amounts of metal working debris, indicating that the reorganisation of the plot was associated with the end of copper alloy casting. No clear evidence for any other form of industrial production was found in these deposits, and it seems likely that such activity as did occur here during B6 was domestic. The very mixed nature and rapid accumulation of the rubbish layers over the plot

also suggests that the plot was used for dumping rubbish from many sources during this period, confirming the idea that it was almost entirely abandoned. Rubbish disposal in an early urban settlement, particularly a coastal settlement with a high water table, must have been problematic; the earlier periods demonstrated that dumping along the shoreline was common practice, while this period makes it clear that opportunistic dumping also occurred in the heart of the settlement.

The types of weight found during this period suggest that the earliest possible date for the start of the period was c. AD 870 (Ingrid Gustin, pers. comm.). Few closely dateable finds came from these deposits, and the end of period is therefore unclear. However, a mid-tenth century date was given to the end of the succeeding period B7, and an early tenth century date for the end of this period, B6, is therefore not inconceivable.

- B7:**
- A56 two aisled building on the northern part of the southern plot.
 - A57 destruction of A56 by fire.
 - A103 new building or yard on the northern part of the northern plot
 - A104 new workshop building on the southern part of the northern plot
 - A105 renovation of workshop A104, and associated use.
 - A106 renovation of workshop A105, and associated use.
 - A110 resurfacing of the northern yard on the northern plot. Renovation of A103.
 - A112 cobbling and use of the yard, and associated use of the northern lane
 - A113 gable wall of building over A113 and associated yard surfaces.
 - A114 fills and rubbish layers in the northern lane
 - A116 extension or rebuild of building A113
 - A119 rubbish layers in the southern lane, between the two plots

Contexts excavated in 1990-1

S8 - burnt turf layer in A57

A8(1990) - wattle wall line, north-eastern wall of A56

A23(1990) - hearth in the northern corner of A56

S28, S36 - ash layers in A56

S33, S34, S35, - fills in the southern edge of the southern lane

S15 - fill in the southern lane

A15(1990) - southern building on the western plot, comprising S29 - floor, S30 -

sill, S31 - eaves drip

A19/20(1990) - southern building on the northern plot, the western end of A104/5/6, comprising S38 - ash layers, S29 - floor, S30 - sill, S31 - eaves drip

S48 - rubbish layers north of A19/20(1990)

DATE:combs - type A3:3 in A56 (S1511), dateable to the mid-ninth century (Michèl Carlsson, pers. comm.)

coins - a hoard of 20 coins, 7 weights, and various other objects, came from A57 at the end of this period. The latest coin, a Sammanid dirhem from Samarkand dated to AD 938-9 (F79548) (Gustin and Rispling, forthcoming), gives a *terminus post quem* for the end of this period and the beginning of the following period, B8

DESCRIPTION:

The southern plot during period B7 was occupied by a two-roomed building with post and wattle walls, 10 x 5m in size, orientated north-west - south-east (A56) (see fig. 13). This well preserved building was constructed with drainage ditches along the outside of its long walls, and a row of centrally placed posts in the northern room which supported the ridge of the roof. Both of the two rooms had wooden floors, and the southern had a large hearth slightly to the south-west of its long axis. The northern room had initially a corner hearth, which was replaced by a more central hearth during the life of the building.

A56 was destroyed by fire, and its destruction deposits (A57) spread into the area of the southern lane, between the two plots. Debris from both the occupation of the building, and its destruction, was largely domestic in character, although a significant amount of antler working rubbish and comb fragments suggested that small scale bone working may have occurred in the building (Michèl Carlsson, pers. comm.). Also deriving from this building were a number of sherds of fine, hard, well-fired, wheel turned pottery from a Khazar amphora from near the Caspian Sea (Mathias Bäck, pers. comm.), and a fine copper alloy scabbard chape in the form of a flying bird. A small hoard of silver coins, weights, beads and hack metal found in the rubbish layers of the lane (A119) almost certainly came from the destruction of this building, and contained a very high proportion (c. 1/3) of coins with a Volga Bulgar origin (Gustin and Rispling, forthcoming). Among the finds from A56

therefore, were a number of items which could be interpreted as of unusual origin or high status in comparison with finds from the remainder of the excavated area, and which suggested that the building could have been occupied by an individual of relative importance. Against this must be set the clear evidence from the almost undisturbed destruction layers of the building that it was abandoned in haste, and thereafter the remains were apparently not sorted for salvage; it may be that these kinds of possessions were commoner than is apparent in the archaeological record.

In contrast to the clear structural evidence of the southern plot, the archaeology of the northern plot was particularly ambiguous and difficult to interpret. On the southern part of the plot, a small building A104, cut away at its south-eastern end by Stolpe's excavations, was rapidly replaced by a more strongly constructed building (A105), with a massive central hearth. The presence of a single, large, fire-cracked stone support at the north-western end of this hearth, the paucity of finds, and the rapid accumulation of ash and charcoal layers within A105 all seem to indicate that it was not a typical domestic building. The lack of industrial debris, however, makes it difficult to suggest a function for this structure; a process which required constant heat, but yielded little or no inorganic waste is suggested. Various interpretations of this hearth are feasible; metal working appears to be eliminated by the complete lack of slag, metal droplets (including smithing scale) and associated ceramics (such as moulds or crucibles), but both brewing and some aspects of dairying, particularly cheese making, are possibilities¹⁴. A renovation of this building (A106) followed the same pattern, and reused the same hearth site and stone support. The post-built north-western end wall of this building was excavated during the 1990 season (A19/20(1990)).

On the northern part of the plot, a succession of ambiguous deposits series can be interpreted variously as a yard surface or the remains of a building. A103 was a resurfacing of the plot with redeposited clay, and the laminated layers which built up over the clay. There was no hearth in the excavated area, but the presence of spreads of sill stones, and the lamination of the deposits suggested that this was the remains of a building. A similar interpretation was offered during excavation for the renovation of A103 (A110), which also consisted of a clay resurfacing, with overlying laminated use layers and associated structural details. However, the succeeding deposit series A112 was undoubtedly a yard, with a cobbled path running due

¹⁴ The author is very grateful to B. Ballin-Smith for both these suggestions.

north - south from the contemporary southern building to the edge of the northern lane. In the light of this, A103 and A110 are more likely to also have been enclosed yards on the northern part of the plot.

A113 post-dated A112, and consisted of a strong post-built wall line along the edge of the northern lane, with an entrance at its eastern end, immediately adjacent to the edge of Stolpe's excavations. Although this structure was also ambiguous, it was and is tentatively interpreted as a building on the basis of its immensely strongly built north-eastern wall, and the careful construction of the entrance, with its threshold of worn stones. The internal layers were exceedingly compressed and fragmented. It was followed by a post-built building (A116) which had a hearth (dug in early 1991) in its western corner. The remains of A116 were also fragmentary and difficult to interpret, but the association of hearth with large post-holes (g917, A116) strengthens the contention that it was a building rather than a yard during the later part of period B7.

To the west of the northern plot, a sill stone building (A15(1990)) was excavated during 1990. This had an eaves drip parallel to its north-east - south-west wall, but the excavated area was insufficient to determine whether this represented a small, gabled building orientated north-east - south-west, or a building with a hipped roof orientated north-west - south-east.

The dating of this period depends upon the hoard from A119, i.e. the fills in the southern lane including material from the destruction levels of the southern building A56. Although the latest precisely dateable of the twenty, poorly preserved coins from the find was from AD 938-39 (F79548), three of the other coins, a blank and two imitations, may be some years later, and as a result, the deposition date of the hoard, and thus the *terminus post quem* for the end of this period, is set at around AD 945-50 (Gustin and Rispling, forthcoming). No precise dating is possible for the beginning of the period, but given that the previous period B6 had a *terminus post quem* of c. AD 870, dated by weight types in its earlier layers, a date in the first decades of the tenth century for the end of B6 and the beginning of B7 seems most likely.

B8: A58 post-built, possibly plank-walled, building on the northern part of the

southern plot.

- A59 destruction of A58 by fire, possibly including the remains of a turf roof from A58
- A60 fragmentary, plough-damaged remains of a building lying over A59.
- A111 renovation of workshop A106 (B7), and associated use.
- A115 renovation of workshop A111, and associated use.
- A117 rubbish layers in the northern lane, *terminus post quem* AD 914
- A118 renovation of workshop A115, and associated use
- A120 rubbish layers in the southern lane, between the two plots
- A121 fragmentary, plough-damaged remains of a building lying over workshop A118
- A122 latest, plough-damaged deposits in the area of building A116.

Contexts excavated in 1990-1

- A7(1990) - wall and northern corner of building A58/A60, comprising
 - S4/A4(1990), S10/A5(1990) - post-holes
 - S17 - post-hole
 - S14/A7 - floor layer
 - S3/A1(1990) - hearth
- A2(1990) - fills in the southern lane, comprising S5, S9 and S16, S20, S22 - fills on the southern edge of the southern lane
- A3(1990) - building, comprising S6, S13 - floor inside building
- A14(1990) - building slightly earlier than A3(1990) and to the south, possibly a rebuilding of A15(1990) (B7)
 - S21 - rubbish outwith building A3, possibly an layer in A14(1990)
 - S62, S63, S64 - excavated in 1991
- A6(1990) - boundary ditch, with multiple recuts, between A3(1990) and A10(1990), with fill S12 and S65, S67, S68, S69, S74
- S7 - plough damaged highest deposit in building A121, including A12(1990) - stone setting in north-western wall line of A121
- A10(1990) - north-western end of the southern building A111/5/8 on the northern plot, comprising S27 - sill, S25 - floor (ash and charcoal), S526 - wall line

DATE:combs - three dateable combs or comb fragments from this period are all from the mid-ninth century. They are all type A3, in S749 (A59), S631 (A60) and S673 (A117).

coins - a Sammanid dirhem from Samarkand in A117 (F41495, S673) dated to AD 914, predated the *terminus post quem* from the hoard at the end of period B7. A Sammanid dirhem from Bokhara in the top soil (F20927) was dated to AD 964/5, providing a *terminus post quem* for the end of the occupation of the site.

DESCRIPTION:

Period B8 was the latest period of occupation in the excavated area. Most, although not all, of the deposits in B8 were plough damaged, and the risk of contamination by intrusive material was progressively greater in the later parts of the sequence. The start of the period was defined by the construction of new buildings on both the southern and northern plots.

On the southern plot, a post and plank building orientated north-west - south-east (A58) was constructed (see fig. 14). The technique involved is known in Swedish as *skiftesverk*, sometimes called 'bulwark' in English, and consists of regularly spaced upright posts with short horizontal planks slotted between them. The northern corner of the building (A7(1990)) was excavated during 1990 and included a hearth (A1(1990)), whose position was not recorded. Destruction deposits of burnt daub with plank impressions provided additional evidence that the walls of the building were daubed, while an eaves drip at the north-western end indicated a hipped roof. A58 was destroyed, or at least extensively damaged, by fire (A59) and renovated or repaired on the same site (A60).

On the northern plot, the southern building was reconstructed (A111), with a hearth on the same site as in the previous period, but with a substantial new northern wall. Although it is possible to interpret A111 as a renovation of building A106, the unusual character of the northern wall, with a deep, square cut foundation trench, suggests that an important structural reorganisation of the northern plot had occurred. This trench cut away all the period B7 walls underneath it, and contained a bizarre selection of ritually deposited finds including an oxbow, iron amulet rings, the shoulder blade of a man, the wings of an eider duck, and a silver dirhem dated to AD 807-8. No similar deposit was found on the remainder of the site, and it emphasised the importance of this wall, without, alas, providing information about the function of the building of which it was a part.

A115 replaced A111, and continued to respect the northern and southern wall lines of the earlier building. It represented, therefore, an internal repair or renovation, and was in its turn

replaced by A118. This very fragmentary renovation included groups of stake and post-holes about one metre inside, and parallel with the north-eastern and south-western wall lines, deriving from internal furnishings, most probably wall benches. The north-western end of the construction and first two renovations of this southern building was excavated as a single structure (A10(1990)) during 1990. The central hearth in this building, whose position had remained constant from the beginning of period B7, was finally repaired once more (A121), before the site was abandoned.

The northern part of the plot, where the top soil was shallower, was more severely plough damaged than was the southern part of the site. The fragmentary remains of only one structure (A122) survived in this area, and they were difficult to interpret. A row of five post-holes orientated north-north-east - south-south-west may have been on the long axis of a building of the same orientation, or may have been the cross wall of a building at right angles to them i.e. orientated west-north-west - east-south-east. Ploughing had spread the deposits associated with the structure so that they did not respect any wall lines or internal divisions, and only the post-holes themselves, and diffuse spreads of sill stones at the edge of the northern lane, indicated the presence of a building.

The dating of this period was based on the *terminus post quem* provided by the hoard discovered in the latest deposits of the preceding period B7. This, at AD 945-50, post-dated the *terminus post quem* of AD 914 from A117 in B8, and gave a mid-tenth century date for the beginning of B8. The latest coin from the excavation, indeed, from the Viking Age occupation of Birka as a whole, was an unstratified Sammanid dirhem from the topsoil in the area of the northern plot, dated to AD 964-5, while the total lack of Western European coins indicated that occupation of the urban site was unlikely to have continued beyond AD 990 (Gustin and Rispling, forthcoming). The end of period B8 can therefore probably be set in the seventh or eighth decade of the tenth century.

III.4.4 Dating

While ultimately, the date of the earliest settlement on the island of Björkö remains an open question, the 1990-1995 excavations suggested that the town was probably founded in the third quarter of the eighth century. The 1995 dating of the earliest planned layout of the centre of the settlement by the fragile and short-lived 'wasp' beads (Callmer's type B060 - Callmer 1977, 86) was confirmed by the presence in the period one and two deposits of 'A'

type and so-called 'Frisian' combs typical of the transition between the Vendel and Viking periods (Michél Carlsson, pers. comm.), and another eighth century bead type, white with applied red trails (Callmer's type B016 - *op. cit.* 81-82).

Consistent *termini post* and *ante quem* were provided throughout the stratigraphic sequence by both coins and artefacts, suggesting that the town ceased to function in the last quarter of the tenth century, as had been presumed since Stolpe's excavations in the nineteenth century.

Artefactual dating

Nonetheless there are major problems with the artefactual dating of the site, despite its internal consistency and persuasive coherence. The typologies of Scandinavian Viking Age artefacts upon which much of this analysis is grounded are themselves dependant largely upon artefacts retrieved from cemetery excavations, rather than stratified production sequences. Only very recently have a very few stratified excavations begun to yield a sufficiently large corpus of production debris that a reassessment of the typologies could potentially be made, and Birka is one of these few sites. The typologies in use for the dating of the artefacts at Birka have all the inherent weaknesses of sequences built on grave material. First and most obviously, the artefacts found in graves are sometimes demonstrably old and worn: the pair of P27 oval brooches in grave 559 at Birka are a good example (Arbman 1943, 179-180). The delay between the manufacture of the artefact, and its deposition in the grave may have been a full generation, or potentially even longer. Various social and physical factors could easily have affected the length of this delay; particularly valuable artefacts, or certain classes of artefact, could have been passed down through the generations before being deposited in a grave; other, more ephemeral artefacts may have been much more short lived, or may, indeed, have been peculiarly related to burial and not used at any other time; social or religious factors might influence the conservatism of a burial rite, and thus decree what types of artefact were appropriate for deposition; indeed, personal and familial preference must have played a large part in determining the constituents of a grave assemblage, reflecting perhaps ethnic or cultural allegiances, professional alliances and other factors behind the fashions of a peer group.

Dating the occupation of the Viking Age site at Birka on the basis of typologies which are derived from the grave finds leads one dangerously close to a circular argument. One of the most important results from the recent project is undoubtedly the excavation of a securely

stratified production sequence of oval brooch moulds, allowing, for the first time, the development of a typology which can be used to test the extant typologies, and to elucidate the chronological element in the grave material. Under the circumstances, using the existing typologies for dating the site is unwise in the extreme, and although the material has been mentioned in the dating discussions for each period, it does not provide the absolute dates which were used.

The artefactual dating is therefore heavily dependant upon two groups of finds: the beads and the coins. The beads are of particular interest because the sequence excavated at Birka shows strong similarities to the production sequence excavated and dendrochronologically dated on the Post Office site at Ribe (Jensen 1991, 37, and pers. comm.). The similarity suggests cultural and possibly social links between the two sites, but it is a dangerously weak link for the absolute dating of the material from Birka. A delay in the shifts in fashion between the two settlements is highly likely, and the pattern of use of beads may have been dissimilar, leading to different patterns of deposition. The production sequence from Ribe has yet to be published, and when it is, a reassessment of both the beads from the settlement and the cemeteries of Birka will be necessary.

Numismatic dating

The coin dating is potentially similarly imprecise¹⁵. All the coins from the site (excluding the Mediaeval and Modern coins) are by definition imported and there must therefore have been a greater or lesser delay between their production and deposition. There is no evidence of coin minting at Birka. The coins came from the Western Roman Empire, Byzantium, the Islamic Caliphate, Western Europe and Hedeby, with the vast majority (90 of a total of 97) coming from the Caliphate, and only one coming from Hedeby. The earliest of the coins was a copper *aes* of the Roman Emperor Constantine II, dated to AD 337-61, found in the latest period, B8, during the 1990 excavations, which though a curiosity, clearly had no relevance whatsoever for the dating of the site. The single Scandinavian coin, a mid-tenth century silver penny probably from Hedeby, came from the lower part of the topsoil, and was similarly irrelevant to the question of dating.

Twenty-five of the remaining coins came from two small hoards, with five and twenty coins

¹⁵ All the identifications and datings of the Birka coins are the work of Dr Gert Rispling, and the information

respectively. The hoard with five coins was unstratified in the backfill of Stolpe's trenches, but the larger of the two hoards was stratified, and came from the lane between the two plots in period B7, where it was associated with the destruction deposits from building A56. It is discussed further above. Potentially, the greater numbers of coins deposited at the same time in a hoard should give a clearer and more statistically valid indication of its deposition date than does a single lost coin. It is a particular pity, therefore, that the first of the hoards was unstratified. The second hoard is of special interest since, despite its technical description as a hoard, it seems likely that its deposition was accidental, and associated with the destruction of a building on the southern plot. It lacks, therefore, the conscious element of selection for deposition which would characterise a deliberately hidden hoard, and may thus be more representative of the coins in circulation at a given time.

The single coins which provide *termini post quem* for the remainder of the stratigraphic sequence provided less precise information. Barring the Constantinian *aes*, the earliest coin was an early eighth century (AD 698-750) Umayyad silver dirhem from period B7. As B7 cannot realistically be any earlier than the tenth century, this suggests that the circulation period for some of the coins available in Birka may have neared two centuries. However, this particular coin is an exception, and the remainder of the coins from the site date from between the second half of the eighth century and the mid-tenth century, giving an overall distribution which conforms remarkably accurately to the date range provided by the other artefacts on the site. Whether this related to the period of circulation of coins in the Caliphate, or to coins circulating in Birka is unclear, but will be discussed further below, in relation to the nature of trade and exchange on the site. The cessation of coin circulation in Birka is given a *terminus post quem* by the latest dirhem (discussed above, in relation to period B8) dated AD 964-965. Gert Rispling suggests that this may have been deposited as late as *c.* AD 970-975, on the basis that post-AD 955 Islamic coins are less common than pre-AD 955 in Scandinavia, and therefore provide weaker indications of deposition date. Be that as it may, the cessation was abrupt, and the fact that coins were present in the latest structures on the site, and in the topsoil, indicates that the cessation of coin circulation was near simultaneous with the abandonment of this part of the island. Rispling remarks that the lack of Western European coins provides very strong negative evidence that the site was abandoned before the last decade of the tenth century.

which forms the basis of this discussion is derived from an unpublished report in the Birka archive.

Radiocarbon dating

The artefactual dates for the earlier periods are, however, potentially contradicted by the series of radiocarbon dates taken from an oak post in the structure of the first, or more probably the second, jetty foundation. Six dates taken from every tenth year ring in this piece of timber gave a consistent sequence which, though as yet uncalibrated, suggests that the felling date of the tree could not be earlier than the beginning of the ninth century (see Appendix F).

Additional tests are underway, using timber from the same post, and from another post in the jetty foundation, from period B1. However, if these results are confirmed, the implications for the dating of the Scandinavian Viking Age finds typologies are serious. Until recently, none of the material from the settlement excavations could be closely dated. If the establishment of the settlement at Birka is proven to post-date the beginning of the ninth century, then the Central Swedish finds typologies for the eighth and ninth centuries will have to be substantially revised. In addition, this would indicate a substantial chronological discrepancy between the typologies of beads in Denmark, with their accurate dendrochronologically dated production sequences from Ribe, and those from Central Sweden.

In summary: the abrupt abandonment of the urban settlement at Birka can now be dated to the fourth quarter of the tenth century, but the contradictory datings from the first two periods of the 1990-1995 excavations do not yet allow its establishment to be more closely dated than to the second half of the eighth or first half of the ninth century, although the excavators believe the earlier date to be more likely.

III.5 THEMATIC DISCUSSION: THE PHYSICAL STRUCTURE

III.5.1 Buildings

The excavated evidence from the settlement at Birka now indicates that it included a variety of architectural forms of building, perhaps fulfilling different functions, in different areas of the town. These are catalogued below.

III.5.1.1 1990-1995 Excavations

The Birka Project excavations in the centre of the town produced evidence for twenty buildings, of which seven were either ephemeral or badly damaged. These are numbered from the lowest period (B2 - see above, III.4.3.3) upwards, in each period moving from south to north across the site.

Building 1 -

Building 1 in period B2, consisted of deposit series A2 (see fig. 15). It was a 6m x 6m square hut, oriented north-east - south-west, with a floor of clay covering the south-eastern half to two thirds of the building, over a redeposited sand floor in the western half of the building. The walls were of post and wattle construction, with a post pad in the southern corner, a post setting of small stones in the middle of the south-western wall, and a hole from a driven stave in the western corner. The south-western wall consisted of two panels of wattle, and the stake holes from a further wattle panel marked the north-western wall. A scatter of stake holes ran parallel to the south-eastern edge of the clay floor, and probably included elements from both the wall and internal furnishings, but this edge of the building was most clearly marked by the edge of the clay floor. The north-eastern edge of the building was also marked by the edge of the clay floor, but in addition, a group of four stake holes and a pad stone along the edge of the floor derived from the wall.

It is not clear where the entrance to the building lay, but it was probably at the northern end of the north-eastern wall, where the occupation deposits of the building spread northwards beyond the line of the clay floor. An oval, unframed, central hearth of clay over mounded gravel showed only slight signs of burning.

Building 2 -

Building 2 in period B3 consisted of deposit series A19, A23, A30, A32, A33, A34 and A73 (see fig. 16). It was at least 10m x 5m, oriented north-west - south-east, and although the south-eastern end of the building was cut away by Stolpe's excavations, the building did not extend further than that trench, and could therefore not have been longer than 11m. The south-western long wall line was marked by three post holes, and a post setting of stones, associated with the charred remains of two sill beams, c. 0.2m inside which was a line of stake holes which suggested the presence of a double wall or internal panelling. The north-eastern long wall of the building was marked by a series of post holes, and two particularly large post holes marked a door nearly two metres wide in the centre of the wall. It was extremely difficult to distinguish the posts in this wall line from the posts in the south-western wall line of building 3, but given that building 2 was constructed with earth-fast posts, they were interpreted as a part of this building. The north-western end of the building was marked by a shift in the nature of the stratigraphy (see discussion of period B3 for further detail, III.4.3.3) and may have been open, rather than walled. The south-eastern end of the building was marked by a post setting on the alignment of the south-western long wall, but otherwise destroyed by Stolpe's excavations.

1.5m from the south-western long wall line was the parallel edge of a wall bench, marked by a line of stakes. This followed the same line as the earlier south-western wall of building 1. Towards the south-eastern end of the building, an enclosed area, a cupboard or built-in box containing the bases of two small barrels or buckets adjoined the wall bench. A central, rectangular hearth of clay packed with stone adjoined the north-western end of the wall bench. A line of post and stake holes crossed the building from the eastern edge of the door to a post hole in the south-western long wall, indicating that the building was divided into two rooms, 6m long and at least 3.5m long. This division may have been secondary, as it crossed the line of the wall bench. The door in the north-eastern wall opened into the larger, north-western room.

A further renovation to this building included a repair or rebuilding of the north-western edge of the rectangular hearth, and the building of a small, circular hearth in the southern room. The internal wall was moved nearly one metre south-east, and an

entrance may have been put into the south-eastern long wall, as a new clay floor extended over the line of the wall bench, which was otherwise respected, out to the line of the long wall. The new door in the south-western wall opened into the north-western room. There was no clear evidence of domestic occupation in this building, but it was clearly used for bronze working.

Building 3 -

Building 3, in period B3, consisted of deposit series A12, A66, A68 and A69 (see fig. 17). It measured at least 11m x 5m, and was oriented north-west - south-east. The south-eastern end of the building was damaged by Stolpe's excavations, but could be distinguished as a series of stake holes, stone settings and deposits of burnt wattle and daub in a standing section between two of Stolpe's trenches. The north-western end of the building extended outwith the excavated area, but is unlikely to have done so by more than a metre, as the shoreline of the lake was very probably just one metre or so to the north-west of the excavation edge. The north-eastern long wall was marked by spreads of sill stones, stake and stave holes, and charred and rotten wood fragments. The south-western long wall was marked by smaller spreads of sill stones, and the sharp linear edge of the clay floor which covered the interior of the building. A door opening nearly 2m wide in the south-western wall passed into building 2, which lay immediately to the south-west of building 3. It is unclear whether the posts which framed this door were a structural part of building 2 or building 3.

The building was divided into two rooms by a wattle internal wall; the south-eastern room was 7.5m long, the north-western room at least 3.75m long. In the north-western room, a wall bench 1.75m wide followed the line of the south-western wall. This was marked on its inner edge by a series of very large post holes, which suggested that internal posts bore a part of the load of the roof of this building. A later hearth overlapped the edge of the wall bench, indicating that it went out of use, but respected the position of the load-bearing posts.

In the south-eastern room, a similar large post, and flat stone post pad, continued the line of the posts in the north-western room. A small hearth adjacent to the south-western long wall was accompanied by two bowl-shaped warming hearths. The door

in the south-western long wall opened into this room, and immediately inside the door were two curious, parallel, stone and clay packings, neither of which showed any signs of burning, which remain to be interpreted. They appear to have been bases for something heavy, and could perhaps, in the light of the metal casting function of the building, have been anvil bases. Irregular rows of stake holes within this room appear to have been screens, rather than walls. The northern room in this building had relatively little industrial debris in it, and relatively large amounts of ceramics and domestic debris such as fragments of bone. The building seems to have had a joint domestic and industrial function, probably divided between the two rooms.

Building 4 -

Building 4, in period B4, consisted of deposit series A35, A74, A78, A80, A82, and A83 (see fig. 18). It was the southern building on the northern plot, and parallel with building 5. The south-eastern end was badly damaged by Stolpe's excavations, and a one metre gap ran through the centre of the building. Building 4 was oriented north-west - south-east, and measured 10.5 x 5.5m. The north-eastern and south-western long walls were marked by a shift in the nature of the archaeological deposits, and the south-western long wall also by a line of stake holes and a post hole at its northern end. These walls were based on sill beams set on the surface of the soil. The south-eastern end wall consisted of three post holes, the largest of which was on the central long axis of the building. The north-western end wall was very much less clearly marked, and the spread of layers out onto the surface of the plot to the north strongly suggested that there was no permanent wall at this end. The point in the line of this wall where a load-bearing post might have been was cut away by a later disturbance, but further inside the building, to the south-east and on the same line, was a large post hole which may also have supported a ridge beam.

The building showed no evidence of internal division, but the edge of a wall bench ran parallel with and 1.5m from the south-western long wall. No similar division was clear along the north-eastern long wall, although a few scattered stake holes and one post hole suggest more or less permanent internal structures. The building had two hearths, slightly south of the central long axis, but oriented along it. The hearth at the south-eastern end of the building was an oval of stones packed into clay, and had a

large post hole at its north-western end, representing the remains of some sort of hearth furniture. Between this and the edge of the wall bench, a diffuse group of stake holes with slightly different stratigraphic positions probably marked the position of various hearth screens. The primary hearth at the north-western end of the building was similarly constructed of stones packed in clay, but was rectangular. A row of stake holes along its south-western edge marked the position of a fire screen. At a later stage it was replaced by an irregular oval hearth, which was associated with a pit cut through the earlier structure. This may have been an ash pit, as its fill consisted of laminated ash and charcoal. Debris associated with the building indicated that it was a bronze smithy, but there was no clear evidence of domestic function.

Building 5 -

Building 5, in period B4, consisted of deposit series A37, A75, A76, A81, and A84 (see fig. 19). It was oriented north-west - south-east, and measured at least 11m x 5.5m. The north-western end extended outside the excavated area, and the south-eastern end was acutely damaged by Stolpe's excavations, to the extent that only the lower parts of post holes survived. The north-eastern long wall was marked by groups of scattered sill stones and two small post holes, and by the straight edge of the repeatedly repaired clay floor. At the approximate mid-point of this wall, the floor and its associated use deposits spread half a metre outside the wall line, through an apparent gap just over one metre wide, and this may mark the position of a door into the building. The south-western long wall was also marked by sill stones and a small post hole at its north-western end, and two larger post holes in the south-eastern, damaged area. Nothing of the floor level survived adjacent to the south-eastern part of this wall, whose line is therefore less than clear. The south-eastern end wall survived as two post holes and a stone packing, associated with burnt wattle and daub. The western end wall was unexcavated.

Inside the north-western end of the building, aligned on the central long axis, was a complex rectangular hearth, of clay and stone, edged with upright stones, and with a triangular stone platform at its south-eastern end. This may have supported a smoke hood. A large post-hole, associated with three smaller post-holes and a group of stake holes near the south-western wall line, and another post hole inside the north-eastern

wall suggest that there may have been load-bearing posts forming a focus for internal constructions within this part of the building. This is borne out by the complex and fragmentary evidence for the interior of the south-eastern end of the building, where a row of large post holes and a stone packing ran down the central long axis of the building. This seems to indicate a ridge beam supported by upright posts. The most northerly, and largest of these post-holes had supported a double post, and was parallel with a double post in the south-western wall line, and another to the north-east, though not in the wall line. The implications of this construction are unclear; they may represent the remains of a substantial, load-bearing, cross wall immediately to the south-east of the door. In that case, this building would also have had two rooms.

Building 6 -

Building 6, in period B5, consisted of deposit series A41, A88, A92, A95, and A96 (see fig. 20). It was particularly ephemeral and difficult to interpret, and was damaged by Stolpe's excavations to the east. It measured at least 6.5m x 5m. The north-eastern long wall was marked by a series of four post holes, the south-western largely by the edge of a redeposited clay layer which formed the floor of the building, and by a large post hole at its northern end. The north-western end wall consisted of scatters of stake holes, and there was a further group of stake and post holes outside the line of the end wall which may have been the remains of a lean-to, or may have been a further room in this building. The south-eastern end wall was destroyed by Stolpe.

No hearth survived in the building, but a shallow, rectangular cut filled with casting sand, ash and charcoal which was outside the north-western end wall, appears to have been a casting box. Copious amounts of metalworking waste indicate that the building continued to be used for non-ferrous metal working.

Building 7 -

Building 7, in period B5, consisted of deposit series A93 and A94 (see fig. 21). The building was almost entirely outwith the excavated area; only the southernmost corner was dug. This consisted of a double wall line, or a wall with a parallel fence line, which is unclear. The inner wall consisted of a scatter of sill stones and two small

post holes, aligned north-west - south-east. The parallel outer wall consisted of a row of stake holes with a substantial corner post. The south-eastern wall was marked by the edge of floor and occupation deposits on a straight line at right angles to the other two. The most likely interpretation of this sees it as a post and wattle wall with internal panelling supported by posts and founded in a sill beam.

Building 8 -

Building 8, in period B5, consisted of deposit series A85, A87, A90, A91, and A97 (see fig. 22). Nonetheless, little survived of the structure; all but the north-western end wall had been cut away by Stolpe's excavations. The surviving wall indicated a building of 5.5 - 6m breadth, assuming that it was oriented north-west - south-east as were its predecessors and successors. The wall consisted of a stone packing forming a post-pad on the western corner, two stone post-pads framing a central door one metre wide, and a stone post-pad on the northern corner. Between these, smaller post-holes, stake-holes, fragments of burnt daub and scatters of sill stones indicated that the wall was of wattle panelling supported on driven posts, which were frequently repaired. Initially, a shallow ditch lay immediately outwith the wall, but this was rapidly filled in and not re-cut. The central door in what, from its strong construction, was probably a gable wall, is unique on the site.

Building 9 -

Building 9, in period B6, consisted of A61 (see fig. 23), and was the southern building on the southern plot, adjacent to building 10. The remains were slight; a row of sill stones, four post holes and a couple of stake holes oriented north-west - south-east was five metres in length, with a 2m long stone packing at right angles to its northern end. The construction appears to have been of earth-fast posts, possibly with sill beams between them supporting panels. The dimensions suggest that this building may have been oriented at right angles to building 10, i.e. north-east - south-west, but the small area excavated makes any further interpretation impossible.

Building 10 -

Building 10, in period B6, consisted of deposit series A49, A51, A53, A55, and A27(1990) (see fig. 24). It was destroyed by fire, preserving large amounts of

structural wood. It measured at least 8m x 5m, and was oriented north-west - south-east. The north-western end wall consisted of a stone packing, with corner posts at either end. This was bordered on the inside by a sill beam, possibly a sill for a floor or for internal panelling. The south-eastern end wall was cut away by Stolpe's excavations, and marked only by a scatter of stake holes and a dense area of disturbed charcoal. The long walls were less clear. The north-eastern wall was a scatter of charcoal fragments on the edge of occupation deposits from the inside of the house, and a pad stone midway down the wall. The south-western wall at its northern end was marked by a shallow trench, probably where a useable beam had been salvaged, which extended from the northern corner post, to two pad stones midway down the wall line. Nothing survived of the southern part of the wall, which was marked only by the edge of the occupation and destruction deposits deriving from the building.

Building 10 was divided into two rooms, the north-western of which was 4m long, with a wall bench along its south-western wall, and the remains of a wooden floor on sill beams. In the corner of the end wall of the building, and the wall bench, was a small sub-rectangular hearth with an associated screen or smoke hood of which only a post-hole and stake-holes survived. The internal wall was founded on a cross-sill, which stretched between the pad stones in the long walls. The area to the south-east of this was heavily worn, and may have been a passage between two opposing entrances in the long walls. In the southern room, the charred remains of a plank floor survived, overlain by planks from the wall or roof of the building. In the eastern corner of the room was a sunken oven, opening into the room. It was probably used for both domestic purposes and small industry; the destruction deposits from it contained relatively large amounts of cullet and vessel glass sherds, suggesting the recycling of glass.

Building 11 -

Building 11, in period B6, consisted of A99, A44, and A25(1990), A32(1990) A26(1990), A29(1990), A30(1990), A31(1990), and A34(1990) (see fig. 25). It was the very slight remains of a curious building, which may even have been merely an enclosure. Its surviving dimensions were 3.5m x 5m, but the south-eastern end of the building was cut away by Stolpe's excavations. The surviving north-western end

consisted of a spread of organic rich material, delimited in the south-western and southern part of the north-western edges by a number of post holes, and along the northern part of the north-western edge by a line of stake holes. The layers within this building were notably rich in coprolites, some of which have been preliminarily identified as coming from goat.

Building 12

Building 12, in period B6, consisted of A100 (see fig. 26). It was the northern building, on the northern plot, and was extremely short-lived. Its surviving dimensions were 2m x 5.5m, and the south-eastern end of the building was cut away by Stolpe's excavations. The north-eastern wall was marked by a truncated group of sill stones, and the south-western by a double post-hole, two stake holes, and two ancillary post holes. The north-western end wall of the building was marked by a the edge of the context within the building, and by three large post-holes and a group of stake holes which defined a central entrance, 1.25m wide, in the wall. Both the northern and the southern ends of this wall were truncated by later features. It would seem likely that this was a gable wall, following the pattern established in building 8, in the previous period of occupation.

Building 13 -

Building 13, in period B7, consisted of A56, and A8(1990) (see fig. 27). It was destroyed by fire, and as with building 10, this led to the preservation of a certain amount of structural timber. It had a surviving length of 8.75m, and width of 5.5m. The south-eastern end was truncated by Stolpe's excavations, but it does not seem likely that this was by more than an additional metre. The southern part of north-eastern long wall was marked by a shallow ditch, with a row of stake holes along its inner edge; the stake holes continued to the north, but the ditch did not. Fragments of charred and rotten wood adjacent to the stake holes were probably the remains of wattle. The southern end of the south-western long wall was also marked by a shallow ditch, which stopped around the mid-point of the wall, the northern part of which was marked by a straight edge in the occupation deposits from within the building. The north-western end wall was slightly truncated by an overlying feature, but at its centre was a large post hole, which formed a row with two other post holes

along the central long axis of the building. These posts appear to have carried the weight of the roof, giving a two-aisled construction.

Building 13 was divided into two rooms, the northern of which was 4.25m long, and the southern of which was slightly larger. In the northern room, the long axis of the building was marked by the three post-holes mentioned above. To the south-west of this line were two hearths, which were not absolutely contemporary. In the western corner of the room was a sub-rectangular hearth with an associated post from hearth furniture. This was replaced by an oval hearth nearer the centre of the room at a slightly later stage. In the southern room, again to the south of, but parallel with, the long axis of the building, was a large, oval hearth surrounded by the charred remains of a wooden plank floor laid on sill beams. A post hole at the south-eastern end of this hearth, and a scatter of stake holes, suggest hearth furniture, possibly a spit support and screen, although the stake holes could represent a part of the structure of the floor. The long axis of the building in this room was marked by the north-eastern sill beam of the floor. The position of the entrances into this building is not clear, but the location of the hearths and floor within the rooms suggests that the access between the two rooms was probably through the northern end of the dividing wall or screen. The dividing wall must have been based on a sill beam, as it was visible only as a break in the occupation deposits between the two rooms. There was no evidence of industrial use in this building.

Building 14 -

Building 14, in period B7, consisted of A104, A105, A106, and A19(1990), A20(1990) (see fig. 28). It was the southern building on the northern plot. The surviving dimensions were 3.75m x 5m, but the south-eastern end was cut away by Stolpe's excavations. The extent of the floor of this building was covered by laminated spreads of ash and charcoal, and along the north-eastern long wall, these were slightly truncated by a later foundation trench. The north-western end wall survived as two pad stones, one at either end, and a slight spread of small sill stones. The line of the wall was clear from the extent of the floor layers, and this was true also of the south-eastern wall line, which was marked, in addition, by a number of post and

stake holes. Some of these were outside the line of the wall, and may have been supporting posts, rather than structural members of the wall itself.

Within the building was a very large sub-oval, central hearth, which continued in use into the succeeding building 19. This had a stone at the north-western end which had been strongly affected by heat, formed a part of the hearth structure, and was probably a support for a bellows. At either side of the south-eastern end of the hearth were two post holes, again a part of the hearth furniture, and the floor around the hearth was covered with randomly scattered stake-holes. The almost total lack of finds from the building, and the marked deposits of ash and charcoal make it unlikely that this was a domestic building, but its industrial function is far from clear.

Building 15 -

Building 15, in period B7, consisted of A113, and A116 (see fig. 29). This was the one of the least convincing buildings on the site, and was identified as such partly on the basis of its massive construction, and partly on the basis of the deposits within the wall lines. The north-western end of the structure extended outwith the excavated area, and the south-eastern end was truncated by Stolpe's excavations. The surviving dimensions were 4m long by 5m wide, and the line of the south-western long wall was particularly uncertain. The north-eastern long wall, on the other hand, was very strongly constructed, with three massive, deep post holes long the north-western end of the wall, and a door just over one metre wide, with a cobble threshold, in the south-eastern part of the wall. The south-western wall line was heavily truncated by later structures, and consisted of two large post-holes towards the northern excavated end, with one small post-hole and two stake-holes in the southern end. No evidence of the internal structure of the building survived, with the exception of three small post-holes along the central long axis of the structure. Its function, judging by the finds from the interior of the structure, was probably domestic.

Building 16 -

Building 16, in period B7, consisted of A15(1990) (see fig. 30) and was on the western plot, almost entirely outwith the excavated area. The end of the building which extended into the trench was 1m x 4.5m, and it was probably oriented north-

west - south-east. The wall was marked by a partially stone-packed sill line, respected by an ash deposit within the building. There was no evidence for internal structures within the excavated area.

Building 17 -

Building 17, in period B8, consisted of A58, A60, and A7(1990) (see fig. 31). It was on the southern plot. The surviving dimensions were 9m x 6m, and the south-eastern end was truncated by Stolpe's excavations. The wall lines were marked by a series of substantial post-holes, and scattered sill stones. Wood fragments at the southern end of the north-eastern long wall suggest that the panelling between the posts was of planking, and the structure may have been of lafted construction. Fired daub found in the road adjacent to the north-eastern wall indicated that the building was at least partially daubed.

There was no indication that building 17 was internally divided; in contrast, there was an oval central hearth, on the long axis of the interior, which would strongly suggest a single room structure. The position of the entrance into the building was unclear. There was no evidence of industrial production in the building.

Building 18 -

Building 18, in period B8, consisted of A3(1990) (see fig. 32). It was the southern corner of a building which otherwise lay completely outwith the excavated area; the surviving dimensions were 2m x 2.5m. The walls were founded on a sill stone packing, and charred pieces of plank and burnt daub in the stone packing suggested a possible daubed stave construction. A row of loom weight fragments ran diagonally across the corner, indicating the presence of a loom; whether the building's function was primarily industrial or domestic cannot be said.

Building 19 -

Building 19, in period B8, consisted of A111, A115, A118, A121, A12(1990) and A10(1990) (see fig. 33). It was the southern building on the northern plot, and its surviving dimensions were 3.5m x 4.5m. Its south-eastern end was truncated by Stolpe's excavations. The north-eastern wall line was founded on a stone-packed,

0.3m deep rectangular foundation trench containing a ritual deposit of iron amulet rings, an oxbow, eider duck wings, the shoulder blade of a man, and an Arabic silver coin (see fig. 16). The southern wall line was marked by a scatter of stake holes at its northern end, a post hole and two stake holes at its southern end, and between these, the straight edge of the ash and charcoal occupation deposits within the building. Two post-holes lay outside the western corner of the building, and may have been supporting posts. Its central hearth continued the position of the hearth in the underlying building 14, although the position and dimensions of the surrounding structure were slightly changed. There were very few finds from this building, and they provided no clear evidence of its function, although the massive deposits of ash and charcoal which had built up during the occupation of the structure would tend to suggest an industrial rather than a domestic use.

Building 20 -

Building 20, in period B8, consisted of A122. The structural evidence for this building was so extremely slight, and so plough damaged, that nothing conclusive can be said about it. The identification of a building in this area is based on the extremely plough-damaged remains of a hearth, and the nature of the deposits, which were compact, and contained small amounts of highly fragmented domestic debris, in contrast to contemporary deposits in the yard to the south, and the lane to the north, which were relatively loose, and contained very large amounts of intact bone and other domestic rubbish. The building remains are not illustrated.

III.5.1.2 The Terrace Excavations 1988-89

In contrast to the evidence from the excavations of the urban heart of the settlement, Lena Holmquist-Olausson's excavations on the terraces adjacent to the settlement's rampart seemed to reveal larger constructions. The size and shape of the terraces (see fig. 3) suggests the presence of substantial halls or long houses, and there was sound evidence for at least one such building from the excavations.

The excavated building was oriented north-north-west - south-south-east, and the excavated length was c. 17m, with slightly bowed walls 5 - 6m apart. The estimated total length was between 20 and 22m. It was constructed with earth-fast posts, two

rows of internal aisle posts, a central hearth, and an entrance at one third of the length from the northern end of the building (see fig. 34). Burnt daub from outside the walls indicated that they were planked and daubed (Holmquist-Olausson 1993, 96-100). Of the function of the building, Holmquist-Olausson says only that 'the house had a distinct function'.

The evidence from the terrace excavations for two other buildings was extremely scant. An earlier building under the terrace, but on the same alignment, may have been of similar size, but its hearth was adjacent to the south-western long wall, and the evidence for the remainder of the building is extremely tenuous. It was also suggested that the main building was succeeded by an inserted sunken featured building, which used the same hearth (see fig. 35), but the position of this 'building', the fact that in creating the 'sunken floor' the hearth was not cut away, and the otherwise slight nature of the evidence (it was recognised only in section) must lead one to doubt its existence. It seems possible that the excavator mistook the change of level and context at the edge of wall benches or some other internal feature, for a more substantial construction.

III.5.1.3 Architecture

The architectural forms used within the limits of the town are therefore various. If the terrace excavation can be taken to be representative of its area, where survey has revealed some twelve terraces of varying sizes (Holmquist-Olausson 1993, 87, and see fig. 3), there is a focus of as many as seven very large buildings just inside the rampart on the northern edge of the settled area. The excavated example conforms to the hall or long house architecture characteristic of Iron Age sites in the area and throughout Scandinavia (Hvass 1988, 53-91), and paralleled, among other places, at Helgö (e.g. Holmqvist (ed.) 1961, 61-73; Holmqvist & Arrhenius (eds.) 1964, 3-19, 37-58). Its bowed walls, three-aisled construction and central hearth, with no internal living space divisions are characteristic of an architectural tradition with its roots in the Roman Iron Age. Such divisions as do appear in these types of buildings almost invariably mark the separation between stock and people, with both living under the same roof.

The architecture of the centre of the settlement is in marked contrast to this. Of the seventeen buildings for which widths can be distinguished, all fall between 4.5 and 6m, somewhat smaller than the large, bow-sided buildings, but not remarkably so. Their lengths, however, where they could be determined were nowhere longer than twelve metres (building 3), some ten metres shorter than the building on the rampart terrace. The walls, although often somewhat irregular, were not bowed.

Of the ten buildings from the 1990-1995 excavations where the internal space can be examined with a reasonable degree of certainty, six are divided into two unequal rooms, whose finds distributions demonstrate functional differences. None have a three-aisled construction, although at least two appear to have had supporting posts under the roof ridge which created a more or less concrete two aisled internal division in addition to their room divisions. Wall benches in these urban buildings appear to have been only on one side of the building, and where there were two rooms, in one room only. This may be a factor of the relatively small size of such buildings, but appears to support the contention that where there was a room division, there was probably also a functional division.

Nonetheless, despite the superficially dramatic differences between the architecture of the building on the rampart, and the buildings in the centre of the settlement, there are concealed similarities between them. The use of stone-packed, earth-fast posts for carrying the walls, and internal load from the roof, is common to both types of building. Plank or laft walling is demonstrated for three of the buildings in the town, as well as the larger building on the edge of the settlement. Hearth constructions are similar - of clay packed with stone, with a tendency to a central placement in the building or room in which they are found. This is particularly true where the room or building appears to have had a primarily domestic function (but see Chapter VI for a more detailed discussion of this question). The internal divisions appear still to have a functional basis, although the divided domestic space is not an Iron Age feature.

The architectural characteristics of the buildings within the settlement at Birka are various. The excavated building adjacent to the rampart of the town is typical of the native rural building tradition, and the buildings in the centre of the town appear,

superficially, to be wholly divergent from that tradition; closer examination, however, reveals structural similarities between the two. The distinctively small size and characteristic subdivision of the settlement centre buildings are, however, new elements in Central Swedish architecture at the beginning of the Viking Age, and it is as yet unclear whether the settlement at Birka is the first expression of this type of architecture.

III.5.2 Roads and Plots

The establishment of the primary access point between the excavated area of the settlement, and the waterfront, the stone, land-fast foundations of a jetty, was stratigraphically the earliest feature in the 1990-1995 excavations. This was associated with the creation of stone packings or foundations along the waterfront, which either formed the foundation of quays, or, more probably, provided a means of controlling access, both from the settlement to the shoreline, and from the water to the shoreline. Unless the stone packings were covered by a superstructure, boats could not have been safely landed on this part of the shore except at the jetty.

This point of access determined the alignment of fencelines delimiting a plot adjacent to and immediately to the north-east of the jetty. The establishment of these fencelines in period B1 demonstrably predated the earliest occupation of the plot (see discussion above, III.4.3.3), and they were themselves replaced by fences on the same alignment as a new jetty foundation at the beginning of period B2, prior to the construction of the first permanent structure on the site.

During the occupation of the site, the plot boundaries within the excavated area, although often not marked by fences, were never transgressed by more than 0.4m to the north or south. The eastern boundary of this plot was largely destroyed by Stolpe's excavations, and little could be said about it. The western boundary appears initially to have been determined by the landward edge of the large stone packings along the shoreline, but this may have been a pragmatic, rather than legal boundary, as, by period B3, it was substantially overbuilt. During the following periods 4 and 5, however, a clear legal boundary on the western end of the site was established; this reduced the area which had previously been used as a part of the plot for various

activities, but primarily rubbish disposal. During periods B2 and B3, the rubbish deposits which derived from the use of the buildings spread without restriction westwards to the edge of the excavated area. Building 3, in period B3, also extended outwith the excavated area at its western end. In period B4, the initial restriction of rubbish deposits west of the southern building on the plot could be observed, and in period B5, a substantial boundary ditch separated a new, occupied plot to the west from the established plot, and forced both the buildings on the plot eastwards. The line of this ditch continued to be respected in period B6, despite the fact that it was filled full of rubbish, and effectively vanished when the northern plot was largely abandoned, and it was only slightly transgressed when it was recut in periods B7 and B8, and shifted marginally westwards.

The noteworthy impression of organisation and control offered by the establishment and persistence of plot boundaries in the centre of the town is reinforced by the treatment of road surfaces. The primary route in the excavated area was the jetty which formed a link between the lake and shoreline, and the settled area. The importance of this access point was emphasised by its rebuilding early in the excavated sequence, and by the fact that the orientation of the jetty foundation determined the orientation of the adjacent plots, rather than vice versa. The route over the jetty was kept clear of rubbish and debris during the first three periods of occupation, and into the fourth, but rapid rubbish buildup on the surface characterised the later half of the occupation. This appears to have been due to the decreasing importance of the jetty as the water receded from the shoreline, and the decreasing use of this route as a major access point. Nonetheless, the entire lane was levelled several times, traces of wood chips suggest successive attempts to cover the uneven and unpleasant debris, and a clay surface was laid over the road following a particularly noxious deposit of rubbish here in the final period B8.

Initially, the northern lane was probably a less important access than was the southern route to and over the jetty foundation. However, even in period B2, the northern lane had also been fenced, and surfaced. The surfacing did not survive, but given that it was set in a shallow, level cut into the clay subsoil, and apparently supported with small stakes and posts, the most probable type of surfacing is a layer of logs or split

logs set at right angles to the axis of the lane. Such road surfaces are paralleled at later sites such as Novgorod (Khoroshev & Sorrokin 1992, 135). Evidence also survived in period B4 for a resurfacing of similar type.

The poor organic preservation makes it difficult to draw definite conclusions about the surfacing of the roads at Birka, but such evidence as existed gave strong indications of an organised approach to street maintenance, even where the street was no longer a major route. This maintenance clearly fought a hard battle against the lack of organisation in the disposal of rubbish; that the streets were passable at all must be seen as evidence of either communal or authoritarian organised influence.

III.5.3 Defences

The extant defences of the urban centre have conventionally been dated to the tenth century, (Ambrosiani & Eriksson 1991, 28; 1996, 41; Arbman 1939, 66-7) on the basis of the results of Stolpe's excavations (Arbman 1939, 67) which uncovered as many as fifty ninth and early tenth century inhumations in or under the wall. One of these, Grave 834 (Arbman 1943, 304-308) was an extremely wealthy double male and female chamber grave which contained, among many other objects, a number of silver dirhems, the latest of which has been dated to AD 915-916 (Holmquist-Olausson 1993, 71). This was seen as providing a *terminus post quem* for the construction of the rampart. However, as a result of Arbman's own excavations of the mid 1930s (Arbman 1939, 67), this dating was slightly undermined. Arbman's trenches through the southern end of the rampart revealed two phases of construction (as discussed above, III.3.5). He also excavated three graves in 1932 (Arbman 1943, 483-485) adjacent to the rampart, in order to elucidate the relationship between the cemetery and the rampart. In an unpublished report¹ Arbman appears to have dated the one of these which had a stratigraphic relationship to the rampart to the turn of the ninth to the tenth century, and to have decided on stratigraphic grounds that it post-dated the (presumably second phase of the) rampart to its north. Nonetheless, in his discussion

¹ The author has not had access to this report, which is discussed, but not fully referenced, in Holmquist-Olausson 1993, 76-77. It is unclear to which of the two unpublished reports by Arbman listed in the bibliography she refers. Both are in the Antikvariskt Topografisk Arkiv in Stockholm, reference numbers 0666/33 (written in 1933), and 3130/35 (written in 1935). It seems likely that the former is the relevant text.

of the defences of the settlement some five years later (Arbman 1939, 55-72), he concurred that the earliest possible dating for the defences was the second quarter of the tenth century, on the grounds that the latest graves in the immediate area of the wall do not post-date the AD 916-917 dirhem in Grave 834 (*op. cit.* 70).

This argument was accepted by Ola Kyhlberg (1980, 81), in his examination of the chronological problems of Birka and Helgö, but rebutted by Ingmar Jansson, discussing Kyhlberg's work, when he stated:

Några egentliga argument för denna uppfattning anför han dock enligt min mening inte. Det enda säkra faktumet är, att mynt i gravar, som täckts av eller byggts in i vallen, anger år 917 som terminus post quem. Det är helt okänt, hur vallen påverkat gravfältets användning, och vilka gravar som anlagts efter vallens tillkomst.² (Jansson 1985, 139-148)

In fact, the only thing which the *terminus post quem* provided by the coins reveals is that a change in burial practice took place at that point in time. Late tenth century graves do seem to be lacking in this area, but whether this is truly related to the construction of the rampart remains unclear. Where detailed stratigraphic relationships were recorded, it is demonstrable that graves lay both under and over the rampart; specific evidence of the relationship between the different phases of the rampart and the various burials is lacking

The dating of the main rampart has also been strongly questioned by Holmquist-Olausson (1993, 76-83) on the basis of her excavations. Four phases of rampart building were uncovered, the earliest of which (1a) was radiocarbon dated to AD 770-910 (68% probability - *op. cit.* 77), and the latest of which was dated by its stratigraphic relationship to a radiocarbon dated grave fill, to before AD 886-90 (Holmquist-Olausson 1993, 82-3). It seems likely, although unproven, that this sequence of four phases of building might push the establishment of the rampart back to an earlier Viking Age date, possibly into the ninth century, but the dating is unfortunately weak, with underlying archaeological deposits providing radiocarbon

² 'He does not, to my mind, present sound arguments for this proposal. The only certain fact is that coins in graves which are covered by or built into the rampart yeild a *terminus post quem* of AD 917. It is entirely unknown how the rampart affected the use of the cemetery, and which graves were constructed after the creation of the rampart.' (translation mine).

termini post quem as late as AD 692 (*op. cit.* 80), and the finds yielding no more detailed information.

Holmquist Olausson's statement that: 'The function of the oldest rampart 1a seems rather have (sic) been that of a border than a defense wall. This border has served the long house during the Early Viking period...' (*op. cit.* 83), referring to the long house excavated to the south of the rampart (see above, III.3.8) is unsustained by the evidence. It does, however, seem probable that the various different lengths of the rampart may have been built and repaired at different times.

Although the dating of the hill fort has always been less well established, and Arbman himself believed it might have been earlier than the town (Arbman 1939, 58), recent excavations in the rampart of the fort's landward side have revealed burials under the rampart, indicating that the construction of at least part of the structure must have post-dated initial activity on the site. Deposits containing domestic debris also predate the rampart in this area, and have been tentatively dated to the mid-eighth century (Lena Holmquist-Olausson, pers. comm.), while the two-phase construction of the hillfort rampart has been preliminarily dated to the late eighth century. This pattern contrasts with the dates given to finds from Arbman's excavations in the so-called 'garrison' area north-east of the rampart of the fort (see fig. 5 and discussion above, III.3.5), which are primarily tenth century, and contain unusually large amounts of military equipment, particularly weapons, plate and chain mail (Arbman 1939, 62-3), and no finds which in Arbman's words '*direkt höra samman med kvinnor och kvinnlig slöjd*'³ (*op. cit.* 63). It is worth noting, however, that Arbman also distinguished a phase of occupation which pre-dated the garrison, and which he identified as a beacon (*op. cit.* 62). No assessment could then be made of the duration of the pre-'garrison' use of the area, but the shifting nature of occupation on the site is not incompatible with the preliminary results from the more recent excavations.

The question has also been raised of whether there was not an earlier hill fort. In the ninth century, Rimbert (*Vita Anskarii*, trans. Odelman 1986, 37) referred to the

³ '...are directly associated with women and feminine crafts'.

existence of a fort near the town, which was used as a refuge by the citizens and the Christian reeve, Hergeir, during Anund's attack on the town. The assumption that the building of the fort was associated with the raising of the town rampart and thus dated to the tenth century led to the debate about the incompatibility of the literary and archaeological sources. However, given the dates emerging from the recent excavations, it no longer seems necessary to question the association of the creation of the hillfort and the establishment of the town, and the problem resolves itself.

The question of an earlier defensive circuit was raised, but not answered, by Arbman (1939, 67). Ambrosiani (1996, 41) argues that the existence of an earlier, and smaller, rampart is proven by the two short earthworks which lie on the Viking Age coast line, within the line of the later defences, north of the hill fort (see fig. 5). No other evidence for this structure exists, however, and the parallel earthworks could equally well be the foundations of a substantial naust. Geophysical surveys over the proposed line of this early rampart indicated only geological variations. Until or unless excavation is carried out on the putative line of this hypothetical earlier defence, it must remain unproven, and the assumption must be that the settlement may have been without substantial defences, other than the hill fort, until the second quarter of the tenth century or later.

III.5.4 Urban Planning and Organisation

The planned nature of the town was evident in the establishment of plot boundaries prior to the occupation of the site. The earliest features in the excavated area were the ditches which extended from the eastern edge of the site, marking the boundaries of the plot to the east of that which was dug, and the foundation of the first jetty and quays or hard standings. All of these features require substantial constructional effort, and this suggestion of an organising authority was further demonstrated by the persistence of plot boundaries, and the establishment of new plot boundaries over the increasingly dry shoreline in periods 5 and 6 (see above, III.4.3.3 and figs.10,11,12) involving a decrease in the area of the northern plot. The likelihood that this was a voluntary subdivision seems less than that it was imposed by an higher authority. The existence of authoritative control of the town is also suggested by the maintenance of the lanes in the excavated area; the southern lane was kept clear of domestic and

industrial rubbish during its use as an access to the jetty and waterfront, and thereafter periodically levelled and resurfaced, while the northern lane was also clearly established at the earliest date and resurfaced at intervals.

The occupation of the excavated area was extremely dense. That the multitude of fires which apparently destroyed period after period of the occupation on the southern plot did not spread is surprising. It raises the possibility, unfortunately unproveable, that fire may have been used as a means to clear a plot for rebuilding. This has also been suggested for the Viking Age occupation of Flaxengate in Lincoln (Perring 1981, 40). The destruction of building 13 (A56 & A8(1990)) during period 7 on the southern plot was, however, clearly accidental, as demonstrated by the amounts of relatively high value artefacts found abandoned within the building (see above, III.4.3.3).

Rubbish disposal was uncontrolled, and this may be characteristic of the very early periods of urbanism in other mediaeval towns. The lack of large pits, both for latrines and rubbish, is surprising, particularly given their occurrence in other contemporary towns such as Hamwic (Morton 1992, 42-48). However, this may be a feature of the shoreline area; drainage immediately over the subsoil was a problem during excavation following a wet winter in 1994/5, and the much higher waterline of the Viking period must have exacerbated this acutely. The rapid build-up of the soil surfaces within the town was the result of this rubbish disposal problem, and the results of the excavation suggest that any unoccupied area was used for dumping. The immense amounts of domestic rubbish which were dumped over the surface of the northern plot during its abandonment in period 6 demonstrate this, as does the rapid accumulation of rubbish in the lanes. Attempts were clearly made on occasion to cover and seal these unpleasant deposits. The extensive charcoal and ash spreads in the northern yard of the northern plot (A90) during period 5 appear to be such an attempt, as does the resurfacing of the southern lane with clay during period 7 (A119).

III.6 THEMATIC DISCUSSION: THE SOCIAL AND ECONOMIC STRUCTURE

III.6.1 Craft Production

Craft production on an organised and permanent scale is one of the most dramatic characteristics of the settlement at Birka. The excavations adjacent to the ramparts provided evidence of blacksmithing, non-ferrous metal working and glass bead manufacture which the excavator believed took place in association with the occupation of a sunken-featured building which post-dated the hall occupation (see above, III.5.1.2, and Holmquist-Olausson 1993, 100-105). As discussed above, the evidence for the existence of the sunken-featured building is tenuous, and it is possible that the craft production derived from the later phase of the occupation of the hall itself.

The volume of manufacturing debris discovered at the terrace site was also small relative to the volumes from the centre of the settlement. Thirty sherds of vessel glass, and twenty-five pieces of manufacturing debris (cullet, rods, droplets) (Henricson 1993, 143) do not suggest a large scale bead production. Neither does the single mould fragment for a disc brooch (Holmquist-Olausson 1993, 105) indicate extensive production of fine metal work. The evidence for blacksmithing, however, is convincing, with scale slag, a half-made knife, and a bellows nozzle all closely associated with a hearth (*op. cit.* 104-105). Again, however, the scale of production does not appear to have been large, although it may be that this reflects an efficient disposal of rubbish in the rampart area.

The area excavated in the centre of town stands in some contrast to the terrace area with regards to the evident volume of production of some crafts. Once again, however, scant evidence of glass bead production was present, associated here with the oven-like feature in building 9. The mixture of cullet, sherds of vessel glass, and rods and droplets was similar to that from the terrace, but the volume was slight, and a tentative interpretation might see both these as sites where small-scale recycling of glass into cullet took place, rather than the manufacture of beads.

Similarly small scale evidence for antler comb manufacturing came from the burnt building 13. Unfinished tooth plates, side plates, and scraps of elk horn were

abandoned in the debris from the building, and on the floors inside. However, although the evidence for manufacture is unambiguous, the amount of debris was small, and in the light of Kristina Ambrosiani's work on the production of Viking Age combs (Ambrosiani 1981), this can perhaps be explained as the waste accumulated during the brief visit of an itinerant comb maker.

The northern of the two plots was used for primarily non-ferrous metal working during the first four periods of occupation. Here the scale of manufacture was substantial, and the total numbers of mould fragments from the four periods of craft production was finally nearly 25 000 (Ambrosiani & Erikson 1993, 27). The variety of production was also wide, with all types of jewellery and fine metal work manufactured, in addition, possibly, to fine ironwork (Ambrosiani pers. comm.) such as locks and keys. Initial examination of the finds from the various rubbish deposits associated with the buildings during these phases of occupation also seems to indicate that production was organised in different areas. Thus, concentrations of moulds were found in the northern lane, outside building 3, while contemporary rubbish deposits to the north of building 2 contained marked concentrations of a characteristic type of crucible used for recycling scrap metal.

Despite the intensity of craft production on the northern plot, there seems little doubt that it also had a contemporary domestic occupation. The north-western room of building 3 contained very little industrial debris, but amounts of domestic rubbish, such as pottery and animal bone, most of which was highly fragmented by the use of the room. Mixtures of domestic and industrial debris were also found in the underlying and overlying buildings. The excavated buildings on the southern plot had an even stronger domestic bias; here the craft production levels were very low in comparison to the northern plot, and the evidence for domestic use correspondingly strong.

It is clear that there was no definite industrial zoning in the settlement at Birka. The excavated evidence indicates that craft production took place throughout the settlement, at various levels of intensity, and in all types of building. Highly specialised, organised and sophisticated manufacturing took place alongside the

occasional production of individual artefacts, or the collection of raw materials, such as glass, for recycling. Even the most intensive industrial production did not preclude domestic occupation on the same site, and even the most high status domestic occupation (see below) does not appear to have precluded contemporary craft production in the same buildings.

III.6.2 Social Variation

The question of social variation within the population of the settlement at Birka is one which has been hotly debated since Stolpe's excavations in the cemeteries during the nineteenth century. Each new discussion has been closely related to the nature of contemporary, modern concerns: Holger Arbman, before, during and after the Second World War, was particularly interested in the military and hierarchical organisation of the settlement (Arbman 1939); the most active area of debate at the moment is directed towards questions of ethnicity and social distinction. Much of these debates has been fuelled by varying interpretations of the cemetery material, as the largest available database, and only a little can be added to it by the results of the recent excavations.

III.6.2.1 Ethnicity

The ethnic origins of the population settled at Birka have been of interest since the earliest studies of the settlement. Knut Stjerna's hypothesis (1908) that Birka was an wholly Frisian colony has long been discounted, but the presence of chamber graves in the cemeteries has led Anne-Sophie Gräslund to suggest the presence of a Frisian guild or group of traders resident at Birka (Gräslund 1980, 86) from its foundation. There can be no doubt that the cemetery material provides the only real chance to assess any question of the ethnic origins of the population; the excavations of the built-up area of the settlement have yielded a much smaller database, and give less immediate access to the individual. Nonetheless, the difficulties in attempting any such type of assessment from the material record should not be underestimated; the relationship between the buried individual and the ritual and contents of the grave is problematic at best, dependant more upon the actors in the rite, the family and friends, than the dead person. In addition, ethnicity is a huge and complex topic; it is demonstrable from the modern study of perceptions of ethnicity that these operate on

different levels among different peoples, and are best defined in relation to, or reaction against, peoples whose social practice may be dissimilar.

To attempt to identify specific countries, regions or tribes of origin for the inhabitants of Birka may therefore be futile. The material available from the cemeteries can, however, be studied within its local (Björkö) context, and its context within Central Sweden and Scandinavia, and from that study, which was effectively carried out by Gräslund, a number of interesting patterns do begin to emerge.

Inhumation graves are rare in Central Sweden, and the area around the Mälar in the Vendel Period and Early Viking Age was characterised by a great uniformity of burial custom, with virtually all graves cremations under barrows or stone settings of various shapes (Gräslund 1980, 72). Near contemporary sources remarked upon this; in the *Ynglingasaga*, Snorri Sturlason recorded a law which he said that Odin gave to the *Svear*:

‘Thus he established by law that all dead men should be burned, and their belongings laid with them upon the pile and the ashes be cast into the sea or buried in the earth. ... For men of consequence a mound should be raised to their memory, and for all other warriors who had been distinguished for manhood a standing stone; which custom remained long after Odin’s time.’ (*Ynglingasaga* ch. VIII, in *Heimskringla*, trans. Laing 1844, rev. Anderson 1889)

The isolated inhumations which do occur in Central Sweden are therefore of particular interest in the light of the fact that nearly half of the burials excavated in the Birka cemeteries are inhumations, coffined, uncoffined and in chamber graves. Because of the stark contrast between the burial customs of the hinterland and the town, the practice of inhumation has commonly been seen as reflecting the residence of a substantial group of incomers (e.g. Gräslund 1980, Ambrosiani, pers. comm.), with particular links to the Frisian and North German areas reflected in the practice of chamber grave construction and the contents of the chamber graves. However, many of the individual elements of the burial ritual are present in the Central Swedish area as early as the Vendel Period; indeed, the type site, Vendel itself, with its great, rich, inhumation boat graves, could be seen as in many ways prototypical, with its wealth of imported artefacts, horse burials, inhumations and surrounding wooden structures

(the boats, in these cases). Inhumations are present from the earliest occupation of the town, and increase in numbers throughout its use. Imported goods are not unique to the chamber graves in Birka, or indeed, the inhumation graves; women's dress appears to have been similar in both the inhumation and the cremation graves⁴; there is evidence of horse bones from the cremations as well as the chamber graves, and many of the inhumations (though few of the chamber graves) are as poor as the poorest of the cremations. The contents of the inhumations cannot be used to support the suggestion that the inhumed population was different from the cremated population.

In short, it cannot be stated with any certainty that the practice of inhumation, or the building of chamber graves, necessarily in themselves betoken the domination, or presence, of substantial numbers of incomers to the town at Birka. What they do, however, demonstrate is the development within the community of a group who, while retaining strong links with the surrounding population, wished for some reason to distinguish themselves through the practice of a burial ritual which was unusual in the area, although not totally alien. There could be many reasons for this other than their ethnic origins.

III.6.2.2 Religion

One of the other great foci of debate about the population of Birka has been the question of religion. The historical references to the early mission of Ansgar (see above, III.1) have undoubtedly coloured the intellectual approach of many archaeologists to the Birka material, and, as might be expected, this is most evident in discussions of the cemetery material. Gräslund has discussed this most comprehensively (Gräslund 1980, 46-49, 77-79), and it need not be restated here. Suffice it to say that, at this early stage in the development of the institutional church in Europe, and particularly in the very early stages of the conversion of Scandinavia, burial practices may well not have conformed to the 'Christian' pattern expected at a later stage throughout Europe. Identifying early Christian graves at Birka, and

⁴ There is one exception to this rule, and it is the rich burial of a woman with Frisian type enamelled brooches (Bj. 854 - Gräslund 1980, 46; Arbman 1943, 326-330), but even she was accompanied by a

assessing the proportion of the occupants who adhered to the faith, is therefore not straightforward. That there was a Christian influence, and probably presence, in the population from its earliest days is indicated not merely by the historical sources, but also by the material evidence. Gräslund (1980, 84) suggested that the concentration of burials north of the hill fort (see fig. 36) may represent an early Christian burial ground, although the finds from these graves give little or no concrete evidence of such a theory. Such Christian finds as did emerge from the earlier graves at Birka were often associated with other, apparently pagan, elements. Thus, the woman buried in Grave 854, with a fine pair of Carolingian enamelled brooches, and a Tating ware tin foil jug with a cross on it, had a Thor's hammer ring around her head. Interestingly, however, Gräslund identified as Carolingian two cruciform brooches from the early Grave 1079 (Gräslund 1980, 84), which have proven since the recent excavations in the centre of town, to be produced in Birka. A number of the moulds from period B4 were undoubtedly for the production of these crosses, which indicates a demand for artefacts showing a certain Christian influence, from as early as the mid-to late ninth century, at the time of Ansgar's trip to the town.

Slightly later, less ambiguously Christian artefacts emerge from the cemetery material. A locally produced granulated crucifix was found in Grave 660 (Arbman 1943, 231-233), and nine other graves in its vicinity, near the hill fort, produced simple silver crosses. At least half of these were associated with elements considered pagan - grave goods other than clothing, and non-Christian amulets, such as Thor's hammers (Gräslund 1980, 85).

The ambiguity of the practice of Christian belief in its early days is very clear from the material evidence, and conforms to such evidence as we have from the documentary sources. Helgi the Lean, the Hebridean Iclander from Kristnes, is famous for having prayed to Christ when on land, and Thor when at sea (*Laxdælasaga* xxxxxxxx), and it would seem likely that the initial acceptance of Christianity in Central Sweden was into the pantheon of pagan gods, rather than as a replacement for them.

Thor's hammer ring, and a whalebone smoothing board, both characteristically Scandinavian, and in the former case, specifically Central Swedish, grave goods.

III.6.2.3 Status

Distinguishing status in the archaeological record has often been accepted as unproblematic, which it is clearly not. Once again, in relation to Birka, the material which has been most commonly used to examine the question of status variation within the population of the settlement is the results of the various cemetery excavations. The variation in value between the different graves has been assessed by a variety of numerical and statistical means, but time and time again, the archaeologists have come up against major problems in distinguishing between austerity in burial ritual, and poverty in life. Nonetheless, on the basis that a certain level of wealth in life is necessary in order to conspicuously consume wealth in death, attempts to assess relative values continue.

Because the inhumations at Birka were not cremated, and are therefore more complete than the cremations, they have often formed the focus of these studies of relative value. There are a number of studies which have concentrated upon the chamber graves, relating burial custom and social group by means of statistical analyses. The early work of Lech Leciejewicz (1956), published in Polish and therefore treated here from secondary sources, created categories of grave type and grave gift, of various value, which provided evidence of two basic groups of burials - unsurprisingly inhumations and cremations. He further subdivided the inhumations into two groups, essentially those with weapons and those without, which, when examined, prove to be men's graves and women's graves respectively. This did not move the argument very much further forward, and was critically assessed by Heiko Steuer (1969), whose main disagreement with the material was the lack of concern with the relationship between grave types and their contents. His own analysis has in its turn been criticised (Gräslund 1980, 78; Ringstedt 1997, 46) for a lack of concern with the artefacts which characterise the female graves; women's graves therefore show up in the analytical record as much poorer than they appear to an intuitive examination of the material. The remainder of Steuer's analysis is, however, useful, as it incorporated material from both the cremations and the inhumations, instead of dealing with them separately. He concluded that the cremation graves were as 'wealthy' as the inhumations, and contained similar material. A potentially interesting study by Lebedev (1970), published in Russian, and here discussed through secondary sources,

examining elements of the structure of the grave markers, mounds and stone settings, was spoilt by a lack of familiarity with the material (Gräslund 1980, 78-79).

Another way of approaching the question of status might be through the settlement material. There is now good evidence that the size of buildings at Birka varied widely; the hall adjacent to the rampart had an area of between 100m² and 144m², in contrast to the 55m² to 60m² which was the maximum building size (building 3) among those structures excavated in the centre of the settlement. In a physically confined settlement area, access to large areas of land may well have been an aspect of conspicuous consumption of resources.

If weapons are to be considered as high status artefacts, belonging to people who had unusual standing, then potentially, the fact that a scabbard chape and shield boss were found in the burnt remains of building 13 might suggest that it was occupied by a person of standing. Assigning status to occupants of buildings on the basis of artefacts discovered there is, however, difficult. Valuable objects would not naturally be abandoned in derelict or demolished buildings; the fact that these were found inside building 13 is a very strong argument for its accidental and dramatic destruction. The negative evidence for weapons in the other buildings need only imply that they were cleared before abandonment or rebuilding. The weapons might have been the property of a guest, or there for repair. The very portability of artefacts makes them dubious status indicators in the context of a settlement excavation.

Alternatively, elements in the construction of the buildings themselves might be indicators of status. Only two of the buildings in the centre of the town appear to have been built with plank walls, as was the hall. On an island where timber must have been imported to meet demand, the relatively economical wattle construction appears to have been common not merely for walling, but for the edging of wall benches and other internal details. Even in the thirteen buildings where there were sill stones, eight also had concrete evidence for wattle walling along at least part of the wall line. The two buildings which did have evidence for planked or lafted walling were the latest building on the southern plot (building 17, period B8) and building 18, of which only a corner was excavated. Building 17 conformed more nearly to the architectural

pattern of the undivided hall, despite its relatively small size, than did any other building in the 1990-1995 excavations, and this may well also be significant in relation to the status of the structure. This issue will be discussed further in Chapter VI.

III.6.2.4 Role Differentiation

Role differentiation is an issue which has not been particularly intensively considered in relation to the archaeological material from Birka. Issues of specialisation, professionalism, and gender have all been minimally discussed, and within a wholly uncritical paradigm. Once again, the scant historical sources have set the parameters for the discussion; Rimbert's references to the different characters whom Ansgar met, thralls, merchants, women, chieftains (Rimbert *Vita Anskarii*, chapters 11, 19, trans Odelman 1986) have led to attempts to identify these people in the cemeteries (e.g. Leciejewicz 1956, Lebedev 1971 in Gräslund 1980). Once again, Gräslund's work provides the basis for a more contextual understanding of the material.

Even at a most basic level, however, the material is intractable. Gender identifications in Gräslund's work were made on the basis of the artefacts in the burials. Thus, referring to coffinless inhumations, 'Only a third have been identified as to their sex on the evidence of the grave goods...' (Gräslund 1980, 12), and referring to east - west oriented graves, 'The grave goods in the adult burials identify three as men's graves and four as women's graves, while eleven are indeterminate...' (*op. cit.* 27). While this approach is inevitable with the cremations, the fact that no major osteological work was done on the skeletal material from the inhumations at Birka weakens any analysis of the artefactual assemblages from the graves. As is evident from the quotations above, a large proportion of the graves have never been given gender identifications, and where a distinctively 'male' or 'female' assemblage was in the grave, the gender of the skeleton was not questioned. While it is probable that the majority of the identifications are valid, the fact that this has never been tested excludes any possibility of examining ritual role reversal and ambiguity of gender identification, both of which are known to have been elements in some practices of pagan religion. The burials where the assemblage was non-existent or ambiguous are an important proportion of all the graves, and yet their significance is unclear.

Given these problems even with sexing the graves and beginning to discuss gender roles, it is unsurprising that further discussion of social and professional role differentiation hits difficulties. The chamber graves have attracted attention, again, with the majority of the authors opting for their being the graves of the ruling class, whether of *Svea* ethnic origins or not (see discussion above, III.6.2, and Steuer 1969, Gräslund 1980, 77-81, Ringstedt 1997, 107-116). Unfortunately, the tendency to consider them in isolation from the cremations has biased the evidence; the wealth of the cremations was clearly demonstrated by Seton's excavations (Selling 1945), and re-emphasised by Gräslund (1980, 50-71). The number of imports in the chamber graves, and the size of the weapons' assemblages have led to their being identified variously as merchants' or warriors' graves, without any substantial self-critical discussion of which differences are integral to the material and which are imposed by the historical references. In a situation where gender identification is most often on the basis of assemblages of grave goods, and where the identification of male burials is often based on weapons, a discussion of different roles within the male community is acutely difficult; men who were not accompanied by weapons are as invisible as women without brooches.

Trade goods are present in substantial amounts among the grave assemblages, and these have been used to argue for the presence of foreign merchants (again, often in the chamber graves). The problem of ethnicity has been touched on above, but the question of trade specialisation is an interesting one. Substantial evidence for reciprocal local and international trade exists in the form of artefacts produced at Birka on local rural sites, particularly jewellery in rural cemeteries, and in the form of large quantities of imported goods from both the cemetery and settlement excavations at Birka itself. The small size of the island of Björkö implies that virtually all subsistence needs must have been imported from the hinterland; the vast amounts of animal bone, nut shells, fruit stones and other organic debris from the excavations presumably represent the other end of the exchange which is visible in manufactured goods on rural sites around the Mälär valley. Groups of phalanges from fur-bearing animals in the 1990-1995 excavations (Wigh 1996) also indicate the import of furs to the site. The imported ceramics from the 1990-1995 excavations have been

preliminarily summarised by M. Bäck (1995, 4-21), and provide evidence not only for contacts around the Baltic, with probable associated trade in foodstuffs such as salt (*op. cit.* 16), but also unexpectedly long-distance links, possibly indirect, with areas such as the Khazar Khaganate (*op. cit.* 14-15). The association of the weaponry from building 13 with the hoard of Arabic coins from the destruction deposits of the same building, may indicate links between weapons, wealth and imports, with the proviso that the circumstances of the destruction of this building appear to have been different from those of surrounding buildings.

What, then can be concluded from the archaeological material about role differentiation within the population at Birka? Social distinctions are visible in the relative wealth of the cemetery material, and these may be associated with differences in professional roles; burials with sets of weapons tend to have other grave goods in addition, as do burials with sets of jewellery. Burials with many grave goods, but neither weapons nor jewellery, are not known. Social distinctions in the settlement material are less clear (see above), but role differentiation may be clearer. The great volume and organised production of non-ferrous metal castings on the northern plot in the 1990-1995 excavations contrasted sharply with the small scale of non-ferrous metal working on the terrace site, strongly supporting the suggestion of occasional craft specialisation against a background of general, small-scale, domestic craft working. Subsistence and long-distance trade are indicated by the finds from the settlement site, and long-distance trade links emphasised in the grave goods from the more richly equipped of the graves. Specialisation in trade and possibly the use of weapons may be supported by the finds from building 13.

III.7 THE CHARACTER OF BIRKA AS A SETTLEMENT

In summary, excavations during the past five decades at Birka have provided a picture of a densely occupied, planned settlement. The population was dependant upon subsistence trade with its immediate hinterland, and included specialised craftspeople who were resident year round, and who produced large quantities of high quality and relatively high value manufactured goods which were internationally traded. The settlement also functioned as a transshipment and consumption point for relatively

low value, bulk raw materials such as furs, and probably iron, from an extensive area of Northern Scandinavia. These increased in value the further they moved from their source.

The mixed population also included groups of people with varying social practice and status. Among these were the residents of a group of larger halls built adjacent to the rampart of the town, and possibly another group whose functions were concentrated on the defence of the settlement (based in the 'garrison'), and groups who marked their differences by the use of different types of burial rite. Given the trading basis of the town, it seems highly likely that the inhabitants were of more or less mixed ethnic origins and religious beliefs.

CHAPTER IV

BIRKA IN CONTEXT

The development of Birka has all too often been seen in isolation from its contemporary, local, context, in favour of an understanding that relates it to the international forum and sites such as Kaupang and Hedeby. Yet the very existence of Birka as a settlement was predicated by a rural landscape and local social organisation of sufficient productivity in Central Sweden to support a non-agricultural population, and of sufficient social and political complexity to provide specialised craftspeople to populate the settlement. First and foremost, therefore, the town must be understood as embedded within, and inseparable from, its chronological and geographical hinterland.

It would nonetheless be facile to ignore the startling similarities between Birka and Hedeby, and the less marked, but undoubtedly real likenesses between these two sites and other contemporary specialised sites within Scandinavia. Ever-increasing understanding of the archaeology of non-rural sites within Late Vendel Period and Early Viking Age Scandinavia demonstrates the existence of contemporary, complementary types of non-agricultural settlement in much of mainland Scandinavia, and particularly within Denmark and Sweden. These cast further light on the national and international role of Birka.

IV.1 THE LOCAL CONTEXT: A CHRONOLOGICAL SEQUENCE OF TRADING FOCI IN THE MÄLAR BASIN

Birka's abrupt and planned advent was preceded by the existence of at least one centre of specialised trading and manufacturing in the Mälär Valley, at Helgö (see fig. 38), and its equally abrupt, and presumably planned, abandonment was succeeded by the creation of another town on the northern edge of the lake, at Sigtuna (see fig. 38).

The relationship between these three sites has been a matter of hot debate for as long as the existence of Helgö and Birka has been known. It may well be that the issue has become exaggerated merely because of the serendipitous discovery of three such rich settlements in relatively close proximity, but the longer time passes without the discovery of other Swedish

Vendel Period and Viking Age sites of similar wealth, the more it seems likely that the apparent chronological and geographical relationship between the three actually reflects a historically real and important conjunction. These, the three sites in Central Sweden most productive of evidence of trade and manufacturing, have little chronological overlap, and appear to form a real sequence of function.

IV.1.1 Helgö

The estate of Helgö is first documented in a series of land transfers from the end of the thirteenth and beginning of the fourteenth century (Holmqvist 1961, 23), when it was owned by the family of an early Lord High Chancellor, Nils Åsbjörnsson. At that time, the parish of Ekerö, in which Helgö was contained, was in the county of Södermanland, rather than Uppland, to which it was transferred in the sixteenth century (*ibid.*). None of the documentary references to the island is in any way informative about the nature of the archaeological site there, save, perhaps, that the early name, Helgö, which was later replaced by the name Lillön, suggests a ritual importance for the area¹.

The small, hilly island, now known once again as Helgö, commands and controls the narrow seaward exit from Lake Mälaren to the Baltic to the east (see fig. 38). Holmqvist argues that the Mediaeval extent of the parish of Ekerö, which included a part of the southern shore of this channel, indicated the southern bounds of the estate or estates based on Helgö and demonstrated their power base in control of the waterway (*op. cit.* 25-29). The island is c. 5 km long and less than 2 km wide, but was a good deal smaller in the Vendel and Viking periods, when the water level here was some 5 m higher than it is today. Strategically situated on an eminence at the eastern end of the island are a small hillfort with three areas of terracing and six small cemeteries of barrows and stone settings outwith its ramparts.

Archaeological investigation began in response to the discovery of a Byzantine silver bowl, Coptic bronze scoop and gold ring money by a new owner building a summer cottage on land at the eastern end of the island. Excavation started in 1954, and continued for twenty-six years, ending in 1978; although publication of the site is not yet complete, some dozen volumes have been published (Holmqvist ed. 1961; Holmqvist & Arhennius eds. 1964;

¹ *Helgö* means 'Holy Island'.

Holmqvist, Lamm & Lundström eds. 1970; Holmqvist *et al.* 1972; Lamm, Lundström & Clarke eds. 1978; Lundström & Clarke eds. 1981, 1982; Lundström ed. 1988 etc.)

The stratigraphy of the site was generally rather shallow, but attempts were made to excavate stratigraphically, square metre by square metre (*op. cit.* 59-60). It is perhaps unfortunate that the excavation areas were determined by the positions of the latest stone wall sills which were visible on the surface of the site (*ibid.*), as the interrelationships between the various excavated structures and their relative sequences were poorly understood, and it is difficult in the extreme to synthesise the excavation results. The excavators themselves had difficulties understanding the structural evidence (*op. cit.* 70), and this is evident in the reports of the site.

A very large area was excavated, and the reports on the site are, as yet, not complete. However, a brief summary of the site can be made, bearing in mind the ambiguity of the stratigraphic relationships within the area of each structure, as well as between them. Where no dimensions are given for the structures described below, it was not possible to determine the dimensions from the information in the published reports.

IV.1.1.1 Building Group 2:

Building Group 2 was the first area to be excavated. Excavation focused on the areas defined by a number of visible rows of stones and terraces, each interpreted as a single building foundation. On excavation, each of these proved to be the site of many buildings, superimposed and adjacent, giving extremely complex structural and stratigraphic sequences, which were substantially damaged by overgrowth of timber, and by later intrusions associated with the agricultural use of the area, and with the construction of holiday cottages

Foundation I:

This area had at least three phases of occupation, whose sequence is undefined.

One of these was a building with convex sides and rounded ends, foundation ditches, and no definable internal posts, measuring c. 38m by 10m. It is structurally unlikely that this building was without internal posts, which may therefore have been supported on post pads unidentified by the excavator, or removed in prehistory.

Another phase had sill stones along at least its northern long wall.

The third identified phase appears to have been a post-built structure, or possibly two consecutive post-built structures (Holmqvist 1961, 61-73).

Although originally published as one structure, it is clear from later plans (e.g. Holmqvist *et al.* 1970, pl. 49) that at least the latest phase of Foundation I consisted of two smaller rectangular buildings with sill stone foundations, set end to end, buildings IA and IB.

The finds from these buildings suggest that IA was primarily domestic in function, with quantities of glass sherds and other imported wares, including a 'Merovingian' (sic) gold bracteate. 18 gold foils also came from IA. Lundström (Lundström 1970, 132-133) suggests that this focus of high status objects identifies the building as having a special and exclusive function, perhaps as a 'banqueting hall' (*op. cit.* 133), but this hypothesis remains unproven and it seems more likely that it was merely a high status domestic building.

Foundation IB yielded the most exotic of imported objects, namely the Indian Buddha, the crosier, the Coptic ladle and Byzantine bowl, but had a background of simpler objects, mostly of iron, and of domestic debris such as pottery, whetstones and animal bone (*op. cit.* 135-136). The interpretation of the buildings, however, is confused by the inability of the excavators to distinguish between finds deriving from the underlying structures and those deriving from the latest buildings. The problem of residuality is not considered in the site reports. This is demonstrated by the very wide range of dates for the material from Foundation I, ranging between the Migration Period and the Viking Age (*op. cit.* 136).

Foundation II:

This area had been disturbed by the construction of a cottage, which could not be removed, and therefore limited the extent of excavation in the eastern end of the structure. None of the many post-holes excavated between the sill stones of the northern edge and ditch of the southern edge of the terrace could be assigned to an individual structure. The dimensions of the terrace itself are not given in the report.

At the western end of this terrace, a number of deeply cut hearths or ovens were associated with large numbers of crucibles, slag, and scrap metal. No evidence of smelting was found, although it was clear that the area had been used for the working and reworking of metal (Holmqvist 1961, 89-97). Again the finds from this area were dateable from between the Migration Period and the Viking Age, and could not be assigned to any particular phase of occupation (Lundström 1970, 138).

Foundation III:

Prior to excavation, a stone sill 44m in length was visible through the turf of this area, which was otherwise not terraced. On excavation, this area proved more easily interpreted than the other areas at Helgö, despite the fact that it was also clearly the site of multi-period occupation.

A foundation ditch, or drainage ditch, underlying the sill stones of the later southern long wall marked the first phase of construction. It appeared to delimit a building c. 23m in length, with a slightly bowed southern long wall. Later building had obliterated the associated architectural features.

The second phase of construction was marked by a similar foundation or drainage ditch, on the line of the bowed northern long wall of a building c. 43m long. Internally, this building had two rows of aisle-posts parallel to the long walls. It was probably between 9 and 10m wide.

The third phase of construction was marked by the sill stones mentioned above, which formed the southern long wall of a building of similar dimensions to that referred to above (Holmqvist & Arrhenius 1964, 3-19). The function of the sill stones was not understood by the excavators (*op. cit.* 19).

Various concentrations of finds were noted in these buildings, in particular, large amounts of crucible fragments in the eastern part of the terrace (Lundström 1970, 138). Despite this, the building was not interpreted as a workshop, and it is possible that the metalworking debris was redistributed from adjacent areas. The eastern end of the terrace was interpreted as a domestic area, and the western as less likely to be so, but given the very wide chronological range of the finds, from the Late Roman Iron Age to the Viking Age (*op. cit.* 139), any functional interpretations are tenuous at best.

Sunken-featured and ancillary buildings:

Between foundations one and three were the remains of two sunken-featured buildings, one of which was c. 4m x 4.5m, of sharply rectangular plan and up to 1.25m deep, and the other of which was less clearly defined (Holmqvist & Arrhenius 1964, 14-15 & 19). Surrounding post-holes and pits were interpreted as representing the remains of 'four or five small buildings' (*op. cit.* 19).

Foundation IV:

This was a diffuse area to the east of Foundation I, which was covered by relatively deep archaeological deposits (up to 0.9m deep – Holmqvist & Arrhenius 1964 36).

Constructional elements were few and difficult to identify, and attempts at stratigraphic excavation were again made, in particular in areas close to and around the many hearths in the area, which could be preliminarily interpreted as floor levels (*op. cit.* 38). These deposits overlapped into the edge of an area interpreted as a cemetery (see fig. 39), with a number of stone settings. Two of these settings (nos. 37 and 39) were reinterpreted as building foundations given that neither inhumed nor cremated bone was found in them (*op. cit.* 47-51).

The area without substantial building remains was poorly understood. It seems probable that it had been occupied by buildings of the flimsy post, pad-stone, sill beam and wattle construction which was typical of the later urban and rural structures in Central Sweden, and that the structural traces of these were not observed or understood during excavation. This interpretation is strengthened by the interpretation of stone settings 37 and 39 as building foundations 7m x 5m and 6m x 6m respectively, as these are structures which would fit easily into the architectural patterns of Viking Age settlement.

Noticeable concentrations of scrap metal and tools came from this terrace, including metal working debris of both iron and bronze. Only one mould sherd was found, however, suggesting that if there was a workshop here, its products were wrought rather than cast (Lundström 1970, 142-143). Any interpretation of the significance of these finds, which were set against a background of a high concentration of 'domestic' finds such as potsherds, nails, animal bone and jewellery, is again limited by the fact that the dateable finds show a chronological range from the Roman Iron Age up to and including the Viking Age (*op. cit.* 143).

The finds from stone settings 37 and 39 included local pottery, vessel glass sherds, loom weights, rivets and nails, whetstones and Thor's hammer rings (amulet rings) (*op. cit.* 146), all of which constitute a characteristically domestic assemblage. The dateable material was Viking Age (*ibid.*), reinforcing the impression that these were probably Viking Age domestic buildings.

Foundation V:

This was a strongly terraced area on a steep slope to the south and uphill of Foundation I. It was damaged by the construction of a modern road, but at least two phases of occupation were observed.

Two parallel axes of post-holes 2-2.5m apart were visible inside the presumed area of the building, suggesting that at least one phase of the occupation of the area consisted of a three-aisled building of over 5m in width. Presumably associated with this were a number of consecutive hearths and pits, approximately in the centre of the proposed structure (Holmqvist *et al.* 1970, 3-8).

The western end of this building was overlain by a relatively ephemeral structure which may have been a rectangular building 4m x 9.4m, with sill stones along its western gable wall (*ibid.*).

The degree of modern damage to this area of the site limited the number of finds from undisturbed archaeological deposits. A relatively high proportion of imported material was found, but the significance of this in the light of the limited sample is unclear. This was a pity, as the date range of material from this building was relatively limited, between the Vendel and Viking Ages, and residuality would appear to have been less of a problem here (Lundström 1970, 144).

Foundation VI:

This was a narrow, terraced area, 26m x 6m in size, higher up the slope than the other terraces. As on the other terraces, there is substantial evidence of multi-period occupation; the excavators identified two phases, but there were probably more.

The earlier phase appears to have been a structure with internal post-holes and possibly with a southern foundation ditch. Its dimensions were 26m x 6m, unusually narrow, but there is some suggestion that it could possibly have been two buildings end to end on the same terrace.

The later phase had a row of sill stones at the western end of its northern long wall, and may have had a wooden floor.

Small hearth pits in the earlier phase were associated with 'numerous finds of slag and bellows mouth-pieces of burnt clay' (Holmqvist *et al.* 1970, 21), suggesting use as a metal

workshop.

The structures were relatively finds poor. The small hearths mentioned above were associated with slag, charcoal, tuyère fragments and isolated pieces of scrap iron, suggesting metal working. Two larger hearths were associated with animal bone and local pottery, suggesting both domestic and industrial functions for the buildings. Dateable finds were from the Roman Iron Age and Migration Periods, suggesting, as in Foundation V, only a relatively limited degree of residuality (Lundström 1970, 144).

Foundation VII:

This was a steeply sloped area to the north and east of Foundations I and V. A north-south oriented row of sill stones, 9 m long, at right angles to Foundation I, was associated with a parallel row of stone-lined post-holes. The report suggests that these may have resulted from consecutive phases of a construction in this area, although the very steep rise of the terrain in this area makes it unlikely that this was a conventional building (Holmqvist *et al.* 1970, 27-28).

The finds from this area are interpreted in a way that takes its character as a building for granted (Lundström 1970, 144). Domestic pottery, vessel glass, and iron objects are taken to demonstrate the domestic function of the proposed structure, although the presence of 16 so-called 'amulet rings', iron rings with Thor's hammers and other symbolic pendants, which tend to be found in 'ritual' contexts, emphasises the curious nature of the area.

Foundation VIII:

No buildings were definitely identified in this area, which lay to the west of Foundation II. The eastern end of the area was disturbed by the construction of a modern cottage on a piled foundation. Nonetheless, a number of hearth pits, associated with large quantities of slag and crucible sherds, were found; in the light of these, the western end of Foundation II must be assumed to belong functionally to this area. The western part of Foundation VIII also contained numbers of hearths or 'smelting pits', on a steeply sloping part of the hillside. Below this slope, the hearths probably continued, but the more level ground was severely damaged by a modern road.

Some fragmentary structural evidence is cited in the report, which leads the excavators to

suggest the presence of a sunken-featured building, and a daubed building, in this area. Unfortunately, neither dimensions nor details could be discerned (Holmqvist *et al.* 1970, 30-39).

The finds from the area of Foundation VIII included immense amounts of metal working debris; crucibles, moulds, slag and scrap metal all reflected the use of the area for the working of ferrous and non-ferrous metals (Lundström 1970, 145-146). Unfortunately, the dateable finds again revealed a wide chronological range, from the Roman Iron Age up to and including the Viking Age (*op. cit.* 146). While some of these finds, such as two Roman bronze mounts, may have been scrap metal for recycling, the risk of serious residuality in the finds from this area is high.

Foundation IX:

This structure was to the east of Foundation VII, and higher up the slope. Although a considerable degree of disturbance was evident in the sill stones of this 'irregular square stone setting' (*op. cit.* 28), it clearly resembled the stone settings nos. 37 and 39, described above. In its centre was a deep pit containing burnt stone, which appeared to have functioned as a hearth or oven, and in the top of which were found fragments of a sixth century blue glass claw beaker with applied horizontal threads (*op. cit.* 79-80). Accordingly, the structure was identified as a building foundation (*op. cit.* 28).

The finds from Foundation IX accord well with its interpretation as a building of probably domestic function. Sherds of local pottery, three knives and various other tools were found, but little or no metal working debris. The dateable finds were from the Migration and Vendel Periods (Lundström 1970, 146), again suggesting only a limited degree of residuality.

Summary of Building Group 2:

The latest distinguishable phase of occupation on most of these terraces consisted of rectangular buildings with sill stone foundations. These were conservatively placed, on the sites of earlier longhouses or halls, the largest of which (Foundation III) appears to have been 43 m long, at its greatest extent. Sunken featured buildings appear to have functioned as out buildings to the larger structures.

The conservative siting of the buildings was almost certainly determined by environmental

constraints; there was little or no level ground available in the vicinity of the hillfort, or indeed on the island as a whole, between the Migration Period and the Viking Age.

Structurally, the earlier buildings appear to have been of the three-aisled, post-built type, generally with central hearths, and with multiple functions, both domestic and industrial. The later buildings were apparently more specialised, but the lack of finds in some of the structures makes interpretations difficult, and also suggests that they may have had wooden floors.

A number of serious technical problems and flaws reduce the value of the excavations. The site had been heavily overgrown with woodland, with the concomitant disturbance and contamination of archaeological deposits that might be expected. This was not identified as a problem during excavation, but perhaps accounts for the lack of stratigraphic control evident in the site reports. It is clear that the excavators were unable to associate post-holes and hearths other than by positioning. Stratigraphic links between the various structures and artefacts are therefore weak, and a similar weakness must be identified in the interpretation of the radiocarbon dates from the site. Although the majority of these come from structural elements (Lundström 1970, 146-147), the lack of association between one element and another makes it very difficult to specify which structure is represented by which date.

Radiocarbon dates from this part of the site (see Appendix F) range, once calibrated, from the second to the seventh century AD (*op. cit.* 147; Kyhlberg 1982, 22). Only the most general conclusions can be drawn from these dates, which are virtually impossible to tie to any one specific structure. Foundation IV, which, far from being a foundation, was really only a diffuse area of workshop use, seems to have dated to between the second and the fourth centuries AD, but this dating was also evident from the finds. In no case do the radiocarbon dates allow a closer dating of the structures than the finds did.

IV 1.1.2 Cemetery 150:

Cemetery 150, one of the six small cemeteries associated with the settlement on Helgö (see fig. 39), was completely excavated². It was physically close to Building Group 2, and is

². This cemetery is marked as Area 12 in the first of the Helgö reports (Holmqvist 1961, 47)

assumed to have been associated with it (Lamm 1970, 217-218)

Forty-one graves were excavated, many of them damaged by overgrowth or deliberate levelling. A contemporary metalled road 3m wide extended through the cemetery, oriented NW – SE. All the burials were cremations, covered by small circular or oval stone settings, many of which were carefully constructed of selected stones, with kerbs and central stones. These latter varied between standing stones, horizontal slabs, and ‘grave globes’ i.e. carefully shaped spherical or semi-spherical set stones. All but one of the cremations had clearly taken place on site, though in the majority, the cremated remains had been collected into a ceramic or wooden vessel (*op. cit.* 218-221).

The earliest artefacts from the graves were typologically dated to c. AD 500 or somewhat later. These included three Husby brooches and a crossbow brooch (*op. cit.* 221-222). The latest artefacts included some fragments of a single-shell oval brooch with gripping beast decoration, segmented gold foil and glass beads, and pieces of an A-type comb, all of which are Early Viking Age in date, probably ninth century (*op. cit.* 225; Waller & Hallinder 1970, 171-172). Continuing use of the cemetery over a period of around three centuries is therefore indicated. Although the finds do not seem to indicate that this cemetery served the earliest occupation in House Group 2, it could relate to some of the later occupation of the area.

Marked status variations in the graves are not recorded, and were, from the report, not present. Certainly, the grave goods accompanying the various burials did not show the wide variations in quality and quantity evident at, for example, Birka (see above, III.6.2.3). Extremely large burial mounds are not recorded at Helgö, in contrast to a number of contemporary settlements in the Mälär Valley, among them Hundhamra (see below, IV.1.1.4), Adelsö Hovgården and Gamla Uppsala, all of which are believed to have been royal or chiefly estates.

IV.1.1.3 Building Group 3:

Building Group 3 was initially published when as yet not completely excavated (Lundqvist *et al.* 1972). The unexpected discovery of yet more evidence for large-scale metalworking prompted the production of a catalogue of finds twelve years prior to the completion of the structural and stratigraphic reports (*op. cit.* 15; Wigren & Lamm 1984).

Some 150m east of Building Group 2, Building Group 3 was also located on a steep, terraced slope. This was excavated from the bottom up, and at the time of the publication of the initial results, only the lowest two terraces had been dug. These were both divided into eastern and western zones, of which the eastern was in both cases slightly higher than the western (Lundqvist *et al.* 1972, 17). When the site report was published, the whole of the excavated area was reinterpreted, following the recognition that not all of the visible rows of stones represented building footings, but that a number of them were deliberate revetments along terrace edges (Wigren & Lamm 1984, 3-5). The site was published as descriptions of defined, adjoining areas, numbered I to IX.

Buildings

Twenty-three or more buildings were excavated in this area. The excavators indicated that no particular techniques could be defined as characteristic of any one period of occupation (*op. cit.* 87), although it should be remembered that the stratigraphic control of this area, as of the site as a whole, was weak. No building was as large as the suggested structures in Building Group 2, which must lead to speculation as to functional and status differences between the two areas.

At least two phases of construction were identified. Buildings R to X in the following table were in the earlier phase of construction, and buildings G to V in the later.

Table 1: Buildings from Building Group 3, Helgö

Building	Size	Area	Construction details
R	4 x 8 m	VII	Aisled hall with internal posts
S	4 x 10 m	VII	Aisled hall with internal posts, wattle and daub walls
T	4 x 7.5 m	VII	Aisled hall with internal posts, wattle and daub walls
B	2 x 3 m	I	Stake hole shelter?
K	2 x 3 m	IV	Sill beam?

A	2 x 4 m	I	Sill beam?
D	2 x 4 m	I	Sill beam?
E	4 x 4.5 m	II	Sill stones
F	4 x 7 m	II	Sill stones
J	3.5 x 8 m	IV	Sill beam?
L	3 x 5 m	IV	Sill beam?
P	2.5 x 3 m	V	Sill beam
C	2 x 6 m	I	Post hole shelter
M	4 x 4 m	IV	Sill stones
X	-	IX	Stake hole shelter
G	6.5 x 12 m	II	Sill stones
N	5 x 9 m	IV	Sill stones
O	5 x 11.5 m	IV	Sill stones and sand floor
Q	4.5 x 5 m	V	Sill stones
U	3.5 x 8 m	VII	Stone paved entrance in south wall
V	5 x 7 m	VII	Sill stones

Despite the belief of the authors of the report that no particular type of construction could be identified as period-specific, it is nonetheless interesting that, while the three largest of the earlier buildings, R, S and T all had internal load-bearing posts and therefore an aisled construction, none of the later buildings, particularly G, N and O, which were equally large, used this design. Sill stone foundations were also clearly more common in the later phase. This early preference for an aisled construction is also visible in the buildings from Building Group 2 (see above, IV.1.1.1).

Activities and Dating

Within the excavated area, hearths, 'smelting pits' (presumably bloomery furnaces), and metalworking debris all indicated intensive use of the area for metal working (Holmqvist ed. 1972; Holmqvist 1972, 15-26; Lundström 1972, 132-229). Similar debris was found in a number of nearby areas, indicating a much wider use of the site for metal working than had previously been considered (Lundqvist *et al.* 1972, 19). The copper alloy casting moulds

discovered in great numbers throughout this area were used to partially determine the date range of the remainder of the finds material (Wigren & Lamm 1984, 84). Iron working, however, apparently continued after non-ferrous metal casting had declined (*ibid.*; Lamm & Lundström eds. 1978). Glass beads were also made in this area, presumably throughout the period when metal working also took place, and in all probability later also (Lundström 1981, 1-38). Finds dating, in summary, indicated that activity began on the site in the second half of the fifth century AD, and continued until the beginning of the Viking Age, with non-ferrous metal working ceasing at the beginning of the Vendel period.

Radiocarbon dating of Building Group 3, however, gave a much wider date range, with the earliest calibrated date (see also Appendix F) being AD 114 +/-121, and the latest AD 815 +/-121. All of these were taken on samples of charcoal from hearths, pits and other features (Kyhlberg 1982, 33-34), so were presumed to represent an accurate reflection of the dates of the use of the various features. The difficulties encountered by the authors in assigning features, hearths and pits to the various structures (Holmqvist 1972, 21) limits the usefulness of these dates, however, in determining the development of this building group. The few anomalously early dates could, for example, easily represent the final burning of old structural timber.

IV.1.1.4 Discussion

Large parts of the excavations of Helgö remain to be published. In particular, finds and radiocarbon dates from Building Group 1, 4, and Cemetery 116, have been included in the finds catalogues and technical publications (e.g. Lundström 1981, 1-38; Kyhlberg 1982, 13-36; Reisborg 1981, 107-134) while the excavation reports for these, and Building Groups 4 and 5 remain unpublished. This makes it difficult in the extreme to assess the significance of the published finds from the site.

The published reports so far, however, provide a picture of a settlement whose extent and size at any one time was apparently little greater than many of the large Late Iron Age farms of the Mälär Valley. Comparably large purely agricultural settlements have been excavated at the Vendel and Viking Period sites at Säby (Beronius Jorpeland forthcoming), Pollista (Hållans & Svensson, forthcoming) and Valsta (Hållans, forthcoming). The architectural forms used at Helgö were typical of the area, demonstrating a shift from the very large, three

–aisled, multi-purpose, bow-sided hall or, to a multiplicity of smaller, more specialised buildings, straight-sided, with the load of the roof carried on the walls. A similar shift is evident on most of the contemporary Mälär Valley sites, including those mentioned above, and at Birka itself. Helgö was outstanding, however, in the amounts of evidence for specialised metalworking which were found on the site, and the extreme richness of the exotic finds from the larger buildings of Building Group 2.

A number of synthetic articles have presented a broader picture of the development and context of the settlement at Helgö than is obtainable from the site reports. Attempts have been made to assess the size of the settlement's population, in particular by Ola Kyhlberg (1982, 24-27), who produced a result of c. 16-24 adults. Ambrosiani's calculations yielded a slightly lower average figure of 14-16 individuals, including children (Ambrosiani 1985, 106-107), but neither population level would be unusual for a Mälär valley farm of the Iron Age (*op. cit.* 107). The population levels of Helgö therefore indicate clearly that, whatever the settlement was, and no matter how specialised, it was not and could not be a 'town'.

Although it is extremely difficult from the site reports to assess the number of buildings in the settlement which were occupied at any one time, it is clear that in relation to the land area of the island, the distribution of archaeological remains on Helgö is very dense in comparison with the contemporary settlement pattern on the neighbouring islands of the Mälär (Reisborg 1982, 8-9). Attempts to define the changing size and character of the settlement seem to indicate that it was founded in the Roman Iron Age, was at its largest in the Migration Period, and declined in size throughout the Vendel Period and into the Viking Age (*op. cit.* 9). The apparent dearth of recognisable early cemeteries is explained by their being overlain or destroyed by later and more visible monuments (*ibid.*). However, much of the apparent size of the settlement is illusory, given the number of structures, particularly of the later period, which appear to have had primarily economic and industrial, rather than domestic, functions.

Hodges (1982, 52-53) identified Helgö as a type A emporium, the focus of a regional, and seasonal market, explaining the apparent imbalance between the extent of the settlement, scale of craft production, and the relatively small numbers of graves in the cemeteries by reference to a seasonal occupation of the site. A reassessment after further publication of the

site, however, makes this less than likely. The apparent imbalance between the size of the settlement and its cemeteries is an artefact of the misinterpretation of terracing as building foundations, and the ephemeral nature of Roman Iron Age and Migration Period grave markers. There is no evidence from the building remains that the site ever accommodated more people than were represented by the burials in the cemeteries, that is, probably two families and a maximum of twenty people. There is also no evidence from the building remains of seasonal occupation of the structures, although the slight and truncated nature of the stratigraphy makes this difficult to determine conclusively.

Edith Ennen (1975) suggested that Helgö could be considered the Scandinavian equivalent of a Frankish royal villa, with specialised industrial functions alongside administrative and central place functions. Ambrosiani picked up this idea, and argued that in the Swedish case, these functions were separated, with Helgö forming the industrial quarter for an administrative centre at Hundhamra (now Norsborg) (see fig. 38), where monumental grave mounds of the seventh and eighth centuries, and later literary sources, indicate a focus of dynastic power (Ambrosiani 1985, 108-109). He suggested that the extent of the prehistoric Hundhamra estate was reflected in the boundaries of the modern and Mediaeval parish of Ekerö, which straddles the waterway between Stockholm and the Mälars (ibid.). Hundhamra would therefore have had control of the most important trade route between the Swedish interior and the Baltic, potentially controlling the important prehistoric trade in iron from Bergslagen, to the north of the Mälars Valley (see also Hyenstrand 1979). The water route between this area and the Baltic is characterised by a number of extremely wealthy, Migration Period to Viking Age sites, including the important sites of Vendel and Valsgärde, all of which may reflect the unusual wealth generated by trade in surplus iron. The importance of iron working to the economy of Helgö, although it has yet to be properly assessed, was demonstrated in the volume of evidence for the import of so-called 'currency bars' (Hallinder & Haglund 1978, 30-58), and blanks (Hallinder & Tomtlund 1978, 59-80) to the site, and in the large scale evidence for the working or reworking of iron (Wigren & Lamm 1984, 3-83).

In many ways, Helgö shows strong similarities to the rampart settlement at Birka (see above, III.3.8, III.5.1.2). The scale of craft manufacturing in Helgö was, of course, much greater, but its physical structure is very similar, with terraced foundations that were used and reused

over a period of centuries for a variety of structures. The size of the buildings is comparable, as are the types of finds from the large halls on both sites, with the outstanding exception of the exotica from Foundation 2 at Helgö. On both sites, the domestic structures were clearly of a native building tradition, little different to the buildings of any farm in the Mälär Valley, despite evidence of slightly different functions.

There is a degree of chronological and functional overlap between Helgö and Birka which is particularly interesting. None of the, admittedly limited, excavations at Birka have yet produced large-scale evidence for iron working, as Helgö has. Indeed, by the Viking Age, Helgö appears to have specialised heavily in iron working, to the exclusion of the non-ferrous metalworking which had been a feature of the earlier occupation (Wigren & Lamm, 1984, 84). Further research will doubtless reveal whether this was a real or only an apparent, distinction, but its implications are interesting. It may be that Helgö continued to exert some control over the passage of iron between the Mälär and the Baltic well in to the Viking Age, and for some time after Birka had become a focus of population and trade.

Helgö, however, should clearly be regarded as a specialised farm, rather than a 'proto-town', or *emporium*. Despite the scale of craft production on the site, its population shows no signs of having been abnormally large. Exotica and high status imported goods indicate a degree of international contact, whether by direct trade or redistribution is unclear. There is no concrete evidence to indicate that the settlement was under the control of the Hundhamra estate in the Viking Age or earlier, despite the elegance of such a model, and as yet no evidence that the settlement was more directly or indirectly controlled by royal power than any other in the area. The first documentation of the island dates from some four or five hundred years after the end of occupation of the Viking Age farm.

Although the site at Helgö clearly demonstrates a process of increasing specialisation among the post-Roman Iron Age settlements of Central Sweden, and suggests therefore gradual moves towards more integrated and centralised economic and social systems, it cannot be said to be a clear predecessor of Birka. Its function continued to be important after the establishment and population of Birka, and it would seem likely that the Late Iron Age settlement pattern in Central Sweden was both more complex, and potentially more widely integrated than has been considered likely. Birka would seem to have been created to fulfil,

or generate, a new function in society, one which did not immediately preclude the continuation of other specialised settlements such as that at Helgö

IV.1.2 Sigtuna

Sigtuna is sited on the southern end of a peninsula extending into Lake Mälär, surrounded by rocky slopes, and with marsh to the north and west. Despite its apparently unfavourable situation, it is centrally placed in relation to the rich agricultural lands of the northern shore of the Mälär, most of which are within a day's travel of the settlement, by water (see fig. 38). Douglas (1978, 6) suggested that Sigtuna was a settlement without a natural hinterland, but if instead of looking at the possibilities of overland travel, it is considered in relation to its position on the lake shore, it can be seen that the natural hinterland of the town is across the inlet on which it is sited.

Sigtuna is mentioned by Adam of Bremen, in the eleventh century, as a 'large community', or 'great city' in Central Sweden (Adam of Bremen *Gesta Hammaburgensis*, trans. Tschan 1959, 206). As noted above (III.1), he refers also in passing to the site of Birka, though not as an occupied settlement, in contrast to Sigtuna. Sigtuna became the diocesan centre for Central Sweden in the late eleventh and early twelfth century, but little is known of the diocese in these very early years, and it was moved thereafter to Gamla Uppsala in the twelfth century (Clarke & Ambrosiani 1991, 76).

The Mediaeval town is surrounded by a ring of pagan and Christian cemeteries (see fig. 40), most of which are now built over by post-mediaeval expansion. Associated with these cemeteries are five churches, outside the edge of the early settlement, with a sixth, St. Gertrud's, in the centre of the town.

IV.1.2.1 Archaeological Research in Sigtuna

These historical references led to Sigtuna's being a focus of early archaeological work. The town was described by Messenius in *Sveapentaprotopolis* (1612) as one of Sweden's five earliest towns. Hjalmar Stolpe excavated in the town in 1891 (Pettersson 1993, 6), but with no published results. Modern archaeological interest was triggered by the research of Olof

Palme in the first two decades of the twentieth century, prior to his premature death in the Finnish war of independence. As founder and first curator of Sigtuna's museum, he led excavations on the museum site itself, and around Stora Gatan, in the centre of the Mediaeval town, and kept watching briefs in particular over the excavation of water pipes (*op. cit.* 7). This primary work was published and debated in a series of periodicals during the 1940s by, among others, Holger Arbman (Arbman 1942, 7-23), and again presented in summary form in *Medeltidsstaden 6* (Douglas 1978), one of the products of a comprehensive survey of all the Mediaeval towns of Sweden.

Not until the late 1970s was large scale excavation resumed. Again, most of these were concentrated on the heart of the Mediaeval town, Stora Gatan, where Palme's excavations had revealed the deepest archaeological deposits; only five were in the outer edges of the town (Pettersen 1993, 8). Late Viking Age deposits were only found in a very limited area at the southern end of the town, on the lakeside end of the peninsula. The expansion along Stora Gatan appears to have been secondary, and largely twelfth century in date.

Two sites with substantial Viking Age deposits remain unpublished, Gröna Gränd and Urmarkaren (*ibid.*). Two are, however, published, the first being in S:ta Gertrud's quarter (Bäck & Carlsson 1994) and the second being Trädgårdsmästaren (Pettersen 1993, 15-34), which is only available as a preliminary publication (see fig. 40).

S:ta Gertrud 3

Two trenches were opened, dividing along the line of a later culvert (see fig. 41). The overlying deposits were removed by machine down to a level where preserved wood and inhumations were visible. Much of the later Mediaeval and post Mediaeval archaeology was therefore machined away. A semi-stratigraphic system of excavation was used, where each apparent phase was removed as one deposit; phases were defined by the wooden constructions within them, so that any one building, with all its use, repairs and destruction deposits, was excavated as one unit. Finds were only located within a '*skikt*'³ and a trench, so could not be sourced to within or outwith a building (Bäck & Carlsson 1994, 7-9).

³ '*skikt*' in this context implies the English archaeological term 'phase', but literally means 'layer' or 'lamination'.

Phase 1: Pre-AD 980:

Parts of two parallel buildings were uncovered. Both appeared to have been constructed on sill beams. The authors assumed that the sill beams implied the use of horizontal planking for the walls of the structures (*op. cit.* 22-24), although it is entirely possible to set wattle or *laft* walls on a sill beam. The floor of the western building was of stamped earth, and there was a hearth in the north-western corner. Assuming that the north-eastern wall was the gable wall, which was likely because of the plot layout, the building was *c.* 5.5m wide (*op. cit.* 22-23). The eastern building had a clay floor, and no hearth in the excavated area (*op. cit.* 230). The structures were separated by a shallow ditch bounded by wattle fence lines (*op. cit.* 23), forming a plot boundary that persisted throughout the following phases.

An area of bone and horn working waste was dumped to the north of the western building, between it and Stora Gatan. Within the building, however, no finds indicated that it had other than domestic functions, and the same was true of the eastern building. This could, however, have been the result of maintenance of and cleaning. Amongst the finds were three single-sided composite bone combs of Ambrosiani's type B (Ambrosiani 1981) which are tenth century or later in date (Bäck & Carlsson 1994, 62-63), a strapped shoe of late tenth or early eleventh century date (*op. cit.* 49) and a number of more generally Viking Age finds, including three small knives (*op. cit.* 57) and a rock crystal bead (*op. cit.* 73).

Both the buildings were destroyed by fire.

Phase 2: AD 980-1010:

The area was levelled up with a deposit of wood chips prior to rebuilding on the site. The building in the western part of the excavation was moved some 0.5m nearer to Stora Gatan (*op. cit.* 27). The north-eastern wall consisted of a number of sill stones, which the excavators assumed had formed the base for a continuous sill beam (*ibid.*) They were, however, associated with parallel planks that appeared to have been set vertically in the wall (*op. cit.* 26), and it is possible that the walls were of sill-founded wattle panelling between upright posts, though the authors of the report did not consider this possibility, preferring instead the options of horizontal planking or *laft* technique. A hearth was built into the clay floor adjacent to the wall line. The dimensions of the building could not be determined.

The eastern building was very fragmentary (*op. cit.* 27). A hearth had been destroyed and its remains were spread in the northern part of the excavated area, while an underlying clay floor indicated that this was the interior of a building. No wall lines were visible (*op. cit.* 27). Wattle fences marked the plot division oriented north - south between the two buildings.

In the area that had contained horn working debris in the first phase of occupation, an accumulation of leather working debris had been dumped. Among the dateable finds from this phase were a leather shoe of the tenth century strapped type found in phase 1 (*op. cit.* 49-50), a single-sided, compound antler comb, type B2, post-dating AD 920 (*op. cit.* 62) and a Viking Age arrow head (*op. cit.* 57). The ceramics included domestic types commonly believed to predate AD 1000.

Phase 3: AD 1010-1040

Again, the reconstruction of buildings appears to have been preceded by the deposition of a layer of wood chips. In this period of occupation, the first definite evidence for the use of *laft* technique appeared.

The western building was moved, again, c. 0.5m nearer to Stora Gatan. Two sill beams met and overlapped at an eastern corner in the trench, but as the other ends of both continued into the excavation edges (*op. cit.* 28-29), the dimensions of the building were not clear. Within the building was a hearth, again in the northern corner, set into a clay floor (*op. cit.* 28). The house appeared to have been destroyed by fire, after which a ditch was excavated across it (*ibid.*), indicating that the plot lay empty for some time.

The eastern building was also of *laft* technique, and had been moved in this case away from Stora Gatan. Two sill beams met and overlapped at a northern corner, inside which was a hearth, set in a sand floor. Outwith this structure, wattle fence lines marked the plot boundaries (*op. cit.* 29-31).

Two composite, single-sided antler type A combs were found, of which one could not be more closely dated than to the Viking Age (*op. cit.* 60-61), and the other of which was probably made between AD 850 and AD 950 (*ibid.*). No other finds provided more relevant

termini post quem.

Phase 4: AD 1040-1070 and later:

In the western plot, the surface was levelled prior to rebuilding, with a layer of wood chips mixed with manure (*op. cit.* 32). On this, a framed house with lafted sill beams and wattle panelling was constructed, some 2m further south than the earlier building. Most of the structure lay outwith the excavated area (*op. cit.* 32-33).

To the north of this building was a wooden road surface, of cleft logs overlain by planks (Sw. *kavelbro*), which joined a similar lane between the western and eastern plots along the line of the earlier plot boundaries previously marked by ditches and fence lines (*op. cit.* 33-34 & 37).

In the earlier part of phase 4, prior to the construction of a churchyard over the eastern part of the trench, this area had apparently lain unused. The empty plot was laid out as a churchyard around AD 1070.

Dateable finds from this phase were few. A double-sided antler comb of a type normally dated to the twelfth century, though possibly as early as the later eleventh century, was found on the *kavelbro* (*op. cit.* 60), near to an annular brooch of Gotlandic type dated to the eleventh century (*op. cit.* 55).

Discussion:

Because the site was excavated in an essentially non-stratigraphic manner, questions of residuality and intrusion could not be and were not considered in the site report. Despite this, the finds were used to date each phase of the site, providing approximate *termini post quem* for the end of each *skikt* and as a result, the dating of the site is undoubtedly weak. The length of each phase of occupation was determined on the basis of a hypothetical maximum building duration of 30 years (*op. cit.* 101; Svensson 1987, 225), generally accepted as standard in Sigtuna (e.g. Petterson 1993, 30). However, in the absence of dendrochronological dates from the town, this remains a theoretical rather than proven factor.

The authors of the report assumed that the first four phases of occupation on the site fell prior to AD 1070, when a churchyard was laid out over the eastern plot. This date was assumed on

historical grounds; Adam of Bremen refers to the founding of a Bishopric in Sigtuna in the 1070s (Adam of Bremen *Gesta Hammaburgensis*, trans. Tschan 1984, 221), and the block or quarter named S:ta Gertrud (see fig. 40) has been taken to have been a royal manor (Bäck & Carlsson 1994, 113), and therefore the logical site for the earliest and most important church in the town. It is also the only church building within the area of the Viking Age and Mediaeval settlement; all others lie outwith the bounds (*op. cit.* 100). Unfortunately, the argument for this having been a royal manor is circular; the plot has been assumed to have been a manor because the church itself was assumed to be the oldest in or around the town (*op. cit.* 107). The archaeological evidence from S:ta Gertrud's, however, gives no suggestion of the presence of such a manor, and excavations in the surrounding area are similarly lacking in concrete evidence for a high status presence (*op. cit.* 109). Although the early date of the church on this site is supported by a coin of Ethelred II AD 978-1016, found in one of the transepts (*op. cit.* 107) and a fragment of font built into one of the later walls (*ibid.*), neither of these can be said to confirm whether or not this structure might have been the diocesan seat in Sigtuna, and therefore whether it might date to the AD 1070s, or indeed, whether it was the oldest church in the town. This also weakens the dating of the earlier phases of occupation.

Given the weaknesses in the dating, however, there can be little doubt that the most of the archaeological deposits on this site were Viking Age in date. They showed architectural and organisational features which were strongly similar to the settlement patterns of the centre of Birka. The plot boundaries were established at the earliest occupation of the site, and remained constant thereafter. The buildings moved slightly within the limits of the plots. The buildings themselves, at least in the first two phases of occupation, used constructional techniques paralleled at Birka, with sill stones, horizontal planking, wattle fencing and perhaps wattle walling, and clay and stone hearths in the corners of the rooms. Although it was not possible to distinguish the dimensions of the buildings on this site, there is no evidence that they were other than similar to those at Birka, small, rectangular structures, possibly more than one on each plot.

The economic and political organisation of the settlement is equally difficult to read from this material. Here, again, however, the excavation results provide evidence that shows strong, if superficial, similarities to Birka. On the western plot in the first two phases, there

is clear evidence of both domestic and industrial or craft activities on the same, limited area of land. The scale of production, and the products, are both similar to Birka (Bäck & Carlsson, pers. comm.).

Interestingly, the osteological analysis of animal bone from the earliest occupation of the site (Vretemark in Bäck & Carlsson 1994, 86-96) revealed a similar pattern of consumption to that visible in the material from the 1990-1995 excavations at Birka (Wigh pers. comm.; Bäck & Carlsson 1994, 110). Marked changes were, however, visible in the twelfth century material, with increases in domesticated fowl and cod, and shifts in the pattern of red meat consumption (*ibid.*).

The levelling of both plots with wood chips following both phases 1 & 2 is particularly interesting. Although, given the lack of stratigraphic control, the appearance of contemporaneity might be spurious, if it is real, it implies parallel redevelopment on two separate plots. In York (V.2.3.2), this type of parallel redevelopment is argued to represent a landlord-tenant relationship in landholding, rather than freehold. Although this was not evident in Birka, where the two plots developed differently and separately, the suggestion of tenancy strengthens the proposal that this plot, or possibly the town as a whole, were under aristocratic control and management. If this were the case, the argument for S:ta Gertrud's having been the diocesan church might well stand.

Trädgårdsmästaren 9 & 10:

The excavation on the Trädgårdsmästaren's quarter was the largest urban excavation in Sweden during its two years duration from 1988 to 1990. It was excavated semi-stratigraphically, in a similar manner to S:ta Gertrud's, where each phase of occupation was handled as one unit, defined by and consisting of the construction, use and destruction of a building (Pettersson 1993, 17). This, the excavator argued, led to more consistency in recording (*ibid.*).

Four whole plots were excavated, with parts of a fifth. These extended to the north of Stora Gatan (see fig. 42). Only the first two periods of occupation fell in the Viking Age.

Period⁴ 1: c. 980s:

During the first period of occupation on the site, plot boundaries which were to persist until the thirteenth century were laid out (*op. cit.* 25). Only one or two buildings were constructed on the plots, lying at the street end. These were rectangular wattle and post structures with central hearths. They appeared to have been c. 5m wide and between 5m and 7m in length, though many of them were truncated by the southern edge of the excavation, and lay under the edge of the modern road. The plots themselves were only c. 20m in length (*op. cit.* 26).

The finds from this period indicate that both craft and domestic activities were carried out within the same structures. Petterson says that production levels were such that the evidence indicated only 'production for (their) own yard⁵' (*ibid.*).

Period 2: eleventh century:

Five phases of building reconstruction made up this period, all of which were within the plot boundaries established at the end of the tenth century. In this period, however, the pattern of plot organisation changed, with four or five buildings, one behind another, on each plot (see fig. 42), giving an overall occupied length for each plot of around thirty metres (*ibid.*). At the start of the period, the buildings were still constructed of wattle and posts, while in the later part of the period, they were of *laft* or horizontal planking on sill beams.

The buildings during this phase were functionally selective; those nearest the street apparently had no hearths, and contained evidence of craft production such as non-ferrous metal working, and blacksmithing. They may also have been used as stores (*op. cit.* 28). The houses were further away from the street, on the rear half of the plots, and apparently divided into two, with a small, square building with a corner hearth in front of a hall with a central hearth (*ibid.*) This pattern was quite consistent, and the finds from the structures, where pottery was concentrated in the front building, suggested that the pattern represented a further functional distinction, possibly with the front building as a cook house, or domestic building, while the back building had a more social use (*op. cit.* 28). During the later part of

⁴ Petterson uses the term *huvudfas* (E. head phase) here. I have translated this as the archaeologically analogous 'period'.

⁵ 'Alla byggnader har istället fungerade som bostäder med ett litet inslag av hantverk som skulle kunna betyda

the period, the functional differences between the buildings became increasingly distinct, and larger amounts of metalworking debris suggested an increased intensity of craft production (*ibid.*).

Discussion:

At the time when the preliminary report was published, the absolute dating for each phase had yet to be finalised (*op. cit.* 30). A complex method for determining the dating of each phase is outlined by Pettersson in the report (*op. cit.* 31), based on a combination of factors such as the thickness of the deposits, and the type of activity which generated them, linked to ten dendrochronological dates, and a coin die impression (*op. cit.* 30). This method assumed that contemporary disturbances were few, and that no deposits were either removed from or brought onto site, both of which were thought by the excavator to be true, and cannot be proven otherwise from the published evidence.

The fact that the reasoning behind this dating is based on an idea of constant, or predictable, accumulation of archaeological deposits as a result of given activities tends to reduce its usefulness, as there is no evidence whatsoever that archaeological deposits accumulate in a constant or predictable manner. The argument also maintains that each period or phase of occupation was of precisely the same duration over the whole surface of the site⁶, whereas the inevitably subjective nature of phasing the stratigraphy of a site means that this is not, and cannot, be true. A phase or period division cannot be other than a 'snapshot' in which a number of features of different duration and origin are frozen at one point in time. If each plot were wholly redeveloped at one and the same time, the assumption of similar duration would be justified. As this possibility is not explicitly considered, the assumption is likely to be invalid.

It must, therefore, be acknowledged that the absolute dating of the excavation is weak. The dendrochronological dates, however, cover a span between AD 981 & AD 1013 (*op. cit.* 30), suggesting that the dating of the earliest deposits on the site is the most accurate, and as it is this first period, and its successor, which are most relevant to this thesis, the dates for the earliest occupation of the site are therefore accepted.

produktion för den egna gården' (Pettersson 1993, 26).

⁶ '...varje fas har ett konstant tidsinnehåll över hela den undersökta ytan' (Pettersson 1993, 31)

The lack of detail in the reports thus far published on the site on the Trädgårdsmästare's quarter is unfortunate. More detailed reports will certainly be forthcoming. Nonetheless, in the light of the more detailed results from the smaller site at S:ta Gertrud's, a number of themes can be discussed.

The earliest buildings on both sites showed architectural similarities to, or lacked differences from, those at Birka. The constructional techniques were similar, wattle and post being equally common at Birka, while the apparently later move to *laft* or horizontal planking in Sigtuna may have had an economic or functional basis rather than, as Pettersen suggested (*op. cit.* 28), a chronological one. Even the later, horizontally planked, buildings were paralleled at Birka, and only for the log buildings, which are mostly those at the front of the plots, are there no clear parallels in the Birka excavations.

The diffuse functional distinctions evident between buildings in the first and earlier part of the second period are also similar to the patterns observed in Birka. The scale of craft production, although small enough by Mediaeval standards that Pettersen (see above) argues for a domestic mode of production, is nonetheless very similar to that at Birka (Bäck & Carlsson, pers. comm.) where there has never been any doubt that craft production was on a sufficiently large scale to demonstrate the presence of specialised craftspeople.

There seems, however, to have been a clear change in the patterns of urban organisation and economy, associated with architectural and social changes, during the twelfth century. This is more clearly visible in the large scale excavations on Trädgårdsmästare's Quarter than it was on the smaller site at S:ta Gertrud's. The increasing specialisation of functions between buildings on the plots was associated with the introduction of *laft* technique architecture, and with an increase in the levels of craft production. There are fewer organisational parallels between Birka and Sigtuna in this later period.

IV.1.2.2 The Relationship between Birka and Sigtuna

From the published evidence, the tenth century occupation of Sigtuna showed remarkable organisational and architectural parallels with tenth century Birka. There does not, however appear to have been any chronological overlap between the two sites, with a relatively good

absolute date for the end of Birka in the AD 970s, and a relatively good absolute date for the founding of Sigtuna in the early AD 980s. These dates in themselves are highly suggestive.

Many of the elements that have defined Birka as a planned urban settlement were also present in Sigtuna. It too was oriented towards the waterfront, with radial lanes and a street parallel to the shoreline (Bäck & Carlsson 1994, 106-107). The plot boundaries established at the founding of Sigtuna persisted until well into the Mediaeval period, and in some cases until the present day, suggesting overarching control of land divisions and urban planning. The building techniques and forms used at the start of Sigtuna's urban life were very like those present at the end of Birka's.

The siting of churches, and both pagan and Christian cemeteries, around the periphery of Sigtuna, is paralleled in Birka, and suggests a similar attitude to death and the dead. This differed from Christian Mainland Europe, to the south, where the dead were in the midst of the living, in the heart of towns and cities.

Economic life also shows parallels between the two settlements. The types and proportions of animal bone from the first phases of Sigtuna's occupation continue a pattern established in the latest phases of Birka's occupation, and would therefore appear to represent a similar pattern of local market provision. The levels, types and styles of craft production are all similar. The only apparently new departure was the minting of coins, the earliest being of Olaf Skötkungen at the very end of the tenth century; this was a political change rather than a technological advance.

Even the size of Sigtuna, calculated at c. 130-140 plots, in 10 hectares, populated by c. 650-1400 people (Bäck & Carlsson 1994, 110), co-ordinates well with the probable population of c. 1000 in 7 hectares, in tenth century Birka (Ambrosiani 1991, 44). The question of where the population of Birka went to after its clearance has only rarely been addressed, but the displacement of c. 1000 homeless people into a densely occupied agricultural landscape would probably have been difficult to accommodate.

Regardless of who or what might have been the motivating power behind such an abrupt relocation, it seems the course of least improbability to assume that Sigtuna was effectively

the successor of Birka, and that the majority of Birka's population were moved to the newly founded settlement in the last quarter of the tenth century.

IV.1.3 Birka in its Chronological Context

The Mälär Valley during the Late Vendel and Viking Ages formed the hinterland for a chronological series of specialised trading and manufacturing settlements. The relationships between them, however, remain a matter of often heated debate. There was a clear and abrupt shift in the nature of settlement between Helgö and Birka, in scale of population, degree of organisational complexity, and volume and variety of production. The population increase, from less than 20 individuals, to between 700 and 1000 individuals, was of a scale which implies phenomenal changes in the economic basis of the support of the settlement, its demands upon its hinterland. Removing around 700 people, particularly skilled craft workers, from the population of Central Sweden must also have had a profound impact upon the shape of supply of manufactured to the rural community.

In contrast the shift of focus between Birka and Sigtuna involved little if any population increase, despite the physical relocation, and implied no real increased demand upon the agricultural production of the surrounding area. The supply of goods to the rural community continued to follow the same pattern, with manufacturing concentrated within a central place to which agricultural goods had to be shipped, and from which imports and crafts could be obtained.

Other aspects of the relationships between the three are also different. Helgö continued to be occupied, and to produce metalwork, into the Viking Age, giving it a significant chronological overlap with the settlement of Birka. The abrupt foundation of Birka was, however, mirrored two hundred years later by the abrupt foundation of Sigtuna, both apparently reflecting the same type of manipulation of political power.

The informal and variable occupation of the different areas of Helgö, with probably only two or three buildings on the many terraces occupied in any one generation, was also contrasted in the evidence from Birka, where the formally established plots were densely occupied

throughout much of the life of the settlement. The fixed and planned nature of the settlement at Helgö was, to a degree, determined by the precipitous slopes upon which it was built. The lack of flat building ground defined the need to construct terraces, which thereafter formed the bases for later construction. Birka and Sigtuna, on the other hand, were both planned and laid out in areas which relatively large amounts of flat ground for building upon and even in this situation, where the form of the settlement was not particularly constrained by the local environment, both settlements had a number of similar elements. Both contained plots established before, or at the time of, the first occupation on the site, and which remained constant thereafter. In both cases, these plots were laid out in relation to a road parallel with the waterfront, and communicating with it via lanes between the plots; the form of the waterfront therefore determined the shape of the town.

Architectural forms in the earliest deposits in Sigtuna were drawn from the same repertoire of designs and techniques as used at Birka, as were those in the later phases of the occupation at Helgö. These small rectangular buildings were, however, a marked break with the local Iron Age tradition of large, aisled, bow-sided halls and longhouses, which were characteristic of the earlier phases of settlement at Helgö. The advent of this architectural innovation is difficult to pinpoint chronologically, but its apparent emergence in the latter part of the eighth century, contemporary with the founding of Birka, seems to be related to the same social and political changes which created the new type of settlement. It may be that one of the simpler elements in the change was the lack of need for accommodation for stock within the new, densely occupied settlement, but the radicality of the shift suggests that it reflected a more than pragmatic difference in the society housed in the new structures.

There was no radical change in the artefactual assemblages, either in style or manufacturing technique, from Helgö to Birka, or Birka to Sigtuna.

The siting of cemeteries adjacent to the settlement, in all three cases, reflected a long-standing Iron Age Scandinavian tradition, and provided a unifying cultural thread between the three. Over time, these cemeteries were modified, with new elements as well as the old in the cemeteries relating to each settlement. The Birka cemeteries contained some burials, particularly chamber graves, which appear to have emerged as new ritual variations from the new social situation created in the settlement. The Sigtuna cemeteries contained Christian

burials together with pagan, and there were eventually Christian cemeteries within the bounds of the settlement, reflecting shifts in religious and ritual practice over the first hundred years of the town's occupation.

Despite the thread of cultural continuity provided by elements of the artefactual assemblage and ritual practice of the sites, there is no real doubt that Birka formed a new and radical departure in the nature and organisation of settlement in Central Sweden at the end of the eighth century. Sigtuna, in contrast, although it was to become a focus for political, religious and economic changes in Swedish society in the years after the end of the eleventh century, was, in the late tenth and early eleventh century, in many ways a continuation of Birka. The reason for the relocation and the renaming of the specialised population was in all probability a late tenth century dynastic shift, whose physical expression paralleled the description of Godfrid's relocation of the occupants of Reric to Hedeby (see below).

IV.1.4 A Royal Estate - Birka & Adelsö Hovgården as *emporium* and manor?

Across the Björkfjärd, the narrow straight between Adelsö and Björkö, within sight of, and in the same parish as, the Viking Age settlement at Birka, is the important Mediaeval site of Alsnöhus. The site as presently visible consists of the remains of a thirteenth century brick hall, on a motte raised over earlier terracing. Adjacent to this are four very large barrows, each around three metres in height and complementarily large in diameter, a *Ping* mound⁷, a fine late twelfth or early thirteenth century church, two nausts, and a late eleventh century runestone.

The first documentary source for the site is the runestone itself, which bears a text most recently interpreted as reading:

*'Tyd du runorna! Rätt lät Tolir, bryte i Roden, rista dem åt konungen. Tolir och Gylla lät rista (dessa runor) båda makarna efter sig till minnesvård. Håkon bjöd rista.'*⁸
(Riksantikvarieämbetet's information board on site)

Interestingly, this is the earliest written use of the Swedish word for 'king'. The king has

⁷ The *Ping* mound is identified as such from its local name, 'Tingshögen'.

⁸ 'You read the runes! Justice made Tolir, knight in Roden, inscribe them to the king. Tolir and Gylla had

been identified in the past with Håkon the Red, who ruled in the 1070s, but recently, the possibility that the Håkon in the text could have been the Norse earl Håkon Ivarsson has been raised (Brunstedt 1997, 11). This would not, however, substantially change the dating of the text. The reference to the king has been assumed to support the identification of the site as a Viking Age royal manor. The earliest specific documentary reference to its standing, however, is in a letter of gift, dated AD 1200, from Sverkar Karlsson, the then king, which reserves fishing rights in the adjacent parish of Munsö to the royal manor Alsnu (*op. cit.* 10), clearly identifiable as Alsnöhus.

The brick hall, or palace, was probably raised in the 1270s by King Valdemar Birgerson (Ambrosiani & Erikson 1993, 39), but this is not documented. Its first documented use was at the end of the same decade, when it was in the control of Magnus Ladulås, his brother (*ibid.*). This reinforces the royal standing of the estate in the Mediaeval period, but the presence of a *Ping* place name, and the size of the barrows near the Mediaeval hall both suggest that it served as a focal place, and a high status manor during the Viking period. It is one of a number of comparable sites in the Mälär Valley (*op. cit.* 42-43), among them Hundhamra (mentioned above, in the discussion of Helgö) and Fornsigstuna, some of which developed into important Mediaeval central places with royal connections.

Early in the twentieth century, one of the barrows⁹ was excavated by Hanna Rydh, revealing a rich cremation of a middle aged man, accompanied by hunting dogs, horse, falcons, food, and possibly a woman, or possibly only her hair (buried in a bronze bucket) and her necklace (*op. cit.* 39-41). This burial was dated to the beginning of the tenth century, by the style of the woman's beads, the Borre style mounts on the horse harness, and the style of fragments of two combs.

At the same time, the remains of the palace were emptied by Bengt Thordeman, confirming its thirteenth century date on architectural grounds, and showing it to be the earliest secular brick structure in Sweden, contemporary with the great brick churches of Strängnäs, Stockholm and Uppsala. It was not, and had never been intended as, a defensible structure, rather as a palace, with great unglazed windows facing south over the adjacent harbour (*op.*

(these runes) made to their memory after them. Håkon bade inscribe.' (my translation)

⁹ The name of this barrow - *Skopintull* - is etymologically obscure.

cit. 42). Importantly, Thordeman also found fragments of Viking Age pottery in the area around the palace (*op. cit.* 44).

IV.1.4.1 Recent Excavations at Alsnöhus

In association with the 1990-1995 excavations of Birka, a new project began to examine Viking Age Alsnöhus. A number of narrow trenches were excavated (see fig. 43) across the terraces adjacent to the Mediaeval palace, close to the rune stone, and across the newly discovered nausts. Walkover surveys of the surrounding area also discovered previously unremarked harbour features to the south of the settlement, including a major stone breakwater, probably Mediaeval in date, enclosing a large basin, now silted up and under grazing. This was probably mediaeval, as the Viking Age water level (see above, Chapter III) would have covered the structure entirely, while the modern lake level leaves it high and dry.

The excavation consisted of nineteen test trenches inserted into various areas of the site over four seasons to answer specific research questions (Brunstedt 1997, 19). During the first season, an attempt was made to locate and characterise Viking Age remains. The following seasons attempted to assess deposit character over wider areas of the site, and to investigate the newly discovered nausts and harbour features (*ibid.*). Inevitably, the structural evidence from such small areas was limited.

An area of c. 20 terraces to the north and east of the Mediaeval hall formed the focus of the attempt to identify Viking Age structural remains. Trenches were cut across three terraces. The first was c. 40 m long, 5-6 m wide, and 1 m high (trench 1), the second 15 m long, 9 m wide and 0.5m high (trench 2), and the third 25 m x 20 m, with noticeable walls around it (trenches 5, 6 & 16) (*op. cit.* 20-21).

Trench 1:

This narrow (2 m x 12 m) trench across the terrace revealed post holes and part of a line of sill stones parallel with the northern edge of the artificial terrace, and a hearth laid its stone-packed surface, the whole interpreted as part of a longhouse (*op. cit.* 22). In the stones of the sill, iron pendants in the form of a fire steel and several miniature sickles had been deposited, in a ritual similar to that seen in building A111 (B8) in Birka (see above, III.4.3.3), and

paralleled elsewhere in the counties of Uppland and Södermanland in Central Sweden (*ibid.*) during the pagan Viking Age (i.e. probably before c. AD 1000).

Trench 2:

A 2 m x 4 m trench was sited on the flat area of the second terrace. It uncovered a hearth, the 'shadow' of a sill beam, the gravel of an eaves drop, and post holes, interpreted as the remains of a timber building. Among the finds were Viking Age ceramics, but also Mediaeval stoneware and a cross-bow bolt (*op. cit.* 23).

Trench 5:

This trench, to the east of, and below, the third terrace, produced large amounts of Viking Age finds from deposits, apparently of domestic rubbish, up to 0.5m thick (*op. cit.* 23). Among the finds were a 'wasp' bead (Callmer's type B8060 - Callmer 1977, 86), black with overlaid yellow glass threads, of a type whose production is dendrochronologically dated to AD 760-780 in Ribe (Stig Jensen, pers. comm.). A sketch of a deer, inscribed on a broken whetstone, is also suggested by the excavators to have been Early Viking Age in date (Brunstedt 1997, 23-24), presumably on stylistic grounds.

Trench 6:

On the third terrace, trench 6 extended from the horizontal surface, over the edge and wall of the structure (*op. cit.* 24). A double row of sill stones along the western edge of the terrace, adjacent to a number of post-holes, post-dated a right-angled trench along the eastern edge (*op. cit.* 24-25), interpreted as a plot boundary ditch (*op. cit.* 26), but possibly rather suggesting successive buildings on the same site. No Mediaeval finds came from the deposits, which included dateable Viking Age finds, including three weights, two Islamic coins, beads and particularly the catch from a small box or chest, with animal head decoration, of the early tenth century (*op. cit.* 25-26).

Trench 16:

Trench 16 revealed parts of the same building as appeared in Trench 6, and overlying dumped deposits of Mediaeval material, probably spoil from Thordman's earlier excavations (see above) (*op. cit.* 26).

Dating and Interpretation:

Two phases of occupation were noted on both the first and the third terraces. The first was interpreted as a long house, although it is difficult to understand on what basis it could be determined that the structure was not rather a hall. The building on the latter, measuring c. 14 m x 6 m, was interpreted as having unusually high status, on the grounds of its strong construction, and the red sandstone used in its sill stones (*op. cit.* 29). It was not, however, interpreted as the royal hall, which the excavators assumed must be on the site (*ibid.*). In all three cases, the architectural forms and constructional techniques revealed by the excavations were in no way unusual in the Viking Age of Central Sweden.

The dating of the Viking Age occupation of the site, which was wholly finds-based, was set at mid-eighth century to the end of the tenth century (*op. cit.* 28). Although the question is not explicitly addressed in the report, the author assumes that there was no break in the continuity of occupation of the site, and that its early status was, as its later status, royal (*op. cit.* 60)

IV.1.4.2 Discussion:

A number of assumptions underlie the interpretation of the recent excavations on this site. The important, and early, documentary evidence for the royal status of the site from the beginning of the thirteenth century, combined with the presence on site of the earliest Swedish use of the word '*konungen*', probably from the eleventh century, have been indissolubly linked together to provide evidence for the settlement's having been a royal manor some four hundred years earlier, at the middle of the eighth century. The evidence does not really support this weight of inference.

Solveig Brunstedt remarks that the site has attracted antiquarian attention from the seventeenth century, on the basis of the Mediaeval ruin, the great barrows, and its geographical proximity to Birka (*op. cit.* 14). The assumptions of royal status seem to date back to an interpretation of the site by the seventeenth century antiquarian Peringskiöld:

*'så att här af kalrligen synes, att detta hafwer fordom varit en fullmannat kongsgard, i äldsta tyderna mycket namnkunnig, och bebodder af kungarna, då Biörkö varit hufvud stad'*¹⁰ (Peringskiöld, quoted in Brunstedt 1997, 14)

¹⁰ 'so from this can be clearly seen, that this in days of old has been a fully manned royal manor, in the oldest times very well known, and occupied by the kings, when Birka was the capital city' (my translation).

While one of the mounds appears to have been identified as '*Adils hög*' during the seventeenth century, and is identified as such by Peringskiöld (*op. cit.* 17), it is interesting that the recording of local traditions which identify the other barrows as the mounds of Björn, Olof and Erik respectively (all named in Rimbert's *Vita Anskarii* in relation to Birka - see III.1) is late, dating to the publication of Thordeman's excavations in 1920 (*ibid.*)¹¹. This suggests the strong possibility that the local identifications may have their roots in the antiquarian publications of this site and Birka. It is certainly difficult to believe that this could be an incorrupt oral tradition, and it must therefore be discounted as providing substantial evidence for the status of the occupants of the barrows.

Similarly, although the runestone refers to a king, it does not identify Alsnöhus as a royal manor. Indeed, the presently accepted transcription (and the stone is damaged) would seem to indicate that the manor was associated with Tolir and Gylla, a couple for whom no indication of status is given. The lack of use of the word '*konungen*' on Swedish rune stones earlier than this one would seem to suggest that the concept of kingship was one only emerging at the end of the eleventh century in Sweden. Rimbert's use of such a term in a ninth century context must, of course, be understood as the imposition of his (and Ansgar's) own concepts onto an individual in a role potentially different in kind to that with which they were familiar. This is discussed further below, but it is perhaps sufficient to suggest here that the documentary and traditional evidence for Alsnöhus' status in the Viking Age neither sustains the identification of the settlement as the abode of the 'kings' referred to by Rimbert, nor, indeed, validates the simplistic use of the concepts of 'kingship' and 'royal manor' in reference to this early period.

What then, does the archaeological evidence from the Viking Age suggest? The site is undoubtedly one whose Viking Age archaeology suggests high status. The size of the barrows to the west of the Mediaeval palace is noticeably large, although they are less in both diameter and height than those at both Hundhamra and Gamla Uppsala, and appear larger than they are, because they were constructed on a ridge of moraine (Brunstedt 1997, 52-54). Similarly, an unusually large concentration of building terraces around, and presumably

¹¹ I have been unable to obtain a copy of this report, and am therefore obliged to use a secondary reference for this source.

under the later Mediaeval ruins indicates a settlement of some size. It seems likely, however, that the terraces were not all occupied at any one time; the small areas excavated do not allow the relationships between the terraces to be determined. The Viking Age finds from the site are not outstandingly rich, although the presence of Arabic coinage, and bullion weights, does indicate trade activity, also implicit in the presence of a boat naust on the northern edge of the site, at the height above water level of the Viking Age shoreline. Although all these elements do indicate that this was the site of a manor, or its equivalent, rather than merely a farming settlement, the qualifications discussed above make it difficult to argue that the Viking Age archaeology of the site is outstandingly high status in the Central Swedish context. Even given the difficulty and ambiguity of the concept of kingship at this point in time, Alsnöhus does not seem likely to have been the residence of the most eminent of the leaders of the area.

Many of the same profound weaknesses underlie the assumption of the site's links with Birka, and this is also an assumption that seems to date back to Peringskiöld. Birka also has large, Viking Age barrows, and possible evidence for even earlier high status settlement stretching back into the post-Roman Iron Age (see above, III.3.7, III.3.8). Birka had as good, if not better, harbours than Alsnöhus. It is difficult to see why it should nowadays be assumed that the two sites were integral; perhaps the assumption was made because both were within the same Mediaeval parish of Adelsö. Although there can be no doubt which was the more important settlement during the Mediaeval period, there is no archaeological reason whatsoever to assume that this pattern was established during the Viking Age. Indeed, the archaeological evidence, scant as it is for the pre-Viking Age settlement of the two islands, could potentially be reinterpreted to suggest that the settlement at Alsnöhus post-dated the foundation of the town at Birka, and that it was a client manor located to take advantage of the proximity of the magnate and trading settlement on Björkö.

IV.1.5 Birka - its function within the local context

The Mälars Valley, with its network of high status sites, increasingly specialised farms, and established trade links to the northern iron producing regions of Uppland via the Fyris river,

was in many ways ideally situated for the establishment of an urban settlement. The agricultural surplus production implied by the specialised functions of the Vendel period settlement at Helgö, within the context of a rural economy, indicate the possibility of potential for the increased agricultural overproduction necessary for the support of a larger non-agricultural settlement. The location and function of Birka, however, cannot be seen merely as an organic, or in some way, natural, development from the earlier settlement; the long overlap between the productive existence of the two settlements makes this very clear. In some important way, or ways, therefore, Birka and Helgö had different functions and roles.

The impact of the creation of Birka on the local rural economy must have been radically different and larger than the impact of Helgö; their relative scales alone would have assured this. Whilst a part of the small population of Helgö, indeed perhaps the majority, may not have been agriculturally productive at all, this would not have distorted the economy of the surrounding farms, or demanded large-scale redistribution of agricultural surplus, whether via a market economy, or through food rents. The limited non-agricultural population could, in all probability, have been supported by the produce from only one manor, perhaps Hundhamra, as Ambrosiani suggests (Ambrosiani 1985, 108-109). If even a very small part of the population of Birka, however, was not providing its own subsistence, it would have required the surplus of many more than one manor to support it.

The implications of this are numerous and diverse: first and most obviously, Birka must have had access, whether direct or indirect to an agricultural hinterland at the very least 35 times the size of that of Helgö¹². This implies that it needed to draw in agricultural produce from virtually the whole of the coast and islands of the Mälars, which area must therefore have had a degree of political unity and focus. The question then arises as to whether this political unity and focus predated, or was created by, the establishment of the settlement. If Birka was supplied by the redistribution of food rents from a local magnate, then the political unity must have predated the settlement; it could not otherwise have been established. If, on the other hand, as appears possible from the excavation results, the subsistence of the settlement

¹² This is calculated simply on the grounds that, if one manor supported a surplus, industrial population of c. 20 (Helgö), a population of 700, would require 35 manors. The figure, of course, could be scaled up or down, depending upon the relative populations of the settlements. If the respective numbers were 15 and 1000, the

was based upon a market economy, it is possible that the establishment of the town, in the centre of the lake, could have distorted the local agricultural markets to such a marked extent as to make them dependant upon the settlement, thereby acting in itself as an encouragement to political unity. In all probability, however, the analysis of material from the site will eventually reveal a picture with aspects of both supply networks, and both political situations; it seems unlikely that a magnate would attempt the establishment of such a large planned settlement without a degree of political control over the surrounding area, and a secured supply of subsistence goods for the occupants, but it is also certain that the success of the settlement must have created a local agricultural market, and enhanced political control of the area.

Who, or what, then was this magnate? Where was such a person based? Or is it conceivable that Birka represents a community effort - the product of a coherent plan established by, perhaps, the *Ping*? Long, and ultimately insoluble, arguments have plagued the academic community in their vain attempts to answer these questions on the basis of the scant historical evidence. The association of the settlement with both king and *Ping* is suggested by the reference in the *Vita Anskarii*, discussing the question of preaching in the town, but it is clear that, whoever the king was, he did not have absolute control over the settlement or its population. This concept of limited kingship probably contained elements that were alien to Ansgar's own understanding of kingship, and therefore perhaps neither clearly recognised nor understood. Is it possible that the king emerged from the town, rather than the town from the king? That he was its product rather than its producer?

The archaeology of Vendel period Central Sweden demonstrates as clearly as is possible, the emergence of individuals, and probably families, with hereditary status displayed particularly, but not exclusively, in the form of ostentatious burials. Saga evidence for the later Viking Age suggests that conspicuous consumption of material goods, both perishable and imperishable, was also an important means of acquiring and displaying status, and therefore that control over supply of material goods reinforced status. The scant documentary evidence, however, does make it clear that throughout the Viking Age, substantial, socially naturalised, political power was vested in the *Ping*, particularly in

hinterland would need to be c. 67 times larger.

Norway and Sweden. The possibility that the creation of urbanised trade centres provided a risky strategy by which the individual families controlling or benefiting from such centres were able consciously to emerge from the mass of the *Bing* toward greater political and economic control should perhaps be considered more carefully. This is further discussed in Chapter VI, below, but suffice it to say here, that the establishment of a settlement such as Birka as a means of controlling and profiting from trade fits into such a pattern.

The site of Alsnöhus on Adelsö was clearly a royal manor in Mediaeval Sweden, and on this thin basis has been assumed to have been the residence of the magnate or family who established Birka. The large Vendel and Viking Age burial mounds on the site do suggest that it was a high status site prior to the Mediaeval period, but are in no way exceptional in the Mälars context. The similarly very high status Vendel and Viking Age burials on Björkö also indicate the probability of another high status manor on this island prior to the establishment of Birka, presumably covering in addition what was then the separate island of Grönsö, to the north. It cannot be said that the excavations on Adelsö have demonstrated outstanding status for the manor at Alsnöhus on the basis of the archaeological evidence, either. Without the later Mediaeval evidence, would it be assumed that Alsnöhus was an integral, or dominant, part of the settlement at Birka? In all probability, not. The theoretical conjunction of the two provides no additional functional or theoretical benefit to those provided by Birka itself, and it is most likely that it would be assumed that Alsnöhus was subordinate to the larger trading settlement.

It seems likely that some of the recent assumptions that have linked Alsnöhus and Birka have their roots in research into the organisation and structure of Anglo-Saxon trading settlements. The functional linkage and structural separation between the Anglo-Saxon central places and trading settlements, particularly Winchester and Southampton, identified by Martin Biddle (Biddle 1976, 114-115) has had an important impact upon the theoretical interpretation of early Mediaeval towns throughout north-western Europe. Increasingly, however, this situation must be seen as unusual. Functional separation may well be characteristic of the Anglo-Saxon towns (see below, V.3, for more discussion of this issue), but the physical distance and separation of the settlements at Winchester and Southampton has yet to be clearly paralleled elsewhere. There is no reason whatsoever to suggest that it was a characteristic of Scandinavian settlements of the Viking Age, as there is no particular reason

to assume that Scandinavian settlements were either physically or socially similar to those of the Anglian and Saxon kingdoms. Alsnöhus, therefore, can neither be demonstrated to have been a peculiarly high status or royal manor, nor on present evidence, to have been specially linked to Birka, in the Viking Age.

Birka's chronological and functional relationship to the settlement at Sigtuna, is a difficult problem. The question of succession from the one settlement to the other is discussed above, and a planned movement of the population from the Birka to Sigtuna does seem the most likely and simple explanation of the archaeological evidence. The motive behind such a move is less than clear, and probably involved a number of factors, both socio-political and functional.

The progressive lowering of the lake level in relation to the land, caused by isostatic readjustment, must have caused increasing problems with boat access to the main harbour at Birka. This harbour, which had been shallow even at the establishment of the settlement in the eighth century, would have been perfectly suited to the shallow draft, Viking Age boat, designed to be beached. Progressive shallowing, however, and the development of deeper draft boats, demanded the construction of ever longer jetties, further down the shore. Eventually, the problem may have become acute, though the place-name '*Kogghamn*', further along the shore of the island (see fig. 5) does suggest that there was a deep enough harbour adjacent to the town to handle the Mediaeval cogs.

Another element involved, bridging the ideological and the functional, could have been the move towards land transport. In 1279, an act signed at Alsnöhus provided for free men with their own horses who rode for the king to be excused both tax and the naval service due from their farm (Ambrosiani & Erikson 1993, 39). This was, perhaps, a later stage in a process ongoing since the Viking Age, with the gradual development of increasing numbers of roads, marked in many cases by runestones commemorating their founders. In a society increasingly, though not exclusively, oriented towards land transport, Birka was no longer central. In contrast, Sigtuna had good land access as well as good water access, and later, Stockholm had even better.

The other factor that it seems likely must have been involved in the shift from Birka to

Sigtuna, is the conversion of the Swedish crown and state to Christianity. The centrality of the church of St:a Gertrud, in the heart of Sigtuna, the coincidence of the start of minting in Central Sweden and the establishment of the town, all indicate important social and political shifts in the nature of economics and urban life. The likelihood that these shifts were focused around the person of the king cannot really be avoided, if it cannot either be proven. The social changes associated with the conversion to Christianity and the resultant closer political links between mainland Europe and Scandinavia are likely to have led to changes in the nature of the Central Swedish political institutions, changes of which Sigtuna carried, or indeed was, the physical imprint.

Birka, then, in its local context, can be seen as the physical expression of a rapidly changing political and social world. It represented a radical break with earlier forms of trade and craft management, possibly a break that provided the momentum and resources for the emergence and sustenance of a dominant family in Central Sweden. Demanding subsistence resources of the whole of the surrounding area, it inevitably linked the whole of the Mälars Valley in an integrated economic network, either establishing, or reinforcing, political control of the surrounding area, thus controlling trade at the regional and international level as well. Once established, the existence of such a town became essential to the economic health of the region, to such an extent that when political and economic factors led to its movement, the newly established town of Sigtuna was in many ways the twin of its predecessor. Only gradually, as the new political and social conditions impressed themselves, did the form of Sigtuna develop away from the pattern set by Birka.

IV.2 THE SCANDINAVIAN CONTEXT

There are a number of trading places in Scandinavia which were to a greater or lesser degree contemporary with Birka. The excavated evidence from these varies in quality and quantity, but nonetheless, significant patterns are beginning to emerge from the material. First, and most famous, are the defended or circumscribed trading places of the same type as Birka, including sites such as Hedeby, Västergarn, Löddeköpinge and possibly Ribe and Visby, enclosed between near semi-circular ramparts and the waterfront. In addition to these, there is growing evidence for the existence of at least one other class of trading and manufacturing settlement, which possibly concentrated upon the manufacture or production of specialised classes of material rather than trading, and which were apparently not defended or circumscribed, such as Åhus in Skåne, Paviken, Köpingsvik, and Kaupang.

IV.2.1 The Enclosed Trading Place

There are a number of circumscribed or defended trading places in Scandinavia, both contemporary with, and later than Birka. Most of these are bounded by semi-circular or near semi-circular ramparts, with a waterfront along the open side of the enclosure. Birka itself is, of course, one of the two type sites for this class of settlement, whilst Hedeby, now in northern Germany, is the other. In addition, more recent evidence from Ribe suggests that this may also have been an enclosed settlement, whilst analysis of the town plan of Visby suggests a similar possibility. Västergarn, also on Gotland, has an upstanding semi-circular rampart, though with relatively little evidence of internal settlement, and Löddeköpinge in Skåne lost its rampart to development and cultivation only in recent centuries.

Viking Age historical sources for any of these settlements are scant to the point of non-existence, with the exceptions of Ribe and Hedeby, the latter of which has also been the focus of the most extensive archaeological excavations.

IV.2.1.1 Historical Sources for Viking Age Hedeby and Ribe

Ribe, as the location of the second church in Denmark, is one of the best documented settlements known in the Late Viking Age. Under the circumstances, it is inevitable that the majority of the documents relate primarily to the ecclesiastical functions of the settlement, and only secondarily to its secular functions; nonetheless, a great deal of information about the broader significance of the settlement can be gathered even from the specifically ecclesiastical references.

Hedeby, and its successor Schleswig, seem to have formed a major part of the economic basis of Jutland and the North German Plain, and to have been of importance in the Baltic trading network; as such, there are a number of references to the settlement in relatively early Viking Age sources. In addition, there are clear indications in the sources that Hedeby was a political power centre of some importance, and it is mentioned more frequently than is Ribe. The names *Sliesthorp* (*Annales regni Francorum* 804, 808 as quoted in Skovgaard-Petersen 1981, 28, 29), and *Sliaswich* (*Vita Anskarii* ch 20, *op. cit.* 39, *Vita Rimberty* ch 21, *op. cit.* 40) seem to be most commonly used for the settlement in Western European sources, while Hedeby, or Haithabu are respectively the later Danish and German names for the same site.

The historic sources for the Viking Age settlements of Ribe and Hedeby are similar to those for the settlement of Birka. The hagiographic lives of Ansgar and Rimbert provide anecdotal and religious information about the nature of various settlements in Denmark, although they do not mention Ribe by name, while there are peripheral annalist references in the Frankish Annals which are also relevant for this period, although again not specifically for Ribe.

Alcuin's biography of bishop Willibrord (Skovgaard-Petersen 1981, 27-28 - quoting from Jaffé, 1873, 47-48), although earlier than the other sources, and referring to events in the first decades of the eighth century (prior to Willibrord's death in AD 739) when the bishop was a missionary to the Frisians, is so unspecific as to provide no direct information about Ribe, and little about Denmark as a whole except that, at the beginning of the eighth century, some sort of centralised power existed there, in the vicinity of Frisia. The Latin text says: *Ibi tamen ut fertur, regnabat Ongendus, homo omni fera crudelior et omni lapide durior* (Skovgaard-Petersen 1981, 27), that is: 'Ongendus is said to have reigned there, a man more cruel than any wild animal and harder than any stone'. Unfortunately, though descriptive of

the royal character, this and the following passages about the mission give us little information about the politics of the situation, or indeed enable us to identify the location of the island *Fositesland* which was apparently his centre of power.

The Frankish Annals do not mention Ribe by name, but they do mention Hedeby at a very early date. The annals were started during the empire of Charlemagne, and built up from monastic sources, later to be edited during the reign of Louis the Pious (AD 814-840) (Skovgaard-Petersen 1981, 28). The earliest mention of Hedeby is during AD 802, when the 'king of the Danes, Godfrid' (*Godofridus rex Danorum* - op. cit.) came to 'the place which is called Sliesthorp' (*ad locum, qui dicitur Sliesthorp* - op.cit.) to negotiate with Charlemagne. It is of particular interest that, at this stage, Hedeby is not referred to as a town, but is named as if well known, while some six years later, in the same source for AD 808, the site is again specifically referred to, this time as a '*portum*', or port (*ibid.* 29). The specific references do suggest that the settlement was more or less widely known outside Denmark, even at this early date, insofar as a named reference was of relevance to the hypothetical (Western European) reader, while its function as a port or harbour is of sufficient importance to provide additional identification.

This second reference in the Annals is also one of the most interesting and most frequently quoted of the primary sources about Hedeby. The Latin text is as follows:

Godofridus vero, priusquam reverteretur, distructo emporio, quod in oceani litore constitutum lingua Danorum Reric dicebatur et magnam regno illius commoditatem vectigalium persolutione praestabat, translatisque inde negotiatoribus, soluta classe ad portum, qui Sliesthorp dicitur, cum universo exercitu venit (ibid. 29)

Interestingly, this seems to imply that, after the destruction of Reric, Godfrid deliberately removed the merchants of the town to Hedeby, presumably in order to eliminate the competition to that settlement, and to augment its volume of trade.

The *Vita Anskarii* was written c. AD 870, by Rimbert, who had been a colleague of Ansgar's and was his successor as archbishop of Hamburg-Bremen. Rimbert's motives for writing this hagiography were undoubtedly mixed; Ansgar's sanctity and eventual canonisation were a great political advantage for the then newly founded archepiscopate, and it is clear that Rimbert was at pains to emphasise the geographical extent of Ansgar's missions in order to

safeguard the existence of the diocese. This, however, resulted in a document which was at pains to provide political and social details of the countries with which Ansgar was associated, in order to reinforce the authority of the mission.

Again, the more specific references in the text are to Hedeby, which by its proximity to the border of the Carolingian Empire must have been the better known settlement outwith Denmark. The first reference is to the attempted elimination of the Christian faith in Hedeby in the mid-850s, with a specific reference to the presence of a church building in the settlement (*ibid.* 39), when the settlement is referred to as a *vici*. Of great interest, however, is the fact that a count or earl of the settlement is named, one Hovi or Hove (*op.cit.*) and it is made clear that he has the ear of the king:

Qua de re comes praefati vici, Sliaswich videlicet, nomine Hovi, qui huic religioni praecipue resistebat et ad destruendam christianitatis fidem regem provocabat, ecclesiam ibi factam iussit claudi religionemque christianitatis ibidem prohibuit observari. (op. cit)

The *Vita Rimberti* is an anonymous work of the late ninth century, written with much the same political agenda as was Rimbert's own *Vita Anskarii*. The emphasis in the text is on the continuity of Rimbert's work, in the footsteps of Ansgar in the diocese of the North. Again, it is Hedeby rather than Ribe which is mentioned by name, in the first place with regards to the ransoming of Christian slaves (Skovgaard-Petersen 1981, 40):

Cum venisset quadam vice ad partes Danorum, ubi ecclesiam novellae christianitati constructam habebat in loco qui dicitur Sliaswich, vidit multitudinem christainorum catenatam trahi captivam. (op.cit.)

This passage re-emphasises the fact that there was a church in Hedeby in the ninth century, but the life of Rimbert gives us much less detail about the town than does the earlier hagiography.

The tenth century saw a major synod at Ingelheim in Germany, and in attendance, mentioned for the first time, were the bishops of Ribe, Schleswig and Århus. These bishoprics were therefore, theoretically, in existence by AD 948, the date of the synod, but the names of the occupants of the diocese', Liofdag, Horit and Reginbrod, do not suggest native Danes, and there is some doubt as to their effectiveness (*ibid.* 41). Letters from the emperors Otto I and Otto II to these bishoprics, which were given in AD 965 and AD 988 respectively do confirm

the existence of the three dioceses, if, however, failing to give useful information about their occupants or nature. The seats were, however, under the archdiocese of Hamburg-Bremen, to which extent, Rimbert's political activity in the preceding century had achieved its purpose.

Adam of Bremen's *Gesta Hammaburgensis ecclesiae pontificum* was written in the eleventh century in Bremen. Yet again, it has a none-too-well hidden political agenda, in this case, the fight of Hamburg-Bremen against the establishment of an independent Scandinavian archdiocese, but it is of particular value both for the access which Adam had to sources which no longer survive, including oral sources, and for his access to King Svend Estridsen as an informant on the history, politics, and social geography of the Scandinavian countries. The resulting geography of the 'Scandinavian islands' which forms the fourth volume of the work gives much information about the Viking Age which is not known from any other historical, or indeed archaeological, source. Unfortunately, as such, the very uniqueness of the record is a weakness, as its accuracy often cannot be checked.

Book 1, chapter 29 gives the earliest reference to Ribe, associated with Ansgar's mission and based probably on the description of events in the *Vita Anskarii*, but mentioning the settlement by name as the second largest (or most important?) port and site of the second church in Denmark (*ibid.* 46).¹ If this reference is accurate, it is important as providing historical confirmation for the very early importance of the Viking Age settlement at Ribe, but the *Vita Anskarii* fails to mention Ribe by name in association with Ansgar's mission, though Adam's information may well have come from another source.

Book 2, chapter 3 mentions the first bishops of the Danish bishoprics, probably based on the archival material available to Adam from the Ingelheim Synod (as discussed above). Further bishops of Ribe are mentioned in the text, among them the apparently the first native Danish bishop, Odinkar son of Toke (or Toki) the Earl of Winland (*ibid.* 49), whose existence and dates are confirmed elsewhere, and who died in AD 1043 (*ibid.* 53).

Hedeby is also mentioned in Ottar's account in the Orosius of King Alfred:

¹ ...et in alio portu regni sui apud Ripam extrueret ecclesiam in Dania secundam Adam of Bremen, Book 1, chapter 29, quoted in Skovgaard-Petersen 1981, 46.

*And of Sciringes heale he cwæð ðæt he seglode on fif dagan to þæm porte þe mon hæt æt Hæpum; se sten betuh Winedum, and Saxum, and Angle, and hyrð in on Dene.*²
(Lund ed. 1984, 22)

This reference merely forms part of a list of sailing directions, but emphasises the interrelationships of the contemporary ports of Norway and Denmark, and the relative ease with which they could be reached. Wulfstan's account, in the same source, of a trip from Hedeby to the West Slavic town of Truso reinforces the emphasis on trading links between the various Scandinavian and Baltic settlements (*ibid.*).

The cumulative evidence offered by these sources for both Hedeby and Ribe suggests a variety of functions for the two settlements. Clearly Hedeby, with its high ranking count (possibly similar in administrative role to the reeve of Birka, Hergeir - Rimbart 1986, 28), religious functions (evident in Hovi's reaction to the presence of a Christian church, and indeed in the location of the church itself), and the port functions referred to in the terminology used of the site, was a settlement of some importance. That its trade functions were also a matter of interest to the crown is emphatically reinforced by the Godfrid's actions as reported in the Frankish Annals for AD 808, when the merchants of Reric were moved to Hedeby.

For Ribe, in contrast, the documentary evidence is much weaker. In all probability, this was partly the result of proximity; it seems likely that Hedeby, on the land border between Denmark and Germany, formed the contact point for very many of the official meetings between the Carolingian Empire and Denmark, while Ribe, further north and therefore accessible only by sea from the Empire, played less prominent international role in the ninth century. It also seems possible that Ribe, although proven archaeologically to be an early settlement (see below, IV.2.1.3) may have been the smaller and lesser of the two centres. However that may be, it is clear that Ribe was a centre of importance predating the arrival of Christianity in Denmark, as it is constantly referred to as having had the second church in the country, and was one of the first three diocese to be formed. In the light of the documentary evidence from both Birka and Hedeby, this suggests that Ribe probably had administrative and religious functions prior to the conversion.

² 'He said that from *Sciringes heale* he sailed five days to the port which men call Hedeby; it lies between the Vends, the Saxons and the Angles, and belongs to the Danes' (my translation)

After the end of the Viking Age, the sources for both settlements become much more extensive, but also have very little to say of the nature of the Viking Age sites. The Mediaeval sources are inevitably heavily dependant upon the ecclesiastical archives, with a lesser amount of material from civil courts both royal and, later, judicial. While these are informative about the social and political character of Mediaeval Denmark, their relationship to the preceding Viking Age institutions and organisations cannot be proven to be close, and thus the majority of our detailed information about the settlements of Viking Age Denmark comes from the increasingly rich archaeological resource.

IV.2.1.2 Hedeby

Hedeby is located opposite Mediaeval and Modern Schleswig on the east coast of Jutland, now in Northern Germany. The site is on the western side of an inlet from the Schlei, the Haddeby Noor, and the Schlei is itself an inlet from the Baltic. Linked to the eastern end of the Danevirke by a connecting wall, Hedeby's (possibly tenth century) semi-circular rampart forms an integral part of the boundary defences of Viking Age Denmark (see fig. 44).

The rampart encloses an area of c. 24 hectares (Clarke & Ambrosiani 1991, 59), with a stream running east-west through the centre of the site. To the north-west is a small hill fort containing and overlooking a barrow cemetery, and further cemeteries lie in the south-eastern part of the walled area, and over the South Settlement (Südsiedlung) immediately outwith the rampart to the south. Excavation has revealed exceptionally good organic preservation in the eastern, central area of the settlement, adjacent to the coast and low-lying, while the western area near the rampart, and the South Settlement, are drier and suffer poor preservation.

Excavations in Hedeby:

Sophus Müller

It was Sophus Müller's identification of the site of Hedeby on Haddeby Noor at the end of the nineteenth century (Clarke and Ambrosiani 1991, 59) which turned the attention of archaeologists from Schleswig, on the northern bank of the Schlei. From 1900, he dug in the centre of the walled area of the town (*ibid.*) confirming the presence of a wealthy trading

settlement from the Viking Age, with impressive organic preservation. Müller's excavations remain unpublished (Jankuhn 1986, 248-51).

F. Knorr

In the early 1920's excavation on the site was resumed under the direction of F. Knorr, also within the walled area. Although this maintained public interest in the site, Knorr's failure to publish means that the results of this work are similarly inaccessible.

Herbert Jankuhn

Between 1930 and 1939, extensive excavation was carried out within the walled area under the direction of Herbert Jankuhn. Systematic trial trenches of c. 10m² were excavated all over the area inside the rampart (Clarke & Ambrosiani 1991, 61), as well as a more extensive area c. 80 x 30m, focused on the canalised bed of the stream running through the town (Jankuhn 1972 (1986) 91). The excavations located three early settlements along the shoreline, predating the rampart, the central of which expanded to become the trading town itself. Jankuhn dated the early settlements to c. AD 800, with the southernmost stretching back to the mid-eighth century (*op. cit.* 86).

This project was published in a series of interim reports, during and immediately after the second world war (*op. cit.* 248) and later summarised in a major book about the nature and role of the settlement (Jankuhn 1972). This book also included material from the excavations of the early 1960s on the Südsiedlung, or South Settlement, carried out under the overall direction of Jankuhn (*ibid.* and Steuer 1974), but published in more detail by Heiko Steuer.

Kurt Schietzel

The 1960s also saw the excavation of nearly 5% of the walled area under the direction of Kurt Schietzel. The large area was stripped by prison labour, excavating in spits, under the supervision of trained archaeologists, with mechanical and hand sieving of spoil to retrieve the finds from each recorded area. Surviving structures and structural evidence in each spit were planned (Schietzel 1981, 10-22, and pers. comm.). The director oversaw the recording of standing sections in order to check the sequence of buildings (Schietzel pers. comm.). It is important to note in this context that the archaeologists were and are of the opinion that

contemporary disturbances had removed all comprehensible stratigraphy on the site, and that under the circumstances, it was of first importance to cover as large an area as possible (Schietzel 1985, 160 and pers. comm.). Inevitably, detail was sacrificed in favour of the larger picture. Dendrochronology was used to determine the sequence of structures, although no buildings from the tenth century or later survived, and the latter part of the structural sequence was therefore obscure (Schietzel 1985, 171). Timbers from wells provided evidence that the occupation of the site continued at least until the beginning of the eleventh century (Schietzel 1985, 172).

The results of the 1960s excavations have been successively published in a series of monographs on specialised aspects of the excavation, and more synthetically presented in conference papers and interim articles. Of particular interest for this thesis is monograph (Berichte) 16 (Schietzel 1981), which presents the methodological approach and such of the aspects of the settlement archaeology as are presently available.

The Excavation Results

The excavation results are presented synthetically here, area by area, because the degree of overlap in excavation areas between Jankuhn and Schietzel's excavations was substantial, as Schietzel re-excavated and continued the excavated area which Jankuhn had started between 1935 and 1938 (see fig. 45).

The Walled Area

Excavation within the walled area stretched almost from the waterfront, westwards about a third of the way to the rampart (see fig. 46). A densely laid pattern of radial lanes was revealed, relating to main streets laid out approximately parallel to the waterfront. The stream through the town was canalised, and ran almost parallel to the lanes, crossed by a bridge where one of the main roads met it. Within this network of accesses, the majority of the land was built up with small, timber buildings, most commonly orientated with their gables towards the nearest access point, although this was not invariably the case. Where plot boundaries were visible, they seemed to be both early and of long-standing duration,

although there was evidence of some shifting of the boundaries over time in some cases (Schietzel 1985, 167-171). Most of the land within the plots was built over, with what remained being used for relatively unstructured activities; the plot boundaries were sometimes marked by fence lines, but there do not seem to have been other permanent structures within them. One plot, adjacent to the canalised stream, had a wood-paved access to the water which was interpreted as a washing place (Jankuhn 1986, 91 and see fig. 45). Wells within the plot boundaries were common.

Architectural forms of the buildings:

The buildings from Hedeby were widely variable in plan and construction details. Schietzel divides the range of plans into two types: those with a two room residential and animal division, and those with a three room residential, animal and craft division (Schietzel 1985, 160). This is, however, based on only very limited evidence, as admitted by the excavator himself (*op. cit.* 151), who comments that in only one building were domestic and animal quarters definitely under one roof. 'With the exception of the frequently standardised width of the thresholds, the ground plans of the houses differ markedly from one another' (*ibid.*).

One particular building has been published in great detail, largely because it was the best preserved of all the buildings on the site, with collapsed gable walls allowing the angle of the roof and position of windows to be determined. This has become known as the 'Hedeby house', although the published evidence suggests that it was far from typical of the other buildings in the town. The 'Hedeby house' was 11m long, 5m wide, of wattle and post construction and with three rooms, initially functioning as a domestic and craft building, later as a long house, with animal accommodation in one end (*op. cit.* 164).

More generally, the wall construction techniques were pragmatically variable. Stave and plank construction, both vertical and horizontal, wattle, wattle and daub, and 'block house' (or 'log cabin', laft) were all used (*op. cit.* 153 and see fig. 47). These are all, with the exception of the interlocking log techniques, paralleled in other contemporary Scandinavian sites such as Birka. The log construction techniques are more typical of the Slavonic areas, where they are paralleled at sites such as Novgorod (Khoroshev and Sorrokin 1992, 136-145). All of the buildings appear to have had load-bearing walls, or at least no visible evidence of internal roof posts (Schietzel 1985, 153).

Within the buildings, the placing of the hearth seems to have been influenced by a number of factors. At least two of the log buildings appear to have had corner hearths (*op. cit.* 169, and see below, South Settlement), while the remainder of the buildings appear to have had hearths which were placed centrally in the room, or, if undivided, in the building, orientated along the long axis of the building.

The plans of buildings presented in the overall site plans (e.g. Jankuhn 1986, 92, and Schietzel 1985, 152) indicate that, despite Schietzel's statement that 'hardly any foundation resembles another in size and shape' (*op. cit.* 159), none of the buildings excavated inside the rampart exceeded more than c. 12m in length, and widths were consistently c. 4.5 - 5.5m. Large scale plans of the individual buildings are unfortunately not published.

Dating:

The vast amount of well preserved timber provided a copious resource for the construction of a dendrochronological sequence (*op. cit.* 161-172). Both the dating and the sequence of the buildings could therefore be fixed with some precision, allowing for confusions such as the reuse of old timbers in buildings. Given the lack of stratigraphic control, this was a blessing.

The earliest structure within the excavated area was a fence line dated to AD 831, which established a plot division which persisted throughout the lifetime of the settlement. This was succeeded by timber buildings forming a secure sequence for the following 120 years. No buildings dated to the second half of the tenth century survived, but the sequence was extended up to AD 1020 by dating barrel-lined well shafts, providing an early eleventh century *terminus post quem* for the end of occupation within the rampart (*op. cit.* 167-172).

The South Settlement (Südsiedlung)

Roughly 10% of the estimated area of the South Settlement (see fig. 48) was excavated by Jankuhn between 1962 and 1965. It proved to be overlain by an extensive cemetery of east-west orientated inhumation burials, with some few chamber graves, and earlier, ring-ditched cremations. The South Settlement showed none of the planned and organised character of the central settlement; the whole or parts of 37 sunken-featured buildings, and one longhouse were excavated. The sunken featured buildings, the majority only between 6 and

13m² in area (Steuer 1974, 16) were grouped loosely around an open area (see fig. 48) with no formal roads, paths or other access routes laid out. The long house lay separately, some 50m to the east of the rest of the settlement.

Architectural details:

Organic preservation on this site was poor, and structural details of the buildings are thus less clear than they were in the central settlement. Nonetheless, it is evident that the architecture of the buildings in this area had very little in common with those in the central area. The sunken-featured buildings, ranging from only 5.5m² to 21.5m² in area (Steuer 1974, 16), were much smaller than the majority of the buildings inside the rampart, whose apparent average size was *c.* 50m². As a result, possibly, of the small size of the buildings, the majority of hearths in the Southern Settlement were placed in the corners of the undivided structures (Steuer 1974, 18). The sunken floors were paralleled by only one building within the walls (Schietzel 1969, 49, fig 37).

Dating:

Given the lack of dendrochronological material from this area of Hedeby, it is hardly surprising that the absolute dating of the South Settlement is a matter of some dispute. Jankuhn, in all his reports and articles on the site, states that the South Settlement was in existence, indeed expanding, by the middle of the eighth century (Jankuhn 1986, 86). Steuer's report, however, disagrees with this dating. In a detailed survey of the finds from the site, Steuer argues (1974, 41-47) that the bulk of the (rather slight) dateable material cannot be earlier than the last two decades of the eighth century, and that the single bronze weight in particular does not predate AD 850. The only find which gives a date to the middle of the eighth century is a single sceatta of Woden-Monster type, found in the occupation layers of house 1, which provides a weak *terminus post quem* for that building (Steuer 1974, 42-3). A small hoard of coins from the destruction levels of house 13, in contrast, provides a strong ninth century *terminus ante quem* for that building based on four Arabic dirhems dated at AD 772, 835, 866 and 867 (Steuer 1974, 42).

The scant dateable finds material is not, unfortunately, augmented by the two radiocarbon samples which were carried out from buildings 26 and 27, both belonging to the earliest

phase of the settlement. They produced the widely varying (calibrated) dates of AD 490-600, and AD 900-1020 respectively (Steuer 1974, 53) (see Appendix F).

The North Settlement

In 1953, a small excavation was carried out north of the semi-circular rampart, below the hill fort (Jankuhn 1986, 80). This revealed a small focus of settlement south-east of the Hochburg, or hill fort, with its own small cemetery (Jankuhn 1986, 87-88). Its dating to the turn of the eighth to ninth century is, Jankuhn admits, uncertain; if the settlement focus is associated with the barrows in the hill fort, then little can be said about it, as they are undated, and as yet undateable³. The excavation produced minimal structural evidence, and is dated on the basis of ninth century ceramics, including one sherd of Pingsdorf pottery, from a rubbish pit (*op. cit.* 80).

Discussion

It seems probable that Steuer's dating of the southern settlement is the more reliable of the two alternatives offered, and this substantially changes the commonly accepted picture of Hedeby's development as a whole. The succeeding cemetery then becomes tenth century and later, and with the possible exception of some of the few very earliest graves in the western area of this southern cemetery (Steuer 1974, 47) none of the graves can be said to definitely predate the beginning of the ninth century.

This raises the question that Steuer himself immediately asked:

'In welcher Beziehung stehen die Südsiedlung, die vom Ende des 8. bis zum Ende des 9. Jahrhunderts bewohnt gewesen ist, und das nachfolgende Gräberfeld, das vom beginnenden 10. Jahrhundert wahrscheinlich bis ins 11. Jahrhundert belegt wurde, zu den übrigen Siedlungsspuren und den anderen Gräberfeldern?' (Steuer 1974, 47)⁴

A brief reconsideration of the dendrochronological dating of the main settlement confirms the chronological similarity of the two sites. The earliest timbers from the main settlement

³ 'Ob etwa zur nördlichen Siedlung schon das Hügelgräberfeld auf der Hochburg zu rechnen ist, kann bisher mit Sicherheit nicht gesagt werden, da für diese Gräber eine gesichert Datierung noch nicht ermittelt werden konnte.' (Jankuhn 1986, 87)

'Whether perhaps the northern settlement is to be associated with the barrow cemetery in the Hochburg, cannot as yet be said with certainty, as a certain date cannot yet be ascertained for these graves'. (my translation)

⁴ 'In what relationship do the South Settlement, which was inhabited from the end of the eighth to the end of the ninth century, and its succeeding cemetery, which was laid down from the beginning of the tenth century

date to the early ninth century (Schietzel 1985, 179), and the fact that the *Frankish Annals* date the population of the town to AD 808 (Skovgaard-Petersen 1981, 29) has tended to obscure the earlier reference to the named place *Sliesthorp* in AD 802 (*op. cit.* 28). On the basis of the existing archaeological evidence, it is impossible to determine whether the South Settlement predated the central or not, and to which the early references refer.

The question of the dating of the rampart must also be considered. A tenth century date has been assumed, on the basis of the dating of the rampart at Birka (Arbman 1939, 66-67), which is itself highly debatable (see above, chapter II) and the dendrochronological dating of the wall tying the Hedeby rampart to the Danewirke (Jankuhn 1986, 68), but there is no absolute dating for the structure itself. A trench put through the structure adjacent to the northern entrance showed an extremely complex sequence of building and repair (*op. cit.* 67). If indeed the Danewirke linking wall and the rampart are of the same date, then the rampart must have undergone at least nine phases of substantial renovation in one hundred years, averaging a duration of only eleven years for each phase of the structure. The economic implications of this are substantial, given that the rampart enclosed 24 hectares, and was during its least substantial, initial phase, a minimum of 2m high (*op. cit.* 67) and at the end, a possible maximum of 10m high in total (*op. cit.* 68). The excavations of the southern settlement did not indicate that the rampart was built over that settlement (Steuer 1971), and the enclosure of the central settlement therefore remains without an acceptably accurate *terminus post quem*.

Hedeby, then, appears to have been founded at the turn of the eighth to ninth century, as a settlement with at least two, and possibly three, foci. The two foci which have been extensively excavated and are therefore best understood, are the Central and Southern settlements, which are dramatically different in their physical appearance and development. The planned appearance, consistency and physical organisation of the central settlement contrasts clearly with the less organised, more diffuse and less dense occupation south of the wall. The buildings of the central settlement are constructed at ground level, while most of those in the southern area are sunken featured and smaller in size, with the exception of one long house or hall. The sunken featured buildings of the Southern Settlement, with the

probably into the eleventh century, stand to the remaining settlement traces and the other cemeteries?' (Steuer 1974, 47) (my translation)

associated long house, showed interesting parallels with sites such as Åhus, in southern Sweden (Ericson-Borggren 1993), and had much in common with earlier rural sites in Denmark, such as Vorbasse (Hvass 1988, 75-9), particularly the association of a very large, post-built longhouse with clusters of sunken-featured buildings. In contrast, the Central Settlement site showed no particular architectural or organisations links to the established rural settlement tradition.

Given the similarity in the dating of the two sites, it seems evident that they are related, and that the physical differences between them are significant. It can easily be argued that these physical differences must reflect differences in the role and function of the two parts of the settlement. It is a pity that the dating of the rampart is so weak, given that the enclosure of the centre would appear to be important, with evidence for extensive manufacturing coming from this area rather than the southern, external settlement. Social differences seem likely to be reflected in the differing architecture of the buildings, potentially associated with the industrial differences reflected in the finds from the two sites.

IV.2.1.3 Ribe

Ribe is a Mediaeval town on the west coast of Denmark, situated on low-lying marshlands at the junction of two rivers, the Ribe and the Tude (Ribeå and Tudeå). The High Mediaeval town lies to the south of the Ribe Å, with a town moat surrounding the settlement (see fig. 49).

Recent excavations have located the site of Viking Age Ribe on the northern bank of the Ribe Å, opposite the centre of the Mediaeval town, castle and cathedral. Complex, stratified archaeological deposits up to 2m thick have been found in an area of approximately five hectares, bounded by the river to the south and a sequence of semi-circular banks and ditches on the other sides. The settlement seems to have focused on the higher land of a sand spit between the two rivers, avoiding the marshes that occupy most of the area.

Excavations in Ribe

1950s - The Mediaeval Town

Attempts to locate Viking Age Ribe began in the 1950s, with the work of H. Stiesdal, whose excavation was the first systematic archaeological project to be carried out in the town (Stiesdal, 1968). He dug in the heart of the Mediaeval town, between the cathedral and the royal castle, revealing archaeological deposits up to 5.5m in depth, with excellent organic preservation which, however, did not predate the 12th century (Stiesdal, 1968:158-9).

1970s - The eighth century market

The location of the early Viking Age settlement was finally pinpointed by Mogens Bencard in a series of excavations carried out between 1970 and 1976 (Bencard 1990). These were rescue excavations of limited areas in advance of repair and development work, in and around the area of Sankt Nicolai Gade, and particularly in the gardens and cellar of the Kunstmuseet, and the garden of the Dommerhaven.

The excavations were carried out using various techniques: where the site was a narrow trench, it was dug in spits, though an attempt was nonetheless made to distinguish finds from distinct archaeological deposits; this latter was 'possible only to a limited extent' (Bencard, 1990:19). The Dommerhaven site was started with a strip trench, dug in 10cm spits, which was then used as a guide to the archaeological deposits, which were dug stratigraphically from the edge of the trench outwards (*op. cit.* 51). Kunstmuseets have, however, had sufficiently complex stratigraphy that this method did not work, and in the areas where the deposits were most complex, spit excavation was used instead (*op. cit.* 19).

The two main sites, in the Dommerhaven and Kunstmuseetshave, were phased across Sankt Nicolaj Gade into four phases:

1. Occupation of the natural subsoil - agricultural remains, including ard marks, narrow boundary ditches, and, slightly later, two wells and some comb-making and smithing debris.
2. Massive manure deposits - containing craft debris and domestic animal and human coprolites.
3. Laminated 'occupation' deposits - 'alternating between activity layers and levelling layers' (*op. cit.* 136)
4. Refuse deposits overlying phase 3

These sites were dated both from thermoluminescence (TL) tests on the ceramics, and from dendrochronological analysis of preserved wood. TL tests on the pottery from Dommerhaven provided only coarse dates, but confirmed an eighth century date for phases 1 - 3, and a mean date of AD 870 for phase 4. The more specific dates from wood in the phase 1(A) well in the Dommerhaven provided a date of AD 704-5, and not later than AD 710 (*op. cit.* 137). Dates from wooden structures in the cellar of the Kunstmuseet (assumed to belong to phases 2 - 3) gave a range between AD 719 and AD 759 (*op. cit.* 138), while material from a possible Mediaeval deposit in the upper part of phase 4 in Kunstmuseetshave provided a radiocarbon date of after the 13th century.

While there can, since these excavations, be no doubt about the location and general dating of the early Viking Age settlement at Ribe, the techniques used on the various sites make it difficult to derive detailed structural information from the material. Finds from the spit-excavated strip trenches are essentially unstratified, as their excavator freely admits with reference to the initial trench in the Dommerhaven (*op. cit.* 51). The limited understanding of stratigraphic technique which is demonstrated by the excavation of deposits from a standing section led to a correspondingly limited understanding of the potential of the stratigraphy to elucidate the fine detail of the excavated structures. Thus in the Kunstmuseets have, although the extent of levelling deposits and their relationship to hearths and activity layers is understood to represent the physical extent of workshops (*op. cit.* 93-114), the phase summary comments that: 'The layers are best observed in the sections, being severely disturbed by later features in the surface' (*op. cit.* 114). On the same site, the finely laminated deposits of phase 3 were divided geographically into 'layer accumulations' (*op. cit.* 94), which were separated by ditches whose stratified fills were not clearly recognised (*op. cit.* 96-7, but also 110-111, where some continuous deposits were perceived), leading to the stratigraphic isolation of the occupation of the different areas. These phase 3 occupation deposits, both in Kunstmuseets have and Dommerhaven, were assumed to have 'been open to the sky as there were no detectable traces of surrounding walls' (*op. cit.* . 71), an assumption which ignores the possibility of sill beam walls⁵. Because of the difficulties encountered in understanding the stratigraphy in plan, there appear to be no detailed overall

⁵ Given the fine laminations of the deposits, and their lack of disturbance, it is very difficult to agree with the idea that they could have accumulated on an unsheltered surface. When exposed to the combination of water

plans of the site showing its structural development during phase 3, the most complex (and potentially informative) of the four phases.

Mogens Bencard came to the conclusion from these excavation results that Ribe's initial, eighth century settlement was characterised by a seasonal market laid out in the vicinity of an earlier permanent agricultural settlement (*op. Cit.* 144-145). This was, as will be seen below, a conclusion that has profoundly affected all succeeding interpretations of the site.

1980s & 1990s - Ribe AD 700-1100⁶

During the 1980s, a series of excavations in response to development finally provided the information required to link the eighth - ninth century settlement with the Mediaeval town on the south side of the river. These sites are, as yet, substantially unpublished, but the archives in Den Antikvarisk Samling, various articles (Jensen 1991b, Fèveile 1994), and a popular book on the development of Ribe (Jensen 1991) provide a basic outline of the excavations results.

Tvegade 13-17:

The remains of three buildings were excavated adjacent to the edge of the putative market place; two of the building occupied the same area, and were consecutive with each other, although their relative stratigraphic positions were unclear due to truncation of the associated deposits. These two buildings were large halls, between 5.75m and 7m in width, and of uncertain length, with internal roof-bearing posts giving a three-aisled internal arrangement. The third building was a 'Hedeby' type house (see fig. 58) with lightly built walls, angled buttress posts and internal posts providing additional support for the roof. Around the buildings was a large, apparently unstructured, open area, with no obvious contemporary plot boundaries or formal access points such as roads or paths (Den Antikvarisk Samling, Ribe - archive report).

(i.e. rain) and traffic, archaeological deposits characteristically show diffuse and unclear interfaces, and a greater or lesser degree of mixing.

⁶ The author is deeply grateful to Dr Stig Jensen and Mr Claus Fèveile for their kindness in allowing me access to unpublished material from the following sites, and for discussing the excavation results with me. The author is responsible for any misunderstandings or misinterpretations in the following text.

Ribelund III:

A 1300 m² area excavated at Ribelund revealed seven halls and three sunken-featured buildings, from at least three phases, and all pre-dating an eleventh century defensive ditch, but apparently relating to, and outwith, an earlier town boundary ditch which is approximately dated to the first half of the ninth century.

Four of the halls (building I-IV) are characterised by three-aisled, internally divided construction, with central hearths, where these survive, and bowed walls. Their width varies between 5m and 6m, and they appear to have been approximately 20m in length, although the full length of all the buildings does not survive. The remaining three halls (V-VII) are also three-aisled, but do not have bowed walls. Their full lengths are not known, but clearly varied, and their widths fall into the same range as those of buildings I-V. The remaining buildings VIII - X were sunken-featured, two with a six-post construction and one with only two posts. These buildings are very similar to buildings on eighth century rural sites in Denmark (Feveile 1994, 91-92).

The Post Office:

During 1990 and 1991, excavations in advance of the redevelopment of the post office site revealed the heart of the eighth and ninth century market. Based on a layer of sand which appeared to have been spread parallel with the Ribe Å, the market was planned and established c. AD 705, then slightly reorganised around a newly established street parallel to the river c. AD 720 (Jensen 1991:7). The occupation of the site respected the plot boundaries throughout its duration; they were initially marked by ditches, and later by fence lines, but deviated only marginally through time, producing the consistent pattern of archaeological deposition which Mogens Bencard had earlier recognised in his term 'layer accumulation' (see above, and Bencard 1990:94).

The excavators of the Post Office site concluded, with Bencard, that:

As no trace has been found of solid buildings, but only of huts and small pit-houses, the market-place can hardly have operated all year round. It was presumably a seasonal affair where there was no activity during the winter, and where trading culminated in the markets held once or twice a year.' (Jensen 1991:7)

In addition to this, the remarkable quantity of sand underlying the occupation of this site (and all other areas of the market place glimpsed in service trenches and similar keyhole excavations) led to the confirmation of the assumption of a royal link for the site, following the line of argument that the size of such a work of planning and organisation demanded a degree of power and control only exercisable by a centralised authority (*op. cit.* 9-11).

The Old Gasworks:

Prior to the construction of a new museum building, excavations carried out during 1993 on the site of the old town gasworks revealed an extension of the market area, as marked by the presence of the substantial sand layer also noted on the post office site. Feveile comments:

‘The layer of sand is not preserved to its full thickness in the southern half, As the sand was incomplete in the east, the workshop layer above it has not been discovered, although the presence of the sand suggests that the craftsmen’s quarters must have existed there.’ (Feveile 1994:94)

In addition to this, the margins of a pit filled with craft working rubbish were located. Its stratigraphic relationship with the sand suggested to the excavators that it could be one of the sand quarries for the foundation sand deposits of the marketplace (*op. cit.* 95).

Discussion

The variety of sites excavated during the late 1980s and early 1990s vastly expanded knowledge of the topography of early Ribe, but the limitations of the sites themselves leave tantalising questions and areas of debatable interpretation. The sites relate to two quite different types of settlement: firstly, and most dramatically, the market place, with its planned layout, dense occupation and intensive craft production, and secondly, an associated village, with an unplanned, informal, less dense plan, large buildings and minimal evidence of craft production.

Although the excavation of these sites was technically very competent, the truncation of both Tvegade and Ribelund creates problems in interpretation. Survival of stratigraphy in relation to the structural post-holes excavated was minimal, and the sequences of the buildings were therefore unclear on both sites. Only limited deposits survived in relation to the structural evidence, and it is therefore difficult to understand the use patterns of the

buildings. Structurally, the larger buildings could be either halls or long houses, with respectively purely human, or mixed human and animal occupation. This ambiguity of interpretation (and dating) of Tvegade and Ribelund has profound implications for the nature of the relationship between these two sites and the market place. Physically the sites bear strong resemblances to contemporary rural settlements such as Vorbasse (Hvass 1980, 137-172) in their relatively open and unstructured character, in marked contrast to the densely occupied and structured character of the market area, and could thus be seen as one or more rural settlements associated with the market. The area between the landward edge of the market place, and the settlement or settlements represented by the sites of Tvegade and Ribelund is as yet unexcavated. However, parallels to this pattern of diverse occupation within the boundaries of a town-like settlement do exist, however, notably at Birka (Holmquist-Olausson 1993) and the rural appearance of the sites does not preclude their having functioned within an urban context.

This leads to the question of the nature and function of the market place itself. Two major weak points seem to exist in the interpretation of this part of Ribe: firstly, the question of whether the underlying sand, the archaeological basis for the long-standing argument for a causative relationship between the establishment of the Ribe market and an emergent royal power (Jensen 1991:9-11), is indeed redeposited. Stig Jensen, in his discussion of the 'founder question' (*ibid.*) says:

The purpose of this sand layer is not clear - it was not to level the area, as it lies thickest where the original ground-surface was high.' (*op. cit.* 9)

The photograph associated with this discussion (*ibid.*) shows a section through a deep, horizontally laminated layer of clean sand, with dark intrusions of root holes and animal burrows in its upper surface. The extent of the horizontal laminations, which extend from one edge of the section to the other, argues against their deriving from shovelfuls of sand, but is characteristic of aeolian deposition, and the varying thickness of the sand, which exaggerates the contours of the underlying surface, is similarly suggestive. If indeed the sand deposits are aeolian and not archaeological, then the causative link with royal power is weakened, insofar as it is dependent upon this piece of evidence.

The second apparent weak point in the interpretation of the market sites is the assumption of the seasonal basis of market activity. This seems to be rooted in the initial interpretation of Ribe's market as a type A *emporium* (Hodges 1982, 50), i.e., a seasonal market associated with a permanent, self-sufficient rural settlement (Bencard 1990, 144-145), which interpretation has become an accepted part of the corpus of knowledge about Ribe without recent serious challenge. Stig Jensen (1991, 7) has accepted this interpretation, based upon the lack of substantial structures discovered on the market sites, but it can hardly be considered conclusively proven: excavations at Hedeby (see above, IV.2.1.2) have revealed an architectural repertoire containing a wide variety of construction techniques, many of which would leave minimal archaeological traces under conditions of poor organic preservation. Similar techniques that emerged from the recent excavations at Birka include: sill beam construction, with the planks or withies of the wall set into a horizontal beam lying either directly on the ground or on small sill stones; pad stones for corner posts, with no evidence of the nature of the intervening walls; very slight wattle panels set directly into the soil, with small corner posts carrying the weight of the roof. These building techniques were clear at Hedeby, which has excellent organic preservation, and equally clear, though less visible at Birka, which has poor organic preservation. At Birka, the extent and nature of buildings was sometimes only ascertainable by tracing their floors and 'occupation' deposits with accuracy; where these stopped, the 'ghost' of a wall line was left. On neither of these sites, however, was there any question that the occupation of such structures in the settlements was other than year round and permanent; given the limited areas of Ribe's market which have been excavated, and the technical changes in excavation method which have been involved, the question of whether these ephemeral building traces would have been observed and understood must be raised. The deposits visible in the published photographs of the marketplace sites appear to have been laid down under shelter, and have strong similarities to 'occupation' deposits observed within buildings at Birka. If there were a markedly anomalous relationship between the size of the eighth century cemeteries at Ribe, and the density and size of the market place, this would strongly support the suggestion of seasonality; unfortunately, the cemeteries of Ribe have not yet been extensively excavated, although recent work has located some of them (Feveile 1994, 91-93), and until there is further evidence, seasonal occupation and use of Ribe's market cannot be taken for granted from the extant archaeological evidence.

Excavations at Ribelund III and a number of smaller sites (*op. cit.* 92) revealed the presence of a ditch and bank enclosure around the river-side settlement, dated to the ninth century and overlying parts of the eighth century cemeteries (*ibid.*). This relatively slight defence was rebuilt in the tenth century, as a more substantial dry ditch (*op. cit.* 92-93). The course of the tenth century ditch is not possible to extrapolate from the scant excavated evidence, but the course of the earlier ditch and bank appears to have been semi-circular or near semi-circular, analogous to, but potentially earlier than, the ramparts of the settlements at Birka and Hedeby. The settlement at Ribelund, with its post-built, three-aisled halls and sunken-featured buildings, lay outwith the southern end of the ninth century enclosure. From this, it would appear likely that the settlement at Ribe was, from an early date, though not from its foundation, an enclosed settlement, with different types of occupation within and outwith the walls, similar to Hedeby (see above, IV.2.1.2).

IV.2.1.4 Visby

Visby, now the capital town of Gotland, in the Baltic (see fig. 55), was first mentioned in the text of the *Gutasaga*, in relation to the introduction of Christianity to the island. This text was probably written in the thirteenth century, but refers in some detail to events during the later part of the Viking Age. Internal evidence strongly suggests that the first reference to Visby, which calls it, famously, 'Vi, at the foot of the cliff' (Westholm 1985, 293) refers to a time pre-dating AD 1029, when Olaf the Holy, in his flight from Norway, landed on the island (*op. cit.* 294).

In this reference, the first church not to be burnt down after its construction was built at Vi, which was described as a place of sacrifice, where sacrificial feasts were held (*op. cit.* 293). From the thirteenth century perspective, the importance of the site was its pagan religious significance, which attracted the founding of the church. No mention was made of the existence of a stable community in the area, although a degree of centrality is implied by the use of the area for religious practice. This need not have implied a permanent occupation. Negative textual evidence of this scant and tenuous type, however, is insufficient to determine the existence or non-existence of a settlement on the site.

The existing town is enclosed by a later Mediaeval stone wall (see fig. 55) whose expansion was constrained by a cliff to the east and the sea to the west of the settlement. That there had

been continual occupation on the site since the Viking Age was long suspected, but limited opportunities to excavate within the Mediaeval walls meant that it was only in the 1970s that evidence of pre-twelfth century Visby was first discovered. Inevitably, given the density of occupation in the overlying town, this evidence is fragmentary.

Excavations of Viking Age Visby⁷

Gråbroder:

In the Gråbroder district, a wattle and daub house of early eleventh century date has been excavated (*op. cit.* 294). This building was aligned in relation the present day street line (*ibid.*), indicating that at least some parts of the modern street and plot network derive from a Viking Age layout.

Kompaniet:

A wattle and daub building predating the thirteenth century, beneath a thirteenth century building was excavated in 1975 (*ibid.*) in the Kompaniet district. Again, the building was aligned in relation to the existing road system (*ibid.*), whose layout in this district therefore pre-dated the thirteenth century.

Gamla Apoteket:

Excavations in the mid-1970s revealed rows of small wooden buildings c. 3.5m square parallel with a wood-paved lane, aligned to Lubsagränd (*ibid.*). These buildings were of post-and-plank (Sw. *skiftesverk*) construction, and were dated by both finds and radiocarbon samples to the 'late Viking Age' (*sic.*) (*ibid.*).

Specksrums:

In the early 1970s, 'remains of buildings in an intact Viking Age occupation level' (*ibid.*) were discovered in the northern part of Visby, in Specksrums, and further Viking Age finds were made in the adjacent quarter of Säckens (*op. cit.* 296).

Stora Torggränd:

⁷ None of the site reports of the Visby excavations are presently available in this country. This information is therefore derived from secondary sources.

During excavations in 1924, evidence of Viking Age settlement was also discovered under the main square of the town (*op. cit.* 294).

Cemeteries:

Excavations within the town have located some Viking Age graves (Ambrosiani & Clarke 1991, 82), but the majority of cemetery evidence comes from near the town, but outwith it. The nearest of the major cemeteries is that at Kopparsvik, south of Visby, where 350 late 9th and 10th century graves were excavated (Westholm 1985, 296 from Mälarstedt 1979). Of these, the majority of the burials were men, with a particularly marked gender disproportion in the area of the cemetery nearest to the town. The wealth and nature of the gravegoods deposited in the Kopparsvik graves have been interpreted as indicating that these were the graves of a non-agricultural population, presumably deriving from the settlement at Visby (Ambrosiani & Clarke 1991, 82).

Dating:

Six radiocarbon dates from the Viking Age settlement of Visby are quoted by Westholm (1985, 297) (see also Appendix F). These derive from wood samples taken in 'three separate parts of the settlement area, as well as from the former harbour basin' (*ibid.*). They are stated as: AD 660, 665, 960, 980, 980, 995. No indication is given of species, whether or not these are calibrated dates, or of their standard deviations. They can therefore not be relied on in any way. The two early dates were interpreted as being the remains of early intermittent settlement (*op. cit.* 297), the latter as representing a community contemporary with Kopparsvik (*op. cit.* 297-298).

Analysis:

A plot of the various sites that have produced evidence for Viking Age occupation shows that they all fall within the curve of a semi-circular street which encloses an area bounded to the west by the Viking Age shoreline (see fig. 55). Within this area, the layout of the streets has been demonstrated to be largely pre-Mediaeval, and follows a similar pattern to the plans of Birka and Hedeby, with streets radiating from the waterfront, and crossed by streets parallel with the waterfront. Plots or 'quarters' (Sw. *kvarter*) of regular size are enclosed by the lanes

and roads (see fig. 55), extending in a formal pattern even into areas that appear not to have been occupied in the Viking Age. A number of the radial streets do not continue beyond the line of the semi-circular road, suggesting that at some point in its history, it represented a real, physical barrier to the uninterrupted outwards development of the settlement.

Interestingly, all Viking Age graves from within the Mediaeval walled town have come from the area outwith this semi-circular road (Ambrosiani & Clarke 1991, 82)

It has been suggested (Westholm 1985, 299) that the form of the Viking Age settlement was determined by the topography of the town, and that the semi-circular road was therefore a ring road, circling the area of dense settlement. Topography did not, however, prevent the Mediaeval town from expanding outwith this line, particularly to the north and south of the Viking Age settlement, and it is unlikely that a simple ring road would have inhibited the outwards spread of the established town plan. As noted above, the semi-circular road and the formal street plan that it encircled, appear to have been established prior to the occupation of the centre of the town, and to have formed a settlement that, initially at least, was not densely occupied throughout. The argument that this is a ring road is based on the idea that the town developed organically alongside the waterfront, with roads developing along natural lines of passage from the hinterland to the shore (*ibid.*). All the evidence suggests, however, that Viking Age Visby was, like Birka and Hedeby, a planned settlement from its earliest inception. It would therefore seem more probable that this road marks the position of a Viking Age defensive circuit or demarcation, along the lines of the Birka and Hedeby ramparts, and which has since been overbuilt.

The buildings in Visby were apparently of types similar to those from Sigtuna, with the earliest sites seeming to have only one of two parallel buildings on a plot, and the later having a number of small structures in a row on one plot. The building techniques were also similar, wattle and daub, and *skiftesverk* (*op. cit.* 300).

Gun Westholm's analysis of the excavation results from Kopparsvik, together with those from Visby, has led her to suggest that the burials in the northern part of Kopparsvik, where the inhumed are mostly male, derive from the occupation of Visby during a period at the beginning of the settlement when it was used only by men, and was seasonally occupied (*op.cit.* 301). Traces of traditionally 'feminine' activities, such as weaving and spinning, are

rare in the Viking Age deposits in the town; there was only a single spindle whorl found in the Apotek district (*op. cit.* 300-301). Overall, however, the scant finds from the Viking Age archaeological deposits may simply represent lower densities of population and lower levels of production than in the later Mediaeval layers; a similar increase in volume of finds over this time-scale was identified in Sigtuna (Bäck, pers. comm.). The significance of the dominance of male burials in Kopparsvik is difficult to understand, but it may not reflect the living population of the settlement. There is no other evidence for seasonality of occupation; the dominance of pigs in the osteological material is cited to suggest a permanent settlement, with stock keeping in the occupied area (*op. cit.* 301), though this suggestion is not amplified by a discussion of the nature and age range of the butchered material. No buildings that appear to have been seasonally occupied have been excavated in the Viking Age settlement.

Westholm argues (*op. cit.* 301-302) that the 'expansion' of Visby in the tenth century was related to an expansion in international trade during the same period. She argues for a competitive relationship between Visby and Paviken (see below, IV.2.2.1), which resulted in the destruction of Paviken in the tenth century. This is, however, predicated on the argument that Paviken was always seasonal, and that it fulfilled a role that would have brought it into direct competition with Visby. Whilst this is entirely possible, the archaeological evidence does not necessarily sustain such a dramatic interpretation.

The archaeological evidence from Visby, therefore, would seem to indicate that it was originally a planned Viking Age settlement, following a similar physical and presumably socio-economic pattern to those at Birka and Hedeby. Its apparent foundation date, in the tenth century would make it the latest of the three towns. Whether its creation reflected any direct external political influence in Gotlandic affairs is a question that is probably not possible to answer at present.

IV.2.1.5 Löddeköpinge

Löddeköpinge is located on the river Lödde, one of the few navigable rivers on the western coast of Skåne, on moraine ridge in a bend of the stream (see fig. 56). There has been settlement in the area since the Neolithic, and in the vicinity of the modern village since the Early Iron Age at the latest (Ohlsson 1976, 64-66).

Rescue excavations took place in advance of development on an area one kilometre to the south of the modern village in 1965 and 1966. This area, on Vikhögsvägen, had been enclosed by a semi-circular bank and ditch some thousand metres in diameter until the nineteenth century, when it was ploughed out (*op. cit.* 141-146).

Within the excavated area, 54 sunken-featured buildings were identified, but no post-built halls or other large structures (*op. cit.* 71-82, 93). All the sunken-featured buildings were over 1.9m by 1.9m, but none of them was large. Only two of the buildings had hearths (*op. cit.* 82-83), and one alone may have had a wooden floor (*op. cit.* 87). There was no evidence that the site was formally organised on plots, or around roads. The excavator suggests that the characteristic interleaving of layers of sand and 'occupation' debris suggested that the buildings were used only seasonally, with sand blowing in during the periods when they were unoccupied (*op. cit.* 90-92).

The dating of the site is based upon a series of radiocarbon dates from animal bone found in the various structures (*op. cit.* 97) (see Appendix F), which yielded a date range from AD 730 to AD 830. These dates are not, apparently, calibrated, and are therefore inaccurate. However, in addition to this, the finds assemblage contained a number of dateable artefacts of transitional Vendel to Viking Period types, including a Petersen type H sword pommel of the ninth to early tenth century (*op. cit.* 106), a sceatta of the 'stag/boat' type whose deposition was tentatively dated to the mid-ninth century (*op. cit.* 98-100) and an oval brooch fragment of the ninth century (*op. cit.* 100). The weakness of finds dating has been discussed in relation to Birka (see above, Chapter III.4.4), but the general picture given by the finds assemblage from Vikhögsvägen is of a settlement occupied in the first half of the Viking Age.

The excavator of the site suggested that the presence of loom weights in 27 of the excavated buildings reflected the site's use for textile manufacture (*op. cit.* 96). The assemblage of finds also included a large number of spindle whorls, and analysis of the textile working finds by Eva Andersson (Andersson 1996, 42-47) did suggest relatively large-scale production, although it did not conclude what textiles were produced on site.

Interestingly, Andersson notes that there is no reason from the textile-working finds to conclude that the production was seasonal, and therefore that it reflected a seasonal occupation of the site (*op. cit.* 46). The excavator's argument that the site was seasonally occupied appears to have been based entirely upon the occurrence of sand layers within the sunken-featured buildings (Ohlsson 1976, 90-92). However, as only one of the buildings had any evidence for a wooden floor (*op. cit.* 87), it is surprising that the excavator did not consider the possibility that the sand layers were deliberately deposited as floors. The conclusion that this was a seasonally occupied site is based on extremely tenuous evidence.

The published evidence from the excavations in Löddeköpinge, at Vikhögsvägen, suggests that this site was an early Viking Age specialised production site and possibly a local market. It is difficult to conclude that it was a seasonally occupied settlement from the available evidence, although the lack of hearths in the buildings, and the apparent lack of post-built structures does suggest that the occupation was unusual. The full extent of the settlement was not, however, occupied (*op. cit.* 93), and it may be that more usual forms of settlement were contained within the massive enclosing bank and ditch. The semi-circular form of the enclosure is reminiscent of the settlements at Birka and Hedeby, although the evidence from the excavated area has more similarities with what is known of the settlements at, for example, Åhus (see below, IV.2.2.2).

IV.2.1.6 Västergarn

Västergarn remains the most mysterious of the small group of sites that have produced more or less convincing evidence for the existence of semi-circular defensive works. Here there is an upstanding defensive work, whose existence cannot be debated, but without substantial excavated evidence for settlement. The function and motivation of the structure remain obscure. Historically, the site is documented throughout the Mediaeval period as one of the four most important harbours of Gotland, along with Visby, Klintehamn and Burgsvik (Elfwendahl 1989, 5), and it had, for Sweden, an early church, consecrated in AD 1304 (*ibid.*). That the site was used as a strategically important harbour until the seventeenth century is certain; what its other functions may have been are less clear.

The rampart as it stands has a diameter of nearly 600m, and a depth from the seashore of around 300m (*ibid.* and see fig. 50). The outer face is drystone, with an earth, sand and rubble rampart built against it, giving a total width of some twenty metres. In the northern half, the structure is damaged and broken down over a length of c. 175m (*op. cit.* 6), where the ruins of a Romanesque church, and a keep, now stand. Archaeological work has in the past concentrated on these areas (*op. cit.* 43-48), but the two structures, particularly the keep, remain inadequately dated (*op. cit.* 45).

Stray finds from within the rampart date to between the Viking Age, and the present day. Within the rampart, several trial excavations and watching briefs between 1928 and 1964 (*op. cit.* 6) have revealed the presence of a 'culture layer'⁸ with a maximum depth of 0.8m. None of these provided evidence of identifiable structures other than late Mediaeval stone buildings (*op. cit.* 43-48), although the depth of deposit beneath the few stone structures (*op. cit.* 45) strongly indicates that such structural evidence must survive. Finds of Viking Age ceramics from the underlying deposits (*ibid.*) suggest that occupation probably began in the Late Viking Age, if not earlier. It may be that the excavated areas were insufficiently large, or that the technical competence of the excavators did not extend to the interpretation of a dry and deeply stratified site.

The one exception to the statement that no structures were found inside the rampart was the location of a possible clay floor in a watching brief during 1964 for a water pipe which was associated with late Viking Age or Mediaeval finds, including a sherd of domestic pottery and a barbed arrowhead (Elfwendahl 1989, 46). This was interpreted as the remains of a sunken-featured building, and triggered a later series of investigations in the early 1980s. Four tiny trenches, none wider than 0.5m, or longer than 1.5m, were excavated in the same area in 1982. Apart from demonstrating the existence of substantial and complex stratigraphy, the latest deposits of which contained thirteenth to fifteenth century ceramics, these trenches afforded little extra illumination into the archaeological sequence of the settlement (*op. cit.* 13-16).

⁸ The term used in the text is the Swedish '*kulturlager*', a term used widely to refer to anthropogenic deposits. It implies the same as, though has less precision than, the corresponding British 'archaeological deposits'.

Somewhat later, in 1983, a trench was put through the rampart, revealing that it had originally been a drystone wall, some 3.4m in width (*op. cit.* 21), which was relatively soon after its construction covered by an earthen rampart (*op. cit.* 26). The original wall was probably accompanied by a wooden construction, which later burned (*ibid.*). The rampart was later reinforced by a further rampart, outside the earlier, and again later, the whole was levelled off with sandy topsoil (*op. cit.* 21-23). The only dateable finds came from the very latest deposits, and were late Mediaeval (*op. cit.* 24).

The existence of archaeological deposits within the bounds of the rampart strongly suggests that the site was originally occupied as a more extensive settlement than is now the case. The finds from Västergarn, however, are nothing like as rich or various as those from the other enclosed trading sites in Scandinavia, and there is no real evidence that the rampart contained either extensive trading, or craft and manufacturing activities. If the settlement was established with the intent to exploit the protected harbour as a trading point, then in that respect, it appears to have failed.

It may be that the apparent failure of Västergarn related to the prior existence of the extensive trading and manufacturing site of Paviken, only a short distance away (see fig. 50, and below, IV.2.2.1), or that problems arose because it existed in direct competition to Visby, a contemporary, late Viking Age settlement that demonstrably succeeded. At this remove in time, it is difficult to assess the reasons for such a failure, rooted as they must have been in the political, social and economic climate of the time. Västergarn, however, is interesting as much because of its failure as not. The huge political influence and economic effort involved in the creation of the rampart and delimitation of the area clearly did not pay off in any economic way, and it may be that this supports the thesis that the creation these enclosed trading settlements represented high risk strategies for political and economic gain, which could as easily fail as succeed.

IV.2.2 The Open Trading Place

The open trading places are, in some ways, very much more problematic than the enclosed trading sites. Aspects of these problems are purely practical; because the sites do not seem to

have been physically delimited, they are discovered very much more rarely, their limits, and therefore their structure, are difficult to define and to study or protect, and they have tended to attract less focussed research. Such sites, however, as have been excavated, have produced evidence of manufacturing, and population levels, indicating that they were definitely more than, or different from, surrounding agricultural settlements. The three best known of such sites are Paviken, Åhus and, controversially, Kaupang. Increasingly, such sites are beginning to be found throughout Scandinavia; recent excavations at Sebbesund in Denmark seem to indicate the presence of a similar settlement there.

IV.2.2.1 Paviken

The trading or manufacturing settlement at Paviken is situated some 1500m north of Västergarn, on the enclosed part of Paviken (see fig. 50). Archaeological interest in this area was focussed on the rampart at Västergarn until phosphate mapping in the surrounding area indicated a marked concentration in the area of a peninsula between the Idån (the River Id), and Paviken itself. During the six years between 1967 and 1973, an archaeological project investigated the deposits in this area, attempting to define the boundaries of the settlement, its chronological limits, and the activities that had characterised it (Lundström 1981, 33-35)⁹.

The area of high phosphate values covered 15 000 m², of which only c. 1000 m² was excavated (see fig. 51). Two long trenches at right angles were supplemented by an open area excavated at their join, and by systematic 4m² trial trenches, and the contents of the whole were sieved (*op. cit.* 34-35). Rows of stones on the shoreline were interpreted as boundaries (*op. cit.* 37), although in the light of the excavations at Birka, Kaupang and elsewhere, the possibility that these were the foundation stones of jetties should be considered. Two parallel ditches, also on the shoreline, were probably nausts (*ibid.*). Unfortunately the excavators were unable to define the ground plans of any buildings or other structures, although from the presence of postholes large and small, it is clear that the area was overbuilt (*op. cit.* 39). Large amounts of fired clay with plank and wattle impressions were retrieved from the sieves (*ibid.*), suggesting the use of building techniques paralleled on the mainland and elsewhere in Scandinavia during the Viking Age.

⁹ As yet, the report for this site has not been published, and this and the following information is taken from a popular publication on the site, which is all the information that is available.

Large numbers of finds were retrieved, c. 10 000 from the excavated area (*op. cit.* 41), covering the wide spread of activities which might be expected from a settlement. Net and line sinkers indicated that fishing occurred, while spears and meat hooks suggested hunting and butchery (*op. cit.* 42). Playing pieces and dice, weapons and horse equipment conform to the usual social and leisure activities indicated on other contemporary sites (*op. cit.* 56-58). There was proportionally 'little ceramic' but what there was, was Viking Age local and Slavonic wares (*op. cit.* 50), while the remainder of the domestic finds occurred in quantities and types that were unsurprising - spindle whorls, loom weights, stew hooks, fire steels, flints, needles, pins, keys and locks were all found (*ibid.*). The generally Viking Age date suggested by the finds was confirmed by a single radiocarbon date on animal bone from the site, to AD 995+/-80 (sic¹⁰, *op. cit.* 23) (see Appendix F).

Amongst the finds from the site were substantial amounts of evidence for metal and wood working, including evidence for ship building or repairing. Hammers, adzes, saws and other wood working tools were found, as was a pry bar, or clawed crowbar, along with large numbers of nails, clink nails and rivets (*op. cit.* 68-81). Black smithing and non-ferrous metal smithing were also carried out, with evidence particularly of bronze casting in mould fragments, sprues and scrap bronze, and reworking and smithing of iron in smithing scale, hearth slag and iron ingots (*op. cit.* 82-89).

In addition to this, precious stones were worked and reworked on site, particularly garnets, but also carnelians, rock crystal and amber (*op. cit.* 90-93). Glass bead manufacturing was also present (*op. cit.* 96-98), as was bone and antler working (*op. cit.* 101). As might be expected in this context, 122 silver coins were found, the majority Oriental, dating from between the early seventh century and the latter part of the tenth century. These were accompanied by the expected evidence of bullion trade, weights of bronze, iron and lead, and hack silver (*op. cit.* 104-111).

Whilst all of this craft evidence is interesting, it is a great pity that the excavators of the site were so completely unable to distinguish the structures in which these activities must have

¹⁰ This radiocarbon date is given in the publication without any indication of whether or not it is calibrated, or how. It is therefore difficult to evaluate.

taken place. In no way was the craft evidence unusual, or other than one would have expected of a maritime Viking Age trading and manufacturing site. The excavators do not appear to have distinguished whether the settlement was bounded in any way, nor given their lack of control over the stratigraphy, what its chronological limits were. The earliest evidence from the site comes from a group of six Early Iron Age graves, i.e. pre-Roman Iron Age (*op. cit.* 117), for which no detailed dating evidence is given. The latest evidence was provided by the *termini post quem* of the silver coinage, suggesting that the site lapsed in the late tenth century.

The excavator interpreted the site at Paviken as a seasonal market (*op. cit.* 121), operational over three centuries to the end of the tenth century, on the basis that the inlet is frozen in the winter, and the site therefore inaccessible, and that there is no evidence of a large cemetery associated with the settlement. Ice nails from the town (*op. cit.* 58), however, indicate that there was at least some activity here during the winter, and the lack of structural evidence for the nature of the buildings on the site makes it difficult to argue for seasonality on purely archaeological grounds. The lack of a cemetery is less easy to dismiss; although the area has been under cultivation since its abandonment, and the Viking Age cemeteries of Gotland tend to be flat, rather than barrow cemeteries, it is nonetheless difficult to believe that extensive cemeteries could have been totally destroyed without some surviving evidence. The weakness of the evidence is such that the question of seasonality must remain unproven.

It is tempting in this situation to suggest that the Paviken trading settlement was moved south at the end of the tenth century down the coast to the apparently Late Viking Age site delimited by the rampart at Västergarn (see above, IV.2.1.6), a move potentially paralleled by the shift from Birka to Sigtuna. Unfortunately, in this case, the excavated evidence from both sites is insufficient to sustain such an interpretation. It is simply inadequate. As seen above, the evidence from Västergarn would seem to suggest that it was not as economically active as the earlier site on Paviken had been, and it could well be that the emergence of Visby during the late tenth century tended to absorb the previously more dispersed economic activities of centres elsewhere on Gotland. In this case, as in the previous question of seasonality, the issue must remain unresolved pending further information.

IV.2.2.2 Åhus

Between 1989 and 1991, a large and a series of smaller rescue excavations took place in the western part of Åhus, called Transval, in advance of development, where site assessment had raised the possibility of Viking Age settlement (fig. 52) (Ericson-Borggren 1993, 1-3).

Transval is adjacent to areas that have produced substantial numbers of stray finds of the Vendel and Viking Ages, and recently have been the focus of excavations directed by Johan Callmer (*op. cit.* 6). These excavations are not yet published, but revealed an important Vendel Period manufacturing site, seemly a centre of glass bead production, and also uncovered a Late Vendel to Early Viking Age site that was probably the western end of the published site (*ibid.*). To the south of the Transval site runs the Helge Å, a river that was navigable in the Viking Age.

The topsoil on site was removed by machine, as were all deposits identified as 'redeposited'¹¹. Features cut into the water-deposited sand subsoil were planned, bisected and drawn in section. Where there was any depth of stratigraphy in the features, as, for example, in sunken-featured buildings, the deposits were excavated in three spits (*op. cit.* 3-4). The aim was to document the spatial and social organisation of the settlement, its craft activities and chronology (*op. cit.* 8).

In total, the excavations revealed 89 sunken-feature buildings, 22 post-built structures and numerous other features. These were organised in groups of one or two post-built structures together with one or more sunken-featured buildings (see fig. 53) (*op. cit.* 10). It was difficult to relate these structures to one another, as ploughing had destroyed any overlying stratigraphy, leaving only features cut into the subsoil (*ibid.*).

Sunken-featured buildings:

Although the majority of these were rectangular or near rectangular, they varied widely in all aspects. Some were round, or oval, others irregular in shape. The largest was 4.5 x 3.3 m in size, the smallest 2.2 x 1.7 m. Depth was difficult to ascertain, as the original ground surface had been ploughed away (*op. cit.* 11). There was only limited evidence for the nature of the

¹¹ The Swedish word used here is '*påförda*' - on many Swedish sites, it is assumed that information from redeposited contexts is of less value than that from other contexts, and it is therefore advisable to remove such contexts by machine or spade rather than spend time on them.

walls of the structures; in one case, the stake holes from wattle panelling were visible (*op. cit.* 12), whilst in another, there was slight evidence of sill beams, in the form of staining in the sand (*ibid.*). It is also suggested that in a number of cases, the cuts of the buildings were lined, probably with turf (*ibid.*).

The commonest form of roof support seems to have been two posts, one in the middle of each of the shorter sides (where the structure was rectangular) (*ibid.*). Where no post-holes were visible, the possibility is raised that the roof may have rested on the surrounding ground surface, or been supported on posts outwith the cut of the building. Other variations included cases where only one post-hole was visible, or, in one case, double posts were present at each end, explained as repairs, or different functional requirements (*ibid.*).

Although the excavators interpreted the flat, greasy, dark sandy deposits in the bottoms of these structures as floors (*op. cit.* 11), it seems likely that they should rather be seen as occupation deposits, composed of the remains of whatever organic material may have been laid down as a flooring, mixed with the debris of occupation or use. This, the excavators admit (*ibid.*). There was no evidence that the occupation and use of these structures was anything other than permanent and year-round (*op. cit.* 11-12).

Interestingly, although 91 hearths and 32 hearth pits were excavated (*op. cit.* 10), in no one case could any of these be proven to be inside a sunken-featured building (*op. cit.* 14). The debris from fires and hearths found in the fill of these structures was therefore interpreted as secondary and redeposited (*ibid.*). The vast number of hearths does suggest the probability that there may have been many more structures in the area than were identified during the excavations.

The finds from the fills of the various sunken-featured buildings varied in time and place, but produced a consistent picture of their use for craft work. In building A1234, a large number of loom weights in one corner suggested the presence of an upright loom (*ibid.*). Finds from the same building included debris from bronze casting (*ibid.*), presumably a later or earlier activity. The range of crafts from the site as a whole is not unfamiliar: bone and antler working, amber working, bronze casting, black smithing, weaving and spinning (*op. cit.* 14-

15), all of which are form the 'suite' of crafts present at every major Viking Age manufacturing and trading site.

The question of commercial textile manufacture on this site has been raised by Eva Andersson (1996, 36-42) who came to the conclusion that, within the context of a typically varied domestic textile production, there was good circumstantial evidence for the making and repair of sails on the site. The production of sailcloth could not, however, be proven (*op. cit.* 42).

Post-built Structures:

Of these, 22 were found in total, of which fifteen were identified during excavation. The wall lines of nearly all were ploughed away (see fig. 53). Technically, the majority of the buildings were aisled structures, with internal pairs of roof-bearing posts. Most of the buildings were up to four pairs of posts long, i.e. less than 15m in length, where the spacing between the pairs was between 1.4 m and 5 m (*op. cit.* 15). These structures would presumably have functioned as halls, rather than longhouses, given their relatively small size.

There was one very large structure, possibly, judging by its size, a long house. This was 27.5 x 7 m, with bowed walls, and opposed entrances in the centre of the long walls. The walls of the building were of wattle, and it had an enclosure adjoining its eastern end wall, whose ditch extended to the south-east, presumably as a plot boundary (see fig. 53) (*ibid.*)

Three of the buildings, possibly more, were constructed with load-bearing walls, carrying the roof. Their dimensions varied between 7.5 m and 10 m in length, and between 4 m and 6 m in width. At least one of these, possibly more, was divided into two rooms (see fig. 53) (*ibid.*). This structural arrangement is particularly reminiscent of contemporary buildings in an urban context, as found in Birka and Hedeby.

Settlement organisation:

Although the physical arrangement of the settlement did not have the rigid organisation characteristic of the enclosed settlements, it is noticeable nonetheless that the density of occupation was higher in the centre of the excavated area than it was around the edges of the excavation. The amount of intercutting of sunken featured buildings was lower towards the

periphery. Throughout the whole of the excavated area, it is noticeable that sunken-featured buildings tended to group in proximity to post-built structures (*op. cit.* 17), suggesting that these were the focus of social or economic units.

It seems likely that the whole of the settlement was aligned in relation to a road running from south-west to north-east across the site, through the area in the centre of the excavation that is noticeably clear of overbuilding (*op. cit.* 18). This may have been joined by another road from the southern edge of the site, though this is less clear. In neither case was there more evidence of the road than the empty alignment across the site.

Dating

The site was dated on the basis of the artefacts among the finds, in particular, the glass and semi-precious stone beads. The earliest beads from the site were types that, according to Johan Callmer's catalogue (Callmer 1977), dated from the late eighth century. By far the majority of the types present were those which dated to the first half of the ninth century, and only a few were types most common after *c.* AD 860 (Ericson-Borggren, 1993, 30). In most cases, structures were associated with beads from all the periods represented on site (*ibid.*), suggesting continuity of occupation and use or reuse of the buildings.

Only two coins were found on the site. One may have been a blank, but was certainly unidentifiable, and the second was a Caliphate dirhem from Baghdad dated AD 766/67, which had been reused as a pendant (*op. cit.* 31).

Comb fragments of Ambrosiani's types A1, A2, B1 and B2 were all found on the site (*ibid.*). Of these, the A1 and A2 types are dated to AD 800-900, while the B1 and B2 types are dated to AD 900-950 (Ambrosiani 1981, 74-82).

The other dateable finds, including fragments of oval brooches, and some sherds of imported Western European ceramics did not give a more detailed picture of the dating of the site than did the beads and combs (Ericson-Borggren 1993, 32). In all, the consensus picture from the finds seemed to be of a site with its roots in the late eighth century, which continued in occupation until at least the middle of the ninth century and possibly later. It should be noted here that the same caution must be applied to these datings as have been to earlier finds

datings. The Scandinavian typologies are secure, but their absolute datings are far from good; stratified production sites are virtually non-existent, and only in Ribe is there a long sequence of bronze and bead production with associated dendrochronological dates.

Discussion

The site at Transval in Åhus seems to represent another type of Viking Age settlement, one with strong similarities to the earlier of the two sites at Paviken in Gotland. In this case, at Transval, structural remains were identified, and they clearly demonstrated a settlement which was not densely occupied, as were Birka and Hedeby, and in which the amounts of imported finds were also proportionally much lower than they were in these towns. Production levels of crafts, however, were clearly higher than would be expected on contemporary rural sites.

The presence of one, very large, long house or hall, perhaps suggests that this was a specific, and specialised, manorial establishment. The low number of coins from the site, and the small amounts of hack silver (*op. cit.* 25-26) indicate that despite the excavators' interpretations otherwise (*op. cit.* 27), there was probably little active trade carried out on this site. Nonetheless, its external links are proven, as is established in the report, by the imported raw materials on the site, including ceramics, glass and beads from Western Europe, and iron from northern Skåne and Småland (*ibid.*). This imported material appears to have been reaching the site without direct cash trade; an alternative possibility would be the option of redistribution. Given the proximity of the smaller post-built houses, with their sunken-featured outbuildings, to the large hall, it is not inconceivable to suggest that this might well have been a site analogous to the earlier settlement at Helgö, providing specialised production for a manor, and linked to or part of that manor. Certainly the picture, albeit limited, presented by the finds from this site, does not suggest the levels of economic activity indicated by the settlement at Birka.

IV.2.2.3 Kaupang

Site location

A group of barrow cemeteries on the farms of *Kaupang søndre* and *Kaupang nordre* have been the focus of archaeological attention for over a century. Excavations in the cemeteries,

and in adjacent fields have revealed a Viking Age coastal settlement, showing evidence of international and domestic trade.

The site is bounded to the south by Viksfjorden, a tidal inlet with many rocks and islands which both protect the site and provide sheltered access under almost any wind and tidal conditions. To the west, it is bounded by the Numedalslågen River and Larviksfjorden, to the east by Sandefjordsfjorden (see fig. 54). Settlement evidence, as traced by stray finds, phosphate concentrations and charcoal-rich anthropogenic soils, follows the coastline in a long narrow strip with a north-south orientation, on the west coast of the inlet, between the foot of hills to the west and the edge of the beach to the east. The barrow cemeteries lie to the north and south of the settlement, and on a peninsula to the east (see fig. 57). Several moraines and eskers run across the land north of the site, providing access inland, and forming a focus of earlier prehistoric settlement.

The present coastline is generally agreed to lie between two and three metres lower than the Viking Age coastline. As in much of the rest of mainland Scandinavia, a process of isostatic readjustment after the last ice age is responsible for the continuing rise in land levels; in the 1950s, research in Norway suggested that a rise of 1.98m since the Viking Age (at a rate of 1.8mm +/- 1.1mm per annum) was probable, but this figure has been adjusted in the light of the results of excavations on coastal sites, particularly Kaupang (Blindheim *et al.* 1981, 17-18). The tidal range of 0.2 - 0.6m is unaffected by this change, but the form of the coast has changed, limiting access to the site substantially.

Historical Background

There is only one contemporary or near contemporary source that may refer to the settlement at Kaupang, the Orosius of King Alfred (*Historiarum adversum paganos*, Sweet, 1883). A series of sailing instructions given by a Norwegian, Ottar, it refers to a port in the south of Norway, known by the name of *Sciringes heal*:

Ponne is an port on suðewearðum þæm lande, þone man hæf Sciringes heal. Þyder he cwæð þæt man ne mihte geseglian on anum monðe, gyf man on nihit wicode, an ælce dæge hæfde ambyrne wind; and ealle ða hwile he sceal seglian be lande. And on ðæt steorbord him bið ærest Iraland, and þonne ða igland þe synd betux Iralande and þissum lande. Ponne is þis land oð he cymð to Sciringcges heale, and ealne weg on þæt

*bæcbord Norðweg. Wið suðan þone Sciringes heal fylð swyðe mycel sæ up in on ðæt land: seo is bradre þonne ænig man ofer seon mæge.*¹²
(Lund ed. 1984, 21-22)

The ambiguity of this reference is obvious; the name of Kaupang is never given. However, the sailing instructions, particularly the reference to the great sea extending inland south of the port, do suggest a settlement in the area of the Oslo Fjord, and the text is not incompatible with an identification of *Sciringes heal*, and Kaupang (Crumlin-Pedersen 1984). The sea would then be the inlet of the Kattegat and Sgaggerak, between the southern coasts of Norway and Sweden, and the northern coast of Denmark.

A fascination with this reference developed during the 1800s in Norway, causing extensive and detailed linguistic and historical research, which by 1850 had led to the identification of *Sciringes heal* with the parish and *herað* of Tjølling, in Vestfold, based on toponymic evidence and later, literary references to the site (Munch 1850, Blindheim et al. 1981, 12-13). At the same time, the first antiquarian references to the barrow cemeteries on the Kaupang farms were made, again grounded in the literary references, particularly in the Mediaeval saga *Ynglingatal*, to the burial of the kings *Halvdan Kvitbein* and *Halvdan Svarte* at *Sciringessal* (the Old Norse name of Old English *Sciringes heal*) (Munch 1850). The name Kaupang is cognate with the Swedish *køping*, meaning market or market place.

A number of inferences can be drawn from the slight historical evidence, and the nineteenth century toponymic research. Munch (1850, discussed in Blindheim *et al.* 1981, 12) remarked upon the use in Orosius of the Old English *port* for both Hedeby and *Sciringes heal*, suggesting that the author considered them to be similar types of settlement. Given, however, that the information recorded in the document was second hand, it must be uncertain whether the informant (Ohthere) also considered the two to be similar. Munch also examined the place-names in the area surrounding Kaupang, identifying a number of names suggestive of ritual function, such as Hovland (a farm - *hof* being a hereditary priesthood),

¹² 'There is a port in the south of this land, which is called *Sciringes heal*. Thither, he said, one cannot sail in a month, if one puts into harbour at night and has moderate winds every day; and all the while one sails near the land. And on the starboard hand will be Ireland and then the islands which are between Ireland and this land. When this land is by one comes to Sciringes heal, and to port all the way is Norway. To the south of Sciringes heal, a great sea goes up into the land: it is broader than a man can see over.' (My translation)

and Torsøy (a peninsula - named after the god Thor). He suggested that the area had therefore been a cult centre (Munch 1850, in Blindheim *et al.* 1981,12).

The *herað* name is Tjølling, which Blindheim comments '*åpenbart skjuler minnet om en gammel tingplass*'¹³(*op. cit.* 13). The site of this *þing* is not clear from the toponymic evidence, and the name Tjølling is said, on linguistic grounds, to be very early; much earlier than, for example, the farm names of Kaupang (*ibid.*). The farm names of 'Kaupang søndre' and 'nordre' indicate the presence of an established market in the area of the two farms.

This somewhat ambiguous historical and linguistic evidence suggests that the *herað* was of local, or more than local importance, with market, *þing* and cult functions. There are, however, two major and unfortunate weaknesses in the evidence from the archaeologist's point of view. Firstly, it is not clear whether the multiple functions of the *herað* were either contemporaneous or contiguous; as discussed above, linguistic evidence suggests an early date for the *þing* related name of the area, and the cult names are geographically scattered. Secondly, in comparison to the Danish settlements, or even the site at Birka, in Sweden, detailed historical evidence is lacking. While the balance of probability may identify *Sciringes heal* with the site at Kaupang, the paucity and ambiguity of the material means that both the identification and the function of the settlement are as yet historically unproven.

Excavations at Kaupang

The extent of early excavations in the barrow cemeteries is unclear. Blindheim raises the possibility that the first antiquarian investigations may have been carried out by Munch in the summer of 1850 (*op. cit.* 15), but as yet no records of such an excavation (if it occurred) have been located.

Nicolay Nicolaysen dug in the barrow cemeteries in 1867 (*op. cit.* 16); the material from these excavations was first published in detail in 1981 (Blindheim *et al.* 1981), although a series of interim reports were presented to the *Foreningen til norske Fortidsmindesterkers bevaring* during the late 1860s. During the excavations it became clear that the finds from the cemeteries were exclusively of the Norwegian 'Younger Iron Age' (*yngre jernalder*), that

¹³ 'obviously reflects the memory of an old *þing* place' (my translation)

is, the Late Iron Age/Viking Age. These datings were refined by Birgit Heyerdahl-Larsen (*op. cit.* 127-180), but although there are variations between the various cemeteries, all include burials from throughout the Viking Age.

Not until a century later was the area of the settlement itself defined and excavated. Between 1957 and 1967, Charlotte Blindheim examined an area of some 1400m² on the Viking Age shoreline, locating two jetties, one of them larger than the other, a number of buildings, and two roads. Much of the excavated material has yet to be published in detail; summaries of the structural evidence, and interim reports, are published in a number of sources; particularly useful is Roar Tollnes' article on the building remains (Tollnes 1969), but the site report is as yet unavailable. Nonetheless, it is also possible to gather some information about the site from the finds and ceramics reports (Blindheim *et al.* 1981, and Hougen, 1993).

Methodologically, it is unclear in what manner the site was excavated. No archaeological stratigraphy was distinguished, and the distribution of finds within the anthropogenic soils of the site showed no variation dependent upon height over subsoil (Hougen 1993, 49). Although continued ploughing on the sloping site had undoubtedly redistributed finds, Hougen comments that: '*Flest skår finner vi i husområdene...*' (Hougen 1993, 46) and '*I svartjordlaget var funnfrekvensen stedvis meget høy, størst i og omkring husene*' (Hougen 1993, 49)¹⁴. Both these statements suggest that the redistribution of finds through the archaeological deposits was perhaps not as comprehensive as the excavators believed. It is, however, clear that the stratigraphy of the site was poorly understood, and yielded no information which could be used to determine the sequence or dating of the buildings.

Finds from the cemeteries yielded a predominantly ninth century date, with possibility of overlap into the late eighth and early tenth (Heyerdahl-Larsen in Blindheim et al 1981, 172). This dating was confirmed by finds from the settlement (Hougen 1993, 49-51), but was contradicted by five calibrated radiocarbon dates from the buildings and their contents which covered a date range between AD 340 and AD 760 (Hougen 1993, 65). Two poles from the

¹⁴ 'We find most sherds in the areas of the houses...' (Hougen 1993, 46). 'In the black soil layer, the frequency of finds was sometimes very high, greatest in and around the houses...' (Hougen 1993, 49).

harbour installations were dated to AD 790 - 1010 (Hougen 1993, 49 & 65), which fits more closely with the dating of the finds from the settlement (see Appendix F).

Six buildings were excavated, five of which had lost their upslope walls to a later drainage ditch, but had bowed downslope walls (Blindheim 1975a, 145). Ploughing had damaged the structures, and only building I definitely had a hearth (*ibid.*) but the sixth building (building V) was more intact, and was rectangular, with traces of a hearth and a wooden floor. All of the buildings were orientated across the slope. According to B. Heyerdahl-Larsen (in Blindheim et al 1981, 189) of the six buildings excavated, only one was interpreted as a possibly permanently occupied building. However, Heyerdahl-Larsen's reference for this information is Blindheim's own article, and the information cannot be traced here, where Blindheim states that both house V and house I were probably 'dwelling-houses' (Blindheim 1975a, 145). The remainder of the buildings (II, III, IV, and VI) are interpreted as workshops. The earliest of the radiocarbon dates came from house I (dated to AD 340-560) (Hougen 1993, 49) (see Appendix F).

The buildings were arranged in a loose row along the shoreline, with no clear plot boundaries separating them. It is not evident from the published material whether all the buildings were contemporary, or sequential; there is no published evidence that any one building overlapped with the area of another, but this may be a factor of the relatively open and diffuse nature of the settlement. Cobbled surfaces or roads led from the vicinity of the buildings down to two jetties (Blindheim 1975a, 145).

In contrast to both Birka and Hedeby, there is no distinct demarcation between the settlement and its hinterland (Blindheim et al. 1981, 188), and no rampart enclosing the settlement. This, together with the similarity of the grave material to that found in the hinterland is taken by the excavators to indicate a settlement with 'a population more closely connected with agriculture than that of Birka' (*ibid.*), despite the evidence from the settlement itself for craft metal working, particularly of iron and copper alloy, soapstone working, and possibly boat building (Blindheim 1975a, 147-50). The settlement also produced finds which suggest the presence of comparatively important trading activities, in the form of lead weights, hack silver and coin (*ibid.*).

Discussion

The character of the site at Kaupang remains unclear despite the excavation of a part of the site. Aspects of this ambiguity may be resolved by further publication, but at the moment, it is impossible to say whether the settlement showed any of the organisational and architectural characteristics that are typical of the settlements at Birka and Hedeby. Initially, it seems that it did not. Even the dating of the site has yet to be refined.

A number of variables could potentially have underlain the discrepancies between the finds and radiocarbon dates from the site. Firstly, it must be emphasised that closely dateable finds from the settlement are relatively few; the 29 coins from the site vary in date from a Roman bronze coin of AD 364/76 to two Abbasid dirhems which may be as late as AD 890, with the majority of the coins being eighth or ninth century (Hougen 1993, 49). Given the length of time that coinage can circulate, these offer no closer dating than *termini post quem* for the start of the site after the late fourth century, and for its end after the late ninth century.

A second possibility is that the radiocarbon samples, which were taken from buildings I and VI, well IV and a fireplace, presumably the relatively intact hearth in building I, (Hougen 1993, 49) suffer from a reservoir effect. This is dependent upon the burnt material having grown in or near sea water or bog, which act as reservoirs for earlier carbon. Alternatively, timbers may have been extensively reused, particularly in well linings or as fire wood (*ibid.*).

Despite these attempts to explain away the incompatibility of the datings, by far the most likely explanation is that the stratigraphically unrelated buildings are not, in fact, contemporary, but sequential. No radiocarbon dating seems to be available for house V, which is in some ways the most interesting of the buildings in the settlement. Its rectangular form, with the weight of the roof carried on posts within the walls, is different from the other excavated buildings, but is characteristic in Sweden of late eighth and ninth century rural settlements (K. Svensson & A-M. Hållans pers. comm), and of the architecture of the towns of Hedeby (Schietzel 1981) and Birka (MacLeod, forthcoming). The architecture of the other buildings on the site shows affinities with rural architecture of the Scandinavian Late Iron Age, particularly in the bowing of the walls (Komber 1989).

If the buildings on the site are sequential, it becomes very difficult to say anything about the organisation of the settlement. Plot boundaries were not discovered, and the persistence of plot boundaries in both Birka and Hedeby is a very strong piece of evidence for the planning and central control of these settlements. The road surfaces, such as they were, appeared to stretch from jetty I upslope into the settlement, passing the northern end of building V, but from jetty II only into the area immediately in front of the row of buildings. A third road passed the southern end of building V, but does not appear to have related to a jetty (Blindheim *et al.* 1981, 20). Evidence for any resurfacing or maintenance of the roads is not published.

Although the settlement seems to have stretched along as much of the shoreline as was then inhabitable (Blindheim 1975b, 175) and to have been ringed with cemeteries, there is no evidence that it was either demarcated or defended, and the permanence of the occupation has been doubted even by the excavators. There is, however, no obvious incompatibility between the extent of the cemeteries (almost 1000 graves - *op. cit.* 155) and the size of the occupied area, as might be expected if the settlement had been only seasonally occupied.

Blindheim suggested that the extent of the cemeteries, both chronological and geographical, was to be explained by the cemeteries forming a focus for burial from local farms after the end of the settlement itself, and that the cemeteries thus continued later than the settlement (Blindheim 1975b, 157). However, although there can be no doubt that trade, and presumably occupation of the harbour area, was at a maximum in the ninth century, as she outlined (*ibid.*), the lack of stratigraphic control over the excavated material makes it difficult in the extreme to pinpoint the end date of the settlement, and it seems far from unlikely that some degree of occupation continued on site into the tenth century, if not later. Hougen's examination of the finds, particularly the ceramics, would support this view. Although the dateable material is most commonly ninth century, the types of hand-made pottery could range from the eighth to the tenth century, as could the Slavic pottery, particularly a Fresendorf vessel (Hougen 1993, 45). A trefoil brooch, two annular brooches and a bracelet also fall into types which are commonly regarded as tenth century (*op. cit.* 52). She concludes that 'I would maintain that the Kaupang area was in use as a port as early as at the beginning of the 8th century, possibly earlier, and that the market centre and the cemeteries

were established at the end of the 8th century, continuing in use until the middle of the 10th century.’ (*op. cit.* 55).

That Kaupang was a focus for trade and manufacturing in Vestfold during the Viking Age cannot be doubted; doubts must, however, be raised as to the nature of the settlement itself. It seems to have had much in common with the more loosely organised of the Swedish trade and manufacturing sites, such as Åhus (Ericson-Borggren 1993), in its lack of planning and evidence of controlled development. Situated as it is on a sheltered and strategic harbour, it was clearly a site of some economic importance, but the difficulties encountered in trying to determine whether it was permanently occupied, and if so, by what size of population, and how they supported themselves, lead to difficulties in comparing it with the demonstrably multi-functional settlements in the other Scandinavian countries.

More controlled excavations on the site might, or might not, resolve some of these questions. At the present time, however, Kaupang remains an enigma in many ways.

IV.2.3 Birka in its Scandinavian Context

The evidence emerging from excavations of Viking Age trading and manufacturing settlements reveals a society in which a variety of different physical types of settlement specialised in the functions of trading and manufacturing. The most evident physical distinction between the various sites is the question of whether or not they were enclosed by a bank or rampart. Of the five major settlements that demonstrably were enclosed by semi-circular ramparts, excavations at Västergravn have failed to elucidate anything about its physical organisation or socio-economic function; it remains a mystery. Löddeköpinge appears to have been a specialised production site, to some degree. The remaining three are the great, multi-functional settlements of Birka, Hedeby and Ribe, all founded within a hundred years between the beginning of the eighth and the beginning of the ninth centuries.

Among these five sites, none has indisputable evidence for seasonality of occupation. It is shown above that the argument for seasonal occupation at Ribe is insecure, as is that at Löddeköpinge. All demonstrate a substantial investment in the demarcation or defence of an

area, and the majority show highly organised, dense settlement within that area. The lack of evidence for seasonality of occupation, and the contemporaneity of these sites, weakens Hodges typology of trading and manufacturing settlements (Hodges 1982, 51-52), from seasonal through permanent *emporium*, to the Mediaeval town.

The other category of settlement examined above, the unenclosed settlement, is best understood from the excavations at Åhus (Ericson-Borggren, 1993). Here, the physical organisation of the settlement is strongly reminiscent of contemporary village settlements at sites such as Vorbasse (Hvass 1980, 173-172), but associated with this essentially rural appearance is limited evidence for specialised production, and for local and international trade. These sites can, perhaps, be most easily understood as a development of the rural occupation of an area. It is interesting in this context that the Åhus excavations revealed one post-built building of markedly greater floor area than the surrounding contemporary halls. It is perhaps worth considering the possibility that this may reflect the association of specialised production with a manorial site, reflecting a link between trade and manufacturing, and local political power.

Excavations at Paviken provided no stratified finds assemblage, and no coherent structural evidence, and it is impossible therefore to either understand the internal organisation of the site, or to place it into its context. It is not inconceivable that it was similar to Åhus in organisation and function, but it is impossible at this remove to either confirm or deny the issue. Kaupang, on the other hand, had similarly impressive evidence for national and international trade, with rather better understood structural remains. It has been suggested that Kaupang was analogous to Birka and Hedeby, but this can clearly not be argued on the basis of the published structural evidence (IV.2.2.3). It was a site with the characteristic loose physical organisation, and with the architectural forms of rural sites. In the light of evidence from Denmark and Sweden, its context would appear to be that of a manorial, and possibly ritually important site, with active specialised manufacturing and limited trading functions, as at Åhus.

It is worth noting at this point that the continued lack of evidence for large and complex trading and manufacturing sites in Norway would seem to suggest that the economic and political culture of Norway in the Viking Age was dissimilar to that of Denmark and Sweden.

This question will be further discussed in Chapter VI. There is, as yet, no site in Norway that can be said to be comparable to Birka in physical form, level of economic activity, or political importance.

Within this group of sites, Birka is clearly one of the most complex, both physically and economically. Its Scandinavian context is of a variety of sites, of different sizes and forms, with different levels of manufacturing and trading activity. Many of these sites would appear to fit into the category of rural or manorial settlements with additional specialities of production or trade, making them, perhaps, analogous to the proposed Helgö/Hundhamra complex in the vicinity of Birka itself. The manorial site at Alsnöhus could also be seen to form a part of this group. In one case, that of Löddeköpinge, a site with similar internal appearance to these less complexly organised settlements would appear to have been enclosed in a large, semi-circular rampart, perhaps reflecting a degree of influence from the more complex sites.

These various sites, none of them apparently seasonal, fitted into economic systems whose economic and political foci would seem to have been the sites of Ribe, Hedeby, Birka and Visby. Only in the case of Ribe and Hedeby would there appear to have been two of these complex, enclosed sites within one later polity, and the decline in economic activity in Ribe following the beginning of the ninth century is marked (Ambrosiani & Clarke 1991, 54), possibly as a result of direct competition with Hedeby. Despite discussions about the relationship between Visby and Paviken, the evidence from Paviken is insufficiently detailed to demonstrate that there was any degree of direct competition between the two. As in Denmark and Skåne there appear to have been a variety of contemporary settlements, with different, inter-dependent functions, it is probable that a similar situation applied in Gotland. There has yet to be large-scale excavation in the Mälars area on an unenclosed trading place other than Alsnöhus, whose relationship with Birka has caused so much debate. However, in the light of the variety of trading and manufacturing sites now known within Hedeby's sphere of influence, it is probable that a similar situation existed in Central Sweden.

CHAPTER V

THE DANELAW

V.1 HISTORICAL SOURCES

Contemporary historical sources for the Middle Anglo-Saxon and Anglo-Scandinavian (AD 700 - AD 1000) settlement of the North and East of England are scant in the extreme. The most important derive, naturally enough, from an ecclesiastical background, and *The Anglo-Saxon Chronicle*, and other, more fragmentary, monastic annals. In addition to these, there is a range of hagiographic material, which is unfortunately largely irrelevant to the political history of the Northeast, and much of which is derived from Bede's various works.

The primary source is therefore inevitably the *Anglo-Saxon Chronicle*. This appears to have been written during the reign of Alfred, and is traditionally attributed to the king himself. The authorship of the original document is, however, less important than an understanding of its function as a unitary, and therefore unifying, history of the English people from the late fifth century to the year AD 891. This original is believed to have been derived from monastic annals, particularly those kept in the margins of the essential tables for calculating Easter (Garmonsway 1953, xx-xxii). It was circulated to various monastic houses, which then continued to maintain annual entries of both national and local interest. The various surviving manuscripts¹ therefore diverge substantially in the years after the end of the ninth century, and were abandoned at different times. One of the most important diversions in the context of this thesis is the text called the Mercian Register, a short chronicle AD 902-924 which was inserted as a block after AD 915 in the Abingdon Chronicles, and woven into the text of the Worcester Chronicle. These entries give virtually all the information that is known about Aethelflaed, daughter of Alfred and sister of Edward the Elder, and conqueror of much of the Danelaw during the second decade of the tenth century.

¹ There are nine surviving copies of the Chronicle: the Parker Chronicle, the Abingdon Chronicles (two), the Laud (Peterborough) Chronicle, the Worcester Chronicle, the Canterbury Epitome, two fragments from the Cotton collection, and an Easter Table Chronicle (Garmonsway 1953, xiii)

The original text of the *Chronicle* was assembled into a coherent whole at a time when England was divided between the newly unified Anglo-Saxons in the south and west, and the Danelaw in the north and east. The inherent instability of this culturally, religiously, ideologically and ethnically diverse situation was a continual threat to the Anglo-Saxon kingdom which Alfred had unified, itself historically and internally unstable. In the light of this difficult political situation, it is wholly understandable that the emphasis of the *Chronicle* is on the cultural similarities and common history of the Anglian and Saxon peoples, their religious unity and military might, and the alien, pagan character of the incomers. This is not to detract from the value of the *Chronicle* as a historical document: it is largely contemporary with the period in which we are interested; it was written in the vernacular; it displays a marked and unusual historical and chronological sense; it was written by authors who, if not resident in the Danelaw, were nonetheless actively concerned with events therein. It is, however, most concerned with the events in the Danelaw which had a direct impact upon the Anglo-Saxon politics, and with those which demonstrated what the authors perceived as the distinctively unpleasant character of the Danes.

The first mention of the Danes or Norwegians was in the entry for AD 789, when three ships came to the south coast of England:

‘And in his days there came for the first time 3 ships; and then the reeve rode there and wanted to compel them to go to the royal town, because he did not know what they were; and they killed him.’ (*Anglo-Saxon Chronicle*, trans. Swanton 1996, 54-55)

The date to which this entry refers is not absolutely clear; it appears to be a retrospective discussion of events which occurred in the time of Beorhtric, to whose marriage the text refers first, and the whole is somewhat ambiguous. It is apparent, however, that the reeve believed the ships to be travellers or traders, rather than Vikings. The terms ‘Danes’ and ‘Norwegians’ are used interchangeably in the various versions of this entry, which may signify nothing more than a lack of knowledge, but may also reflect the political reality of a Scandinavia in which national and ethnic identities were not, as yet, wholly distinct.

This entry was followed by the famous description for the year AD 793, which is often used as a historical marker for the beginning of the Viking Age.

‘Here terrible portents came about in the land of Northumbria, and miserably afflicted the people: these were immense flashes of lightning, and fiery dragons were seen flying in the air, and there immediately followed a great famine, and after that in the same year the raiding of the heathen miserably devastated God’s church in Lindisfarne island by looting and slaughter’ (Swanton 1996, 54-57)

Despite the tendency to use this as a starting point for the Viking Age, in reality the *Chronicle* has few entries in the following decades which refer to Viking attacks. The early years of the ninth century seem to have been a period during which Scandinavian activity was concentrated upon the North and West of the British Isles. Internecine fighting continued among the Angles and Saxons until Egbert became the king in AD 829 (*op. cit.* 60-61). Some six years later, the Vikings returned in strength, sacking Sheppey in AD 835 (*op. cit.* 62-63), and following that with attacks along the southern English coast, sacking London, Rochester and Quentowic (on the French coast) in AD 842 (*op. cit.* 64-65), and overwintering in England for the first time in AD 850 (*ibid.*). From the middle of the ninth century onwards, overwintering in Britain became increasingly common, a change in practice which suggests that there was a conscious move by the Scandinavian armies towards longer-term establishment in England.

Occasional Anglo-Saxon victories are documented, notably in AD 851, that of Alfred’s father Aethelwulf in Surrey (*op. cit.* 64-65). The marked emphasis on the successes of the Wessex dynasty, including later Alfred’s brothers Aethelbald, Aethelberht and Aethelred, does not, however, conceal the increasing dominance of what is now referred to as a ‘*micel here*’ or ‘great army’ of Vikings in Kent, East Anglia, Northumbria and Mercia. York was captured in AD 867, the Mercians sued for peace in AD 871, during the occupation of London, and a Saxon puppet king, ‘a foolish king’s thane’ (*op. cit.* 72-73) called Ceolwulf, was given governance of Mercia in AD 873 following the expulsion of the legitimate king, Burghred.

During AD 874, a part of the Great Army, under Halfdan, split off, and moved north into Northumbria, which they settled in AD 876. The remainder, under Guthrum, Oscytel and Anund, continued their activities in southern England, ending up in Exeter in AD 876 (*op. cit.* 72-75).



The Danelaw was created, in Exeter, by the division of Mercia in AD 877, following these nearly thirty years of increasing struggle against the Vikings. The *Anglo-Saxon Chronicle*, referring to the movements of the Viking Great Army, states:

‘Here the raiding-army came from Wareham into Exeter.... And Alfred the king rode after the mounted raiding-army with the army as far as Exeter, and could not overtake them before they were in the fortress where they could not be got at. And there they granted him prime hostages, as many as he wanted to have, and swore great oaths, and then held to a good peace. And then in harvest-time the raiding-army went into the land of Mercia, and some of it they divided up and some they granted to Ceolwulf.’ (Swanton 1996, 74)

The peace between Alfred and Guthrum, of course, did not keep, and Halfdan had not been privy to the agreement in the first place. Following campaigning seasons saw Alfred driven into the Wessex marshes, and East Anglia taken and settled by the Danes in AD 879-880 (*op. cit.* 76-77). The political conversion of Guthrum in AD 878 (*ibid.*), following Alfred’s victory at Chippenham, seems to have minimal impact upon the behaviour of the army. However, between AD 886 and AD 890², the division of England between the Scandinavians and the Great Army was formalised in a treaty which stated the boundaries between Alfred and Guthrum³, and laid out administrative procedures for dealing with compensation and legal problems between the two forces (Whitelock 1979, 417-418). This must, however, have been a formal acknowledgement of a situation which had been largely in place since the events at Exeter at least a decade earlier.

Alfred’s victory at Chippenham could, however, be seen as something of a turning point. In the 880’s, the *Chronicle* had the Great Army primarily active in France (trans. Swanton 1996, 76-84). On their return in AD 893 (*op. cit.* 84-85), disruption broke out again, possibly partially fuelled by the human and animal plagues referred to in the *Chronicle* entry for AD 897(*op. cit.* 90), and exacerbated by the treachery of Alfred’s cousin Aethelwold (*op. cit.* 92-93). But despite Alfred’s death in AD 899, the pattern was one of gradual and progressive recapture of Danelaw lands by the



² The dating of this document is based on the fact that it included London on the English side of the division. Until 886, London was held by the Scandinavians, and the treaty must therefore post-date Alfred’s retaking of the town, but pre-date the death of Guthrum in 890 (Whitelock 1979, 417).

³ The boundaries were: up the Thames, up the Lea to its source, straight line to Bedford, up the Ouse to Watling Street (Whitelock 1979, 417).

Anglo-Saxons, and this continued under Alfred's children, Edward and Aethelflaed, with Aethelflaed's husband Aethelred of Mercia (Wainwright 1975, 305-324).

London was regained in AD 886 (*Anglo-Saxon Chronicle*, trans. Swanton 1996, 80-81), in AD 917 Derby (*op. cit.* 101), AD 920 Northampton, AD 923 Nottingham and the whole of Northumbria (*op. cit.* 104), when the whole of England⁴ was again under Anglo-Saxon overlordship. The death of Aethelred of Mercia in AD 911 (*op. cit.* 96), and Aethelflaed in AD 918, and the kidnapping of their daughter Aelfwynn by her uncle (*op. cit.* 105), freed Edward to take and hold power over the united kingdoms of Wessex and Mercia, and, by conquest, Northumbria.

Of course, this was not the end of the struggle. Edward's son, Athelstan, fought again against the Scandinavians and Dublin Irish, along with the Scots, and the Strathclyde Welsh at *Brunanburh* (wherever that was) in AD 937 (*op. cit.* 106-110), and won a famous victory which was set as naught by the defection of Northumbria to Olaf Guthfrithson in AD 941, following Edward's death. Edmund, Athelstan's son, won back Northumbria in AD 944 (*op. cit.* 110-111), but in AD 952, it again defected, this time to Eric Bloodaxe (*op. cit.* 112-113). This attracted devastating reprisals from Eadred Edmundsson, and in AD 954, the Northumbrians themselves threw out Eric, murdering him at Stainmore (*ibid.*). Throughout these years in the middle of the tenth century, Northumbria was torn in an immensely complex struggle between two Dublin dynasties, the Guthfrithssons and the Sigtryggssons (Dolley 1965; Smyth 1976, 115-116), the Wessex dynasty and eventually the intervening Norwegian crown, in the person of Eric. Importantly, however, these passages demonstrate that, despite a nominal fealty to the English crown, the allegiance of Northumbria can never have been certain; offered the chance of a Scandinavian king, they seem almost invariably to have accepted one in preference to an English king. Dorothy Whitelock makes the point that the independence of Northumbria from southern overlordship would seem to have been the first priority of its people (Whitelock 1959, 71).

⁴ In both the Parker Chronicle and the Canterbury Epitome, this passage, the annal for AD 923-924, also states that the kings of the Scots, and the Strathclyde Welsh did homage to Edward at this time (Garmonsway 1953, 104-5)

The *Chronicle* is quiet for another thirty years before the Scandinavians are again mentioned, when, in AD 980-981, ships attacked the Southwest again (*op. cit.* 124-125). A decade later, in AD 991, tribute, or geld, was paid to the Scandinavians for the first time (*op. cit.* 126), but failed to reduce the attacks. In AD 994, Olaf Tryggvason laid unsuccessful siege to London (*op. cit.* 126-129), but overall, the pattern appears to have been one of Scandinavian success, no matter how the *Chronicle* attempts to emphasise English victories. Danegeld continued to be paid, in tens of thousands of pounds, but it seems probable that by the beginning of the 1000's, the aim of the invaders was territorial expansion, against the notoriously ill-prepared Æthelræd. This was certainly the case during the campaigns of Cnut from AD 1014 onwards, which resulted in the division of England in AD 1016, between Edmund and Cnut, and after Edmund's death at the end of that year, in the recognition of Cnut of Denmark as king of all England (*op. cit.* 152-155).

Within this long historical interaction between the Scandinavians and the Anglo-Saxons, one particular period is of peculiar interest in the light of earlier and contemporary developments in Scandinavia. During the late ninth and early tenth century, the Scandinavians held in the Danelaw a number of focal settlements for which the Early Mediaeval period seems to have been one of remarkable growth and economic development. For some, documentary evidence provides hints of their Anglo-Scandinavian role, and for a very few others, there is substantial and illuminating archaeological evidence for the period. Prior to the inception of the Danelaw, virtually none of the following settlements are referred to at all in the documentary record; after its recapture in the second decade of the tenth century all are recorded as *burhs*, and appear to have been established and fortified town-like settlements with important economic and administrative roles.

V.2 YORK

York lies at the confluence of the rivers Ouse and Foss, centrally placed in the heart of the Anglian kingdom of Northumbria (see fig. 59). The Ouse flows from York into the Humber Estuary, roughly 50 km to the south, and thence into the North Sea. The

Humber estuary also provides access south via the Trent into Lincolnshire and the Derbyshire. To the west, the Pennines are passable via the River Wharfe, over the watershed to the Ribble, and thereafter the Irish Sea. The Foss, although smaller and less easily navigable than the Ouse, provided a defensive barrier to the east of the Ouse, defining a limited and easily enclosed area of higher ground between the two rivers. The land to the south and east of York is extremely low lying, and until the Late Mediaeval period, much of it was marshy.

A Roman fortress lay on the north-eastern bank of the Ouse, between it and the Foss, with its *colonia* on the opposite, south-western bank (see fig. 59). Within the circuit of the Mediaeval walls of the town, which largely follow the walls of the fortress and *colonia*, only one standing building is debatably pre-Conquest (Hall 1994, 49), and the landscape of the town is dominated by the Mediaeval cathedral and the Norman Castle (Clifford's Tower).

York has become a focus for the understanding of the development of the Danelaw towns. Its political importance within the Danelaw is less crucial to our modern understanding than is the astonishing quality of archaeological preservation within the heart of the Mediaeval walled town, which has resulted in a quantity and quality of data relating to the Early Mediaeval settlement which is unparalleled in Britain, particularly within the Danelaw. Nonetheless, the Anglian settlement remains poorly understood. The lack of evidence from contemporary northern English settlements also ensures that the material from York is not easy to understand in a more than immediately local context; both chronologically and geographically, comparative sites are lacking.

V.2.1 Historical Sources

Under the Roman Empire, the fortress and *colonia* of *Eboracum* functioned as the capital of the northern part of the province of Britannia, the base of a legion, and the economic focus of a large part of Britain. The withdrawal of the legions in c. AD 400 seems to have caused complete collapse and any settlement of the fifth and sixth centuries within the town is obscure.

There are no documentary references to the town in the Early Anglian period, during the sixth and early seventh centuries, although it fell within the area of the kingdom of Deira mentioned in Bede's *Ecclesiastical History* (book 2, ch. 1, trans Colgrave & Mynors 1969, 135). In AD 601, Pope Gregory referred to York in a letter to Augustine, also preserved in the *Ecclesiastical History* (book 1, ch. 29, trans. Colgrave & Mynors 1969, 105), indicating that it should be the metropolitan see of the northern part of England, although at the time, its kings were not Christian. The beginning of the conversion of the kingdom followed the arrival of the missionary Paulinus (see also below, Lincoln) who was consecrated first bishop of the Northumbrians in AD 625, under the Northumbrian king Edwin, following Edwin's amalgamation of Deira and Bernicia (*Ecclesiastical History* book 2, ch. 9 & ch. 20, trans. Colgrave & Mynors, 163-7, 203-7). By this time, York had resumed its role as an important administrative and ecclesiastical centre in kingdom of Northumbria, and with a break from AD 633 to 664 following Paulinus' flight from York after Edwin's death, there continued to be an episcopal presence at the settlement, which was upgraded to an archiepiscopate in AD 735 (Rollason *et. al* 1998, 57-58)⁵. In the Middle Anglian period there is clear evidence of reoccupation within the walls. An Anglian cathedral probably stood somewhere in the vicinity of the modern cathedral (see fig. 60 and discussion below) and there may well have been other high status buildings within the fortress (Hall 1994, 31).

In AD 867, the town was taken by the Viking *micel here*, or Great Army (*Anglo-Saxon Chronicle*, trans. Swanton 1996, 68) following a struggle during which '...immense slaughter was made of the Northumbrians...' and both the legitimate king Osberht of Northumbria, and his usurper, Aella, were killed (*ibid.*). The army left the same year, and the city was apparently ruled during the following ten years by a series of Anglian kings set up by the Viking Army, or by the archbishop Wulfhere, according to the twelfth century writings of Symeon of Durham, and the slightly later Roger of Wendover (Rollason *et al.* 1998, 27, 32, 63).

⁵ Rollason *et al.* are here referring to the *Historia Regum* attributed to Symeon of Durham, which incorporates a substantial section of the so-called Northern Annals (Rollason *et al.* 1998, 17-18) covering the relevant years (*ibid.* 27).

In AD 875-6, the Great Army was divided, and Halfdan returned to Northumbria with a part of the troops, to divide the land and settle (Swanton 1996, 72-75; Morris 1977). Halfdan himself may have left or been expelled from Northumbria shortly after, according to Symeon of Durham's early twelfth century history of the church of Durham (*Libellus de exordio atque procursu istius hoc est Dunelmensis ecclesie* Rollason *et al.* 1998, 25-6 & 63). Alfred Smyth's identification of Halfdan of Northumbria with Halfdan the brother of Imhar who was killed at Strangford Lough in AD 877 (Smyth 1987, 19-20) seems valid in the light of later connections between York and Dublin (see below). From this point forward until AD 927, the kingdom of Northumbria was generally ruled from York by a king of Scandinavian descent; gaps in this sequence do exist, most notably between Halfdan and the Christian Scandinavian king Guthfrith (d. 895 - Rollason *et al.* 1998, 64), when the rulership is very unclear and historical and numismatic sources offer little help (Dolley 1965, 19), and during the brief reign of Aethelwald, cousin of Edward the Elder at the very end of the ninth century (Rollason *et al.* 1998, 65). In the second decade of the tenth century, these Scandinavian kings were also the rulers of Dublin; Ragnall, Hiberno-Norwegian king of Dublin conquered the town in AD 923, according to the *Anglo-Saxon Chronicle* (trans. Swanton 1996, 105), although other sources suggest that the conquest might have been as early as AD 914 (Rollason *et al.* 1998, 64), and was succeeded by at least two other Hiberno-Norse kings before AD 927.

In AD 927, the throne was seized by Athelstan, following the great military successes of Edward and Aethelflaed in the early decades of the century, and was held by him until AD 939. Following his death, however, the Dublin Norse in the person of Olaf Guthfrithson once again extended their rule to York (*Anglo-Saxon Chronicle*, trans. Swanton 1996, 111) in the beginning of a complex four-way conflict between two Dublin dynasties, the Wessex kings and the crown of Norway that was to last throughout the middle years of the century. The years between Olaf's death in AD 941 or 942 (*op. cit.* 110-111 & Rollason *et al.* 1998, 68) and AD 954 were continually disrupted by changes of ruler, with Edmund and after him Eadred regaining Northumbria in the mid AD 940s (*op. cit.* 1998, 68-69), being briefly supplanted by Eric Bloodaxe, son of Harald Harfagr of Norway (*Anglo-Saxon Chronicle*, trans.

Swanton 1996, 112-113), then Olaf Cuaran of Dublin (*op. cit.* 113), and again Eric until the last Scandinavian king of Northumbria, Eric Bloodaxe, was killed at Stainmore in AD 954 (*op. cit.* 113; Rollason *et al.* 1998, 69; Smyth 1987, 172-6).

Following the death of Eric Bloodaxe, in the century up to the Conquest, York was ruled by the English under a series of English earls, the first of whom was Oswulf and the latest of whom was Morcar, who ruled under both Edward the Confessor and William I (Rollason *et al.* 1998, 74-76). It surrendered to Harald Hardrada in AD 1066, and thereafter formed the focus of his abortive attempt on the English throne as described in both *Heimskringla* (trans. Magnusson & Pálsson 1966, 145-6) and the *Anglo-Saxon Chronicle* (trans. Swanton 1996, 194-199). After the Norman conquest, York continued to be a centre of discontent until its devastation by the Conqueror in AD 1069 following an outright revolt under Danish and Anglo-Saxon leadership described in Orderic Vitalis' early twelfth century *Ecclesiastical History* (Rollason *et al.* 1998, 31, 188-9) and substantiated by the *Chronicle* (trans. Swanton 1996, 203-207).

The Early Mediaeval, that is Anglian and Viking Age, history of York saw its rebirth as a focus of administrative and economic power that dominated the northern half of England. Recent excavations have indicated that the physical appearance of the modern walled town owes a great deal to the pattern of buildings and streets established during that time, and its continuing role as a central place and market is rooted in the character of the early Mediaeval centre.

V.2.2 The Archaeology of Early Mediaeval York

York has attracted considerable antiquarian and archaeological attention since the nineteenth century. Early antiquarians accumulated substantial collections which formed the nucleus of what was later to become the Yorkshire Museum (Wellbeloved 1842, v-vi); much of this interest was triggered by the substantial expansion and redevelopment of the city with the coming of the railway and construction of the railway station in the late nineteenth century. This material formed the basis upon which later archaeological interest was to be founded, and post-war slum clearance

provided a further opportunity for collection and collation of stray finds, while more disciplined excavation was carried out by parties as diverse as the boys of Bootham School (Richardson 1961, 51) and the Ministry of Works (*ibid.*). While much of this early collection and excavation was concentrated upon the substantial Roman remains in the city, growing interest in the poorly understood early Mediaeval settlement was evident during the post-war period. The publication of surveys of the town by the Royal Commission on Historical Monuments (1962 onwards) highlighted the need for a more comprehensive approach to the archaeology of the town, and it was against this background of essentially unfocussed and purely reactive responses to archaeological emergencies that the York Archaeological Trust was established in 1972 (Addyman & Hall 1991, 179) with the aim of introducing more coherence into the management of the archaeological resource in York.

V.2.2.1 Wellbeloved

Cyril Wellbeloved was curator of the Museum of the Yorkshire Philosophical Society in the mid-nineteenth century at a time when the city of York was undergoing substantial development, particularly with the introduction of the railway. His particular interest was in Roman York, on which he published a synthesis in 1842; in his own words ‘The desirableness of such a work [of scholarly synthesis - author] was enhanced by additional discoveries of great interest, in the progress of the excavations soon afterwards carried on both within and without the walls of the city, on the south side of the river, by the Companies of the York and North Midland, and the Great North of England Railways’ (Wellbeloved 1842, iii). Little within his published work, however, is of direct relevance to the post-Roman occupation of the town, with the exception of the first published description of the structure that later became known as the ‘Anglian Tower’ (*op. cit.* 52-53, and see below V.2.2.5).

V.2.2.2 Benson

In contrast to Wellbeloved, some fifty years later, George Benson’s summary history of the city of York (Benson 1911) showed an active interest in the Early Mediaeval settlement, based upon archaeological observations made during development in the town (e.g. Benson 1902, 1906). Though this was still primarily a historical synthesis, Benson attempted to integrate such dateable archaeological evidence as was then

available into the documentary framework, using, for example, the pre-Viking Anglian coinage from the York mint, and the burial customs to illuminate the history of the settlement (*op. cit.* 34-36 & 47-51). A number of Anglo-Scandinavian artefacts were first published in this volume, including a fine copper alloy scabbard chape in the insular Jellinge style and other artefacts from Coppergate which were to focus attention on this street as a possible site of importance for the Anglo-Scandinavian occupation of the town (see below, Waterman, V.2.2.4).

Benson also published a description of timber-lined rectangular pits uncovered at 25-27 High Ousegate that he interpreted as an Anglo-Scandinavian tannery (Benson 1902, and see below V.2.4.1). His descriptions of the structures, although not equivalent to modern archaeological recording, were nonetheless sufficiently detailed that they could be reconsidered and potentially reinterpreted by Richard Hall nearly eighty years later (Hall 1991, 243-250). Apparently underlying these structures was a structure marked on his published plan as a 'wickerwork hedge' (Benson 1902, pl. III), but mentioned in the text as a 'stockade', to the confusion of later authors (e.g. Richardson 1961, 60-61). This was most probably a fence of wattle (Hall 1991, 238-242) marking a plot boundary (but see below, V.2.4.3).

Although Benson carried out no systematic excavation himself, his interest in, and observations of, the remains of Early Mediaeval York formed the basis of later investigations into the Anglian and Anglo-Scandinavian settlement.

V.2.2.3 Excavations at Hungate: Richardson

During 1950-51, in advance of the construction of a new Telephone Exchange on Hungate (see fig. 60), Katherine Richardson carried out limited rescue excavations for the then Ministry of Works (Richardson 1961, 51-114). The conditions were far from propitious; the site was flooded and had to be shored and continually pumped, and the excavation work continued from the autumn of 1950 into the spring of the following year, to be followed by a watching brief during the construction of the building. Stratigraphic and structural relationships were frequently unclear (*op. cit.* 51-53).

The site was known as 'The Marsh' from at least the twelfth century, when it was first documented, but the name was probably pre-Conquest, despite the fact that some at least of the area was probably first flooded following the damming of the Foss in the early post-Conquest years to flood the Norman castle moat (*op. cit.* 53). Stratigraphic evidence from the lowest levels of the excavation indicated that the site was intermittently flooded during Roman times, when a stone building, hard standing and wharf occupied the area (*op. cit.* 53-56).

The Roman deposits were overlain by 2-3 feet of water-deposited sands and silts, representing an abandonment, or near abandonment of the site, although the excavator commented on stray finds in these deposits which had 'apparently been dropped from time to time on the surface of the marsh' (*op. cit.* 56). The next substantial reoccupation of the site was attributed to the 'Anglo-Danish Phase' i.e. the tenth to eleventh century (*op. cit.* 56). It consisted of extensive spreads of brushwood, secured by stakes and stones, over large areas of the marshy surface. Running north-east- south-west across the site was an embankment of redeposited clay, wattle and brushwood, revetting an artificially raised area of ground to the west, which was drained by narrow wattle-lined gullies (*op. cit.* 59-61 & figs. 2-4 and see fig. 61). It also seems likely, from the illustrations in the report, particularly fig. 6 (*op. cit.* 61), that there was a path, presumably of wattle secured by pegs or small stakes, which led north-west from the waterfront constructions, and of which only the stakes survived, marked on the plan though not referred to in the text (see fig. 61).

As with so many of the waterlogged sites of York, Hungate was copiously productive of finds, both artefacts and ecofacts. As would be expected, remains of aquatics and marsh plants were common, but so, particularly in the 'Anglo-Danish' deposits, were weeds of cultivation, some of which are edible, such as sorrel (*Rumex acetosa*) and nettle (*Urtica dioica*). Hazelnuts were also common at this level, and flax (*Linum usitatissimum*), hop (*Humulus lupulus*), sloe (*Prunus spinosa*), damson (*Prunus domestica*), spinach (*Atriplex horensis*), rape (*Brassica napus*) and cabbage (*Brassica oleracea*) were also identified with greater or lesser degrees of certainty (*op. cit.* 109-113). The site also yielded large numbers of worn, repaired and cut shoes, probably debris from a cobbler's shop (*op. cit.* 64-65).

The dating of this phase of occupation depends upon finds from the brushwood deposits (*ibid.*). The excavator limits their date historically to between the early tenth century, and the Conquest (*ibid.*), and archaeologically remarks, on the basis of comparisons to Birka, Hedeby and Trelleborg, that they are 'types current mainly in the last half of the 9th and down to the end of the 10th century' (*ibid.*). However, on re-examining the artefact drawings in the light of the new dates now available for all these sites, there is nothing which can be that closely dated, with the possible exception of a fine, A-type comb of the mid or late ninth century (finds no. 16, *op. cit.* 83-4, fig. 19). The dating to the Anglo-Scandinavian occupation of York, however, cannot be in any real doubt.

V.2.2.4 Early Mediaeval finds: Waterman

In 1959, Dudley Waterman published a useful and comprehensive survey of the Late Saxon, Viking and Early Mediaeval Finds from York (Waterman 1959), gathering together in one place for the first time all the artefactual evidence for the Viking Age occupation of the town. His distribution maps emphasised the concentration of Early Mediaeval finds within the circuit defined by the rivers and the walls of the fort and *colonia*, with a marked concentration in the Coppergate area (*op. cit.* 64-65). Although it is now clear that the avoidance of the Roman fort and *colonia* which he remarked (*op. cit.* 69) was at least partially an artefact of chance and preservation, this summary of the evidence, and assessment of the material provided the first real overview of the form of Early Mediaeval York, and focused attention on areas such as Coppergate and Ousegate, which were to provide such rich excavation results later (see below).

V.2.2.5 The 'Anglian Tower': Radley

In 1969 and 1970, Jeffrey Radley of the Royal Commission on Historical Monuments (England) carried out a research excavation of an anomalous interval tower adjacent to the western corner tower of the Roman legionary fortress (see fig. 60) (Radley 1972, 38-64). The structure had been known since the nineteenth century, when it was found by workmen building a tunnel, but had never been securely dated (*op. cit.* 38-39). Only a restricted area outside the walls could be excavated, revealing an

immensely complex sequence of defensive structures. An attempt in the late spring of 1970 to further elucidate the stratigraphic details of the defences by putting a section through the Mediaeval rampart inside the walls, and under the wall itself, was ended by the death of the excavator, when the trench collapsed.

The initial Roman fortification was an earthen rampart, reinforced later by a stone wall (*op. cit.* 40). Following the decay and partial collapse of the wall, a two storey, stone tower was inserted into the breach to block the gap (*op. cit.* 41-43). This was ill-constructed, partially inserted into the outside of the Roman wall, with no substantial footings or foundations, and thin walls of oolitic limestone, apparently unmortared in places (*op. cit.* 43). A single vaulted room survived, with two doors, in the north-eastern and south-western walls. The south-eastern of these could not have been used, as it opened directly into the Roman rampart, and no access had been cleared (*op. cit.* 41-46). The bottom of the western corner of the tower collapsed during its use, and this breach was filled by undisturbed makeup from the succeeding Anglo-Scandinavian rampart, providing a terminus ante quem for its construction and use (*op. cit.* 46).

Radley dated the tower on historical grounds to the mid-seventh century, or mid-ninth century. He argued that the archaeology, the architecture and the historical context all made an Anglian date more likely (*op. cit.* 54-55)

The tower was succeeded by an earth, clay and stone rampart (see fig. 62) (layer 4), topped with a revetment or dry stone wall of re-used Roman blocks. This was probably topped by a timber palisade, implied by sillstones and concentrations of nails along the wall top (*op. cit.* 46-49). Finds from all these deposits are scant, and not particularly closely dateable. A bone playing counter, nails and a strap-fastener were all identified by the excavator as 'probably Danish' (*ibid.*), but the fact that these layers did not contain Mediaeval pottery is probably of more weight in identifying this renovation of the defensive work as Anglo-Scandinavian.

This rampart was succeeded by a second probably palisaded rampart, which was identified as a Norman renovation of the defences. The palisade in this case was also

inferred from a slot and concentrations of nails on the rampart top (*op. cit.* 49-50). The finds from these deposits (layer 5) were similarly unspecific, and it is possible that they represent a second phase of the Anglo-Scandinavian defences rather than Norman. Radley thought it most probable that this phase reflected a post-Conquest reconstruction following the rebellion in 1069 (*op. cit.* 49) but this is archaeologically unproven.

This site demonstrated more clearly than any other before, or indeed since, the continuing reuse and renovation of the Roman defences during the Early Mediaeval occupation of the settlement.

Radley also published an article on the economy of 'Anglo-Danish' York, summarising excavation results and watching briefs as a complement to Dudley Waterman's previous article on the artefacts (see above V.2.2.4) (Radley 1971). He noted that property boundaries along Ousegate implied that the modern pattern was in existence as early as the Anglo-Scandinavian occupation of the town (*op. cit.* 45). In discussing craft activity, he commented upon evidence of iron and copper alloy working (*op. cit.* 48-49), glass bead production (*op. cit.* 49-50) and leather working, in association with which, he accepted Benson's interpretation of the site at High Ousegate and Coppergate as a tannery (*op. cit.* 50-51, and see above). In addition, he summarised evidence for antler and bone working (*op. cit.* 51), textiles, wood working, and ceramics, with particular emphasis on the preponderance of Danelaw imported wares (*op. cit.* 52). He concluded that 'the main impression is of a somewhat damp and dirty town with thriving industries' (*op. cit.* 54), a statement which was to be expanded by later archaeological work, but remains a valid assessment today.

V.2.2.6 Excavations at York Minster

Between 1967 and 1972, a massive campaign of rescue engineering work was carried out beneath the inadequate foundations of the Mediaeval cathedral. This provided the first, and possibly only, opportunity for an archaeological investigation of the area immediately below the standing building, albeit in very limited areas under circumstances of extraordinary difficulty and potential danger (Phillips 1995, 16-22).

The Minster stands over the site of the Roman *principia* and associated barrack blocks (*op. cit.* 181-187). These buildings were left empty at the withdrawal of the army (*op. cit.* 64-65), but possibly not for long. The *basilica* in the *principia* was stripped, with even the flagstone floor lifted, but continued in use, with new flooring laid in some areas, while others were left unfloored, but nonetheless saw accumulations of laminated charcoal and sand occupation deposits (*ibid.*). A curious bone assemblage, heavily dominated by immature pig bones (Carver 1995, 189; Rackham 1995, 535-537) suggests unusual use of the area, possibly with animals foraging inside the walled area, and slaughtering occurring within the old basilica (Carver 1995, 189). Radiocarbon dates on the bones of 1664 \pm 14 BP, calibrated to AD 343-416 (two sigma) (see Appendix F) would indicate a late Roman or sub-Roman date for these activities; given the context, sub-Roman is perhaps the more likely.

Industrial activity, in the form of metal working hearths for non-ferrous metal casting, was also present in the basilica in the post-Roman period (Phillips & Haywood 1995, 66-69). Dating this period of occupation (Phase 4a/Period 7) was difficult. The ceramics were mostly fourth century, and therefore presumably residual; radiocarbon tests on material from one of the hearths gave a date of c. 40 000 BP, clearly irrelevant to the excavated material and probably from coal; a few sherds of Anglo-Scandinavian York ware in the latest levels of these deposits could arguably be intrusive (Carver 1995, 188-189). The published late eighth or early ninth century dating of the cessation of this activity, and the succeeding demolition of the *principia*, is dependant upon these four sherds of York ware, from one area of the excavation only. As the site report admits, this is not a strong *terminus post quem* (*ibid.*).

Following this possibly intermittent activity, the *principia* was demolished in the late eighth or ninth century, or perhaps earlier. Indubitably, however, areas of the demolition were thereafter used as a pre-Conquest, Anglo-Scandinavian graveyard whose burials were aligned on the axis of the underlying Roman structures rather than that of the succeeding Norman cathedral (see fig. 63) (Phillips & Heywood 1995, 75-81). This cemetery was securely finds-dated on quantities of Anglo-Scandinavian pottery, and a number of ninth century coins (*op. cit.* 88-92; Carver 1995, 192-193),

and on stylistic grounds from a group of twelve carved stone grave slabs (Lang 1995). The carved stones from the Minster include a group of Anglian grave markers, reused in other contexts (*op. cit.* 434-438), but the majority of the Anglo-Scandinavian markers were found in situ, in the cemetery (*op. cit.* 438-442). Despite the strong Scandinavian stylistic influences in this latter group, which allow its dating to the late ninth century or later, it is clear that the later sculptural tradition is one which has its roots in the earlier Anglian school, and that it represents a truly Anglo-Scandinavian fusion of the iconography and ritual practice of the two cultures (*op. cit.* 443).

The area of the adjoining barracks was also the focus of post-Roman activity, though this was amorphous and difficult to define (Carver 1995, 193). In Barrack 2, a building was constructed within the ruins of the Roman stone structure. Stone footings, mortared with clay, formed a rectilinear structure with, presumably, an insubstantial superstructure that had been destroyed by later intrusions (Phillips & Haywood 1995, 134-135). The dimensions of the building were not clear, as it extended outwith the excavated area, but it had a hearth, from which a radiocarbon date of 1109+/-47 BP calibrated to AD 809-1013 (two sigma) was gained (*op. cit.* 221). A sherd of York ware from the destruction deposits of the underlying barracks supports a ninth century *terminus post quem* for the construction of this building (2Z) (*op. cit.* 135). Blacksmithing slag was found in deposits broadly contemporary with building 2Z, and from the same trench (Carver 1995, 193).

The pre-Conquest occupation of the Minster site was comprehensively eradicated and truncated by the mining of the Roman ruins for stone and other preparation of the site for the construction of the eleventh century Norman cathedral of Thomas of Bayeux (*op. cit.* 194).

V.2.3 Excavations of Anglian and Scandinavian sites in York by the York Archaeological Trust

During the early years of the 1970s, the York Archaeological Trust was formed to provide a resident archaeological expertise competent to carry out the large amounts of rescue excavation necessary in the light of the rapid redevelopment of the town,

and to channel the increasing public interest in its archaeology. Excavations such as those by Richardson and Radley had demonstrated the importance of the archaeological record of the town, and its potential productivity in the light of unexpectedly good preservation.

V.2.3.1 Fishergate

Excavations took place at 46-54 Fishergate, outwith the Roman and Mediaeval walls (see figs. 69 & 74) in 1985 and 1986. The site lay just north of a major ford over the River Ouse, and adjacent to the possible line of one of the major Roman roads running south from the fortress (Kemp 1996, 4). The area had been productive of Anglian evidence, both artefactual and structural, in smaller scale excavations on the area of the Barbican Baths, and when the Redfearn National Glass factory site became available, it was therefore unsurprising that it yielded new information about the nature of seventh to ninth century Anglian settlement in York (*op. cit.* 5 and 10-11).

The site was dry, with poor to non-existent organic preservation. Roman agricultural deposits were cut by a large number of features (Period 3a), forming buildings and plot divisions of the late seventh to early ninth centuries, which were sealed by redeposited domestic rubbish spreads (Period 3b), in their turn cut by boundary features, though no obvious structures, of the first half of the ninth century (Period 3c). The site appeared to have been abandoned around the time of the Scandinavian take-over of York AD 866 (*op. cit.* 10-12).

Architecture:

Four or more buildings of the seventh to ninth centuries (Period 3a) were identified. Structure 1 was a post building orientated north-south, 5.5m wide, 14-19m long, with an internal division c. 3m from the northern end of the building. Structure 2 was similarly post-built, but orientated east-west, 5.5m wide and at least 13m long, with an internal division 3.5m from the eastern wall. Structure 3 was the very slight, and somewhat tenuous remains of a further post-built building orientated east - west, at least 5.5m wide, and 11m long. A sunken-featured building (context no. 3466) lay to the north-west of structure 1; it was only 3.25m by 1.6m, and 0.5m deep, with

evidence of wattle and stake walls or linings in the sides of the cut. Two other structures (structures 4 and 5) were too badly damaged to interpret (*op. cit.* 27-36).

Structures 1-3 and the sunken featured building were bounded to the east by a narrow, shallow ditch orientated north - south across the site (*op. cit.* 18-24). To the south of the structures, an alignment of pits at right angles to the ditch seems to have marked the southern edge of a plot (*op. cit.* 23-4). The large open areas between the buildings were cut by groups of pits containing domestic and craft debris, and cess (*op. cit.* 37-53).

Activities on site:

Fishergate provided limited evidence for metal working, both black smithing (McDonnell 1993, 1228) and non-ferrous metal working (Bayley 1993), bone and antler working, particularly the manufacture of composite combs (Rogers 1993, 1245-1264), and textile manufacture (*op. cit.* 1265-1273). Phalange bones from fur-bearing animals, particularly marten, and leatherworking tools, indicated the preparation of skins and furs (Kemp 1996, 71). Unsurprisingly, food preparation debris, including imported Rhineland lava querns, was common on site, with a variety of both cultivated and wild foods represented (*ibid.* & Rogers 1993, 1321-1331).

The pottery assemblage included imports from south of the Humber, particularly Ipswich wares, and also international imports, overwhelmingly black and grey wares from France or the Low Countries, but also a significant though small fraction of Mayen pottery from the Rhineland (Kemp 1996, 72-3). This latter presumably reflected the larger scale trade in lava querns.

Dating:

Establishing a date for the start of the Anglian occupation at Fishergate (Period 3a) is difficult. Although the numismatic evidence indicated a date of *c.* AD 700, based on the absence from the site of primary sceattas dating to between AD 670 and AD 700/5, and presence of secondary sceattas dated AD 700/5-735/7 (Kemp 1996, 66), a number of possibly mid-late seventh century artefacts were found during excavation, including the imported ceramics and some earlier forms of Ipswich ware (Rogers

1993, 1439-1440), suggesting that the earliest Anglian use of the site might have been late seventh century.

The extensive rubbish and charcoal deposits over most of the site (Period 3b), which separated Periods 3a and 3c, contained finds whose date ranged from the seventh to the ninth centuries, confirming the dating provided by the finds from Period 3a. A coin from Period 3b, of Aethelred II, dated to AD 841-8, provided a *terminus post quem* for the succeeding Period 3c, but the excavator emphasises the possibility of contamination in Period 3b, which was not sealed (Kemp 1996, 56-58). The latest Anglian coin from the site, which came from a context with no clear stratigraphic relationship to the main Period 3 sequence (a 3z context), was a silver penny of Aethelberht dated AD 858-866 (*op. cit.* 83), and it is suggested from this that the site was abandoned in the late 860s or 870s, an idea supported by the very small amounts of mid-late ninth century York ware found on the site (*ibid.*).

V.2.3.2 Coppergate

Extensive excavations took place at 16-22 Coppergate between 1976 and 1981, in a c.1000m² area delimited by standing buildings to north and south, Coppergate to the west, and the River Foss to the east of the site (see fig. 60) (Hall 1990, 377). Earlier deposits on the site were poorly preserved, but the rapid build-up of organic rubbish during the Anglo-Scandinavian period had created anaerobic conditions that resulted in good, though variable, preservation of much of the early Mediaeval organic building remains. The site revealed a sequence of archaeological deposits from the Roman period to the present day, with an apparent break in occupation between c. AD 400, i.e. the end of the Roman occupation, and the mid-ninth century (Hall 1990, 381).

In the mid-ninth century, use of the site resumed with a series of cut features, pits and hearths or kiln bases, containing domestic rubbish, smithing slag, a skeleton, and cullet (Hall 1992, 461; 1997, 1692-3). These were associated with post hole alignments and a cobble spread which may have formed the possible remains of a building laid out at an angle to later plot divisions (Hall 1997, 1693). This level,

Period 3, was dated on numismatic and archaeomagnetic grounds to the second half of the ninth century (Hall 1997, 1692; 1990, 382; 1984, 43-48). The nature of the archaeomagnetic date (860 \pm 20) is such that it is impossible to determine whether a pre- or post-AD 866 date is more likely. Mainman argues, however, that the ceramic assemblage from these deposits is Anglian in type, and should be seen as a successor to the assemblage from Fishergate (Mainman 1990, 650-651; Kemp 1996). It is, nonetheless, debatable whether this could be identified as Anglian settlement; the chronological association with the Scandinavian conquest of York in AD 866 is very close (see chapter VI).

During a watching brief carried out on the development of the unexcavated areas of the site, following the close of the formal excavations, mechanical excavators uncovered a wood-lined pit containing an Anglian helmet, a sword beater, churn dasher, and various small finds (Pearson 1992, 863-870). The radiocarbon and dendrochronological datings of the pit lining and wood fragments within the fill gave probable Anglian felling dates for the timbers (*op. cit.* 870), which agreed with the stylistic date of the helmet itself (*ibid.* & Tweddle 1992, 1165), but the possible reuse of the dated timbers must, of course, be considered. It has also been noted that the paleobiological analysis of the pit fills yielded results sufficiently similar to later Anglo-Scandinavian pit fills to hint that the infilling of the 'helmet pit' might have been post-Anglian in date (Hall *et al.* 1992, 875-880). As Domenic Tweddle points out (*op. cit.* 1166-1167), historical evidence is useless in determining a probable date for the deposition of the helmet; Northumbria was subject to virtually incessant political disruption between AD 737 and AD 867. Under the circumstances, though spectacular, the find cannot be said to demonstrate the Anglian occupation of the Coppergate area.

The early tenth century saw the establishment in Period 4A of plot divisions within the excavated area, with wattle alignments which 'anticipated the alignment of the subsequent tenements and structures, but which do not themselves form obviously coherent structures' (Hall 1997, 1693) (see fig. 65). These were replaced *c.* AD 930/5 by wattle fences which divided the site into four equal, long, narrow plots (designated tenements A- D) at right angles to Coppergate; these tenements presumably extended

to the banks of the Foss, though the fence lines did not survive this far to the east, nor did they apparently extend the whole way to the street front. Coppergate itself must have been in existence by the beginning of this period at the latest. The basis of the dating of the start of this period, 4B, is not stated (*ibid.*). These plots were about ten degrees off the alignment of the earlier structures, but reflected them. The streetwards end of the plots was occupied by post and wattle buildings which were extremely vulnerable to fire; many posts were charred, and layers of redeposited ash and charcoal characterised this period of occupation (Hall 1994, 49-66). Paths of wattle work or beams led from the rear of some of the buildings (*op. cit.*, 69). The plot boundaries established during Period 4B were to persist for the following millennium (Hall 1997, 1693).

In the third quarter of the tenth century, the site was completely redeveloped. The post and wattle buildings were covered by dumped material (Period 5A), which resulted at least partially from the excavation of foundations for succeeding semi-basement buildings. The buildings of Period 5B were set in one or two closely spaced ranks orientated at right angles to the street, at the streetwards end of the site (Hall 1994, 67 - 80) (see fig. 65). Period 5A was apparently of very brief duration, possibly as little as a year (Hall 1997, 1690), and was dated on the basis of the dendrochronological analysis of the buildings of Period 5B to c. AD 975 (*op. cit.* 1690 & 1695-6).

The fragmentary remains of a ground level building replaced the semi-sunken building on Tenement D. This building, and its probable contemporaries on Tenements A to C, could only be dated to the mid-eleventh century (*op. cit.* 1698). A further post-built building, on a different alignment and at the rear of Tenement C, was dendrochronologically dated to the mid-eleventh century (AD 1014-54, *ibid.*). Little can be said about the eleventh century occupation of the site, as all the street front deposits were extensively damaged by later structures, but the building at the rear of the site was covered by dumps of material dated to the Norman period, i.e. the end of the eleventh century (Hall 1990, 383).

Architectural characteristics:

There are no structures at Coppergate that can be clearly assigned to an Anglian occupation of the site. The first distinct, early Mediaeval buildings are the post and wattle structures of phase 4B, which are securely Anglo-Scandinavian in date. These buildings measured at least 6.8 x 4.4m, sometimes longer, though rarely wider. The complete lengths of the buildings are unknown, as they extended under the modern street frontage. They were frequently renovated, and showed a number of variations on the theme of post and wattle construction which included the use of upright planks, stakes, and posts for the framing of the wattle; sill planks or beams were also known (Hall 1994, 56-7).

All the structures in period 4B had central hearths set on earthen floors. These were large in comparison to hearths at Birka and Hedeby (see above) and in relation to the small size of the buildings; typically they measured 1.8 x 1.2m, and consisted of a clay layer framed by stone, reused Roman tile or wood, within which a smaller area of burning identified the area of the actual fire. Often, though not invariably, the buildings seem also to have had wall benches along about two thirds of the length of their walls (Hall 1994, 57).

The later Viking Age semi-sunken buildings of period 5B were constructed of upright posts set in foundation sill beams in sunken foundation trenches in the bottom of rectangular pits c. 7.5 x 4 x 1.8m. Horizontal planks were placed loose behind these uprights, and held in place by their own weight, supported on either side by the posts and the vertical cut of the pit. One building alone had double walls, forming a cavity wall structure. The floors in the structures varied; one building was wood floored, another had a laid floor of twigs, while a third appeared to be floored with reused Roman *opus signinum*. None, however, had a hearth, which implied that there must have been at least one further floor above these basement structures. Stone revetted entrances in the gables provided access to the buildings (Hall 1984a, 71-4; 1984b and 1994, 60-64).

Activities on site:

The most comprehensively published craft evidence from Coppergate thus far is for ferrous (Ottaway 1992) and non-ferrous (Bayley 1992) metal working, and textile manufacture (Rogers 1997).

Non-ferrous metal working began on the site in Period 3 and increased steadily into 5B (Bayley 1992, 816). Although there was evidence for cupellation and parting, indicating the working of precious metals, the majority of the finds of crucibles, scrap metal, moulds and slag suggest a production of relatively low-value, wrought, rather than cast, non-ferrous jewellery (*op. cit.* 815-816). A degree of specialisation was visible between the tenements, however, with precious metal working beginning in Period 4A; silver working was concentrated on Tenement D, but did not continue beyond Period 5B, while gold working was concentrated in Tenement C, and continued into Period 5C. Copper alloy working began earliest, in Period 3, and continued into the post-Conquest Period 6 (*op. cit.* 816). It has been argued that the amount of silver working debris from Tenement D was a result of the presence of a mint here, where two coin dies were also found (*op. cit.* 802); the existence of a mint, however, is not proven by the presence of the dies. The degree of redistribution of industrial debris inevitably blurs this picture, however, and while some specialisation might be expected and is accepted in the material, overlap must have been common.

Fine blacksmithing also took place on site, particularly in the earlier Viking Age buildings of Period 4B, and it has been suggested that this may explain the presence of two tenth century coin dies and a lead test strip, which may indicate die production and/or recycling at Coppergate (Ottaway 1992, 525; Hall 1994, 88-91). The range of production seems to have been wide; craft tools, knives, household items such as locks, nails, needles, chains and pots, dress fittings and riding equipment have all been found, and were produced on site (Ottaway 1992).

The earliest, late ninth century Anglo-Scandinavian occupation of the site (Period 3, see above) produced evidence of glass working, in the form of a hearth of reused Roman tile, with associated glass sherds and cullet. The small scale of production suggests bead making, and there was additional evidence of this in the later pre-Conquest deposits (Hall 1994, 96-7). Amber working chips and half-made objects

from the mid-tenth century deposits indicated that similar small decorative items such as beads and finger rings were also being produced from imported raw material (*op. cit.*, 98-99).

Wood working was important on site by the later tenth century, and is represented by cores left after the manufacture of lathe turned pieces. This may have been the source of the name Coppergate i.e. ON *koppari gata* (Hall 1994, 99-100). A wide variety of woodworking tools were found on the site, including axes, a shave, a socketed chisel, gouges and augers (Ottaway 1992, 527-537), and woodchips were recorded in floor deposits (Kenward & Hall 1995, 726-727).

Textile production seems also to have taken place; wool combs were found, as were spindle whorls, loom weights, pin beaters and a weaving tablet. Post-Roman textile production began on site as soon as it was reoccupied in Period 3, and prior to the construction of any clearly definable buildings within the excavated area (Rogers 1997, 1793). All the processes required to transform raw flax or wool into cloth were represented in the small finds of this period, and although the tools are rarely distinctive, Penelope Walton Rogers states that 'This textile industry is clearly Anglian or Anglo-Saxon in origin' (*ibid.*). The sub-division of the excavated area into plots in Period 4A was accompanied by a possible slight contraction of the craft, with no evidence of the process of teaselling (*op. cit.* 1797). With the first construction of buildings along the Coppergate frontage in Period 4B, fibre processing apparently expanded, with a distinction between wool combing in the buildings, and flax processing in the yards behind them (*op. cit.* 1797-99). Spinning, understandably, was concentrated within the buildings (*op. cit.* 1799). Weaving during this period may have taken place outwith the excavated area, initially on a warp-weighted vertical loom, and later on a two-beam vertical loom (*op. cit.* 1799-1801). The cloth was dyed on site, with quantities of dyestuffs recovered from the deposits (Kenward & Hall 1995, 767-773; Rogers 1997, 1766-1771), but teaselling was not carried out here.

Garments were also made on site, with shears, needles and smoothing stones or 'slick-stones' also recovered from tenements B, C, and D during Period 4B. In addition to cloth that could have been manufactured on site, off-cuts of imported silk were also

found in this period. Scandinavian influence is present in the form of a sock of *nålbinding*⁶, and a piece of characteristically Scandinavian textile, but the tools are described as Anglo-Saxon in style (*op. cit.* 1803).

Importantly, Rogers notes that, ‘...the textile crafts spread evenly through the tenements, in contrast with the industrial crafts, which tend to concentrate on one, or sometimes two, tenements’ (*ibid.*). Little systematic study of textile production during the early Mediaeval period generally has been carried out, so it is extremely difficult to assess whether this evidence represents solely domestic production, or whether there was a deliberate overproduction for sale. The conclusion drawn from the Coppergate material, however, is that, while the evidence from this and other sites in York makes it clear that textile production and working were widespread domestic activities, the preponderance of textile working tools from this site would suggest that ‘more cloth was being produced at Coppergate than elsewhere’ (*op. cit.* 1825).

V.2.3.3 Projects around Pavement, Parliament Street & High Ousegate

Lloyd’s Bank, 6-8 Pavement

Four trenches were excavated in the front rooms of the basement of 6-8 Pavement in 1972-3 (P. Addyman in Addyman & Hall 1991, 180-237) on the Lloyds Bank site. Trenches I and II were in 6 Pavement, while Trenches III and IV were in 8 Pavement. Trenches II and IV were at the streetward, north-western end of the rooms (*op. cit.* 184-185) (see fig. 66). Over nine metres of archaeological deposits provided a stratigraphic sequence from Roman through to post-mediaeval deposits, truncated in the 17-18th centuries down to 10th century levels and earlier, with 11th and 12th century intrusions (Oakey 1991, 230).

In Trench IV, which had the longest stratigraphic sequence, and deepest deposits, everything above 6.16m OD was excavated, while deposits below this level were probed and auger sampled (*op. cit.* 187). Nothing of the Roman occupation was, therefore, excavated, but the earliest excavated deposits contained a pin of possibly

⁶ This is a technique of single needle knitting for the manufacture of round items such as socks and mittens, still practised in Scandinavia, but not apparently known in Britain before or after the Scandinavian occupation of the Danelaw.

Anglian date and no post-Roman pottery, the combination of which makes an Anglian date for the deposits likely (*op. cit.* 195). No Anglian structures were observed within the excavated area. These deposits were succeeded by a sequence of at least ten buildings on the same site, all of which produced finds which could be dated to the period of the Anglo-Scandinavian occupation. A series of three calibrated radiocarbon dates from middle and upper parts of the sequence, at AD 880-1030, AD 890-1115 and AD 970-1160 (see Appendix F), when combined with the ceramics which included Stamford wares, St Neots-type wares and Pingsdorf, but not the later gritty wares, suggest that the latest deposits in the sequence were probably of the early eleventh century (*ibid.*). Everything above this level was truncated by the construction of post-mediaeval cellarge.

Trench III lay behind and 2m south-east of Trench IV, and contained markedly shallower deposits. Again, the earlier part of the sequence was not excavated, and in this case, no dendrochronological or radiocarbon determinations were made. A series of structures within the trench could be equated with those in Trench IV on the basis of analogies in the stratigraphic sequence. All were accompanied by finds which demonstrated that they were of Anglo-Scandinavian date, but the presence of gritty wares in the uppermost structures indicated that the Trench III sequence extended later than that in Trench IV, probably into the early twelfth century (*op. cit.* 200-201).

Trench II, which was at the street end of the cellar of 8 Pavement, could only be excavated to 9.27m OD, not even to the bottom of the Anglo-Scandinavian deposits. Substantial structural remains were uncovered with, again, a sequence of superimposed timber buildings. Dendrochronological determinations from the third of five excavated structures gave a 'probable late tenth century felling date' (*op. cit.* 210), corroborated by the ceramics from the sequence, which were York and later Torksey types, with no eleventh or twelfth century material (*ibid.*). The later levels were again truncated by post-medieval cellar construction.

The largest of the trenches, Trench I, was behind Trench II, and was substantially damaged by modern intrusions. Only 1.5m below the modern cellar floor were excavated, under difficult conditions (*op. cit.* 212). Beneath post-mediaeval deposits

relating to the construction and use of the cellar, truncated Anglo-Scandinavian deposits revealed the structural details of a series of superimposed buildings similar to those in the other three trenches. These were dated on the basis of a finds assemblage which was predominantly of tenth to eleventh century types (*op. cit.* 219-220), with Stamford and Pingsdorf-type wares in the latest deposits. Independent confirmation of the finds-dating came from a single dendrochronological dating from an amorphous structure near the late end of the sequence, which gave a felling date of AD 982-1020 (*op. cit.* 218).

Buildings and plot organisation:

There were only highly fragmentary, and tenuous links between the trenches (Oakey 1991, 228), so very little general structural evidence could be derived. Although various wall lines extended through the trenches, it was not always possible to determine which side of the wall represented the interior of the building, or, indeed, whether the walls were buildings, plot boundaries or other structures.

The ninth century and later Anglo-Scandinavian structures uncovered during excavation were at right angles to Pavement on the same alignment as the existing modern buildings (Addyman 1991, 229-30). Five techniques of wall building were observed, all of which were paralleled elsewhere in York at the same period, particularly on the Coppergate site (Oakey 1991, 232 and see above). These consisted of a number of variations on wattle and withy construction, with uprights variously of stakes and posts of different weight and timber, and a grooved sill beam construction which could have taken a superstructure of horizontal or vertical planking (see fig. 67). Negative evidence for inorganic roofs suggested that roofing was organic, possibly turf or thatch, while floors were of earth or wood, and the walls at least sometimes, daubed (Oakey 1991, 231-233). This was indirectly supported by environmental evidence (Hall *et al.* 1983, 210-211)

Preliminary environmental analysis of samples from the Lloyds Bank site suggested that heather might have been used for bedding (Buckland *et al.* 1974, 31), while reeds were used as floor covering (*op. cit.* 26). Conditions appeared to have been damp and foetid and, 'The contrast between the apparent affluence of the purely archaeological

material ... and the total squalor demonstrated by the biological evidence cannot be overstated' (*op. cit.* 33). Later and more detailed reassessment of the same material gave less clear-cut results, with a realisation that the wide variety of insects found in some of the samples could be representative of periods of abandonment, use of the buildings as stores or byres, or levelling up for new buildings (Hall *et al.* 1983, 204-205). Clean and well maintained floors would, of course, be virtually invisible in the archaeological record, but it would now seem that the interiors of the buildings on Pavement were not foul (*op. cit.* 221).

Activities on site:

Large amounts of leather working debris, offcuts and tools indicated that cobblers' and/or cordwainers' workshops were located towards the street front. However, domestic debris in the form of animal bone (not merely the foot bones which might have been attached to hides), iron and wooden objects, pottery and textiles indicated that the occupation on these plots was not merely industrial, but mixed (Oakey 1991, 233-235). Initial speculation that tanning might have taken place on site (Buckland *et al.* 1974, 29 & 31) was dismissed at a later stage (Hall *et al.* 1983, 221), leading to the inevitable conclusion that the production of leather goods, particularly the manufacture of shoes, was a specialised craft in Anglo-Scandinavian York.

Hops from the site suggest that brewing may possibly have taken place here (*op. cit.* 205). There were also amounts of other food evidence from the site, both bone and botanical material, suggesting that food was prepared and consumed here. It is probable, therefore, that the buildings were not merely workshops (Oakey 1991, 235).

Imported amber from the Baltic, soapstone, Norwegian hones and Pingsdorf-type painted pottery, all in small amounts, indicated the international contacts of the settlement as a whole; the amounts present at 6-8 Pavement were not unusually large in the light of other excavations in the area (*op. cit.* 236).

5-7 Coppergate

A watching brief in 1974, on the opposite side of Coppergate from the major excavations described above, revealed a wattle fence line along a plot boundary at

right angles to the street. The area had been also been observed during construction work in 1902-3 by George Benson, when he saw what he described as a 'stockade' and a number of rectangular, wood-lined pits which he interpreted as tanning pits (Benson 1902; Benson 1906).

Within the very limited area available in 1974, only a substantial wattle fence line was visible. It was broadly dated on the basis of associated ceramics, to the tenth or eleventh century (Hall 1991, 238). Hall identified Benson's 'stockade' with the fence line observed during the 1974 work (*op. cit.* 240-242), or a similar fence line; it seems unlikely that any defensive structure was observed by Benson in this area, despite his use of the term 'stockade' to describe the feature observed here at the beginning of the century (Hall 1991, 241) (see below, V.2.4.3).

The 'tanning pits' were also reinterpreted in the light of the late tenth century semi-sunken buildings from 16-22 Coppergate as similar half-cellared structures (Hall 1991, 238-250). Their size, alignment and construction strongly suggest the parallel (*op. cit.* 249), which was not available to Benson. Benson's late tenth to eleventh century dating of the structures on the basis of finds still stands (Hall 1991, 243-250).

8 High Ousegate

A watching brief in 1977 during the underpinning of a boundary wall demonstrated continuity of that boundary, at right angles to High Ousegate, from the Anglo-Scandinavian period to the modern day (Brinklow 1991, 251-252).

V.2.3.4 Occupation west of the Ouse:

58-9 Skeldergate (Donaghey in Moulden and Tweddle 1986, 37-48, and discussion, Hall *op. cit.* 49-52)

The site at Skeldergate was excavated between 1973 and 1975, providing a stratified sequence from the Roman period (only a limited area was excavated) to Post Mediaeval occupation. Organic preservation on the site was poor, and later intrusions had badly damaged the four potentially Anglo-Scandinavian structures which were excavated (see fig. 68).

Architectural features:

Structure A was a very small building c. 2.5m wide, and of unknown length, orientated north-west - south-east, with a rectangular foundation trench packed with stone and cut by post-holes (Donaghey, 1986, 39). This construction technique is otherwise unknown in York (Hall 1986, 49), but paralleled elsewhere in the Viking World, most notably in Birka (see above, III.4.3.3).

Structure B post-dated and was directly above A, separated from it by deposits (Donaghey 1986, 39) which could, however, not have concealed the position of the underlying structure. It was equally small, apparently double walled, with load-bearing posts in the wall lines and a partially burnt clay floor, with overlying clay, ash, sand, charcoal layers (*op. cit.* 39-41). Later map evidence suggested the possibility that the outer 'wall' could have been a plot boundary (Hall 1986, 49), which would help to explain an otherwise unique type of building construction.

Structure C, to the south-east of A and B and with which it had no demonstrable stratigraphic relationship, consisted of two parallel wall lines orientated ENE - WSW, the southern being a long shallow trench containing decaying wood, the northern a series of post holes in slots. This may well have been two parallel buildings, both extending outwith the excavated area, as the area between the two was badly damaged by Mediaeval intrusions. To the north of the northern wall line, deep ash layers and a hearth would tend to confirm the two building theory (Donaghey 1986, 44-47). If this were one building, it would be only 3m wide, and 5m long; Hall (1986, 49) interpreted the features as one structure, aligned on Carrs Lane, but notes that it may have been two, separated by a speculative pre-Norman plot boundary (Hall 1986, 50).

Structure D, on the south-eastern corner of the site, was damaged by later intrusions, but consisted of four foundation trenches which outlined a rectangular building 6 x 5.5m in size, orientated ENE - WSW, similarly to structure c. A wooden beam with groove along top lay in the north-eastern long trench. Within the foundation trenches was a carefully constructed floor of rammed small stone in soil (Donaghey 1986, 44-47).

A stone wall between A/B and C, orientated near N-S and originally mortared, and a robber trench east of A/B at right angles to the surviving wall base, may possibly have been a short-lived Norman stone building reflecting the property boundaries, but as stone structures, are probably unlikely to have been Anglo-Scandinavian in date (Hall 1986, 51).

Activities on site:

No industrial or craft evidence was found in the excavated area, only domestic finds, particularly of animal bone and pottery. The bone from structure A showed signs of secondary butchery (Donaghey 1986, 39), but no clear context for the activity was evident in the limited area excavated (Hall 1986, 48).

Dating:

Structure A was sealed by deposits containing Tating ware, ninth to tenth century local pottery, and an Anglian pin (Donaghey 1986, 39). Structure B was sealed by deposits containing an Anglo-Scandinavian iron key and more ninth to tenth century pottery (*op. cit.* 41). The combination of the evidence from the two structures and their stratigraphic relationship with each other suggests that they are of the late ninth to tenth centuries.

Deposits associated with structure C contained composite single-sided antler combs and a number of other clearly Anglo-Scandinavian objects. The whole was underlain by a thick layer giving a numismatic *terminus post quem* for the construction of the building of AD 852-74 (a penny of Burgred of Mercia), and sealed by deposit containing coin of AD 837-54 (Archbishop Wigmund of York) and tenth to eleventh century pottery (Donaghey 1986, 41-44). The evidence is not incompatible with a construction date as early as the late ninth century, but the more probable date of the use of the structure would be the tenth or eleventh century (Hall 1986, 49).

The beam in structure D could not be dendrochronologically dated, but radiocarbon dating gave a result of ad 990 \pm 70 (960 \pm 70 bp) (see Appendix F). Soil in the same foundation trench included a coin dated to AD 737-58 (Eadberht of Northumbria). Charcoal from the occupation deposits gave radiocarbon dates to ad 720 \pm 80

(1230 \pm 80 bp) (see Appendix F) and the same layers yielded tenth century pottery (Donaghey 1986, 45). Given the potential limitations of the radiocarbon dates, which may have derived from reused timber or, in this case, have been contaminated (Hall 1986, 45 & 68 - note 4), the finds-dating indicated a *terminus post quem* for the construction of the building of the mid-eighth century, and a probable date of the tenth century for its actual construction and use.

The stone wall and associated robber trench were dated by finds to before the twelfth century, probably indicating a short-lived eleventh century construction (Donaghey 1986, 47).

V.2.4 Thematic discussion: the physical structure

V.2.4.1 Buildings:

Structural evidence of the architecture of Anglian and Anglo-Scandinavian York is still limited. Two sites, Fishergate and Coppergate, form the focus of the argument, and are the basis to which everything else from the town is compared - from Fishergate, three large rectangular buildings and one sunken-featured building, all apparently contemporary, and from Coppergate, ten buildings in contemporary groups of four and six.

The seventh to ninth century buildings (Period 3a, Anglian) at Fishergate (see fig. 64 and above) were all constructed with load-bearing posts in the wall line, but where the corner posts survived, there is no evidence that these were any larger or more strongly founded than other posts (see fig 71) (Kemp 1996, 29, 33, 35). This implies a superstructure which spread the load of the roof evenly along all of the wall line, presumably with an unbroken wall plate at the head of the wall. This interpretation is also supported by the lack of pairing in the posts of the parallel walls; on the published evidence, frame construction is not a possibility. The post-holes generally were very shallow (*op. cit.* fig. 8, & 70), and in some cases replaced by pad stones (Structure 2, *op. cit.* 32), again emphasising the likelihood of a wall construction whose rigidity was largely determined by the wall plate. Small amounts of daub

found in association with the structural remains suggest, unsurprisingly, that the wooden walls were daubed (*op. cit.* 70-71).

The dimensions of the post-built structures were extremely consistent. Structure 1 was 5.5m wide, and between 14 and 19m in length (*op. cit.* 27); Structure 2 was 5.5 m wide, and over 13m long (*op. cit.* 34); Structure 3, for which the evidence was more tenuous, was at least 5.5m wide, and 11m long (*ibid.*). Two other possible structures, 4 and 5, were so extremely fragmentary that no dimensions could be distinguished. A sunken-featured building near Structure 1 measured 1.6m x 3.25m and was 0.5m deep.

In Structure 1, an internal division was defined by a shallow slot 3m from the northern end of the building, which had a gap 0.8m wide between its western end and the western wall, marking an access between the smaller room (5.5m x 3m) to the north of the wall, and the larger room (5.5m x 11-16m) to the south (*op. cit.* 28). This pattern was also present in Structure 2, where a shallow slot 3.5m from the eastern end wall of the building, with an access 0.7m wide between the end of the slot and the northern wall of the building, defined two rooms of 5.5m x 3.5m and 5.5m x at least 9.5m. Structure 3 was insufficiently well preserved to identify any internal features (*op. cit.* 34).

In none of the buildings at Fishergate was it possible to determine the position of the external accesses (*op. cit.* 70), or indeed the position of any hearths.

Coppergate stands in sharp contrast to Fishergate in terms of the quality of preservation of the structural evidence; it is unfortunate therefore that the site is not, as yet, fully published. The structural evidence from Period 3 (see above, V.2.3.2), in the mid-late ninth century, is so slight that it cannot be interpreted as the remains of a building with any certainty. Substantial building evidence comes from Period 4B and later (see fig. 65).

In Period 4B, four parallel rectangular buildings were excavated. They were orientated with their narrow ends towards the road, and were of post and wattle construction.

All these structures were truncated by the excavation edge at their front, road-side ends, and therefore had surviving lengths of no greater than 6.8m, with average widths of 4.4m. The buildings were frequently repaired and replaced, due to fire damage as well as natural deterioration, but their position and dimensions were conservative (Hall 1995, 444).

The wall construction was supported by earth-fast posts, set into post holes, or trenches, or driven. Wattle panels were either incorporated into the posts of the wall line, or built just inside them (Hall 1994, 56). The slight construction makes it extremely unlikely that the structures were of more than one storey, and the lack of pairing of posts also suggests that the roof was borne on a wall plate, rather than frames. Importantly, the excavators noted that the walls of any one building could be constructed in several ways (*op. cit.* 57); repairs, rebuilds, renovations and general pragmatism seem to have created buildings whose structures were patchworks of different techniques. The entrances that were visible were in the rear walls of the buildings (the short walls), at the right hand side facing the street (*op. cit.* 56); they were presumably matched by doors in the short wall at the street front.

Within the buildings, the hearths in tenements B, C, and D were on the long axes of the buildings; that in tenement A was destroyed by later intrusions, while that in B was extensively damaged. The hearths were large, up to 2.4 x 1.3m (Hall 1995, 444) and typically 1.8 x 1.2m (Hall 1994, 57), and rectangular, with clay and stone bases often reusing Roman tile, or timber or stone, as edging (Hall 1995, 444). Floors were of earth (Hall 1994, 57). There is no published evidence for permanent divisions of the internal space, which seems to have conformed universally to the pattern of a 'hall' with a central hearth. Wall benches c. 0.6m wide were observed in some of the buildings (*ibid.*).

The second group of buildings at Coppergate were constructed in the late tenth century. These were six sunken structures, one on tenement A, two on B, one on C and two on D. The walls were of horizontal planking set behind upright posts let into sunken, shaped sill beams, the whole within a rectangular pit. At the top edge of the wall of one of the structures, half-lap joins suggested the presence of a wall plate,

which would be essential for the stability of the wall. The walls survived, in some cases, to a height of 1.8m, while the total dimensions of the structures averaged 7.5 x 4m (*op. cit.* 59-60): individually they were 7.6 x 3.8m, 7.4 x 4.3m, 6.7 x 3.5m, 8.3 x 4.4m, 7.2 x 4.2m and over 7.2 x 4.2m (Hall 1991, 249). Again, access, where distinguishable, was via the right hand rear corner of the building (Hall 1994, 65).

These two sites set the pattern to which all other contemporary sites in and around York are compared. Fishergate itself, though poorly preserved, clearly fits into an early Mediaeval building tradition which is deeply rooted in the archaeology of the Anglo-Saxons (James *et al.* 1984). The internal subdivision into two rooms, one of which is less than a quarter of the total floor area is highly characteristic (*op. cit.* 186-189), as is the standardised width of the buildings. It is widely suggested that the most common form of building in this tradition was a rectangle built upon a multiple of a square module (*op. cit.* 188). For the Fishergate buildings, this might give projected lengths of 11m or 16.5m (on a 5.5m square).

Many of the rural buildings discussed by James *et al.* (1984, 190-198) had paired wall posts or cruck posts, and frame constructions have been postulated (*op. cit.* 192-193). The buildings from Southampton, however, do not necessarily seem to follow this pattern, although it is often difficult to determine this given the degree of later disturbance (e.g. Andrews 1997, 84-92). It may well be that the structural demands of a smaller building, such as those at Fishergate, could be served by a more economical use of timber than that postulated for the larger structures of, for example Cowderys Down (James *et al.* 1984, 192). That the Fishergate buildings, despite their relatively shallow post-footings and the lack of evidence for the position of entrances, have a place in this contemporary tradition is evident (Kemp 1996, 71).

The early buildings at Coppergate, in contrast, do not appear to reflect this native tradition. They are internally undivided, with complex, carefully constructed, central hearths and wall benches, neither of which are characteristic of known Anglo-Saxon buildings. The post and wattle construction, and pragmatic use of different techniques may well be paralleled on Anglo-Saxon sites; unfortunately none with sufficient organic preservation is known, to act as a comparison. Judging again from

Southampton (e.g. Andrews 1997, 88-89), post size in Anglo-Saxon buildings may have been larger than the posts in the buildings at Coppergate, although this may well be a factor of relative access to resources.

Nonetheless, it is particularly interesting to compare the Period 4 buildings at Coppergate with rural buildings from Viking Age Scandinavia, and the North Atlantic islands. The internal organisation of the Coppergate buildings shows strong similarities with hall buildings on sites such as Jarlshof (Hamilton 1956) in Shetland, and Borg in Lofoten (Munch *et al.* 1986, 88-91) where similarly large complex central hearths are flanked by wall benches (see fig. 69). This pattern is matched throughout the North Atlantic on sites which are clearly Viking Age in date, but much larger than those from York; the oldest of the Jarlshof buildings was over 20m in length (*op. cit.* fig. 52), that at Borg, 30-40m in length (Munch *et al.* 1985, 149-170). Viking Age domestic buildings in the Faeroes range from 14m to 20m in length (Thorsteinsson 1982, 149). Subdivision of this interior space in the North Atlantic rural context appears to have been a characteristic of the post-Viking Age, rather than Viking Age, occupation; this is discussed further below (see Chapter VI) in the light of architectural differences between the Scandinavian towns and the Danelaw towns. Suffice it to say here that it seems that the earlier Viking Age buildings at Coppergate were constructed in an architectural form which, while Scandinavian in origin, was already archaic in an urban context in Scandinavia, and indeed had never been particularly characteristic of urban settlement in mainland Scandinavia.

The construction of these early buildings shows marked similarities with the architectural fragments retrieved from the excavations at the Lloyds Bank site (6-8 Pavement, fig. 67). The repertoire of variations on wattle and withy construction, supported by load-bearing, earth-fast posts are duplicated at the two sites, and although little, if anything, is known of the overall form of the buildings at the Pavement, it seems probable that they were similar to the Period 4 buildings from Coppergate. The potential exception to this are the fragments of wooden flooring from Structures II/4, IV/2 and IV/11 at Pavement (Oakey 1991, 233), while the buildings from Coppergate had earthen floors. That the two groups of structures are nonetheless within the same architectural tradition remains likely.

The later, Period 5, buildings at Coppergate represent a radical departure from anything observed in York before, either during the Anglian or the earlier Anglo-Scandinavian occupation. Their basement or semi-basement structure was entirely new, as was the technique of supporting the walls using the weight of the vertical edge of the pit cut. A small sunken-featured building was excavated at Fishergate (Kemp 1996, 31), but this in no way differed from sunken-featured structures characteristic of the Roman and post-Roman Iron Age over the whole of north-western Europe, with its shallow 0.5m cut, small size, and evidence for a flimsy wattle lining (see above, V.2.3.1). These earlier sunken-featured buildings show none of the distinctive technical features of the Period 5 buildings, which were markedly larger and strikingly massively constructed. The massivity of the construction makes it very probable that they carried an upper storey, and indeed, the excavator suggests that the concomitant expansion in usable floor area was the reason for the change in architectural style (Hall 1984, 71-77 & 1994, 59).

The joinery techniques which were used to build these basements were not in themselves new. The shaped sill beam has been found on other sites in York, among them 6-8 Pavement, where one of the earliest structures, IV/2, had a grooved sill beam (see above and Oakey 1991, 232-233), technically more difficult to manufacture than the lipped sill used on the Coppergate buildings. Vertical post and horizontal planking, known as *skiftesverk* in modern Swedish, has been a common walling in Scandinavia since at least the Viking Age and is known from eleventh century sites in England (Gina Porter, Julian Ayre & Robin Wroe-Brown pers. comm.), although it normally consists of short planks slotted between grooved posts.

In the light of the Period 5 buildings from Coppergate, Benson's observations at 5-7 Coppergate have been given serious reconsideration (see above, Benson 1906; Radley 1971; Hall 1991, 243-250). A complex group of structures, consisting of horizontal timber frames over three sunken, timber-lined pits, were interpreted as contemporary, and on the basis of that relationship, believed to be the remains of a tannery (Benson 1902, 64-67; Radley 1971). However, if the two elements, the horizontal framework, and the underlying pits, are separated, as Hall argues they should be (Hall 1991, 243-

250), the pits bear strong resemblance in both size and construction to the Coppergate buildings, and are reinterpreted as such by Hall (*ibid.*). It might also, perhaps, be worth considering the possibility that, even if the two elements were contemporary, the horizontal framework represented the footings of the building or buildings forming the upper storey of the basements. At the time of Hall's reinterpretation of the evidence, he seems to have been convinced that the pits were sunken-featured buildings, rather than the basements as which they have been more recently published (Hall 1994, 59-60)

In the context of what now appear to be a group of firmly established chronologically sequential architectures, it is difficult to place the excavated evidence from Skeldergate. The poor organic preservation of the site has resulted in datings which are much less precise than those from Coppergate, and the few dateable finds did not improve the situation. It is not clear whether of the four buildings, any one was contemporary with another. The buildings were small in comparison with buildings from either Fishergate or Coppergate; Structures A & B were only 1.3m wide, with a surviving length of 2.6m, comparable to the size of the sunken-featured subsidiary structure from Fishergate (V.2.3.1), Structure C was 5 x 3m, and Structure D 6 x 5.5m. Of the four, only structure D was anything like the size of domestic buildings excavated on other sites, and it was short compared to other buildings, and had no hearth. Structure A/B had a hearth, suggesting that it was occupied, but it was extremely small. The rubble-packed trench foundation of A, and the double-walled post construction of B are also not paralleled in other Anglian or Anglo-Scandinavian buildings in York (Hall 1986, 49). Structure C was so fragmentary that little of detail could be said about it; indeed, it could have been the walls of two entirely separate structures, otherwise unnoticed in the archaeology (Donaghey 1986, 44).

The structural evidence from York, limited as it is, strongly indicates chronological shifts between conscious architectural traditions, occurring over short periods of time. The coincidence of the earlier of these shifts, between the mid-ninth century (Fishergate) and the early tenth century (Coppergate) with the political disruptions of the second half of the ninth century suggests that aspects of these architectural changes may have had symbolic political, or possibly ethnic, significance. However,

the relationship is far from transparent; later shifts in the architecture do not coincide as neatly with historically documented changes in the socio-political climate of the settlement, and even within the limited database, it is clear that significant anomalies, such as Skeldergate, existed and persisted (see V.2.3.4).

V.2.4.2 Roads and Plots:

The excavated area at Fishergate, at the beginning of the Anglian occupation, was cut by a long ditch which thereafter dominated the physical layout of the structures on the site (Kemp 1996, 18) (see fig. 64). It was recut, possibly extended, and in one area contained a stake fence line (*op cit.* 21). At its southern end, a line of evenly spaced, large pits met the ditch line at a near right angle. The line of the ditch was continued further south by a later recut (*ibid.*). The earliest fill of the ditch contained no synanthropic fauna or flora, and no apparently anthropogenic material, suggesting that the land boundary which it clearly marked was established prior to the occupation of the site (*op. cit.* 21-22). The northern plot, defined by the line of the ditch, and the large pit alignment, was at least 1 200 m² in area; an insufficient part of the southern plot was excavated to allow any discussion of its possible size.

At the very south-western corner of the site, a linear pebbly deposit and associated ditch were interpreted as evidence of a metalled road or path (*op. cit.* 25). Insufficient evidence survived to indicate whether this had been replaced or maintained at any time; it was severely damaged by later intrusions. On this, and the evidence of the early establishment of plot boundaries, the excavator suggests that 'the settlement was orderly and did not grow organically, but was laid out according to a plan of some kind' (*op. cit.* 67), although he admits that the evidence against which this model must be tested is scant. However, given the much more comprehensive evidence for the planning and organisation of Anglo-Saxon settlements, particularly settlements with evidence of long-distance trade such as Southampton (Morton 1992, Andrews 1997), it seems a valid hypothesis that Fishergate may also have been a planned settlement.

A similar sequence was clear in the pre-Conquest occupation of Coppergate. Interestingly, however, the establishment of plot boundaries here (in Period 4a) post-dated a period of use and possible occupation during which no plot boundaries were

X

evident in the excavated area (Period 3). If this period (3) represents an Anglian use of the site, it could potentially be argued that the plots defined on Fishergate were sufficiently large that their boundaries might not have intruded into the excavated area at Coppergate if a similar system were imposed there. It is equally possible that this part of the intramural area had yet to be lotted.

In Period 4A there was a definite subdivision of the excavated area, and in the following Period 4B, there was a slight redrawing of the boundaries to accommodate the newly laid out buildings (see above V.2.3.2 & Hall 1997, 444-445). This two stage process, interestingly, can be paralleled in Periods 1 & 2 at Birka (see III.5.2). The plots which were defined by this process were markedly smaller than those at Fishergate, about 5.5-6m wide, and at least 43.5m long. The extreme length of the Coppergate plots could, arguably, be a factor of the grade of slope extending down to the river behind the buildings, but it does seem to indicate that space was not at a premium, and the dense clustering of buildings along the street front was a matter of choice rather than necessity.

X

Although the process of organising the land prior to occupation is similar on Fishergate and Coppergate, the end result was different. The plot division of Coppergate showed a marked change in organisation compared with Fishergate; not only were the Fishergate plots larger, but the buildings on them were more loosely arranged, with three buildings on one plot, each with a generous amount of surrounding space, and aligned at angles to each other, rather than parallel. On Coppergate, the buildings were parallel, narrow end to the street front, with less than a metre between their long walls, and that space often divided by a fence line along the plot boundary. A comparison of figures 64 and 65 will make clear the differences between the two; these physical changes would inevitably have had important social implications, particularly on the level of the individual's experience of life in the settlement. Again, as with the architectural shifts discussed above, it seems likely that these changes in the type of occupation and the nature and size of land divisions within York were conscious, and significant.

64 + 6

X

It must also be of significance that it was the tenement divisions established during the years of the Anglo-Scandinavian occupation of York which have survived up to the present day. This was clearly shown at Coppergate, and further demonstrated at 6-8 Pavement and 8 High Ousegate (see above, V.2.3.4). Similar persistence seems likely in the street system. Figure 60 shows those streets for which there is archaeological evidence of Anglo-Scandinavian use or creation. Although elements of the Roman street pattern clearly survived, in part determined by the lines of the Roman defences (see below), new Norman and Mediaeval streets were laid out, and again in the eighteenth century, much of the modern street plan of York was determined in the pre-Conquest period. Although the use of the -gate suffix, from ON *gata*, cannot be used to identify Anglo-Scandinavian streets - it persisted in active naming use into at least the fourteenth century (Hall 1994, 35) - the very existence of the element in Yorkshire dialect is demonstrative of the impact which the Anglo-Scandinavian occupation had on York.

63?

V.2.4.3 Defences:

The defences of Anglian and Viking Age York are still not clearly understood (see fig. 60). An increasing body of evidence demonstrates, unsurprisingly, that they were predicated by the existence of the Roman fortress and *colonia* walls. The line of the north-western and north-eastern walls of the fort is preserved in the Mediaeval town walls, and it is here that one might expect to find substantial evidence of the reuse of the Roman structures in the post-Roman, pre-Conquest period.

It is only adjacent to the western corner of the fort that anything like a complete sequence of the fortifications has been excavated, in the complex and dangerous trenches around the so-called 'Anglian Tower'. This excavation indicated that, while the Roman defences were clearly visible at least until the Viking Age, they had been breached or had collapsed in the Late Roman or post-Roman period, creating a gap into which the tower had been inserted (see above, V.2.2.5). The evidence for dating the tower to the Anglian period was not conclusive, but as a balance of probability judgement, still stands the test of time.

The excavator's preferred dating of the tower to the seventh century (Radley 1972, 54-55) implies that the fortress was of sufficient importance that, despite the lack of archaeologically proven occupation within the walls, yet the fortifications were actively maintained during the Anglian occupation of the area. The relative dating of the tower within the post-Roman and pre-Viking Age period, however, is unclear; it could easily have been related to a refortification in response to Viking attack, although the excavator found this less convincing (*ibid.*). If this were so, this structure would then say little about the nature of the Anglian response to the ruinous Roman settlement, and more about the qualitative difference of their response to Viking attacks in comparison to their response to the persistent internal Anglo-Saxon civil disruption of the eighth and ninth centuries. It is difficult to understand the apparent delay in repairing the fortifications, if this were a response to the Viking attacks, but such a late use of the Roman fortifications might be seen as reflecting an ideological rather than pragmatic change in the attitude of the occupants.

The sequence of defences excavated at the Anglian Tower included a post-tower, pre-Norman refurbishment of the Roman defences with a rampart, stub wall and possible palisade (see above V.2.2.5 and *op. cit.* 46-49). This is the best evidence extant for the Anglo-Scandinavian defences, but an excavation nearby at the corner of Lendal and Museum Street uncovered a series of possible palisade trenches, parallel with the Roman wall line and post-dating the latest Roman ditch (Coll 1991, 258-263), which were pre-late Mediaeval and could also have been a part of the Anglo-Scandinavian defences. Hall (1991, 268) suggests that the Mediaeval defences which extend from the area of the Roman western interval tower (SW6) may be of pre-Norman origin, extending the enceinture to the river Ouse.

Despite a number of excavations and observations along the south-western wall line of the Roman fort, there is no evidence of its active reuse or refurbishment, and it apparently fell progressively out of use during the post-Roman period. In some places, it may have stood as a significant topographical element into the Anglo-Scandinavian period, but it seems probable that it may have been largely obscured by the Norman period (Hall 1991, 265-268).

The evidence relating to the south-eastern wall line is more complex, and the fact that the site of the wall clearly determined the layout of the Anglo-Scandinavian street system, while having less influence on the parish boundaries, seems to indicate that although the wall formed no serious obstacle at the time of the establishment of parishes in the town (tenth to twelfth centuries), it was nonetheless visible at a date which could hardly have been much earlier (Hall 19591, 268-274). The extant, Mediaeval extension continuing the north-eastern wall line from the Roman fortress to the Foss was examined twice; the first excavation was not fully published (Waterman, 1950, referred to in Hall 1991, 274), while the second produced no evidence of a pre-Norman date for the construction.

The clay and brushwood embankment at Hungate (Richardson 1961, 59-63 and see above V.2.2.3), outwith the line of the fortress, between the southeastern wall and the River Foss, may have been pre-Conquest, and is published as such by the excavator. It has been suggested that it could also have been a reaction to the rise in water levels occasioned by William I's damming of the Foss (Hall 1991, 276); in all probability, however, it was a multi-period construction. Hall discusses this feature in relation to the southeastern extension of the defences from the Roman fort to the Ouse (*op. cit.* 274-276), but at no point does the excavator herself refer to it as a defensive structure (Richardson 1961). The similarity of the embankment to Late Saxon waterfronts recently excavated in London (Gina Porter, Julian Ayre & Robin Wroe-Brown pers. comm.), and to some of the evidence emerging from Scandinavian sites such as Birka (see above III.5.3, III.5.4), suggests that this structure is more likely to have been an Anglo-Scandinavian device for stabilising and possibly controlling access to, a shoreline area, than to have been defensive in either a military or hydrological sense.

Hall proposes an extension of the walls on the line of the later, Mediaeval southeastern extension, effectively enclosing the whole area between the Foss and the Ouse (Hall 1991, 277). In the light of the lack of evidence in the area east of the Roman fortress, this remains unproven, though still believable.

V.2.5 Thematic Discussion: The Social Structure

V.2.5.1 Craft Production

Craft production in Anglian York is known only from the site at Fishergate. A variety of crafts were represented on the site: metal working of both iron (McDonnell 1993, 1228) and non-ferrous metals (Bayley 1993, 1232-1235), bone and antler working, particularly the manufacture of composite combs (Rogers 1993, 1245-1264), and textile manufacture (*op. cit.* 1265-1273). These are a suite of crafts comparable to those in other contemporary sites, such as Southampton (Brisbane 1988, 101-108) and Ipswich (Wade 1988, 93-100).

Distribution analyses of the finds, however, revealed no particular foci of activity (Rogers 1993, 1441), and although this may have been a factor of the small size of the site, or the disposal of rubbish, it is interesting to note that this pattern conforms to that observed in other Anglian non-rural sites, such as London (Cowie & Whytehead 1989, 712) and Ipswich (Wade 1988, 95). The absolute amounts of finds were also relatively small, compared to those from Viking Age Coppergate, where four tenements were excavated to the three excavated at Fishergate (see above, V.2.3.2), suggesting a relatively low level of production. Although, again, this could be a factor of selective rubbish disposal or recycling, the number of finds which were made, and their wide horizontal spread across the site, would seem to indicate otherwise.

All the crafts represented at Fishergate are crafts which had a long history of domestic modes of production on rural sites. Even blacksmithing has been ethnographically found in the domestic forum, and it is noticeable that, although hearth bases from smelting were found at Fishergate (McDonnell 1993, 1225), they were sufficiently few that it was concluded that no iron smelting took place either on the site or close to it (*op. cit.* 1226). It is therefore difficult to demonstrate that there was any craft specialisation for sale or export on the Fishergate site.

Viking Age Coppergate stands, therefore, in marked contrast to Anglian Fishergate. From the earliest post-Roman occupation of Coppergate (Period 3), craft specialisation seems to have been an important economic factor on the site. The most

easily identifiable structures in Period 3 were a kiln or hearth for reworking glass (see above V.2.3.2). In Period 4, with the construction of parallel tenements on the site, this was succeeded by intense and varied craft activity in all the four tenements.

Period 4 deposits at Coppergate produced both iron smelting and iron smithing debris (McDonnell & Ottaway 1992a, 476-480) but, as at Fishergate, the absolute amounts of smelting debris were insufficient to suggest that smelting was taking place on or near the site (*op. cit.* 478). Smithing slag and furnace debris, in contrast, was present from Period 3 in sufficient quantities to make it clear that blacksmithing was carried out on site. While in Periods 3 and 4A, it was concentrated in the western end of the site, initially around the possible Period 3 structure (see above V.2.3.2 & *op. cit.* 479) but in Period 4B, it was overwhelmingly focused on tenement B (*ibid.*). The evidence, both from the debris and the manufactured artefacts (particularly knives) indicates a high degree of consistent skill in the smithing of this period (McDonnell & Ottaway 1992b, 485).

Similarly, the evidence for non-ferrous metal working from Coppergate, which was present in quantity throughout Period 4, showed a high degree of technical competence, with debris from cupellation (Bayley 1992, 748-751) and parting (*op. cit.* 751-754) of precious metals, in addition to the manufacture of less apparently valuable artefacts. The non-ferrous metal working debris also showed an uneven distribution, concentrating in the eastern end of the site, with gold working apparently carried out in Tenement C, and silver working more widely spread, but concentrating on Tenement D. Copper melting crucibles were also more widely spread, over Tenements B to D (*op. cit.* 766 & 816). With variations, this pattern continued into Period 5B, which may partly reflect the high degree of redistribution of artefacts resulting from heavy pit-digging on the site, but does also suggest a long term industry focused around the same tenements over a number of generations. Many of the crucibles used for the craft were imported Stamford ware (*op. cit.* 754-767), indicating yet further the degree of industrial specialisation involved in the craft.

Textiles were, in contrast, produced over the whole of the site, and evidence for textile working is relatively evenly spread throughout the buildings⁷. Interestingly, Rogers argues strongly for the textile working having been a continuation of the local Anglian tradition (Rogers 1997, 1821), and this may explain the picture of increasing specialisation from a base of a non-specialised rural pattern of production in Period 3 (*op. cit.* 1824). In Period 4B, the tenements housed all the stages of production of textiles, from the combing of wool and beetling of flax, to the cutting and sewing of garments, and including dying (Kenward & Hall 1995, 767-773). Evidence for teaselled cloth in Period 3 (Rogers 1997, 1774-1775) ceased in Period 4, but there seems otherwise to have been little real shift in the evidence available on the site. It is concluded therefore that 'There is nothing in the Coppergate evidence to suggest that the weavers here were producing anything other than the standard types of fabric and, if they contributed to trade, it would have been to the lower tier' (*op. cit.* 1827); during the Anglo-Scandinavian period, textile working here was a domestic, rather than industrial, craft.

The evidence from the Lloyds Bank site (see above V.2.3.4; Addyman 1991, 180-237; MacGregor 1982) indicates specialisation in production of leather artefacts (Oakley 1991, 233-234) in the tenth century structures excavated there. The largest amount of leatherworking evidence was found towards the front of the buildings, in trenches II and IV (*op. cit.* 234), suggesting workshop areas on the street front, though there was leatherworking debris from all the trenches (*ibid.*). Two shoemakers lasts define the workshops as cordwainer's (*ibid.* & MacGregor 1982, 144), but the fact that 'all the leather artefacts recovered from 6-8 Pavement showed signs of wear' (*op. cit.* 154) indicates clearly that cobbling was also taking place here. Despite MacGregor's statement that the environmental evidence indicated that tanning took place on site (*op. cit.* 71), based on an early interpretation of a small group of samples (Buckland *et al.* 1974, 29), this now seems less likely (A. R. Hall *et al.*, 1983), and these buildings can be seen as leather working rather than leather production workshops, showing a

⁷ A concentration of spindle whorls in Tenement C, Period 4B, is inflated by bone whorls discarded during manufacture, and by lead whorls probably also produced in the building, where there is other evidence of lead working (Rogers 1997, 1799). These removed, the distribution of whorls is more even across the site.

degree of specialisation not merely in one material, but in a specific type of work with that material.

Generally speaking, then, the archaeological evidence from Anglian and Anglo-Scandinavian York indicates that the reorganisation of the settlement in the late ninth century was the catalyst for a major change in the nature of craft production, and in all probability for the management of the urban economy. Specialised, large-scale craft work can only be sustained by established, reliable and large-scale trade in raw materials, and by the control of such trade.

V.2.5.2 Social Variation

Given the limited total area excavated in both Anglian and Anglo-Scandinavian York, it is hardly surprising that it has not been possible to distinguish significant, potentially status-related variations in the buildings of the town. Plots in the Anglo-Scandinavian town demonstrate a uniformity of width at c. 5.5m (Hall 1994, 36) which suggests a degree of socio-political control over the settlement, but how that control was defined and articulated, and how it reflected in the daily lives of the occupants, is not clear from the excavated structural evidence.

It might be expected that access to imported goods would be evidence of particular or unusual social status. However, it is clear from the excavations at Fishergate that access to imported material was well established in the Anglian settlement, as particularly attested in the pottery assemblage and the presence of Rhineland lava querns (Kemp 1996, 73). All the Anglo-Scandinavian sites also have evidence not only for the import of commodities, which could be represented by pottery, but for access to what must be called luxuries, such as the many fragments of silk from Coppergate (Walton 1989, 360-382). These could be considered a commodity, if it were not for the fact that the most impressive piece, a woman's silk cap, had clearly been worn for some time (*op. cit.* 360-362).

In attempting to discuss social variation in the Anglian and Anglo-Scandinavian settlement at York, we are also substantially handicapped by the lack of richly equipped inhumations or cremations as compared to contemporary settlements in

mainland Scandinavia. Two Early Mediaeval cemeteries of relevance have been excavated within the walls, one at the Minster (Phillips & Heywood 1995, 75-92) and the other at St Mary Bishophill Junior (Wenham & Hall 1987, 80-81 & 83), while evidence of a third exists at St Mary Castlegate (Hall 1987, 165).

Two burials accompanied by identifiably Anglo-Scandinavian grave goods were excavated at St Mary Bishophill Junior, along with two unaccompanied burials, and four further skeletons in Florence Row, nearby. Their orientation respected neither the underlying Roman building, nor the extant church, which is pre-Conquest in date (Wenham & Hall 1987, 83). One of the skeletons from St Mary Bishophill, a male, was accompanied by a whetstone, knife, buckle plate and coin, the latter of which was a St Peter penny from York dated *c.* AD 905-915. The other accompanied burial was a female with a penannular silver arm ring of insular type usually dated to the ninth to tenth centuries (*op. cit.* 80). Among the skeletons on Florence Row which shared the same alignment, and were within the bounds of the underlying Roman building, one, an elderly female may have been accompanied by a bone pin⁸ and was associated with a hooked object, possibly a coffin fitting, while the disturbed burial of a child contained a fragment of silver arm ring similar to that from the female burial in the church yard.

The Minster cemetery, beneath the southern transept of the eleventh century cathedral, contained burials aligned on the Roman axis, i.e. the orientation of the underlying *principia*. (Phillips & Heywood 1995, 75-79) It was excavated in great haste and under extremely difficult conditions, which inevitably affected the quality of the information from the site (*ibid.*). However, it was clear that the cemetery was, with few exceptions, confined to the area of the Roman *basilica*, and consisted of shallow inhumations arranged in rows parallel to the short axis of the *basilica* (*op. cit.* 79-80). The exceptions were a group which lay over the portico of the *basilica*, and which were orientated east-west (*op. cit.* 79).

⁸ The position of the bone pin, 0.15m from the head of the skeleton, is unusual, and raises the possibility, not considered by Wenham and Hall, of a shrouded burial. They say themselves that the pin was not firmly associated with the burial (Wenham and Hall 1987, 81).

Twelve of the graves were marked by carved stones; either foot- and head-stones or full-length grave covers (*op. cit.* 84). Elements of the burial rites are paralleled at other important Anglo-Scandinavian and Anglo-Saxon sites: for example, the use of domestic chests as coffins (*op. cit.* 83-84) has been identified at Repton (Martin Biddle, pers. comm.), and the use of purpose built coffins without metal fittings (*op. cit.* 82) is known from Birka (Gräslund 1981, 15-25), as is the use of biers and cart bodies or boats (Phillips & Heywood 1995, 86-7, & Gräslund 1981, 24). None of the burials, however, were accompanied by anything more substantial than a single coin or ring (Phillips & Heywood 1995, 88-92).

Both these cemeteries show some limited similarities to the burial practices in mainland Scandinavia, particularly in grave 93 at the Minster, with its burial on a boat fragment or clink nailed coffin (Kjølbye-Biddle 1995, 500-505), and in the accompanied churchyard graves 1 and 4 at St Mary Bishophill Junior (Wenham & Hall 1987, 80). However, there is none of the demonstrable status differentiation by grave goods visible in the Scandinavian material (for example, see above, Birka III.6.2; Gräslund 1981). Where accompanied, these graves have scant gravegoods, some of which, as for example the finger rings and earring from the Minster (Phillips & Heywood 1995, 88-92) could be considered symbolic of matrimonial or familial status rather than social standing. Conspicuous consumption of the type shown in the chamber graves, or the 'Setons Hög' cremation at Birka has yet to be found in York, and although this may be the result of mere chance, it seems increasingly improbable as the years pass.

Social status, therefore, if marked at all in the Anglo-Scandinavian cemeteries of York, must have been marked in a different way. Accompanied Viking Age burials are rare within the whole of the Danelaw, and where they do occur, they seem to have been associated with church yards, either through burial in an established church yard as at Repton (Biddle & Kjølbye-Biddle 1992), or through the possibly later establishment of churches in the same area. All the available evidence suggests a rapid adoption of the Anglo-Saxon burial custom of generally poorly accompanied inhumations in a Christian context. In the light of this it is probably worth considering whether the use of engraved marker stones might not have been the

equivalent of the mainland Scandinavian conspicuous consumption as a status symbol, and potential socio-ethnic identifier.

The Anglian monuments from the Minster are reused as building stone and not in context (Lang 1995, 433-434) but are dated on epigraphy and style for various reasons to between the seventh century and the early ninth century (*op. cit.* 436-438). An established sculptural memorial tradition therefore existed in Anglian York prior to the Scandinavian occupation. If this was associated, as one would expect from its concentration around the Minster and the early churches of St Mary Bishophill and St Mary Castlegate (Wenham *et al.* 1987), with high status burial, then the development of an Anglo-Scandinavian school of sculpture is not surprising. Although memorial sculpture was a medium with only limited development in the Scandinavian homelands⁹, it was undoubtedly sufficiently familiar to have been recognisable and acceptable as an alternative demonstration of status in the context of the disposal of the dead.

The rapid development of an identifiably Anglo-Scandinavian sculptural school should probably be seen in the light of these considerations. While the site of a burial adjacent to the mother church of the settlement itself would probably have carried a certain degree of distinction, the fact that only twelve of the excavated burials had sculptural markers suggests that provision of such was an additional distinction in death. The marriage of heroic iconography of the Scandinavian tradition, such as the story of Sigurd on slab YM 34 (*op. cit.* 442), with an explicitly Christian context for the burial merely served to emphasise the integration of the two cultural elements in the concrete expressions of the sculpture.

Discussing ethnicity in relation to such a very small group of material is probably not productive. Although it is clear from the memorial sculpture that there was active use of iconographic and ritual strands from both the Anglian and Scandinavian traditions, it is useless to attempt to determine the ethnic identity of a given buried body;

⁹ The Swedish rune stones were sometimes raised as memorials to relatives who died abroad, Gotlandic picture stones have been interpreted as similar memorials, and semi-spherical or standing stones were raised on the barrows of eminent women and men on the Swedish mainland.

Scandinavian burial traditions and mythology had so much in common with earlier pagan Germanic traditions and mythology that it is most probable that adaptation of burial custom on both sides of the divide was straightforward.

It has been suggested (Rogers 1997, 1821) that an ethnic gender divide can be marked in the nature of the textile production at Coppergate. The Anglian roots of the craft, and its domestic position, she proposes, indicate that the women of the Anglo-Scandinavian settlement at Coppergate, and by inference York, were predominantly of Anglian background, while the men, whose crafts showed a radical change in organisation at the beginning of the Scandinavian occupation, were probable of Scandinavian origin. Although this could potentially be supported by the fact that there are no female burials from York accompanied by the characteristic paired brooches of the Scandinavian women's dress, negative evidence is very difficult to assess; there are no male burials from York accompanied by sword or spear, yet no one has suggested an absence of Scandinavian men in the town.

The fact that we have still only slight evidence of the status and ethnic variations within the settlement at York which the documentary evidence would lead us to expect is interesting. In a situation where the incoming Scandinavians were victors, one might expect ethnicity and social status to be related, with the conquered Anglians at the bottom of the 'heap' and the conquerors at the top. However, such evidence as exists seems to show a settlement of relatively egalitarian nature, as measured by access to resources (plot and house size) and access to imports (commodities and luxuries). The hint from the textile production that the women of the town might have been predominantly Anglian to a male population predominantly Scandinavian, could merely reflect a gender difference, or a difference in the economic value of certain crafts. Thus, those crafts which were valuable were reorganised, and those of less profit remained in the domestic sphere. The substantial reorganisation involved in the Scandinavian take-over of the settlement (see below V.2.5.3) makes it evident that social and economic control were exercised, but as yet there is no archaeological evidence of an associated distinction in social status among the occupants which might elucidate the mechanism of the organisation of the town.

V.2.5.3 Urban Organisation

The question of social variations within the population of the Anglian and Anglo-Scandinavian town leads naturally to the question of urban organisation and reorganisation. This is an issue which has two aspects: the social organisation of the settlement, and its physical organisation. In many ways, the latter is the easier aspect for an archaeologist to study; the physical remains of a settlement, in all their various forms, are the raw material of archaeological work. The social organisation must be inferred from the physical, in which it is implicit.

What, then, is known about the physical organisation of Anglian York? It is evident from excavation and observation along the lines of the Roman defences (see above, defences) that these posed a substantial topographical obstacle, and were effective as an enceinte throughout the life of the Anglian settlement. But what did they enclose? The only concrete evidence for the nature of settlement within the town comes from various church excavations, most importantly the Minster excavations (see above, V.2.2.6). Two things are evident from even the limited work which was carried out there: that the Roman basilica continued to be a focus of activity, and that that activity was probably not of an 'urban' nature.

The post-Roman deposits of animal bone within the *principia* (Rackham 1995, 535-543) were dominated by the bones of young pigs, which Rackham has interpreted as evidence of the 'keeping and breeding of these animals rather than merely their consumption' (*op. cit.* 542), suggesting a subsistence community in the vicinity of the basilica (*op. cit.* 554-555). The rather later material outwith the *principia* (*op. cit.* 543-554) also indicated pig rearing (*op. cit.* 553-554), but dominated by cattle and sheep, providing evidence of parallel operation of subsistence and market economies (*op. cit.* 555). Neither of these samples suggest anything like urban occupation, instead giving a picture of a small community within the wall focused on the upstanding remains of the most important Roman buildings. That, in the seventh century and later Middle Anglian stages, this community might well have had a Christian religious component is suggested by the documentary sources, and substantiated by the Anglian sculpture also discovered in the Minster excavations (Lang 1995, 434-438).

Similar evidence for an Anglian religious presence within the walls came from the church of St Mary Bishophill Junior, where two fragments of ninth century Anglian cross shaft were found incorporated in the fabric of the extant church, and a cross head provenanced to the site (Wenham *et al.* 1987, 122).

Importantly, despite this increasingly substantial evidence for the presence of one or more important religious foci within the walls, there is no evidence from this area for extensive settlement. The only substantial settlement evidence comes from Fishergate (see above, V.2.3.1), well outside the walls along the riverside. This is a pattern paralleled in other Anglo-Saxon settlements such as London (Vince 1984, 310-312; Cowie & Whytehead 1989, 706-718). Fishergate itself is clearly planned, with roads and plots laid out prior to its occupation, and this impression of physical organisation is carried through into evidence for economic control, from the environmental evidence.

The environmental interpretation of the site at Fishergate depends heavily upon the osteological assemblage; it seems likely that selective rubbish disposal was practised, as very few plant macrofossils were found on the site, even nutshells were scant (O'Connor 1994, 139). The bones indicated a narrow subsistence base, heavily dependant upon cattle in the age range three to eight years, and fewer sheep, one to two and four to seven years. Pigs were also selected by age, being slaughtered at around one year, and at two years (*ibid.*). The total lack of very young stock and the age selection of the material demonstrated clearly that animals were not kept on site, and that they came from managed herds elsewhere; the site was a net consumer of meat. In addition to this, although sheep and cattle appeared to have been walked to the site, pig bones suggested that pork was arriving as dressed meat (*ibid.*). Wild food, with the exception of fresh water and estuarine species of fish, was heavily under-represented in comparison with evidence from earlier and later sites (*op. cit.* 139-141). O'Connor suggests that the food supply reflects food rents paid from rural sites to a landlord, and then redistributed to the Fishergate population, and this pattern of consumption therefore represents the lack of economic and social power to be expected of a dependant population in a trading settlement which was owned and run for the benefit of an élite (*op. cit.* 141). While this is a particularly convincing

explanation in the context of Fishergate, other social factors could also have been at work; certain types of food are often perceived as more or less prestigious than others and pork, by reason of the many religious prohibitions against its consumption and its very economy as a subsistence, is commonly considered a 'low class' food. Patterns of meat consumption might also reflect the accepted methods of managing stock, and indeed, it would be difficult to distinguish between methods of stock management determined by demands for food rents, food rents themselves reflecting stock management, and firmly established patterns of stock management themselves controlling supply to a consumer settlement.

It is interesting to contrast the Anglian evidence with that from the Anglo-Scandinavian sites. At around the time of the Scandinavian take-over, towards the end of the ninth century, the site at Fishergate was abandoned (see above, V.2.3.1). Almost immediately there is evidence for occupation on the other side of the river Foss, within an area defined by two sides of the Roman fortress defences, and the confluence of the Foss and Ouse (see fig. 60), that is, within a defensive enceinte walled on its landward side, and with waterfront along the other side. This in itself was particularly characteristic of contemporary trading settlements in mainland Scandinavia (see above, IV.2.1).

Within the newly occupied area, the settlement was planned and lotted out, as Fishergate had been, but in contrast to Fishergate, the plots were much smaller, long and narrow, with only one end onto the street system clearly established at the same time. The density of occupation for which the site was prepared was clearly much greater than at Fishergate, and it is difficult to believe that this was merely a factor of moving the population into a confined area. As yet we have insufficient evidence to determine the population levels of Anglian York, but the area between the old Roman defences and the rivers is sufficiently large that population pressure is unlikely to have been a problem in the early stages of the Anglo-Scandinavian settlement. The new plot sizes and access arrangements suggest an ideological change in the concept of the settlement.

We have seen above that this movement within the walls was accompanied by a shift in the organisation of craft production, and apparently in its economic basis.

Interestingly, a change was also apparent in the nature of subsistence and the habits of occupation of the population. The environmental evidence from Coppergate suffered from none of the apparent pre-deposition selection which limited the sample available from Fishergate; on the contrary, the rate of organic deposition was so rapid that decomposition could barely start before deposits were anaerobically sealed, preserving them for posterity (*op. cit.* 143). The initial, ninth century occupation at Coppergate yielded bones of a similar species composition to those from Fishergate, but with the occupation of the tenth century, Period 4 post and wattle buildings, the material became much more diverse. Evidence of animal keeping, in the form of pigs, geese and fowl, appeared, as did a wider selection of marine fish and wild food, particularly berries and herbs (*ibid.*). The diversity of diet increased throughout the ninth and tenth century, until the settlement, by the eleventh century, had access to all types of cultivated and wild food in the immediate vicinity, and were certainly importing widely (*op. cit.* 145). O'Connor argues that this increasing diversity of food parallels the increasing importance of York as an market centre (*ibid.*).

The organisation of the settlement at York changed radically at the end of the ninth century. The move away from Fishergate cannot be precisely dated (see above V.2.3.1) and it can be argued that this may have been an Anglian reaction to the threat of Viking invasion. Given the degree of civil instability in the Anglian kingdom of Northumbria, however, it is difficult to believe that the new Viking threat would indeed have been sufficiently startling to force the entire reorganisation of the settlement. The initial post-Roman settlement (Period 3) at Coppergate is similarly imprecisely dated, and shows distinct similarities to the Fishergate site; it could be that this represents a shift in the Anglian perception of the settlement, or the Anglian move to a more defensible position in reaction to the Viking threat, but it could equally be that this was a part of the first physical manifestation of Scandinavian control over the settlement, prior to the full Scandinavian occupation in AD 874/5. The Period 4 occupation, however, indicates a startling change in the ideology of how people were to live physically and economically in a settlement together. Space became more limited, and more clearly and permanently demarcated; the boundaries

of the settlement became dominant and precise topographical features enclosing a multi-functional population. In contrast, however, to all this physical control and concentration, subsistence became less limited, and probably less economically controlled, and craft production became more specialised and increased substantially in volume; both could be a reflection of a greater concentration on the monetary economy of the settlement, profit rather than prestige playing a more important role in the motivation of the organisation of York.

V.2.6 The Character of York as a Settlement

In summary, Anglian York appears to have been a settlement with at least two foci, the one inside the Roman Walls being defined by a religious and possibly administrative role, while the other, on the banks of the River Foss had a role in long distance trade and possibly in manufacturing. The nature of the control of this latter part of the settlement is, as yet, not clear, but initial results suggest that it may have been maintained by an aristocracy or an individual, who controlled both production and trade, and possibly redistributed food rents to the occupants.

In contrast, Anglo-Scandinavian York was focused within an enceinte defined by the Roman walls and the two rivers, with all the functions of the settlement enclosed within that area. Results from excavations in this area indicate that intensive, large scale and specialised craft production was the economic backbone of the settlement, and was reflected in both local and international trade, for raw materials and manufactured goods. An increasing economic liberty seems to parallel this increase in production, as evidenced in both a diverse subsistence base and the wide availability of luxury imports. Within the population were groups of people who expressed their identity in life and in death in ways which drew upon either or both Scandinavian and Anglian traditions and iconography, justifying the identification of the town as an Anglo-Scandinavian settlement.

V.3 OTHER DANELAW SETTLEMENTS

V.3.1 The Five Boroughs

The 'Five Boroughs' of the Danelaw, Stamford, Lincoln, Derby, Nottingham and Leicester, are first referred to collectively in the *Anglo-Saxon Chronicle* entry for the year AD 942, celebrating in poetic form Edmund's liberation of the settlements from the rule of the Norse kings of Northumbrian York:

'Here King Edmund, lord of the English,
Guardian of kinsmen, beloved instigator of deeds,
Conquered Mercia, bounded by the Dore
Whitwell Gap and Humber river
broad ocean-stream; five boroughs:
Leicester and Lincoln,
and Nottingham, likewise Stamford also
and Derby. Earlier the Danes were
under Northmen, subjected by force
in heathens' captive fetters,
for a long time until they were ransomed again,
to the honour of Edward's son,
protector of warriors, King Edmund.'¹

(*Anglo-Saxon Chronicle* trans. Swanton 1996, 110)

This is, however, not the earliest reference to the individual settlements, which were in the area of Mercia settled by the Great Army in their division of the kingdom with Ceolwulf in AD 877 (*op. cit.* 74). In an interpolation in the *Chronicle*², a detailed description of Aethelflaed's campaigns against the Danelaw in the early tenth century describes the retaking of Derby (whose original name was Northworthy) in AD 917 (*op. cit.* 101), and Leicester in AD 918 (*op. cit.* 105) (Wainwright 1975, 305-324). Lincoln is first referred to by name in the *Anglo-Saxon Chronicle* in the text above (*ibid.*), dated to AD 942, although Bede, writing in AD 731, referred to Paulinus' visit to the town in the course of the mission to the Saxons in AD 628 (*Ecclesiastical History of the English People* Book II. Ch.16, trans. Colgrave & Mynors 1969, 191-193). Nottingham is known from the *Chronicle* in AD 868, which refers to the 'host

¹ This passage is quoted in both the Parker Chronicle (in Corpus Christi College, Cambridge, MS. 173) and the Worcester Chronicle (in the British Museum), but is not mentioned in the Laud Chronicle (in the Bodleian Library, MS. Laud 636) (Garmonsway 1953, 110-111).

² The 'Mercian Register' in the Abingdon Chronicle, manuscript C (in the British Museum, Cotton MS, Tiberius B) (Garmonsway 1953, xxxvi, 101, 105) is an account of the campaigns of Aethelflaed against the Danelaw.

[of Danes] in the fortification' (*op. cit.* 68-70), and again in AD 920, when Edmund refortified the borough (*op. cit.* 104), presumably after regaining it in AD 918 (*ibid.*). Stamford is also mentioned among Edmund's gains for AD 918 (*op. cit.* 103), the first time that it appears in the *Chronicle*, when he built a fortification on the southern bank of the river Welland, and the existing fort on the northern side of the river submitted to the Anglo-Saxons.

All these settlements are in the East Midlands, between the Southern Pennines and the catchment of the Wash (see fig. 70). The significance of the grouping is unclear; it seems to have been real, and not merely a creation of the author of the *Chronicle*, as it reappears in later sources, including the laws of Aethelred II (the Unready), dated to AD 978-1008 (Hall 1989, 150). These five were, however, not the only burhs in the formerly Mercian Danelaw territory; the *Chronicle*'s reference to the 'Seven Boroughs' in AD 1015 (*Anglo-Saxon Chronicle*, trans. Swanton 1996, 146) makes this clear, and sites such as Ipswich, Cambridge, Bedford, Northampton and Torksey are also both historically and archaeologically documented as important during the ninth and tenth centuries.

In pre-Offan times, Lincoln may well have been the focus of the kingdom of Lindsey (Vince 1993), whose existence is mostly inferred from references in the *Tribal Hidage* and various royal genealogies (Stenton 1927, 136-50), although specifically referred to in the *Chronicle* for AD 841 (Swanton 1996, 64), and in Bede's description of Paulinus' visit to the town (*Historia Ecclesiae* book II., ch. 16, trans. Colgrave & Mynors 1969, 191-193). The same reference in Bede also indicates the presence of a reeve in Lincoln (the first convert, a man named Blaecca), suggesting that it was an administrative centre, presumably for the kingdom of Lindsay. There is, however, only very scant documentary evidence that the others of the Five Boroughs had similar early territorial significance, although they have all yielded more or less archaeological evidence for Middle Saxon occupation. Haslam (1987, 76-93) suggests that there may have been a group of eighth century burhs, including the Five Boroughs, whose formation was the result of a 'policy of market formation and of defence...under Offa' (*op. cit.* 89), where defensive enclosures, some Roman in date, surrounded ecclesiastical and administrative centres, which were associated with

extra-mural markets. He admits, however, that this model is unproven, despite its explanatory powers (*op. cit.* 86), and there is no documentary evidence to either support or gainsay it. The archaeological evidence remains the only substantial indication of the pre-Viking status of these towns.

V.3.1.1 Lincoln

Lincoln is, after York, the town within the Danelaw about which most is known from the archaeological record. It is on the River Witham, where it cuts the limestone scarp of the Lincoln Edge before flowing southeast towards the Wash. A Roman fort is situated on the top of the ridge, with its *colonia* extending south down the slope towards the river (see fig. 71). The Fosse Way to the Southwest, and the north-south artery of Ermine Street, met at Lincoln.

Within the walls, very little evidence for any continuity of occupation after the early fifth century survives. The focus of any such continuity would appear to have been a church under the Mediaeval church of St Paul-in-the-Bail, where a sequence of east-west orientated buildings were excavated (Gilmour 1979, 214-217), associated with a cemetery whose earliest burials were radiocarbon dated to between the late fourth and early seventh centuries (Hall 1989, 173). This would appear to represent the survival of the documented late Roman Christian community (Frere 1978, 375; Thomas 1981, 168-9) into the Middle Saxon period, suggesting a context for Paulinus' missionary visit to Lincoln, as described by Bede (*Historia Ecclesiae* book II., ch.16, trans. Colgrave & Mynors 1969, 191-193).

There is no archaeological evidence as yet for any other form of continuing occupation, but the defences must have been largely intact at this period, as their lines are substantially visible to this day, both as upstanding monuments, and in the street patterns of the Mediaeval town (see fig. 70). They appear to have been refurbished during the fourth century, and to have continued in a defensible state into the fifth and sixth centuries (Steane and Vince 1993, 74). It would seem likely therefore, that the Roman walls provided the framework of the *burh*, presuming on the basis of this scant evidence that such did exist.

No waterfront evidence has been excavated, although the siting of both the Roman and the Early Mediaeval settlements on the Witham indicates that the waterfront was probably of both strategic and economic importance (Jones & Jones 1981, 138).

Flaxengate

Evidence for the Anglo-Scandinavian occupation of Lincoln comes from excavations on Flaxengate (Perring 1981), where a series of timber buildings were the first, post-Roman occupation of the site. Despite limitations in the recording of the site, which was partially excavated in spits (*op. cit.* 4), the nature of the Early Mediaeval occupation here was relatively clear.

The site was prepared before occupation, by levelling the whole with deposits of loam, over which a road surface of limestone cobbling was laid. It has been suggested that this surface post-dated the first buildings on the site (*op. cit.* 7, and Vince 1993, 165), but the few post-holes under the cobbling had an uncertain stratigraphic relationship with the road surface, and may not even have been a part of the building to which they were adjacent (structure 2, see below) (Perring 1981, 7). This road, therefore, either immediately post- or pre-dated the construction of the first building on the plot (see fig. 72). This was a rectangular, post-built structure (structure 2), between 4 and 5 metres in width, and 6.6 metres in surviving length (it extended outwith the excavated area to the south). The eastern wall line appears to have been double; the excavator took the internal line of small stakes to be the wall (*ibid.*), but with just under a metre between the two, it should be considered that the outer, and more substantial post sequence may have been the wall, while the inner was a narrow wall bench. A rectangular hearth of sand and clay over a rubble foundation was located at the northern end of the building, across the central axis of the structure; it had a series of associated stake and post holes which may have derived from a screen or surround.

Two other buildings (structures 3 & 4) were contemporary with, and at right angles to, structure 2. Structure 3 was 4.5 metres wide, and 8.4m in surviving length, with wall lines which were partly marked by the extent of the floor within the building, and partly by a series of posts and a shallow trench. An oval hearth of clay on a rubble

base, associated with four post holes, was situated on the long axis, at the eastern end of the building, opposite what appears to have been a gable entrance door in the western, streetward end, marked by a pair of large post holes. The floor was covered with what is described as a 'burnt, grassy material' (*ibid.*), which was covered with a layer of sand.

Structure 4, which was parallel with structure 3, was largely outwith the excavated area. Its southern wall line was marked by a slot, and the building was floored with clay. A circular hearth of clay over reused Roman tile was on what appears to have been the long axis of the structure. Again, this was associated with a series of post holes, which seem to have formed a superstructure or surround for the hearth (*ibid.*). Structure 4 was replaced by structure 5, which was even more fragmentary, and about whose structure nothing much can be said (*op. cit.* 7-8).

During this first period of occupation, the road was totally resurfaced once. The period was dated by the excavator to AD 870/80 to 900 on the basis of an archaeomagnetic sample from hearth F6 (date AD 850+/-50) in structure 3 (*op. cit.* 33). Its end was marked by an extensive deposit of soil across virtually the whole of the site.

In period II, which was dated AD 900-930/40, structure 2 was replaced by a tenuous building, structure 6, about which little or nothing can be said (*op. cit.* 8). Structure 3 was replaced by structure 7, with a gable, east wall 5.05m long, containing a post- and several stake-holes. The northern and southern walls could not be identified, and the length of the building is therefore unknown. Within the building, a layer of burnt grassy material marked a floor surface laid over limestone rubble, and was covered by sandy silt as in structure 4 (*op. cit.* 8-9). Structure 8 overlay structure 4, and was to the north of structure 7. Again, the evidence for this buildings was slight; the excavator identified a possible west wall 5.5m from the east wall, suggesting that the building could not have continued further west, and was therefore probably parallel with the road, but this is far from conclusive evidence (*op. cit.* 9-10). Following the destruction of these structures, the road was resurfaced again (*op. cit.* 10). The beginning of this period was dated on an archaeomagnetic sample from hearth F5

which post-dated the period I buildings, but was sealed by the levelling dumps for period II (*op. cit.* 8), and which yielded a date of AD 960+/- 60, and a memorial penny of St Edmund dated c. AD 905 from a pit (*op. cit.* 33). Slavonic pottery of mid-tenth century type and Rhenish (possibly Badorf) ware of eighth to ninth century type from the levelling dumps confirmed these dates, which were reinforced further by a coin of Alfred c. AD 890 (*ibid.*).

Again, the end of the period was marked by levelling which formed the base for succeeding period III structures, dated AD 930/40-970. Only the floors were identifiable during this period; very few post-holes or other structural features were visible. The corner of a stone footed building with a clay floor (structure 9) extended into the trench on an alignment markedly skew to anything else on the site. A building (structure 10) with a clay hearth (observed only in section) lay in the area of structures 1 & 6, and was between 4 and 4.8m wide. Nothing is known of its walls or other structural elements. A further tenuous structure in the northern part of the site (structure 11) might possibly have been merely slope-wash, while a hearth, 8m west of the road, suggested another building (structure 12), with its gable end to the road (*op. cit.* 11). Again, these structures were sealed by deposits of brown loam which were interpreted as dumping (*op. cit.* 12). It should be noticed, however, that these deposits were dug in spits, and the excavator noted the possibility that they represented piecemeal, rather than wholesale, redevelopment (*ibid.*). No specific dating evidence was available for this period, which was framed by the dating of periods II and IV (*op. cit.* 33).

Period IV (dated AD c. 970 - 1000/1010) left similarly fragmentary and tenuous structural evidence. The concentration on the Flaxengate frontage of the plot remained, with some development along Grantham Street (*op. cit.* 12). Structure 13 was a fragmentary building probably some 5.4m wide, of unknown length, with a gable end towards Grantham Street. It had floors of charcoal rich silt sealed by pale yellow sand, and a small, bowl-shaped hearth protected by a screen (*op. cit.* 12-13) which is reminiscent of some of the industrial hearths from Birka (see above). This was the most easily comprehensible of the period IV structures; structure 14, at the corner of the two streets, had so little structural evidence, that its alignment, let alone

its dimensions, could not be determined (*op. cit.* 13). Structures 15 and 16 might have been only one building, or two; a hearth in the centre of putative structure 15 suggested the latter (*ibid.*). Period IV was dated by the presence of a Stamford ware pitcher, type 5-74, from structures 14/5, or the overlying structure 18 (period V) (*op. cit.* 33-34). Although the occupation of the site was continuous into the twentieth century, the eleventh century and later material falls outwith the remit of this thesis.

Finds from the site (Mann 1982) are difficult to source to either period or structure, as much of the excavation was by spit, a number of large pits were not identified at the top of their cuts, and the levelling dumps characteristic of the site had a high degree of residuality. Nonetheless, various industrial activities were demonstrably present on site, notably non-ferrous metal working in periods II and III (particularly associated with structure 12) and glass working in period II. Antler, bone and horn working, particularly for small scale comb manufacture, also characterised the Early Mediaeval occupation of the site (*op. cit.* 44-45). Industrial activity expanded during period IV, when structure 13, with its curious oven or hearth was associated with evidence for the manufacture of glass rings and beads, as was probably structure 16. The assemblages of crucibles and other metalworking artefacts (e.g. 'heating trays' or cupellation dishes) (Gilmour 1988, 70-77) are markedly similar to near-contemporary material from Coppergate in York (Bayley 1992). Antler and bone debris from the early periods (I - III) also indicates small scale, possibly intermittent, craft production of combs and other artefacts (*op. cit.* 44-45). Finds from the site, however, indicate that occupation was far from purely industrial; varied types of ceramic, textile working finds, combs, beads, pegs, pins and all the multitude of disparate domestic finds dominated the assemblages from the pre-eleventh century deposits.

V.3.1.2 Stamford

Stamford is located on the River Welland, a little downstream of a Roman ford on Ermine Street. Like Lincoln, the focus of Early Mediaeval settlement appears to have been north of the river, where a limestone scarp overlooking the river is cut by a tributary valley. It is specifically mentioned as a *burh* in the *Chronicle*, in AD 918, when Edward, in recapturing the settlement, constructed a second *burh* on the southern bank of the river, and accepted the submission of the occupants of the 'more

northerly fortress' (Garmondsway 1953, 103), implying the presence of two preconquest burhs. These have been identified on topographical grounds (see fig. 73) with the areas delimited by Broad Street, St Mary's Street, Star Lane/George Street and St John's Street/Red Lion Square north of the river, and Park Lane, Pinfold Lane and Church Street south of the river (Mahany, Burchard and Simpson 1982, 6-8).

Middle Saxon Settlement

Evidence of Middle Saxon settlement from Stamford is slight, and ambiguously dated. Parallel lengths of three substantial ditches, up to 1.5m in depth, were excavated under the bailey of the Norman castle (Mahaney & Roffe 1983) and have been compared with the ditched enclosure at the seventh century site of Yeavinger (Hall 1989, 195 & Hope-Taylor 1977, 789). Although the line of the ditches is irregular, it seems likely that they enclosed the high ground, which later became the castle mound. The dating evidence from the ditches, which may not all have been contemporary (Hall 1989, 195), consists of Stamford ware pottery wasters, and a single coin of Alfred, which together yield a probable date of the second half of the ninth century. The Middle Saxon attribution of this site is, therefore, primarily based on the argument that the church of St Peter, which is within the putative defended enclosure (see fig. 73) and was tenurially distinct from the *burh* at Domesday, is of pre-Viking origin (Mahany & Roffe 1983, 201-6). The case remains unproven.

Anglo-Scandinavian Occupation

Building remains from late ninth and early tenth century occupation are documented at only one site in Stamford, on a site in the block defined by the High Street, Maiden Lane and St George's Street (see fig. 73) (Mahany, Burchard and Simpson 1982, 13-28). Elsewhere, the earliest deposits under the Mediaeval town appear to have been extensive iron working residues, which appear on the basis of pottery dating, to have been deposited between the early tenth and early eleventh centuries.

On the High Street, Site A, trenches VI-XII, the earliest occupation consisted of shallow slots and gullies, post- and stake-holes. The excavated area was limited, and no complete structure was therefore exposed. The excavator nonetheless determined that 'they represent structures or buildings which were laid out with some precision in

a rectilinear plan' (*op. cit.* 21). They were interpreted (see fig 84) as the remains of two parallel buildings, separated by a fence line founded on a beam slot. The eastern of the two buildings, of which only the western wall was found, was 4.5m in excavated length, of unknown width, with a wide entrance in its wall. The doorway was apparently subdivided by posts into two openings, leading the excavator to suggest that the building might have been a barn or large hall (*ibid.*). However, the common use of multiple construction techniques within the same building, as noted at York and Lincoln (see above V.2.4.1, V.3.1.1) makes conclusions about the true width of this opening difficult to draw; the proposed width of 3.67m seems excessive, and it is equally possible that one of the two 'passages' (1.65m and 0.9m wide) was the true entrance.

The building to the west of the fence line was slightly further to the south than the eastern building; beam slots defined parts of the eastern and northern walls, with an entrance c.1.5m wide in the eastern wall. Again, the width of the building is unknown; its surviving length was 5.1m. The excavator suggested that the doorway would be centrally placed in the long wall of the building, giving a total length of 7.4m for the structure (*ibid.*) but this is an unsafe conclusion to draw, in the light of the wide architectural variety of contemporary buildings.

Little can be said about the overall structure of these buildings. While they did not appear to have internal divisions, the excavated area was so small that such cannot be ruled out. No hearths were found, but again, this was probably a factor of the small excavated area, and the degree of later damage by quarrying. The impression of dense occupation, plot division and planning of these parallel buildings may also be a result of the limited sample size. Importantly, however, despite the fact that these structures pre-dated extensive spreads of slag and iron-working waste which themselves predated the laying out of the High Street (*ibid.*) the buildings are clearly orientated in relation to a street or access along the same line as the High Street. The northern part of the site was incompletely excavated, so the stratigraphic relationship between the ninth century structures and the High Street cannot be said to be clear (*op. cit.* 22, fig. 12). Nonetheless, it seems probable that the line of the High Street was established prior to the dumping of slag, and that the knowledge of its line persisted even if the

structure itself was temporarily obscured. In this context, it is worth reconsidering the evidence from Birka for extensive rubbish dumping in streets (see above); extensive rubbish spreads cannot be said to preclude the use of a surface as a road.

These deposits yielded nothing of distinctively Anglo-Scandinavian character. A part of a small schist hone came from a nearby site, DD II on High Street St Martins (*op. cit.* 29-33 & 52), but it was clearly redeposited in a later rubbish pit, and was associated with no structural remains of the pre-Conquest period (*op. cit.* 31-32). The dating of site A, period I, was based on Early Stamford ware from the buildings, indicating a date of not earlier than AD 850 (*op. cit.* 10).

Industry

One of the particular characteristics of the Early Mediaeval deposits in Stamford is the extent of evidence for industrial production of iron and ceramics. The type site for the smelting of iron from ore is the Co-op site on the High Street (see fig. 73) (*op. cit.* 105-115). The first clearly definable archaeological use of this site was dated by archaeomagnetic samples from two phase I features to the first half of the eleventh century (*op. cit.* 108), and consisted of a furnace, with associated slag tapping pit and roasting hollow. Slag, charcoal, cinder and fines were spread over the area surrounding the furnace, which had been levelled after its last use (*op. cit.* 108-110). Two shallow post-holes and a stake-hole cut into the natural subsoil may have predated the levelling of the area to build the furnace (*op. cit.* 110), and suggest a sequence like that observed on the High Street where wooden buildings were superseded by intensive industrial use.

Rapid dumping and levelling over the site were succeeded by its use for secondary working of roasted ore, probably crushing and sieving, in phase 4. Following levelling again, during phase 6, the site was used for the storage of unroasted ore, and then progressively covered with dumps of slag (*op. cit.* 110-114). Pottery from the latest dumps on the site could not be dated more closely than the first half of the eleventh century, suggesting that the whole industrial development was a rapid one, falling within little more than half a century.

A similar industrial development took place on Site A, High Street, where the timber buildings of the first, ninth century, phase of occupation were replaced by four successive hearths for the roasting of iron ore (*op. cit.* 23-25). Again the deposits were typologically dated by Early Stamford wares, to between the early tenth and early eleventh centuries (*ibid.*). The excavator has suggested that the fact that the deposits of iron-working waste continue below the metalling of the High Street indicates that the industrial development pre-dated the layout in the tenth century of the planned settlement north of the river. That this is an insecure conclusion has already been pointed out, and the dates from the deposits themselves suggest that the picture was rather more complex, with continued eleventh century iron-working post-dating Christine Mahany's tenth century date for the layout of the burh.

In addition to iron working, there was a substantial pre-Conquest ceramic industry in Stamford. The copious quantities of Stamford ware present in the earliest deposits in the town indicate that this was underway by the second half of the ninth century, although the earliest kiln which has been excavated, from the Castle site (Kilmurray 1977, 180-186), yielded evidence of late ninth century production of red-painted wares with strong Continental parallels (Musty 1982, 11). These are not the classic 'Stamford wares' but provide a context for the technical innovations that characterised early Stamford ware production. Thus far, however, the earliest Stamford ware kiln is that from Wharf Road (Mahany, Burchard and Simpson 1982, 90-104). It was a clay domed, wattle construction c. 1.5m in diameter, sunken into the soil, with a single flue. It was dated on the basis of 29 archaeomagnetic samples, to AD 950-1050 (+/- 50) (*op. cit.* 94-95). The pottery from this kiln was largely unglazed cooking pots and storage vessels, turned on a fast wheel, and simply decorated with rouletting or finger impressed strips; contemporary material from other excavations in the town includes glazed wares, and splashes of glaze on the pots from the Wharf Road site indicate that production of different types of wares was taking place in the same workshops (*op. cit.* 96).

The dates for most of the excavated industrial evidence place this rapid expansion of craft production firmly into the post-Anglo-Scandinavian period, i.e. post- AD 918. The existence of Stamford wares in the backfill of the large ditches mentioned above,

under the Castle bailey, and associated with the phase I buildings on the High Street, seems to indicate that the start of the ceramic industry was, at the latest, in the brief Anglo-Scandinavian occupation of Stamford, and this is supported by the evidence from the kiln at the Castle site. The possibility that this was a Middle Saxon innovation, however, though less likely, cannot be wholly discounted.

Defences

Problems with the identification and dating of the various defensive systems have already been touched on above. It is nonetheless important to consider them together in summary. Three possible defensive enceintes may have existed during the Early Mediaeval occupation of the settlement. The terminology used is taken from Mahany, Burchard and Simpson 1982 (6-10).

The Castle:

Beneath the eastern edge of the bailey of the Norman castle (see fig. 73), three concentric ditches were excavated to a length of over thirty metres (Mahany 1977, 237). The upper edges of the cuts for the ditches were damaged by later intrusions, and their depths were therefore somewhat uncertain, but the two outer ditches were at least 1.5m deep, of variable width, and separated by a gap of about three metres. The smaller, inner ditch may have been a palisade trench (*ibid.*). The dating for this enclosure is discussed above, under Middle Saxon occupation, but it should be reiterated that despite the general acceptance of a Middle Saxon date, this could easily be attributed to the Danelaw occupation of the settlement.

The Pre-Conquest *Burh*:

The *burh* enclosure on the northern side of the river Welland, delimited by Broad Street, Star Lane/St George's Street, St Mary's Street, and St. Johns Street/Red Lion Square, has been identified only from topographical analysis (Mahany, Burchard and Simpson 1982, 7-8). One excavation has been carried out on the putative line of the defences, on St George's Street (Gould 1968), which uncovered a line of timber slots and post-holes orientated north - south. The very limited area of the excavation reduced the value of this evidence, and, as Hall remarks (1989, 197), the structural elements could as easily be a part of a building wall as of a palisade. The structural

elements in the St. George's St excavations were pre-dated by layers of slag which, on analogy with similar deposits throughout the settlement, were probably tenth or early eleventh century in date. If, then, the timbers were part of a defensive construction, that enclosure must have been post-Danelaw in date.

Although the topographical analysis of this area of Stamford is convincing, the archaeological evidence for the nature and date of the proposed defensive line is scant in the extreme. Only further excavation will determine whether the documented Anglo-Scandinavian *burh* is the enclosure apparently visible in the street plan of the northern half of Stamford.

The Edwardian fort:

The existence of the Edwardian fort is indicated by the *Chronicle* entry for AD 918, describing Edward's siege of the town. Topographical analysis places it to the south of the river, in a north-south orientated rectangle bounded by Park Lane, and Pinfold Lane/Wothorpe Road (see fig. 73), with High Street/St Martins forming an axial road. Again, the archaeological evidence for this siting is slight in the extreme. Only one excavation has been carried out on the line of the proposed enclosure, adjacent to Park Lane (see fig. 73); it uncovered a small north-south ditch which predated a Saxo-Norman quarry (Mahany, Burchard and Simpson 1982, 10), but this is extremely tenuous as evidence of a fortification.

In general conclusion, then, the amount of real evidence for the location, sequence and dating of the early Mediaeval fortifications at Stamford is slight. Although it seems highly probable that there were three successive, and to a degree contemporary, enclosures, at the sites proposed by Mahany, on archaeological grounds this can neither be proven nor disproved. The scant archaeological evidence does agree with the *Chronicle*'s entry insofar as early settlement is clearly focused on the higher ground to the north of the river, but the bounds of the settlement, their nature and extent, are unclear.

V.3.1.3 Derby

Derby was very probably in the hands of the Scandinavians between AD 873 or 874, when the *micel here* is noted as having taken up winter quarters at Repton (*Anglo-Saxon Chronicle*, trans. Swanton 1996, 73), and AD 917, when Aethelflaed won the town and 'all the region which it controlled' (*op. cit.* 101) after an apparently bitter struggle. It is the only one of the Five Boroughs whose name apparently changed during the Anglo-Scandinavian occupation, from the Anglo-Saxon Northworthy, to Derby, but as Hall points out, 'it is not known how long the older name remained current' (Hall 1989, 156), and the two names were probably used concurrently during at least a part of the pre-Conquest period.

The modern town is located on either side of the River Derwent (see fig. 75), controlling the waterway that provided the main access into the Peak district. It was the site of at least one, and probably two consecutive Roman forts. These formed the focus of a Roman settlement occupied until at least the mid-fourth century (Wheeler 1986, 300-304).

Little archaeological evidence is, however, known from either the Early to Middle Saxon occupation, or from the 35-year Anglo-Scandinavian occupation. A single early tenth century penny from the possibly early ninth century foundation of the Anglo-Saxon church of St Alkmund's (see fig 85) (Radford 1976, 31-32 & Hall 1989, 158) gives no real evidence of continued activity in the area during the period of Anglo-Scandinavian control of the town. Such Anglo-Scandinavian occupation as there may have been on the site of Mediaeval Derby was presumably in the area of the two earlier churches of St Alkmunds and All Saints, but there is as yet no excavated proof of this. Both of these are on a slightly higher area of land to the east of the River Derwent (see fig. 75).

There is some excavated evidence, albeit scant and unpublished, for Early Mediaeval occupation in or near the Roman fort of Little Chester, east of the River Derwent, (see fig. 76). This is referred to in the introduction to a volume on Roman Derby (Birss & Wheeler 1986, 11). Excavations were conducted during 1971-2 on the south-eastern part of the defences by c. Sparey-Green which revealed an Anglian cemetery over a

fourth century Roman building, and a possible 'late-Saxon bastion' foundation at the south-eastern corner of the fort (*ibid.*). This suggests a renovation of the defences similar to that noted at the 'Anglian tower' in York by Radley (Radley 1972, 38-64, and see above), but although the structure at Little Chester sealed deposits containing St. Neots, Stamford and Thetford wares, it remains unpublished, and its dating and function are as yet unclear. A ditch following the line of the defences also contained Saxon pottery and could be of similar date (*ibid.*).

Further excavations, within the north-western sector of the fort (Wheeler 1986, 38-153) revealed no Early Mediaeval occupation over the Roman settlement, although the report refers to a sherd of St. Neot's type pottery and a 'bone comb of Anglo-Scandinavian type (*op. cit.* 69), which, in the small finds list (*op. cit.* 145) proves to be two fragments, one through both side and tooth plates, and the other the upper part of a tooth plate. In addition to these, Hall identifies a faceted-headed copper alloy pin with ring and dot ornament as contemporary (Hall 1989, 161 & Wheeler 1986, 140).

Evidence of Anglian or Anglo-Scandinavian occupation from Derby is scant at best. It seems possible that there may have been some activity in or around the Roman fort at Little Chester, which may have been abandoned in favour of the western side of the river following the tenth century retaking of the town by Aethelflaed. What form this occupation might have taken is wholly uncertain.

V.3.1.4 Leicester

The city of Leicester originated as a Roman fort, probably based on a pre-Roman Iron Age settlement, on the eastern bank of the River Soar (see fig. 77). It is the only one of the Five Boroughs that has a very real archaeological gap in the settlement of the Early Mediaeval period. Although there are probably as many or more Anglo-Saxon finds from Leicester as from the other four settlements, including two early Saxon cemeteries (Hall 1989, 166) and the name is mentioned in Anglo-Saxon episcopal lists in the eighth century (Bailey 1980, 10), no demonstrably Anglo-Saxon settlement has been excavated here. The *Chronicle* mentions Leicester as a base for the Danelaw army in AD 914, and again in AD 920 (trans. Swanton 1996, 99-101), and in the early 940s, when Olaf Guthfrithsson was besieged there (*op. cit.* 111), but despite the

documentary evidence for the Anglo-Scandinavian occupation of the town, only one site has produced possible Anglo-Scandinavian deposits.

The Jewry Wall (see fig. 77), a standing piece of Roman walling, was excavated by Kathleen Kenyon in the 1930s (Kenyon 1948). She postulated that the survival of the Roman masonry was due to its being incorporated into an early, possibly seventh century church, the predecessor of the extant Late Saxon church of St Nicholas.

The one site which may have produced evidence for Anglo-Scandinavian occupation is a pottery kiln (Hebditch 1967, 5-9), or more properly, the stoke pit of a destroyed kiln, which was filled with waste sherds of wheel-turned cooking pots and storage jars. Its stratigraphic position indicated that it was post-Roman in date, the ceramics were of a type unknown in Leicester from Mediaeval contexts, and these facts, together with the similarities of the wares to Thetford types, were used to date the material to between the beginning of the ninth century and the end of the twelfth century (*op. cit.* 8). Unfortunately, the context of the site was destroyed by the development that revealed it, and further evidence of Anglo-Saxon occupation in the area has not emerged.

A few stray finds from Leicester are of middle/late Saxon or Anglo-Scandinavian provenance, among these an unstratified ring-headed pin from the Jewry Wall (Clough *et al.* 1975, 59), another from Cank Street (*op. cit.* 56), and an interlace pendant in 'Viking style' (*op. cit.* 57). In addition, some pieces of possibly Anglo-Scandinavian bone work have been found (*op. cit.* 58).

It has been suggested that the Roman walls were still in use during the post-Roman period (Buckley and Lucas 1987, 56), and given the degree to which they affected the later Mediaeval town plan (see fig. 77) this would seem a reasonable deduction. On the basis that the walls were an important topographical element of the post-Roman settlement, it has also been suggested that the High Street and some of the subsidiary east-west orientated streets may have been a part of a pre-Conquest planned layout, whether of Anglo-Saxon, or Anglo-Scandinavian origin (*op. cit.* 56-57). There is,

however, no archaeological evidence as yet to support either of these theories, no matter how probable they may seem to be.

V.3.1.5 Nottingham

Unlike Northampton, Lincoln and Leicester, but like Stamford, Nottingham is a town with no substantial evidence of a Roman presence on the site. The modern town straddles the River Leen, now canalised, but the Mediaeval castle is on an eminence on the northern side of the river and to the east of the castle is the Mediaeval town (see fig. 78). The settlement is first referred to in the *Chronicle* entry for AD 868, when the Great Army took winter quarters there (Garmondswey 1953, 68-71), and again in AD 922, when Edward won the town back, ‘...he went thence to Nottingham and occupied the borough: he had it repaired and garrisoned both by Englishmen and Danes, and all the people settled in Mercia, both Danish and English, submitted to him’ (*op. cit.* 104). Finally, in AD 922, Edward returned and constructed a fort south of the river, linking it with a bridge to the extant fortifications on the northern bank (*ibid.*).

Middle Saxon settlement

Parallel, east-west orientated ditches have been discovered at the eastern end of the town near Fishergate, and between Barkergate and Woolpack Lane (see fig 88), and dated as Middle Saxon by pottery in their backfill (Young 1971, 1-2; Young 1972, 2). As these ditches did not extend into Bellargate, it is likely that, if they are the same feature, a north-south orientated return lies parallel to and to the east of that road. This area describes the western limit of the distribution of Middle Saxon pottery found in the town (Hall 1989, 189), and may therefore represent the limit of Middle Saxon settlement.

Anglo-Scandinavian settlement

The Anglo-Scandinavian settlement is similarly poorly understood. Two male Viking graves from Bath Street, discovered in 1851 (Anon.1851, 424-5) and identified by their grave goods (two swords, one spear) are the only concrete evidence of Anglo-Scandinavian occupation from the town. Undated, but stratigraphically pre-Conquest, lengths of ditch were excavated at Halifax Place (Hall 1989, 189), Drury Hill (Young

1970, 2-3) and Woolpack Lane (to the north of the site mentioned above) (*ibid.*). The Halifax Place site is apparently not published, and Drury Hill and the Woolpack Lane are published only as brief notes. However, these are sufficient to provide a brief description of the size and character of the sites.

At Woolpack Lane, the east-west orientated ditch was 20 feet wide, and over 11 feet deep, with one major recut. No dating evidence was found in the backfill, and there was no surviving rampart. This ditch was cut by the later, Norman, defensive ditch, which was dated by finds, particularly ceramics, in the ditch fills (*op. cit.* 2). At Drury Hill, the ditch was 23 feet wide, and 14 feet deep, orientated north south and also had one major recut. In both cases, these recuts changed the profile of the ditch from a U to a flattened V. The later fills of the Drury Lane ditch produced early Stamford ware. Stratigraphically, it cut a possible sunken-featured building, and there may have been an earlier ditch and rampart on the same alignment. It was succeeded by a timber fence, and then two timber buildings containing a halfpenny of Henry I (*ibid.*).

The similarity of the size, profiles and recut sequences of the two ditches make it likely that they belong to the same structure. Whether that is the Anglo-Scandinavian borough or a Late Saxon burh, cannot be said. The defensive circuit thus described seems to use the cliffs above the river as its southern edge, indeed Young took this for granted (*ibid.*).

At present, Nottingham provides little useful evidence to illuminate the role of the settlement itself, or the Five Boroughs as a group, within the Danelaw.

V.3.1.5 The Five Boroughs: A Discussion

Because of the documentary evidence, particularly from the *Anglo-Saxon Chronicle*, the Five Boroughs have been the focus of sustained historical and archaeological attention. Two major questions have been raised, but not, as yet, conclusively resolved. Firstly, was it a real grouping in contemporary minds, or a retrospective association of towns in the light of their Mediaeval importance? Leading on from that, if the Five Boroughs were a contemporary grouping, what exactly was their significance?

The first mention of the Five Boroughs was in the celebratory verse from the *Chronicle* entry for AD 942 quoted above, marking the winning of the Five from the Danelaw by Edward the Elder (*Anglo-Saxon Chronicle*, trans. Swanton 1996, 110-111). It is widely accepted, following Stenton (1971, 689), that the alliterative and poetic form of the verse make it less probable that it would have been changed after its first entry (e.g. Hall 1989, 150). The phrase then seems to continue in more or less common use; it is in Aethelred the Unready's law codes at the end of the tenth century (Whitelock 1979, no. 43) and again in the *Chronicle* entry for AD 1013 describing the rebellion of the Danelaw under Swein of Denmark, prior to Cnut's conquest of the whole of England in AD 1017 (Swanton 1996, 143-144 & 154-155). It should be noted, however, that the *Chronicle*'s entry for AD 1015 refers to the 'Seven Boroughs', though later in the same passage it speaks again about the Five Boroughs (*op. cit.* 146). This is the only reference to the 'Seven Boroughs' and has naturally led to discussion about the additional two settlements (e.g. Stenton 1971, 388; Hall 1989, 151-152). Whether the Seven Boroughs included the Five, plus Torksey and York, as Stenton proposed, or was a name given to English Mercia, in part or whole, *pace* Hall (1989) is probably an insoluble question, but it brings us to the second of the outstanding questions about the Five Boroughs, namely, what made them distinctive?

The *Chronicle* entry for AD 1013 entry suggests that the Five Boroughs formed a region not coterminous with the Danelaw:

'Then earl Uhtred and all Northumbria straightway submitted to him, and all the people in Lindsey, and afterwards the people of the Five Boroughs, and quickly after, all the raiding-army to the north of Watling Street...' (*Anglo-Saxon Chronicle*, trans. Swanton 1996, 143)

This would seem to indicate that the Five Boroughs were an identifiable region, distinct from both Northumbria and Lindsey. This is confusing in itself, as Lincoln is assumed to have been the regional centre for Lindsey (see above V.3.1.1) and is also undoubtedly one of the Five Boroughs as described in the entry for AD 942 (*op. cit.* 110-111). That entry hints that the Five Boroughs were considered separate from Northumbria, as it describes the bounds of Mercia up to the Humber (see above) and not north of that boundary. This would, of course, explain why York, which was

clearly and demonstrably one of the most important settlements in the Danelaw, was not included in the Five Boroughs, and would suggest that it was unlikely to have been one of the Seven Boroughs either.

Other internal evidence in the *Chronicle* suggests that the Five Boroughs functioned as central places with dependant regions, for example, on Aethelflaed's reconquest of Derby, AD 917 in the Mercian Register, 'Aethelflaed ... won the borough called Derby ... together with all the region which it controlled...' (*op. cit.* 101), and for AD 918 '...she secured possession of the borough of Leicester ... and the majority of the Danish forces that owed allegiance to it became subject to her...' (*op. cit.* 105).

However, this alone cannot have been the criterion for inclusion in the group, as the entry for AD 920/21 says, of Edward: 'Jarl Thurferth and the barons submitted to him, together with the entire host which owed allegiance to Northampton...', indicating that Northampton also had some central place function under the Danelaw.

Jeremy Haslam (1987, 76-90) has suggested that four of the Five Boroughs, Leicester, Lincoln, Nottingham and Stamford, were among a series of bridging point fortresses created by Offa at the end of the eighth century in response to the threat of Viking attack. These were, he suggested, places where '... the intra-mural space was not necessarily the most important locus for settlement ...' (*op. cit.* 87), rather they were functionally divided, with extra-mural markets outwith the gates of the defences, and royal and ecclesiastical foci inside (*op. cit.* 88-89). This is a neat explanatory model, and, although Derby is not included in it, Little Chester could potentially fit this pattern as well. Unfortunately, as Haslam himself admits, 'It is unfortunately not possible from the archaeological evidence alone to determine either the nature or date of the extra-mural activity in these places, and therefore to validate or invalidate the model' (*op. cit.* 88). Offa's foundations or not, while being early administrative and strategic foci was no doubt important, this cannot have been the only factor which distinguished the Five Boroughs.

It may be worth considering whether a part of the distinctive importance of the Five Boroughs lay in their ecclesiastical i.e. ideological and symbolic importance. Lincoln, with the church of St Paul-in-the-Bail, may have had Christian religious continuity

from the Late Roman period through to the Late Saxon period (Gilmour 1979, 214-218). Derby/Northworthy had an important early ninth century religious site at St Alkmund's church, putative burial site of the Northumbrian royal saint Ealhmund (Radford 1976, 31-32). Leicester was a Middle Saxon diocesan see documented from the eighth century and possibly of slightly earlier foundation (Bailey 1980, 10), part of whose church might have incorporated the upstanding Roman wall (Jewry Wall) now to the west of the later Saxon church of St Nicholas (Kenyon 1948, 8). Mahaney and Roffe have postulated that St Peter's church at Stamford may have been a pre-Viking foundation, although there is no archaeological evidence for this apart from its situation immediately beside the early defensive system under the castle (see above, V.3.1.2) (Mahaney & Roffe 1983, 201-206). Only at Nottingham is there no evidence at all for a pre-Viking religious focus, and even here, despite the lack of archaeological or architectural evidence, Rogers suggests that St Mary's church, which stands in the centre of the postulated Anglo-Scandinavian defensive enceinte (see above, V.3.1.5), was the only church of the Anglo-Scandinavian settlement (Rogers 1972, 51-56).

None of the Five Boroughs, with the sole exception of Lincoln, has provided substantial structural and artefactual archaeological evidence for the presence of distinctively Anglo-Scandinavian occupation. All of them, however, have yielded more or less convincing evidence for substantial physical and social reorganisation in the latter part of the ninth century, frequently accompanied by movement to a new focus of occupation close to the existing Anglo-Saxon centre, and with stray finds of more or less Anglo-Scandinavian character, from jewellery to sculpture. The short period during which these settlements were within the Danelaw appears to have functioned as a catalyst for these changes, although it cannot on archaeological grounds be proven that the changes were the result of the occupation.

The accumulated evidence, such as it is, seems to indicate that all the Five Boroughs were among the centres of religious, administrative, and possibly defensive importance in the pre-Viking period. Ironically, the existence of such a network of central places must have made the Scandinavian take-over of the Danelaw easier, rather than more difficult; by concentrating their efforts upon established centres of

control, the whole of the northern half of Mercia could be controlled by an army of only a few thousand.

V.3.2 Other Non-Rural Settlements within the Danelaw

There were certainly more non-rural sites within the Danelaw than are presently known from the archaeological and documentary records. The extent and quality of preservation varies from place to place, as does the amount of modern development and excavation. A number of modern towns other than the Five Boroughs, however, have provided archaeological evidence of substantial and unusual Early Mediaeval settlement, and there are hints and suggestions from other areas of similar types of site. From these, unfortunately, many excavations are as yet unpublished, including a number of particularly important sites in London and Ipswich; these towns are discussed only superficially in the following section.

V.3.2.1 Northampton

Northampton (see fig. 79), although it is most frequently discussed as an Anglo-Saxon town, was nonetheless within the Danelaw for at least a short period. In all probability, it became a part of the Danelaw at the time of the division of Mercia, in AD 877 (Swanton 1996, 74), but the settlement is first mentioned in the *Chronicle* in association with the attack on Hook Norton in AD 914, when the 'raiding-army rode out from Northampton and from Leicester and broke the peace...' (*op. cit.* 99). It was retaken by Edward in AD 920/1 when '...all the raiding-army which belonged to Northampton, as far north as the Welland' (*op. cit.* 103) submitted to him at Towcester. This suggests that it was a central place of regional importance, as were the Five Boroughs.

Middle Saxon Settlement

Large-scale excavation in Northampton during the 1970s and 1980s uncovered evidence of important early and middle Saxon settlement on the site. At St Peter's Church (see fig. 80) (Williams 1979, 137-139), a focus of early Saxon activity represented by sherds of pagan funerary ceramics and a composite brooch (Williams

1984, 118) was replaced by timber buildings on the same alignment as the later stone church (Williams 1979, 139). The stone church was dated by four radiocarbon dates to the eighth century³, and was associated with a boundary ditch of a slightly later date which the author suggests may have been a monastic *vallum* (*ibid.*). Directly to the east of the church was a very large hall with end annexes, of a type paralleled at high status Anglo-Saxon sites throughout England, most notably at Yeavinger (Hope-Taylor 1977, 46-51). This building was 16.7m in length, with two 6.35m annexes, and 8.35m wide at its widest point, with opposed doorways in the centre of the long walls (Williams 1984, 118-119).

The presence of a hall of this size, in association with an early church, Williams suggests indicates that Northampton was 'a major, probably royal, seat of authority by the end of the seventh century' (*op. cit.* 120). This suggestion of importance is supported by the replacement of the hall early in the eighth century by an even larger stone building, probably mortared, which, when extended shortly after its construction, had a total length of 43.5m. This stone hall was dated by the radiocarbon dates mentioned above, which were from mortar mixers originally associated with the construction of the stone church, and it is therefore suggested that the hall was contemporary with the first stone church (*op. cit.* 122), and with the lime-washed, post-in-trench timber building excavated along Marefair, immediately to the north of the hall (*ibid.* & F. Williams 1979, 43-45). This building on Marefair is of particular interest because it was associated with evidence for both copper alloy and iron working, albeit on a relatively small scale (*op. cit.* 44).

Although John Williams states that the absence of graves in association with either of the halls suggests that they had a secular function, it is worth considering the possibility that this could have been a monastic site, as was his earlier thought (Williams 1979, 139). Little is known about the structural arrangements of Saxon monastic sites, and those which are known do not appear to have the rigid architectural norms of later, Mediaeval monasticism. Distinguishing between a secular and an ecclesiastical site in this context would seem to be particularly difficult,

³ The dates were: AD 670 \pm 95, AD 680 \pm 65, AD 900 \pm 70, AD 740 \pm 85, all quoted to one standard deviation (Williams 1979, 140).

and a lack of graves is insufficient evidence. Although a number of 'orientated burials' were excavated to the east of the stone hall (Williams 1984, 122), the lack of burials around the early church is surprising, whether it was a monastic church, or a chapel or minster attached to a secular site. There is also some evidence for the existence of a saint's cult focused on the royal saint Ragener, died AD 869, who the author suggests could have been the last resident of the complex (*op. cit.* 126), but important monastic sites clearly attracted royal burials, as exemplified by Repton with the burial of Aethelbald (*Anglo-Saxon Chronicle*, trans. Garmondswey 1953, 48-49). Williams' identification of the structures as a 'palace' (Williams 1984, 124) seems premature.

In addition to the hall complex, Early or Middle Saxon structures were also discovered at Chalk Lane (Williams 1981, 94-95). Two sunken-featured buildings were found on the site, the more intact of which yielded a radiocarbon date of AD 660 \pm 75, from a piece of an oak post. The other, less intact structure was dated from animal bone to AD 470 \pm 90 & AD 525 \pm 75 (*ibid.*) (see Appendix F). Post and stake hole concentrations in the area may have been the remains of post-built structures, but were weakly dated and structurally unclear (*ibid.*).

Anglo-Scandinavian or late Saxon settlement

St Peter's Street:

At the end of the ninth, or the beginning of the tenth century, the high status complex associated with St Peter's Church went out of use (*op. cit.* 131). The walls of the hall were robbed out, and late ninth century Northampton wares were found in the backfill of the trenches (*ibid.*). The whole area underwent a radical change, and intensification, of use, with the construction of a number of post-built structures. Initially, according to the author, these were not related to any formal road (Phase 4), but a road was established a little later (Phase 5), after which time all buildings in the area were placed in relation to it (Williams 1979, 140). The stratigraphy of the site was slight and dry, and therefore difficult to interpret (*ibid.*).

The first building (1) was sited immediately to the north of a patch of metallurgy which raises instant questions about the lack of a road in Phase 4 (*ibid.*). This was

interpreted as a courtyard (*ibid.*), but its position, to the south of but parallel with later St Peter's Street, must lead one to suspect the possibility that this was the first version of that road. The building was c. 7 x 4m, and although the excavator interpreted it as having several rebuilds, a possible reinterpretation of building 1 would suggest that it may have had a wall bench along its eastern long wall (see fig 90 & *op. cit.* 73). When this building was replaced by a second, apparently larger, but very tenuous structure (building 2), definite evidence of iron working was found, in the form of a small furnace (*op. cit.* 14-15). Building 2 was interpreted as a workshop for iron and copper alloy working (*ibid.*) but this should not be assumed to have precluded a domestic function as well; there was no evidence of metalworking associated with the second hearth (*op. cit.* 15).

To the south of these buildings was a complex of post holes interpreted as three more buildings (buildings 3,4 and others), with varying degrees of certainty. About their architecture, almost nothing can be said. These were interpreted as belonging, together with building 1, to a single complex within a gated enclosure (*op. cit.* 73), but on the very slight structural evidence of two post holes, and on their functional similarity. Buildings 3 and 4, and the other less clearly identifiable structures were also surrounded by pits which contained slag and metalworking debris, and one iron smelting furnace (*op. cit.* 74).

This group of structures, including building 1, post-dated the ditch mentioned above as a possible monastic boundary. The silting up of this ditch provided two radiocarbon dates, AD 870+/-85 and AD 940+/-85 (*op. cit.* 25), which gave a terminus post quem for the succeeding structures.

To the west of these buildings, a further building (5) was surrounded by a number of post holes, possibly deriving from an earlier or later phase of building on the same site (*op. cit.* 26-28). Again, the complexity of structural evidence and shallowness of stratigraphy make it difficult to say anything in detail about the structures, other than that building 5, if it is correctly interpreted, was a small structure less than two metres in width, parallel to the street, and with an internal division (*ibid.*). No industrial evidence came from this structure.

To the south of the road, opposite building 5, was a further structure (building 6), also parallel with the road. Its dating and phasing were unfortunately vague, and it was damaged by later intrusions; much of the pottery which came from the post-holes of this structure was post-Conquest (*op. cit.* 84-85), providing a most general terminus ante quem for the building. No industrial evidence came from the structure.

Towards the western end of the site, three sunken-featured buildings were associated with a ceramic assemblage containing a large proportion of Northampton ware, which was used to date the structures to the mid-tenth century (*op. cit.* 92). Iron working and antler working debris came from the fills of sunken-featured building 2, but there was insufficient evidence to associate the structure with the primary production of the artefacts (*op. cit.* 94).

A further excavation was later carried out to the west of St Peter's Church (Shaw 1985, 113-138). Over very badly damaged evidence for some form of Early or Middle Saxon activity, the Late Saxon deposits showed a rapid intensification of use of the site. A structure of earth-fast posts at the southern end of the excavated area could not be understood because of the degree of later disturbance (*op. cit.* 118), and the remainder of the site was used for rubbish and cess pits (*op. cit.* 117). The structure was tentatively dated to the eleventh century from the ceramics associated with it, and on the basis of more closely dated pits which cut it, giving a *terminus ante quem* (*op. cit.* 118); it could, however, be earlier. All that can really be said about the area west of the church, therefore, is that it was the site of some late Saxon domestic activity.

Marefair:

Excavations on Marefair uncovered a limited area to the north of the middle Saxon hall complex described above, and in the period following the dereliction of the middle Saxon timber building described above, the site appears to have been abandoned (F. Williams 1979, 46). There were hints of a building of at the beginning of the late Saxon use of the site (Phase 4), of which very little fell within the excavated area, but this appeared to have been destroyed by fire, and the site abandoned again thereafter in Phase 5 (*ibid.*). Still within the Late Saxon phases, the

site was reoccupied again (Phase 6) by a post-built structure, which was succeeded by two phases, 7 and 8, in which no structural remains were observed (*op. cit.* 46-48).

Although the structural evidence from the site is scant, the artefactual evidence suggested an expansion and change of activity in the Late Saxon occupation of the site. Although there was evidence for mid-Saxon metalworking, the later occupation contained more slag and crucible fragments, some of which had been used for silver working (*op. cit.* 69). A later phase, 11a, contained imported Norwegian hones (*op. cit.* 73).

Chalk Lane:

The third major site in Northampton which has produced substantial structural evidence for the middle and late Saxon periods is Chalk Lane, adjacent to the Norman Castle (see fig. 79) (Williams 1979, 87-135). In the deposits above the sunken-featured structures discussed above, activity on the site intensified. Post- and stake-hole were scattered over the site, but the main structural feature was interpreted as a six-post building c. 10 x 3m (*op. cit.* 96), directly to the north of which was a sunken-featured building. In the centre of this curious, long thin building was another sunken-featured structure, this one square, which was interpreted as a cellar (*op. cit.* 98). This building has yet to be paralleled on any other site, and one is bound to wonder whether it was a misinterpretation of the structural evidence on what was clearly a difficult site to understand.

A number of other post alignments were interpreted as buildings, with greater or lesser degrees of certainty (*ibid.*). None of these structures is wholly convincing in the light of results from other mid-late Saxon sites, and it is possible that Phase 3A of the site would benefit from substantial reinterpretation.

In Phase 3B, the thin, post-built structure was replaced by a more convincing building of close-set posts, measuring 7 x 4m and on a slightly different alignment (*op. cit.* 100). Rubbish pits were sited to the north of this building, and an open area lay to the west (*ibid.*).

Substantial amounts of hearth lining and slag from iron working were recovered from the Phase 3 occupation of Chalk Lane, as was definite evidence of silver working, and possible evidence of copper alloy working. Antler waste and textile working tools testify to the presence of a broad craft base on the site, despite its possible specialisation in metalworking (*op. cit.* 100-102). Trade goods were represented by fragments of basalt querns from the Rhineland, and Norwegian hones (*op. cit.* 102). Three St Edmund memorial pennies from the site were minted prior to c. AD 910 in the southern Danelaw, but may have continued in circulation until c. AD 930 (*ibid.*).

Horsemarket:

Very fragmentary structural evidence was found in a watching brief on a sewer trench on Horsemarket (see fig 89) (Williams 1974, 46-56), but the primary importance of the site was in the retrieval of ceramics similar to those found by workmen during the reconstruction of Horsemarket itself associated with a possible kiln (*ibid.*). The sewer trench (Horsemarket site B) gave a glimpse of a post-built structure, orientated on the old line of Horsemarket, and with a hearth. The ceramics from the possible kiln site (Horsemarket site A) were dated on the basis of their form to the Saxo-Norman period, possibly the eleventh century or earlier (*op. cit.* 55-6).

St James' Square:

A site on the periphery of the late Saxon town (see fig. 79) provided the opportunity for a watching brief and limited trench excavation (Williams 1983, 141-152). The defences themselves were not located in the trench, and neither were any buildings, but pits for flax retting, and possible horn working waste (*op. cit.* 150-152) suggest that the area may have had an industrial function. Both horn working and flax retting involve noxious smells, so the location of the site on the periphery of the settlement is, perhaps, not surprising.

Discussion

The late ninth and early tenth centuries in Northampton saw a rapid intensification of occupation on every site that has been excavated within the postulated line of the late Saxon defences. Nothing is known yet of the defences themselves, so it is impossible to say whether they were constructed as a middle Saxon response to the instability of

the ninth century, or whether they were an Anglo-Scandinavian innovation. The ninth and tenth century post-built buildings which have been excavated in the town are different to those known in other contemporary settlements, and only the sunken-featured buildings show architectural continuity with the Anglo-Saxon building tradition.

The intensification of occupation was accompanied by changes in the management and scale of craft production. Wheel turned and kiln fired pottery appeared, as did relatively large scale metalworking, in addition to the apparently unchanged, domestic scale of production in textiles.

V.3.2.2 London

Again, London is a town that was within the Danelaw for a very limited period of time, and is thus most commonly discussed as a Saxon settlement. It was stormed by the Scandinavians in AD 851 (*Anglo-Saxon Chronicle*, trans. Swanton 1996, 64), and occupied as winter quarters in AD 871 with the agreement of the Mercians (*op. cit.* 72). In AD 886, it was reoccupied by Alfred (*op. cit.* 80), which indicates that it had been within the part of Mercia allotted to the Danelaw in AD 877 (*op.cit.* 74). So, for a period of over a decade, London was under direct Scandinavian control.

Middle Saxon London

London is also one of the most excavated Early Mediaeval settlements in Britain, but despite this, until the early 1980s, no concrete evidence for the location of the Middle Saxon settlement existed. Then, in 1984, two reassessments of the place-name evidence and the stray finds independently suggested that the Middle Saxon settlement should be looked for to the west of the Roman city, along the area which is now the Strand (see fig. 81) (Biddle 1984, 23-27; Vince 1984, 310-312). This was a breakthrough which resulted in an explosive expansion of knowledge of the settlement, with over twenty sites with *in situ* Middle Saxon evidence being excavated before the end of the decade (Cowie & Whytehead 1989, 706).

The focus of settlement in London during the Middle Saxon period was clearly an area along the bank of the Thames north of the walled Roman town (see fig. 81).

Estimates of the size of the settlement vary between 24 and 112 ha. (Vince 1984, 310; Cowie 1987, 33; Cowie and Whytehead 1989, 708), though in all probability, it was somewhere between the two extremes. The southern end of *Lundenwic* was probably limited by a marshy area along Whitehall (Cowie and Whytehead 1989, 708). At the end of the 1980s, a summary gazetteer of Middle Saxon finds and sites listed 66 known sites or find spots in the area, in sharp contrast to the dearth of contemporary sites elsewhere within Greater London (Cowie 1988, 37-46).

The earliest dated evidence for Saxon occupation along the riverbank comes from the Jubilee Hall site (Cowie *et al.* 1988, 47-163) with a prone male inhumation which gave a calibrated radiocarbon date of AD 630-675 (1370+/-60 b.p.) (*op. cit.* 56). Shoreline deposits from the mid seventh century were also found at the York Buildings (Cowie & Whytehead 1989, 710. Cowie 1988, 41), where they underlay an embankment whose planks were dendrochronologically dated to the last quarter of the seventh century (Tyers, quoted in Cowie 1988, 41). Cowie and Whytehead (1989, 709) suggest that prior to the mid-seventh century, the settlement was a small, seasonally occupied *emporium* of Hodges' 'type A' (Hodges 1982, 50-52), but evidence for this early settlement has yet to be discovered, and this should probably not be taken for granted.

Settlement in this area seems to have been abandoned in the late ninth century. The latest dating evidence consists of a coin hoard of AD 871 from the Waterloo Bridge (Dolley 1960, 42), which fits very neatly with the date when the settlement was first occupied winter quarters by the Scandinavians (*Anglo-Saxon Chronicle*, trans. Swanton 1996, 72).

The structure of the settlement is beginning to emerge from the archaeological evidence. The Strand and Fleet Street are both believed, though not proven, to be Roman roads, and in that case, they would have continued in function, providing the main access of the settlement, parallel to the waterfront. Other road lines are not known, but the gravel pits found during excavations at the National Gallery (Whytehead and Cowie 1989, 35-176) suggest that the settlement consumed large quantities of gravel, and this would most probably have been for road metalling. The

waterfront itself was embanked; a brushwood embankment was observed during excavations at the York buildings (Cowie and Whytehead 1989, 710), and samples were dendrochronologically dated to between AD 670 and AD 690 (*ibid.*).

A multi-phase ditch excavated at 21-22 Maiden Lane (Cowie & Whytehead 1988, 47-164) has been interpreted as defensive (*op. cit.* 71 & 79). A length of 11.6m, with a maximum width of 2.3m, and depth of 2.06m was excavated (*op. cit.* 71), and dated to the ninth century on the basis of the associated pottery assemblage (*op. cit.* 77). It was well within the postulated settlement area, but is nonetheless suggested to have been a reaction to ninth century political instability, expressed in the defence of an individual property. (*op. cit.* 79).

Two of the churches in this area, St Martin-in-the-Fields (Cowie 1988, 41) and St Bride's (*op. cit.* 45) have produced tenuous evidence for a degree of continuity from the Middle Saxon occupation of the area. St Martin's appears to have been founded over a pagan Saxon cemetery of coffined north-south oriented burials, but no modern excavation has been carried out on the site (*op. cit.* 41). St Bride's was excavated during the 1950s, and proved to be founded on a Late Roman or Early Saxon cemetery (Grimes 1968, 182-203). On both sites, however, the evidence for continuity from the earlier cemeteries to the extant structures is tenuous, and despite Biddle's suggestion that the churches of St Dunstan's, St Clement Danes and St Mary-le-Strand, all in the same area, might also be of Middle Saxon foundation (Biddle 1984, 24-26), there is no archaeological evidence to support or gainsay the idea. Westminster, however, is the site of a number of stray finds, and Middle Saxon features were discovered in the undercroft of the Abbey during excavations in the 1980s (Cowie 1988, 40), which, taken in conjunction with documentary evidence, strengthens the suggestion that the Abbey may have had a Middle Saxon predecessor.

A number of sites that were excavated in the 1980s and 1990s have produced substantial evidence for the architecture of Middle Saxon *Lundenwic*. Of these, Jubilee Hall, Maiden Lane, and the Peabody site are published, while a number of others, important among them King Street, Southampton Street, and Long Acre, are as yet not.

At Jubilee Hall (Cowie and Whytehead 1988, 47-164), limited areas of Middle Saxon deposits were excavated in advance of construction (*op. cit.* 49-51). No complete building was observed within the excavated area, but an extensive brickearth floor, hearth and overlying daub layer were visible in the northern edge section of the excavation, and as associated with no clear evidence of pits or sill trenches (*op. cit.* 54-55) seemed to suggest the possibility of at least one building constructed on ground level sill beams. This structure was isolated from other features in the excavated area by machine disturbance. Similar disturbance had truncated the Saxon features in the remainder of the site, but four phases of occupation were nonetheless identified. A prone male burial may have been the first feature on the site, or may have been contemporary with a structure represented by a long slot, probably truncated at its northern end, which ended in a square post hole at its southern end (*op. cit.* 56-58). At right angles to this, another short slot was broken by two post holes (see fig. 82) (*op. cit.* 61). Although Whytehead suggests that the long slot may have been too insubstantial to support more superstructure than a wattle fence, insubstantiality cannot be said to preclude the feature from being a part of a building. A succeeding clay spread in the second phase, B, respected the eastern edge of the slot, and could possibly have been a floor, though not interpreted as such during the excavation. To the east of, and within the area enclosed by the two slots were burnt patches which in the words of the author 'suggest domestic activity on a plain earth floor' (*op. cit.* 63).

In the latest phase of occupation, D, an irregular hollow 0.75m in depth and a little over two metres in diameter, with shallow depressions at the northern and southern ends, has the appearance in plan of a small, two-post, sunken featured building (*op. cit.* 61-62, fig. 10) (see fig. 82), though it is not discussed as such in the text. This would be wholly to be expected in the context. The whole complex, however, was clearly difficult to interpret, and though the evidence for occupation is indisputable, the nature of the structures involved is somewhat unclear.

At Maiden Lane, groups of stake-holes, post-holes, a gully and a slot, all associated with areas of fired clay, possibly hearths, and a well, indicated that the site was overbuilt during the Middle Saxon period (*op. cit.* 67). Unfortunately, no patterns

were visible in the structural evidence (*ibid.*), in all probability because the very limited excavation area was subdivided by post-mediaeval walls.

On the Peabody site, in contrast, large areas of Middle Saxon deposits survived relatively intact (Whytehead *et al.* 1989, 35-176). Groups of stake-holes at the northern end of the site, interpreted as deriving from temporary wattle panelling or fencing, perhaps for animal enclosures (*op. cit.* 38) were succeeded by a large area of gravel metalling contemporary with a post-and-slot structure, which may have been a wall line or a fence line (*op. cit.* 41-43). Its interpretation as a fence line or animal enclosure is the more likely given the presence of a well inside the enclosed area (*op. cit.* 56). Parts of daubed, wattle-walled structures with substantial corner posts were found on the western edge of the site, heavily truncated by later disturbances (*op. cit.* 55), where, although there were shifts in the alignment of the buildings, at least three phases of occupation could be traced in the same position. Again, the structures are obscure as a result of substantial later intrusions.

The repertoire of building techniques in use in Middle Saxon *Lundenwic* appear to be similar to those on contemporary sites such as Middle Anglian York. Wall trenches, probably containing sill beams, are characteristic of the buildings, as are the use of earth-fast posts and wattle panelling. Architectural plans are indistinguishable on the London sites, but the use of metalled yard surfaces and roads, and an apparently low density of occupation both appear to conform to the patterns observed elsewhere.

Small-scale craft production is suggested by the presence of antler, bone and horn offcuts at Jubilee Hall, Maiden Lane (Cowie & Whytehead 1988, 79), and by the presence of small amounts of metalworking slag on the same sites (*ibid.*), both of which follow a pattern of 'background' amounts of craft debris throughout the area of the Middle Saxon settlement. Cloth production finds, characteristically loom weights, spindle whorls and thread pickers, also show the same distribution, and suggest a similarly small-scale, essentially domestic mode of production (*op. cit.* 79-80).

Ceramics from all the sites demonstrate the international links of the settlement (Blackmore in Cowie *et al.* 1988, 89-103; Blackmore in Whytehead *et al.* 1989, 85-

107). The majority of imported wares in London came from the Rhineland and from Northern France and the Low Countries, reflecting a more extensive international hinterland than either Southampton (Hodges 1981) or York (Blackmore in Cowie et al 1988, 102). Rhenish quernstones were also found in *Lundenwic* (Cowie et al. 1988, 80), but the archaeological record remains dumb on the question of what the reciprocal trade goods consisted of. The only clue is a much-quoted letter between Charlemagne and Offa stating:

‘As for the black stones which your reverence begged to be sent to you, let a messenger come and consider what kind you have in mind, ... and we will help with their transport. But as you have intimated your wishes concerning the length of the stones, so our people make a demand about the size of the cloaks, that you may order them to be such as used to come to us in former times’ (Whitelock 1979, 782)

This suggests a trade in, presumably, woven textiles, and in particular woollens. As noted above, however, there is no evidence that this had other than a domestic production basis.

The subsistence basis of the settlement outwith the walls has been examined by James Rackham, on the both macrofossil and osteological evidence from the above sites (Rackham 1994). Diversity of species in the environmental data from the settlement was low (*op. cit.* 131), and there was little evidence of cultivation or stock raising inside the settlement, with the sole exception of the National Gallery site (*ibid.*). Given that the National Gallery site is believed to have been on the edge of the settlement, this could be the result of small scale production for provision to the trading settlement, which, it is suggested, had a market economy for food (*ibid.*). There was, however, little evidence for the import of food from anywhere outside the immediate environs, with high levels of fresh water fish bones, but very few estuarine or salt water species (*ibid.*).

Within the walls, Middle Saxon settlement seems to have been limited. Onomastic, documentary evidence, and tradition, suggest the possible existence of a high status settlement of the tenth century or earlier in the Cripplegate fort (Vince 1990, 20, 54), but the very limited charter evidence supports the excavation results in indicating that most of the remainder of the settlement was probably outwith the walls and along the

Strand (*ibid.*) Virtually no sites within the walls except St Pauls have provided any evidence of Middle Saxon occupation.

The foundation of St Paul's is described by Bede.

In the year of our Lord 604, Augustine, archbishop of Britain, ordained two bishops, viz. Mellitus and Justus; Mellitus to preach to the province of the East Saxons.... Their metropolis is the city of London.... But when this province also received the word of truth, by the preaching of Mellitus, King Ethelbert built the church of St Paul, in the city of London, where he and his successors should have their episcopal see. (Bede, *Ecclesiastical History*, Book II, Chapter III, trans. Colgrave & Mynors 1969, 143)

The documentary evidence, therefore, such as it is, suggests an early seventh century date for the foundation of the cathedral, and there is no suggestion that the site involved should have been other than the site of the present cathedral, within the walls of the Roman city.

Middle Saxon London, therefore, showed many of the characteristics which seem to have typified pre-Viking Age settlement in and adjacent to old Roman centres. The planned trading settlement was unenclosed, outwith the walls, along a reinforced, beach waterfront. Administrative and ecclesiastical foci were separated from the economic centre, and within the bounds of the Roman walls. Settlement both within and outwith the walls was at a relatively low level of density. Economic production was also apparently small scale.

Late Saxon London

By the end of the ninth century, both documentary and archaeological evidence indicate that the focus of settlement in London had moved from the Strand into the remains of the walled Roman town and fort. A charter of Alfred in AD 889 to the bishop of Worcester of land on the waterfront was confirmed in AD 898/9 in the records of a Council in Chelsea, where the land was stated to be at Ethelred's hithe, which was known as Queenhithe by the twelfth century (Steedman *et al.* 1992, 16-17). On this second record, land belonging to the archdiocese of Canterbury was also identified, to the east of the Worcester land. Road names are given as the boundaries on three sides of each plot, in the second record, indicating that by the end of the ninth

century, the land inside the walls was laid out in planned plots. The increase in the number of roads noted on the charters implies, to some authors (e.g. Vince 1990, 22; Steedman *et al.* 1992, 17-18) that the street system in the locality only developed following the grant of land, and the associated first use of the waterfront at Queenhithe. This is possible, but the extremely quadrilateral forms of the two estates suggest that possibility that they were delimited by roads or established plot boundaries from their establishments. The road system in this area was certainly late ninth century in date.

Excavations on Bow Lane revealed that a post-Roman street surface had been laid out over late Roman dark earth deposits (*op. cit.* 22), away from the line of the earlier Roman road. Dating the feature, which was post-dated by a building containing Late Saxon Shelly ware, was difficult, given that the only finds from the metalling were redeposited Roman objects (*ibid.*). Late Saxon Shelly ware, which continued in use until the eleventh century, has an unknown start date; it is found on sites within the walls, and not on those along the Strand, but any attempt to derive its chronological beginning from this fact leads immediately into circular arguments. Nonetheless, it can be said that a wide street was established along the line of the later Bow Lane after the Late/Post-Roman abandonment of the City, and in a position which, while ignoring the earlier Roman road layout, determined the position of later Anglo-Saxon plot boundaries and which was associated with continual occupation thereafter.

A number of the earliest post-Roman roads in the City, contemporary with Bow Lane, seem to have been laid out in relation to the road parallel with the waterfront, Thames Street, and to the various wharves, quays and other waterfront structures which were established over the Roman quays and outwith the Roman waterfront wall. Thus, for example, Bow Lane continued southwards as Garlick Hill and Black Swan Alley, forming a straight, unbroken line between Cheapside and the river (Steedman *et al.* 1992, 18), paralleled by Bread Street on the western side of Queenhithe. Bread Street, mentioned in the ninth century record of the Council of Chelsea discussed above, and Garlick Hill/Bow Lane thus form the nucleus of a grid pattern road layout dated by both archaeology and documentation to the same late ninth/early tenth century origins as Queenhithe itself (*op. cit.* 9-19, and see fig. 81). This pattern is

paralleled at Botolph Lane, to the east of London Bridge, which was also first laid out, with adjoining buildings, in the late ninth or early tenth century (Horsman *et al.* 1988, 13-16). This, with St Mary's Hill to the east, forms a similar grid-pattern nucleus, relating in this case to Billingsgate and the waterfronts to the west of it (fig. 81), but although there is sound archaeological evidence for an early tenth century or earlier date for the layout of the road here, there is no concrete corresponding evidence for the use of the waterfront before the eleventh century. The settlement was therefore clearly planned in advance of demand, rather than in response to an existing economic imperative.

Within the physical constraints of this planned, late ninth century and later road system, excavation suggests that building proceeded almost immediately. A number of sites within the walls have produced substantial evidence for domestic occupation of the late ninth and early tenth centuries, associated with the establishment of roads and the primary organisation of plot divisions along street frontages. Intact building plans were rarely recovered, as a result of Mediaeval and later truncation of deposits by cellaring.

In the area adjacent to the Billingsgate waterfront, excavations along Fish Street Hill, Pudding Lane and Botolph Lane indicated that while Fish Street Hill and Botolph Lane had both been initially lotted and occupied in the late ninth or early tenth centuries, Pudding Lane had probably had its origins as a back lane between the two, and had not been formally occupied before the twelfth century (Horsman *et al.* 1988, 16-21). On Botolph Lane, in contrast, three plots, with separate sequences of buildings on each, were established (*op. cit.* 14-16, 33-37), the first phases of whose occupation were dated by the exclusive presence of Late Saxon Shelly Ware in the lowest phases of occupation to the end of the ninth century or a little later (*op. cit.* 11, 13-16, 33-36). In no case was an intact plan excavated. The buildings had floors variously of sand, brickearth or beaten earth, or combinations of the three, often with a circular or oval hearth or oven on the long axis of the building, but situated towards the streetwards end of the house. The dimensions of the structures could not be determined, but the positions of the hearths, and the stratigraphic sequences excavated around them, indicate that the buildings were oriented with their narrow ends towards

the street front, with an approximate width of *c.* 5m (*op. cit.* 33-36). On Fish Street Hill, the contemporary deposits were truncated, although the bottoms of truncated pits, over 5m away from the street frontage, indicated that the site had been occupied during the late ninth and early tenth centuries, and that the street frontage had been built up at that time (*op. cit.* 21). Between the occupied frontages of Fish Street Hill and Botolph Lane, pit alignments and sunken-featured buildings occupied the backs of the plots, towards Pudding Lane.

The other area that has produced relatively good evidence for rebuilding and planning at the end of the ninth, or the beginning of the tenth century, is the Cheapside area, to the south of St Paul's cathedral. On Milk Street, the first phase of occupation consisted of a sunken-featured building, which was succeeded by a ground-level structure, both aligned apparently to a street south of the site, rather than to Milk Street itself (*op. cit.* 23). During the later tenth century, this orientation was changed, and all the later buildings on the site were oriented towards Milk Street, to the west (*ibid.*). The sunken featured building was 3 x 4.2m, and 1.5m deep, with post-built walls and evidence of horizontal planking lining the cut. It had an earthen floor, no hearth, but evidence of a fire, and an entrance in the eastern side, with a timber step (*op. cit.* 52-53). Of its successor, only a fragment was excavated. Three posts marked its eastern wall and a trench the southern wall, but the dimensions could not be determined. Internally, it had a thin, brickearth floor (*op. cit.* 55).

At Watling Court, there the late ninth century deposits were heavily truncated, the only evidence for occupation along the street fronts at Bow Lane and Cannon Street was the absence of the truncated ninth and early tenth century pits which filled the areas of the site away from the frontage (*op. cit.* 26). Interestingly, however, the earliest surviving structures on this site were cellared buildings of the eleventh century which, with their horizontally planked timber walls in base plates, and braced by posts (*op. cit.* 57-61), were strikingly similar to the late tenth century cellared buildings excavated at Coppergate in York (Hall 1997, 1695-6). Similarly, excavations at Well Court produced real, but highly fragmentary evidence for a late ninth century use of the site, in the form of a sunken-featured building, and a succeeding ground level building, of both of which only a very small area was visible, and about which little

structural information could be derived, save that their structures included earth-fast posts (Horsman *et al.* 1988, 28, 60-61). A similar situation applied in the very tiny area excavated at Ironmonger Lane (*op. cit.* 30, 64-65), where sunken featured structures were replaced by a ground level building with post walls in the late tenth century.

The late ninth to tenth centuries saw substantial reorganisation and expansion along the length of waterfront within the Roman walls. Ninth century finds from excavations at Queenhithe, west of London Bridge, indicate that it saw post-Roman reuse earlier than the sites further to the east (Wroe Brown, 1998, pers. comm.⁴). Two female burials on the foreshore marked by posts, and in one case by a gravel mound, were the first post-Roman use of the shoreline. The posts were dendrochronologically dated to AD 670-880. Following this, narrow jetties or trestles were constructed, given a *terminus post quem* of AD 880 by the felling dates of the timbers used. Within ten years, they had been replaced by a quay structure dated to AD 890 or later, on the same basis. Among the finds associated with these structures was a copper or copper alloy side-plate for a single-sided, compound, bone or antler comb. The form of the side plate places it as a type A comb, probably pre-dating the tenth century, but its only parallel is from mould fragments found, and poorly dated, in Hedeby. Its emphatically Scandinavian character suggests some degree of Scandinavian presence in or contact with the area in the late ninth or early tenth century.

On the Thames Exchange site, excavated during 1988 and 1989, an oak plank revetment behind piling edged an area of dumping over the Roman waterfront, which formed a quay (Milne 1993, 42-46). Dendrochronological dating of the timbers yielded a range of felling dates between AD 967 and AD 989. This was replaced during the eleventh century with a wattle and stave structure with horizontal bracing, dramatically dendrochronologically dated to AD 1066-1067 (*op. cit.* 47-48). Similarly, an earthfast stave revetment with estimated felling dates between AD 1050 and AD 1070, at Billingsgate, which collapsed in the late eleventh century, was the second phase of waterfront structure post-dating the Roman quays (Milne 1993, 26;

⁴ Information about Queenhithe is taken from a paper by Robin Wroe Brown given at the Mediaeval London Conference, 14 February 1998, at the Museum of London.

Steedman *et al.* 1992, 48-56). The earlier structure was represented by a large, grooved base-plate which probably formed the foundation of an earlier plank or stave revetment (*ibid.*), and would presumably have been late tenth or early eleventh century in date. Adjacent to Billingsgate, New Fresh Wharf, excavated in the 1970s also revealed late tenth and early eleventh century waterfront embankment, and the foundations of a jetty, over the Roman quays (Milne 1993, 140; Steedman *et al.* 1992, 23-29).

Watching briefs elsewhere have confirmed the evidence provided by the controlled excavations noted above, suggesting that the late tenth and early eleventh centuries saw ever increasing reclamation and management of the waterfront zone within the walled area, presumably reflecting permanent settlement and increased economic activity within the walls. Among the sites which revealed this pattern were Swan Lane 1981 (Milne 1993, 140; Steedman *et al.* 1992, 77-81) and Fennings Wharf 1984 (Milne 1993, 141).

The subsistence basis of the settlement has unfortunately been assessed primarily on the basis of material from Westminster Abbey (Rackham 1994, 132), an abnormally wealthy religious site, well outside the walls of the city. This site, unsurprisingly, produced evidence of large amounts of game of different types, an increase in fish species as compared to the Middle Saxon evidence (*ibid.*), and supplies of best quality meat, particularly pork (*op. cit.* 133). Waterlogged deposits from other sites, particularly Well Court on Bow Lane, produced large macrofossil samples, including garden cultivars of vegetables, medicinal herbs and fruit (*op. cit.* 134). The wider variety of foodstuffs apparently available on this site when compared to the Middle Saxon sites of the Strand area could be a reflection of better preservation, or of higher status. It is therefore not clear to what extent the apparent changes in the consumption patterns of foodstuffs actually represent a real economic change in the patterns of subsistence, associated with the move into the enceinte.

Saxon and Anglo-Scandinavian London

London, as so many of the other non-rural settlements of early Mediaeval England, shows signs of a radical reorganisation and rebuilding in the late ninth and early tenth

century. This was associated with a move towards greater physical integration of its previously separated functions, the whole within a defensive enclosure based upon the standing Roman walls, and with hints of profound social and economic changes.

The very short duration of the period of Anglo-Scandinavian control of London makes it virtually impossible to determine with any certainty whose was the motivating power behind the late ninth century reorganisation of the settlement. That said, the date itself indicates the likelihood of the reorganisation being generated either by, or in response to, the incursions of the Great Army at the end of the ninth century. The reports published by the many archaeologists active in London assume that the movement into the walled city was of Alfredian origin (e.g. Steedman *et al.* 1992, 16-20), and compare the reuse of the enceinte to the reoccupation and reorganisation of Winchester (*op. cit.* 15), and abandonment of *Hamwic*. However, the topographical and social position of the Winchester/Southampton complex was somewhat different to that of London. While it seems likely that *Hamwic*'s function was analogous to that of *Lundenwic*, the Middle Saxon settlement on the Strand, the distance between *Hamwic* and Winchester was very much greater. The movement into Winchester meant the abandonment or reduction of the very large-scale, international, water-borne trade which characterised the settlement at *Hamwic*, as Winchester had less direct access to navigable waters. In London, in comparison, it is clear that the waterfront continued to be of the first importance, that the new areas of settlement were organised in relation to it, and that trade and manufacturing were among the first functions organised within the walls.

Physically, the transformations at London are more closely analogous to those at York. In both cases, the trading settlement was immediately outwith the walls of the Roman city, and the first priority within the walls was to ensure the continuation of trade and industry. Whether the patterns of subsistence were similarly transformed is not clear, but there are hints that there may have been an expansion in the types of foods available to the occupants of the Late Saxon settlement, an economic change like that at contemporary York.

Although the presently available evidence from London suggests that it could equally well have been reorganised by Alfred following his recapture of the city in AD 886, there is little to indicate that this was definitely the case. Given the patterns of Scandinavian defensive enclosure of integrated settlements, it seems equally possible that the reorganisation of London followed its capture by the Great Army.

V.3.2.3 Norwich

Of the towns of the East Anglian area of the Danelaw, Norwich is, perhaps, that which is least well understood archaeologically. No archaeological traces of Viking settlement have been identified in the whole of Norfolk, despite the substantial toponymic evidence for occupation, and the large and increasing numbers of stylistically Anglo-Scandinavian stray finds from metal detecting in the county (Margeson 1997, 6).

Thetford seems, from such excavated evidence as there is, and from the extensive distribution of Thetford wares within the Danelaw to have been the economically dominant settlement of the area during the ninth and tenth century; it was probably a Scandinavian settlement from AD 869, when it was used as a winter camp (*Anglo-Saxon Chronicle*, trans Swanton 1996). It is probable that the same winter saw Norwich incorporated into the Danelaw, although the record does not specify. Ayers suggests (Ayers 1993, 117) that the settlement had its roots in a series of smaller settlements along the banks of the River Wensum, which formed its later focus (see fig. 83).

Topographical analysis of the town's plan (see fig. 83) indicates, however, that early Norwich was probably a fortified, D-shaped *burh* north of the river, on Magdalene Street. This area has a concentration of *-gata* street names, two church dedications to St Olaf, and two to St Clement (Margeson 1997, 27), both dedications with strong Scandinavian and Danelaw links. Unfortunately, only limited areas have been available for excavation north of the river, but there is, nonetheless, archaeological evidence for defences on these lines, which appear to have had a tenth century date. In 1975-6, excavations revealed a 2m deep, 6m wide, v-shaped, multiply recut ditch directly beneath Botolph Street, whose first recut yielded a radiocarbon date of

1060 \pm 60 bp calibrated to AD 890 \pm 60 (Davison with Evans 1985, 114-116; Atkin 1985a, 240) (see Appendix F). The eastern side of the enclosure was found in an excavation under Whitefriars, which clipped the very edge of a similar ditch (Atkin 1993, 131). The date from Botolph Street indicates that the usual pattern of tenth century settlement reorganisation and defence applies also in Norwich, but, as usual, it is not possible to determine whether the fortifications might have been Anglo-Saxon or Viking in origin.

Within this enceinte occurs the only concrete archaeological evidence for the Middle Saxon occupation of the banks of the Wensum. A site excavated on Fishergate in 1985 (Ayers 1994) gave evidence of riverbank marsh consolidation in the form of brushwood deposits stabilised by stakes and occasional larger timbers, the whole edged on the north-western (upslope) side by a wattle fence (*op. cit.* 4). North of this fence line was an area of stakes and stake holes, which the excavator suggested were random (*ibid.*), but which, in plan, look remarkably like a diffuse row. The structural significance of these stakes was, however, impossible to assess in the limited area that was excavated. Immediately below and within these deposits, some 155 residual sherds of Middle Saxon pottery strongly suggest that there was eighth to ninth century settlement somewhere within the adjacent area (*op. cit.* 27). A sample taken from the top of the peat deposits underlying the brushwood consolidation yielded a radiocarbon date of 1150 \pm 80 bp, calibrated to AD 780-980, which did not contradict a tenth century date for the brushwood layers suggested from artefactual datings. The stratigraphy of the site was, however, complex, and the artefact datings complicated by the undoubted presence of heavily reworked deposits (*op. cit.* 74).

Further evidence of tenth century occupation at Norwich is slight. A carved stone, the St Vedast stone, probably from the church of St Vedast and St Amant which was demolished in 1540, was discovered in the late nineteenth century in the structure of a building on the same site. It is a fine Mammen style cross shaft, presumably of mid-tenth century date (*op. cit.* 24-25). Another piece of Anglo-Scandinavian sculpture is to be found in the post-Conquest Norman cathedral (*op. cit.* 38-39), a capital in late eleventh century insular Urnes style, which suggests continued Scandinavian influence in the town many years after it had nominally become Anglo-Saxon once

again. Green suggests (Green 1967, 240-242) that this indicates continued active communication with the Scandinavian lands, possibly the use of manuscript sources for patterns, and the existence of an 'East Anglian "workshop" where Anglo-Scandinavian traditions were not yet dead' (*op. cit.* 242). This may be drawing rather too definite conclusions from one piece of stonework, however fine, but its presence does suggest a degree of continuing Scandinavian contact, albeit probably limited.

Norwich, although not specifically mentioned, was certainly among the Danelaw settlements regained in the campaigns of Aethelflaed and Edward in AD 917. In the years after the reconquest, a mint was founded in the town (Ayers 1993, 117), but it seems likely that its economic and political importance at this date was still limited, and that Thetford continued to dominate the county until the beginning of the eleventh century, when both towns were sacked in AD 1004 during the preludes to the full-scale invasion of Swein and Cnut (Margeson 1997, 29). Archaeological evidence of the tenth century, however, remains scant, and the historical hints of Norwich's increasing economic strength and political importance during the tenth century cannot be confirmed from the material evidence. A passing comment by Brian Ayers is of some interest in considering the question of the Scandinavian impact upon Norwich. He says:

'Danish incursions may have disrupted urban growth although it is as likely that the Danes stimulated expansion. There is enough evidence to imply as much but insufficient as yet to confirm it.' (Ayers 1993, 117)

In the light of the economic and political reorganisation and expansion under the Danelaw that is visible in other settlements, Norwich would seem to tend to conform to the emerging pattern.

V.4 THE DANELAW SETTLEMENTS AND YORK: POLITICS IN PATTERNS

It is still difficult in the extreme to draw together a coherent picture of the patterns of settlement within the Danelaw under the brief period of its Scandinavian control, and of their relationships to each other and to settlements outwith the hegemony. Despite

the rapid expansion of archaeological work in England during the past twenty years, much of the evidence still comes from the limited number of settlements where the historical background is sufficiently dramatic or the archaeological preservation sufficiently startling to attract a public commitment to archaeological work. Of these, York is, of course, the outstanding example.

Some threads can, however, be drawn together out of the evidence. Middle Saxon settlements, and outstandingly those that appear to have been most economically important i.e. York and London, were functionally divided. Both these settlements were associated with upstanding Roman defences, which separated the trading and manufacturing area, beyond the pale, from the administrative and ecclesiastical foci within the pale. Similarly, the Roman *colonia* and fort at Lincoln appear to have been little used until the ninth or tenth century, with the only evidence for continuity of use within the walls coming from the probable ecclesiastical site at St Paul-in-the-Bail. The scant evidence from the others of the 'Five Boroughs' suggests that their Middle Saxon functions were most probably administrative and ecclesiastical, rather than economic, re-emphasising the apparent physical distinction between the functions of settlements.

Northampton, where there was no earlier Roman settlement, demonstrates a surprisingly similar pattern; the Middle Saxon occupation of the excavated area was characterised by large, widely spaced, high status buildings, whether ecclesiastical, royal or both, which during the late ninth and early tenth century, but not before, were surrounded and partially replaced by, a densely built-up area of apparently much lower status domestic buildings.

What paleoenvironmental evidence exists, primarily from London and York, suggests that access to subsistence resources in the Middle Saxon towns may have been related to the function or role of the occupant. Thus, on Fishergate in York, only limited food species and ages were available, possibly reflecting the redistribution of food rents to the occupants of the site, which could thus be rigidly controlled by economic means. A similar pattern may be evident in the Middle Saxon settlement on the Strand in London, where only limited species were also available, although perhaps through a

market economy. Again, where the species available for purchase were limited by the role or status of the purchaser, the economic basis of the settlement was closely controlled.

The late ninth and early tenth centuries saw an sharp increase in economic activity in most of these settlements. Apparent population levels increased, with extensive evidence for lotting out of new land within previously unsettled areas, new building construction, and expansion of craft production in the then more densely occupied settlements. Technological advances, such as the fast wheel and pottery kiln, previously limited in their distribution and use, were apparently systematically spread to settlements throughout the area of Scandinavian control. Within the Danelaw, the various functions of non-rural settlements appear to have been more physically integrated, with the areas immediately around high status buildings and ecclesiastical centres, and within the Roman or Middle Anglo-Saxon defences, being increasingly occupied by domestic structures, as at Northampton, London and York.

Most importantly, there ceased to be a physical distinction between aspects of the settlement which were undefended and those which were defended. The Anglo-Saxon attitude, reflected in the physical organisation of towns, that manufacturing and trade should not be within the walls, seems to have been replaced by an perception of non-rural settlement which placed manufacturing and trade at its heart. It is interesting in the light of what was apparently an increase in physical control (over, for example, ingress and egress) of the settlement, economic control of subsistence would seem, from the York evidence, to have been relaxed. This is, perhaps, a simplistic assessment, and it and its roots will be discussed further below (see Chapter VI), but that a radical change in the perception of a town did take place in the late ninth century Danelaw can really not be disputed.

At around the time of the Scandinavian conquest of the Danelaw, therefore, the physical organisation of a number of the better known and understood of the non-rural sites in the northern and eastern areas of the Anglo-Saxon kingdoms underwent sudden and substantial physical and economic reorganisation. These patterns were, in

many cases, to determine the physical and economic structures of the succeeding Mediaeval towns that dominated northeastern England.

CHAPTER VI

CULTURAL UNITY THROUGH URBANISM? A COMPARISON OF BIRKA AND YORK BETWEEN AD 750 AND AD 1000

It should be stated at the beginning of this chapter that the decision to use Birka and York as the primary comparators upon which to base a model of the role of urbanism in the Scandinavian world is at least partially a pragmatic one. Both settlements have been subject to relatively large-scale and technically competent excavation, from which sufficient structural, artefactual and economic data has been retrieved to form the basis of a detailed comparison. The extensive excavations at Hedeby, although they provide important evidence of the physical organisation of a similar, contemporary settlement, were not subtly executed, and are not published in anything like sufficient detail to stand in the place of either Birka or York. The lack of a complete site report on the excavations at Coppergate in York is, of course, an unfortunate gap indeed, and weakens the argument somewhat. Nonetheless, the number of detailed finds and environmental reports from the site, and the structural and stratigraphic reports from other, contemporary, though less extensive, sites within York, provide sufficient coverage to allow comparisons and extrapolations to be made.

A number of techniques will be used to provide indices of similarity between different aspects of the two settlements. Some of these are formal, such as access analysis of the plots and buildings (as per Hillier & Hanson 1984, see below), comparisons of occupational density, and breakdowns of subsistence patterns, while others are more intuitive, such as an imaginative description of the experience of walking through the settlement, or moving inside a building. These latter, less formal approaches to assessing the impact of different ways of organising buildings and settlements are grounded in an attempt to use and evaluate the unavoidably intuitive and contextual elements of our own comprehension of the built environment, which are highlighted in chapter II (see above, II.4).

VI.1 FORMAL METHODS OF SPATIAL ANALYSIS OF BUILT STRUCTURES

There is a strong theoretical consensus (see Appendix 1) that architectural form is a value-laden and socially communicative aspect of material culture. This is made explicit in both architectural and archaeological studies; Bill Hillier and Julienne Hanson, for example, define the two aspects of an artefact as *function* and *style*, where the functional objectives are attained by materials or elements ... 'assembled into a form which works for a well-defined purpose, or range of purposes' (Hillier & Hanson 1982, 1), and style is 'decoration, embellishments, or even modifications of shape', which 'can give the artefact a significance over and above its practical uses, one belonging to the realm of cultural identity or 'meaning'' (op. cit.).

Anthropological studies have made the complexity and diversity of architectural function and meaning more widely known within a multi-disciplinary framework which has generated the new field of 'man-environment studies' (Rapoport 1976, ix-x), whose discussions and debates have fed back into the archaeological understanding of the social role of buildings.

A wide variety of formal and informal methods have developed within architectural and archaeological circles to attempt to understand the relationships between the various aspects of the building as a social artefact. The application of social theory by archaeologists to the built environment has often been opportunist in nature; different theoretical schools suit different aspects of architecture, and, indeed, different archaeologists. In contrast to this is the extreme formalism of adherents of spatial analysis (following the key contribution of Hillier and Hanson), with their emphasis on the direct physical relationship between spatial organisation and social function.

One of the earliest and most interesting attempts to relate social history to architectural development within an archaeological context is a brief study by P. Faulkner of the relationship between domestic, social and defensive demands in the design of English castles of the thirteenth and fourteenth centuries (Faulkner 1964). Using abstracted plans, Faulkner demonstrates the development of a more integrated

approach to the castle as a single building over the two centuries of the study, relating this to social perceptions of rank:

‘It would seem axiomatic in medieval domestic planning ... that the most remote apartment shall be reserved for the most select occupant and that difficulty of personal access shall be a mark of rank.’ (*op. cit.* 228)

In using plans which, although simplified and abstracted for representation in two dimensions, were closely related to the ‘real’ plans of the building and attempted to follow its shape so far as is possible, Faulkner’s work integrated function and spatial organisation to identify the basic domestic units (hall and chamber) within the larger structure, and examine their physical relationship to each other. Documentation, and the survival of the third dimension of the buildings which he examined, allowed for relative ease in identifying the functions of the rooms, although this is frequently less easy under archaeological conditions.

During the mid 1970s, Henry Glassie developed the idea of a artefactual grammar, first suggested by Noam Chomsky, for use in the study of vernacular architecture (Glassie 1975). He postulated the existence of related, and interacting, abilities to compose ideal architectural forms, i.e. competence, and to relate them to their environment, i.e. context, resulting in the real architectural form. These abilities, he suggested, found their expression in a set of rules which allowed the generation of the concrete from the abstract, and which could be defined as an analogue of linguistic grammar, in that rules to generate language relate sound and meaning, while rules to generate artefacts relate form and use. Importantly, he argued that the act of giving substance to an idea, thus creating mental comfort and familiarity, was more important in the design of a building than the creation of physical comfort appropriate to the environmental circumstances.

‘It is likely that any physical discomfort that resulted from adhering so tightly to type was not registered in the consciousness, and it is apparent that the designer considered his task to be less that of building to suit behavioural need than that of giving substance to an idea.’ (*op. cit.* 119)

The pure structuralism of this approach, where the physical architectural patterns observed are seen to be a symbolic communication of social organisation and values, was based on a meticulously nondeductive method which deferred the interpretation

of the material until it formed 'efficient, simple concepts that are natural to his corpus' (*op. cit.* 14), in an attempt to allow the database to dictate the results of the analysis. This apparently non-theory driven approach to the material was nonetheless predicated by the understanding that buildings are socially significant, although the descriptive technique was not explicitly linked to specific social changes.

Structuralism has continued to be used in a more traditionally intuitive manner by other archaeologists, among them Colin Richards (e.g. Richards 1990). The apparent patterns perceived by the excavator through experience are tested against ideological and environmental structures which are seen to be universal. In this case, the internal organisation of Neolithic buildings in Orkney was examined in terms of the orientation of the hearth, oppositions between light and dark, right and left, front (near the door) and back and their effects upon movement into and within the house. The house can then be seen as 'a microcosm of the socially constructed world' (Richards 1990, 120), architecture naturalising the organisation of society.

Hillier and Hanson developed the idea of a social logic of space further, from an explicitly architectural background (Hillier and Hanson, 1984). Using as their starting point that space can no more be without social content than society can be without spatial content (*op. cit.* x) they developed a rigorous method by which space could be described in terms of its permeability and accessibility, linking these to the social relations which both defined and were defined by the spaces in which they occurred.

The analysis operated at two different levels, with different methods considered appropriate to settlements, and to individual buildings. The level most commonly used in archaeological contexts has been 'access analysis' or 'gamma-analysis', which examines the permeability of spaces within a building, i.e. the ability to move from one area to the next, as a direct expression of the social control of relations and encounters between 'insiders' and 'outsiders' (*op. cit.* 143-163). The less permeable and accessible a space is, the more private it is. Depth, i.e. the number of stages between the outside and the innermost space, and other measurements of access, such as symmetry/asymmetry (the accessibility of two spaces with respect to each other

from a third) and distributedness/nondistributedness (routes from one space to another) are important considerations in the interpretation of their social functions.

Alpha analysis (*op. cit.* 82-140) is a tool for the analysis of exterior, continuous space in terms of axially, i.e. linear movement through space, and 'convexity' i.e. two dimensional movement through space. The former is a measure of access into and through a settlement, while the latter is a measure of external space available for meeting and interacting, outwith the enclosed, 'domestic' sphere.

There are a number of both intellectual and practical problems in the use of this analytical tool under archaeological circumstances. First, and foremost, in an effort to redress the architectural emphasis on style and design, gamma analysis concentrates wholly on the social relations of space and accessibility, to the exclusion of the consideration of other social signals inherent in architecture, such as the nature and appearance of divisions and surfaces, size and shape of rooms, and the positioning of constructed furniture. These elements are included in the anthropological analyses which are included in the book (*op. cit.* 176-181), but they are not integral to the analytical and descriptive technique in itself, and in an archaeological context, where contemporary, supplementary information was lacking, the explanatory element of the analysis would inevitably be weak. In addition, it makes a simple correlation between the organisation of one aspect of space (access) and the organisation of a society, without addressing the reciprocal and manipulative use of space to impose as well as to mirror behaviour, or the adaptation of space to topographical parameters. The technique was developed, at least partially, as a tool to enable the analysis of the 'public pathology of architecture' (*op. cit.* 3) in terms which were 'descriptively autonomous' (*op. cit.* 5), and a reaction against the structuralist idea of space in Lévi-Strauss' terms as a direct projection of social and mental process (Lévi-Strauss 1967, 285). It is possible that it may be more effective as a descriptive than as an analytic method.

Practically, gamma analysis requires the existence of complete building plans, which precludes immediately its use in many urban archaeological conditions. Under rural conditions, it has been used by Sally Foster, to provide an insight into the social

background of the development of Scottish Iron Age settlement (Foster 1989, 44). She takes as a database material from the Middle Atlantic Iron Age of Orkney where, as upstanding buildings, the brochs are ideally suited to access analysis. In analysing whole settlements as integrated premises, she overcomes the potential conceptual gap generated by Hillier and Hanson's use of two different types of analysis for settlements and buildings, but contradicts their thesis that buildings are innately and automatically distinguishable from settlements (Hillier and Hanson 1984, 142). A viable social interpretation of increasing hierarchy and ranking during the Iron Age is drawn from the evidence of increasingly complex, deep, non-distributed maps, providing a means of quantifying and representing what was already an intuitive understanding of the material (Foster 1989, 49).

Alpha analysis similarly requires clear boundaries and access points in a settlement, so is best used for the rare sites which have been fully excavated. Given the restricted conditions under which most archaeological excavation takes place, alpha analysis has only rarely been feasible using archaeological material. One of the few examples is John Chapman's of social inequality on Chalcolithic tells in Bulgaria (Chapman 1990) which uses a battery of spatial analysis techniques to establish the presence or absence of social inequality, as measured by control over space, and other architectural characteristics. In using a wider variety of techniques, he overcame some of the criticisms outlined above, which are as valid for alpha as for gamma analysis, although inevitably the underlying epistemological problem remains. Archaeological evidence demonstrates the mutability of the built environment, and it is questionable whether it is wise to treat it as fixed or unchanging.

Chapman also touches on various other types of analysis, many of which are valid where you do not have an entire settlement. A simple measure of the ratio between the area occupied by built and unbuilt space (*op. cit.* 61) was used to define the amount of unbuilt space within the perimeter wall, and its variation over time. House dimensions, expressed as a graph, indicated variations in the uniformity of building size over time. Inter-house spacing analysis, which is a simple measurement of the shortest distance between any point on the external walls of a building, and the wall of its nearest neighbour, gave a measure of tolerance of interaudibility, interference from

neighbours, interference with access to buildings, communicability of fire risks, elements of competition in the size of buildings, and their isolation from other buildings in a settlement, and social distancing.

The ration of built to unbuilt space is usable only where a complete settlement, with a defined boundary, has been excavated. Both of the other measures, however, could be used on very fragmentary material, giving a wider basis for comparison. However, the very simplicity of such measurements suggests that they are more useful as indices of change over time within one settlement, than as a measure of widespread variation between settlements. The inter-house spacing could also be used as an index for the spacing of plots, given that it measures density of occupation, or as a measure of spacing between industrial units, as a measure of tolerance of mixed function occupation. Chapman suggests that stability in the spacing of houses over time 'betokens very uniform planning' (*op. cit.* 69).

VI.1.1 Limitations of the material evidence

All of the techniques discussed above have been used under archaeological circumstances, but the extreme variability of preservation which is characteristic of archaeological material creates a situation where many of them are inappropriate for many sites. In the context of this thesis, the sites which are considered are highly variable; some are beneath modern towns, and thus only partially excavated, particularly the Danelaw towns, and Ribe. These sites also suffer from damage caused by later intrusions, and therefore intact building plans can be rare. The sites which are not overbuilt, including Hedeby and Birka, vary from waterlogged and relatively intact, on the Hedeby shoreline, to dry and damaged by earlier archaeological excavation, at Birka. Modern excavations have been carried out using different techniques; at Hedeby, the urban area was excavated in spits, so that, although the site has intact building plans, these are extremely difficult to relate to structures on the plots outside the buildings. At Birka, although the site was excavated stratigraphically, the area uncovered was relatively small, and only a little can be said about variations in settlement pattern within the site as a whole.

Under these circumstances, it is difficult to define a single formal technique of analysis which can be used on all the sites which are relevant to the thesis. Hillier and Hanson's alpha analysis (Hillier & Hanson 1984, 90-123) is clearly unusable, as there is no one fully excavated settlement; access analysis for individual buildings (*op. cit.* 147-155) is possible on some of the sites, at some periods, though methodological problems will arise in the comparison of buildings which may not be contemporary. Glassie's transformational grammar (Glassie 1975) cannot be used, given that the majority of the building remains are only marginally three-dimensional, and that, of all the sites available, only Hedeby might have enough building plans to generate a sufficiently large database for the creation of a grammatical framework.

There are a number of physical elements which are common to all the sites, among them plot boundaries, roads and accesses, walls, architectural details, industrial and craft production, and variations in function both topographically and chronologically. These can form the basis for the development of comparisons between the architecture and organisation of the sites. More intuitive structuralist approaches to aspects of the buildings are possible, and at some levels may well prove to be productive, as may be environmental considerations. For example, building orientation in relation to elements of the environment such as water and light must be considered, along with the placement of internal furniture, wall openings and hearths. The idea of material culture as a naturalising reflection of the social order and relating to universal rules is problematic, however, and structuration theory, with its emphasis on the active role of the individual, and on local variation, is more likely to provide insights into the very personal nature of the archaeological remains of architecture. Within this theoretical paradigm, it is possible to use the various formal techniques to extract information from the material, where appropriate, and to then move beyond that to a comparative interpretation of the differing local patterns.

The most productive approach, then, is to lead on from the formal techniques of building and settlement analysis, to attempt to look at the individual's experience of buildings in a town, and of the town as an environment for physical and social life. In what ways were the settlements of Scandinavia and the Danelaw different and similar? What access to resources did the individual have in each; what were the

streets like to walk through, and the buildings to live in; from what were they excluded, and in what were they included? What, in conclusion, does the different development of the settlements of Birka and York say about the society and politics of their time and place?

VI.2 THE EIGHTH AND NINTH CENTURY SETTLEMENT AS A REFLECTION OF SOCIAL VALUES

VI.2.1 Enclosure *versus* Exposure

The most immediately striking differences between the organisation of the two eighth and early ninth century settlements, at Fishergate in York, and in the first hundred years of occupation at Birka, relate to the issue of enclosure and demarcation. What and who were enclosed within the defences of the settlements? Did enclosure represent defence, separation, status, ideology or ethnic differences? Did it reflect economic and/or political control of different parts of the population of the two settlements? To what degree was this a reflection of differing social and political priorities and values?

Anglian York conformed to a pattern increasingly evident from excavations on contemporary non-agricultural Anglo-Saxon sites. The nearest absolute parallels for the organisation of the settlement result from the excavations at London and Lincoln. Within the walls of the old Roman *colonia* and fort, in all three places, substantial evidence of ecclesiastical and administrative presences have been found, dating from the eighth century, but no evidence whatsoever for more extensive settlement prior to the end of the ninth, or the early tenth century. The walls of the fort in York were repaired and maintained, and in parts rebuilt, during the same period of the eighth century or earlier (Radley 1972), emphasising their importance, whether ideological or defensive, or both. Within this *enceinte*, occupation on the site of the *basilica* continued, forming the focus of ecclesiastical activity with the founding of the cathedral in the mid-seventh century (Phillips & Heywood 1995a & b). There is, however, no evidence of dense settlement within the walls of the fort.

Outwith the walls, evidence of settlement came from Fishergate (Kemp 1996). Its site on the banks of the Foss is paralleled by the siting of the contemporary settlement along the Strand (Cowie & Whythead 1988; Whythead *et al.* 1989) in London, on the banks of the Thames, also outwith the bounds of the Roman settlement. Fishergate and the Strand have both provided evidence for economic activity, particularly trade and manufacturing, on a scale not paralleled within the walls of the contemporary administrative and ecclesiastical foci; however, in both cases, the spread of the artefactual evidence for manufacturing was not localised and focused. Specialisation to particular buildings cannot be proven from the evidence, perhaps as a result of the selective disposal of manufacturing debris, but potentially also because individual specialisation of production was truly not as intensive as in later settlements. The siting of these economic centres in what were clearly deliberately organised foci argues strongly for a degree of specialisation of production; it is curious, therefore, that this is so very difficult to trace in the archaeological record of the internal organisation of the economic settlements. This will be discussed further below.

The deliberate exposure of these economic foci, outwith the clearly functional and commodious defences of the old Roman centres is difficult to understand in purely functional and practical terms. It is straining credibility to argue for a purely functionalist explanation of the division. Ecological and environmental factors are inadequate to support the weight of such a distinction. If the level of production was sufficiently high to benefit from organisation in specialised settlements, and sufficiently economically or ideologically important to encourage in the vicinity of the foci of political and ecclesiastical power, why then should the economic settlements not themselves be protected within the walls? The location of *Eoforwic* and *Lundenwic* was certainly predicated upon access to the rivers Ouse and Thames respectively, but access to the rivers was possible from inside the walls; the Roman colonia in York and the fort in London both had direct access to their waterfronts, and were themselves created to control and exploit the rivers. Left are explanations which must incorporate the unproveably and inseparably ideological and political. The answer to this problem must lie in the fact that what appear to have been defences had, in fact, an overriding ideological, social and political function which precluded

their containing or encircling the economic functions of a settlement, no matter how practical that might appear to twentieth century perceptions.

The question remains whether the defences were, in fact, physical defences, or whether they were primarily a concrete expression of an ideological distinction. It has been suggested (Radley 1972, 54-55) that the 'Anglian Tower' in York was constructed as a response to a threatened Viking attack. Similarly, the move from the Strand in London, into the enclosure of the Roman settlement, has also been suggested or implied to have been triggered by the Viking incursions into the south-east (Cowie & Whytehead 1988, 47-164). Yet a realistic look at the position of these settlements in the political arena of Middle Anglo-Saxon life suggests that the Viking incursions did not, involve an increase in the threat of raiding or war (Rollason *et al.* 1998, 45-62). If defences were needed against the Vikings, they would have similarly been needed against the neighbouring Anglo-Saxon kingdoms, yet the Anglo-Saxon economic settlements were founded outwith the walls of the Roman towns.

If the Roman walls of York were maintained and manned against attack during the Middle Anglian occupation of the settlement, it must presumably have been by people from the trading settlement on Fishergate. The evidence from inside the walls hardly suggests the presence of a community with sufficient numbers to man the walls alone. This suggests then that the Roman *enceinte* acted as a refuge for the Fishergate population, whose habitations and goods were presumably considered expendable, in contrast to the habitations and goods of the administrative and ecclesiastical population within the walls. There is a marked status and value difference between the two communities demonstrated in this distinction. If Faulkner's analysis of Mediaeval status distinctions is correct (see above, VI.1; Faulkner 1964, 228), this would suggest that the Anglian society that generated this pattern of settlement showed the beginnings of the Mediaeval paradigm that difficulty of physical and social access was a mark of status.

Physical defences were operating on at least two levels, therefore, limiting access to the space or population within the walls, and excluding certain functions or populations wholly from settling within that space. Within the walls were the

ecclesiastical function and population, and the administrative function and presumably the aristocratic population. Outwith the walls were the manufacturing function, and the craft working population, and the trading function and merchant population. While those outwith the walls could have been both craftsmen and merchants, and those inside the walls both ecclesiastics and aristocrats, it seems unlikely that aristocrats were merchants, or that princes of the church abode beyond the pale. These communities, apparently of traders and craftsmen, were physically separated from the communities within the walls.

In York, it is clear that the Anglian period of the town's occupation included active maintenance and rebuilding of the Roman fort defences (Radley 1972, 38-64). This would suggest that the defences, which were undoubtedly clearly visible at the time, were of both practical and symbolic importance; the division between outside and inside was actively maintained and reaffirmed. In the context of the continuing political instability of the Anglian kingdom, just who had the right to be resident within the defensive *enceinte* must have been a significant distinction of, presumably, status. It is difficult to conceive of a society in which, in a situation of ongoing political disruption, it would be particularly desirable to house oneself and one's family immediately outwith the defended area of the most important political centre, which was likely to form a focus of any conflict. Safety would be either within the walls, or at some distance from the settlement. Anglian society, therefore, was able, by means of political power or socio-religious ideology or both, to exclude a substantial proportion of its economically productive population from an area which was defined by physical and conceptual defences, within which political and spiritual power found a conjoint home.

This expression of separation is noticeably absent from the contemporary settlement at Birka (see above, Chapter III). Despite the argument that Alsnöhus, on Ekerö, is a contemporary royal manor, the archaeological evidence from the site does not indicate that it was anything more than an important, high status, manorial site (see above, IV.1.4), no more exceptional than a number of other sites in the vicinity, for example Hundhamra (see above, IV.1.1). Within the bounds of the rampart of Birka, however, there is evidence for a variety of types of housing and land allotment, and for a wide

variety of functions. The longhouses against the rampart conform to the local, rural building tradition, and lack substantial evidence for either manufacturing or high levels of trade (Holmquist-Olausson 1993; see above, III.3.8), while in their vicinity, a very large, and very rich cremation burial of the local tradition (Selling 1945, 43-45) would undoubtedly, on any other site, be interpreted as an aristocratic or royal burial. Should it not be so here also? Certainly the evidence would seem to indicate within the bounds of the rampart, the presence of at least some individuals or family lines which did not derive their wealth directly from the production and trading activities of the settlement.

The chamber burials at Birka (Arbman 1943; see above, III.6.2), however, reflect the emergence of a group which was wealthy, powerful, and profoundly influenced by trading networks within the Baltic and its extensive hinterlands. The sheer conspicuous consumption of many of these mausolea could be, and has been, interpreted as aristocratic, as displaying status and control of resources, but the variety of imported goods in the burials has also led to their being interpreted as the graves of merchants. It could be argued that such wealthy burials might result from aristocratic control of the products of trade, but imported goods in varying amounts are common throughout the urban area at Birka, and within the graves in all the cemeteries, so any such control could not have been absolute. This argument is predicated upon the existence of a demonstrable distinction between the aristocrat-warrior, and the merchant, but should any such distinction between aristocrat and merchant be assumed in the context of the settlement at Birka, or indeed in the Viking Age Scandinavian cultures as a whole?

VI.2.1.1 The Viking Merchant: A Saga Motif

Such evidence as can be derived from the sagas does indicate that the merchant life was not incompatible with either the warrior's profession, or aristocratic descent in the Scandinavian world. A common theme, frequently repeated in *Laxdælasaga*, is the gift of a cargo of timber by a king or other patron.

Of Hoskuld Dala-Kollson, it is written that:

‘The king asked him to bring his ship to Oslo- Fjord, and there Hoskuld stayed with the king for a while. The king gave him a cargo of timber and had it

loaded into his ship.’ (*Laxdælasaga*, ch. 13, trans Magnusson & Pálsson 1971, 66)

Later in the story, Olaf the Peacock, son of Hoskuld and grandson of an Irish king, on wishing to travel to Ireland, borrowed a load of trade goods from a man who wished to marry his mother.

‘Melkorka replied ‘I don’t want to have you called a concubine’s son any longer, and if its only the lack of means that you feel stands in the way of your going, then I would go so far as to marry Thorbjorn the Feeble if that will enable you to travel; for I’m sure he would supply whatever wares you think you will require, if he can gain my hand in return. ...

Olaf told his mother to have it her own way. Then he spoke to Thorbjorn and told him he needed a loan of wares from him, and a big one at that.’ (*op. cit.* ch. 20, 87)

On his return, King Harald of Norway provided Olaf with a cargo of timber and a ship of his own.

The king had it fitted out with full rigging, and loaded it with timber. When the ship was ready the king summoned Olaf and said to him, ‘This ship is yours, Olaf, for I do not want you to sail from Norway this summer as someone else’s passenger’.’ (*op. cit.* ch. 22, 95-96)

Others of Hoskuld’s sons, Thorleik and Bard, are similarly described in the text as a merchants.

‘Thorleik Hoskuldsson had been a great sea-going merchant and stayed with people of rank when he was on his trading voyages, before he settled down as a farmer. He was considered a man of great note. He had also been on Viking raids, where he had proved himself a man of courage.

Bard Hoskuldsson had also been a sea-going merchant and had been highly thought of wherever he went, for he was a true and upright man and very temperate in all things. Bard married a Breidafjord woman called Astrid, who came of a good family.’ (*op. cit.* ch. 25, 103-104)

Clearly these texts demonstrate that a twelfth century perception of the Viking life saw no incompatibility between the roles of merchant, and Viking and warrior, nor with involvement in the higher ranks of Scandinavian society. Indeed, desire for trade goods, rather than desire for land or power, seems to have been behind the exploitation of the North American colony of Vinland. The discoverer of North America, Bjarni Herjolfsson, did not land there (*Grænlandingasaga*, ch. 2-3, trans. Magnusson & Pálsson 1965, 51-54). Leif Eiriksson, who overwintered there shortly

after is not said to have made any attempt to establish a more permanent colony, merely exploring, and loading up with grapes and timber at the end of a season's stay.

'...Leif said to his men, 'Now we have two tasks on our hands. On alternate days we must gather grapes and cut vines, and then fell trees, to make a cargo for my ship.' (*op. cit.* ch. 4, 57)

While it is certainly true that the emphasis on timber was a peculiarly Icelandic, or insular, theme, predicated by the rapid destruction of standing timber in Iceland following the *landnam*, and the lack of timber on the Atlantic islands, including Greenland, the emphasis on the importance of trade as a generator of cash, in the form of silver bullion, cannot be ignored. Silver could be used to purchase land, as, for example Arnbjorn Asbrandsson did on his return from Denmark (*Erbyggjasaga* ch. 40, trans. Pálsson & Edwards 1972, 105), and as Olaf the Peacock purchased Hrapptead from Thorkel Fringe (*Laxdælasaga* ch. 24, trans. Magnusson & Pálsson 1969, 101). Cash could also be used to fund feasts and gift-givings, as Unn the Deep-Minded did for the wedding of her grandson Olaf Feilan (*op. cit.* ch. 7, 55-56), to fund law suits, as Illugi the Black did over his wife's dowry (*Eyrbyggjasaga* ch. 17, trans. Pálsson & Edwards 1972, 48-9), and to dower daughters, all of which were means of increasing the status of the giver, and building social alliances. Gift giving, in particular, reflected honour on both giver and recipient, as is highlighted in the story of the Swedish berserkers, in *Eyrbyggjasaga*:

'The Earl said he could go if he wished, but asked him to think about something first. 'Is there anything of mine you'd particularly like to have', he said, 'a gift which would contribute to your prestige and do honour and credit to both of us?' (*op. cit.* ch. 25, 69)

In a society where cash and courage were the highest social values, and every man's life had a cash value, including a slave's (12 ounces of silver - *op. cit.* ch. 43, 114), wealth carried its own weight of virtue, regardless of how acquired. Display was desirable to the point of necessity; when Snorri Thorgrimsson returned from Norway wearing shabby clothes and with undecorated horse trappings and weapons, it was taken for granted that he had wasted his money, whereas his blood-brother Thorleif Kimbi, who had spent most of his travelling money on a showy outfit, was admired (*op. cit.* ch. 13, 41).

It seems likely that trips that started as trade could become Viking raids, and potentially *vice versa*. Two particular references are very suggestive in this context, and also throw some light on the importance of trading towns in Viking Age northwestern Europe. The earliest *Anglo-Saxon Chronicle* reference to the Vikings, a retrospective comment about an incident on the south coast of England, variously attributed to Danes and Norwegians in different versions of the Chronicle, states:

‘And in his days there came for the first time 3 ships; and then the reeve rode there and wanted to compel them to go to the royal town, because he did not know what they were; and they killed him.’ (*Anglo-Saxon Chronicle*, 789, trans. Swanton 1996, 54-55)

This is complemented by the twelfth century record of Olaf the Peacock’s trip to Ireland in *Laxdælasaga*, where the boat was stranded by the tide on a beach after being anchored the night before.

‘Orn said, ‘I don’t think we have landed at a good place, for this is far from the harbours and market-towns where foreigners are supposed to have safe-conduct; and here we are, left high and dry like sticklebacks on a beach. I think I’m right in saying that under Irish law they can confiscate all our goods, for they claim everything as flotsam even when the sea has ebbed less from a ship than it has here.’ (*Laxdælasaga* ch. 21, trans. Magnusson & Pálsson 1969, 90-91)

In both cases, what appears potentially to have been a trading expedition, was tipped close to, or into, violence by circumstances, and the resistance of the traders to outside authority. It is also interesting, in this context, to consider the fact that, in writing about Olaf, who was primarily on a trip to Ireland to meet his maternal grandfather, the saga author takes it for granted that no trip would be made without trade cargo, and even with trade cargo, it would be normal practice to take a crew of fighting men (*op. cit.* 89). The Viking could apparently be a merchant in a bad temper.

VI.2.1.2 The Cash Society and The Enclosed Trading Place

The question then to be considered must be whether the enclosure of the many functions of the Scandinavian Viking Age trade ‘town’ within a rampart is not the physical expression of the social prioritisation of silver. There are alternative explanations, as discussed above, focusing upon a differing awareness of physical threat, status marking, and the creation of legal boundaries, but these are inadequate to explain the marked differences in the organisation of Anglo-Saxon and Scandinavian

Viking Age towns. There is no evidence, for example, either documentary or concrete, that Scandinavian towns were more physically threatened than were the contemporary Anglo-Saxon settlements. The *enceinte* which encloses Birka, Hedeby and Lund, and doesn't enclose York and London, would seem therefore to reflect a profoundly different social and symbolic valuation of trade and manufacturing as processes.

Similarly, the argument that has been put forward for the association of Birka with the putative royal manor of Alsnöhus has been demonstrated to be weak in itself (see above, IV.1.4). But even if it were to be accepted, it should be emphasised that neither Alsnöhus, nor any other of the Central Swedish high status 'manors' of the Viking Age, are defended or enclosed. Even if the link between trade settlements and high status manors in Scandinavia could be defended on the present slight evidence, the physical expression of their different functions is diametrically opposite that of the divided Anglo-Saxon central places, where the high status administrative and ecclesiastical occupation was defended or enclosed, while the trade and manufacturing functions were not. Again, the enclosure of trade and manufacturing seems to reflect a different value system.

The enclosure of the urban space cannot simply have been a reflection of the special legal status of the town, either; northern European trading places of the early historic period generally had a special legal status, and as demonstrated, the enclosure of such spaces with a substantial, and defensible, rampart was not universal. It is probable that in both the Anglo-Saxon and Scandinavian cases, the rampart or wall did represent a legal as well as a physical boundary, but given that it enclosed and excluded different things, this legal concept cannot have been identical, any more than the social priorities from which it resulted were identical. Clearly then, an explanation of the enclosure question must be sought in some archaeological expression of Scandinavian Viking Age values that differs from the values expressed in the archaeology of the rest of contemporary north-western Europe.

One of the striking peculiarities of the Viking Age in Scandinavia, in contrast to the rest of north-western Europe at the same time, is the sheer volume of imported silver

found on virtually all settlement sites, let alone in burials and hoards. Over 210 000 coins have been found in Viking Age contexts throughout Scandinavia (Malmer 1985, 185; 1990, 157-8), of which more than half are from Gotland alone (Östergren 1989, 247). The vast preponderance of the material came from the East, particularly in the form of dirhams from the Caliphate, but substantial amounts were also imported from southern and western Europe, and Byzantium, with a late tenth century peak of primarily Anglo-Saxon and Germanic coins (Malmer 1985, 186-7; 1990, 157-60).

Both the archaeology and the textual sources suggest that silver had a peculiar symbolic as well as practical value in the Viking economy. The surviving coins, many deposited in hoards, do not represent the total volume of imported coinage; much of the silver must have been recycled in the form of jewellery and hack silver, equally acceptable as tender in a bullion-based economy. Silver coins and hack silver were found throughout the excavations at Birka, and in all periods of occupation, and are ubiquitous in the rest of the Viking World. It was not until the end of the tenth century that mints throughout Scandinavia began to strike coins, although there may have been a small-scale, earlier production of sceattas in Denmark, possibly at both Hedeby and Lund (*op. cit.* 160). By the eleventh century, there is definite evidence of increasing moves towards a monetary economy in mainland Scandinavia, at varying speed throughout the different areas (Hårdh 1976), but this move was only reluctantly accepted in some areas, as evidenced by the (probably fictional, but nonetheless revealing) twelfth century story of Halldor Snorrason being paid in coin by Harald Hardrada of Norway.

‘On the eighth day of Christmas the retainers were paid. It was called Harald’s Mint and consisted mostly of copper, less than half of it being silver. When Halldor got his pay, he emptied the coins into the lap of his cloak to examine them, and it seemed to him the silver wasn’t very pure, so he swept down all the coins with his hand into the rushes on the floor.’ (*Halldor Snorrason, Hrafnkel’s Saga* ch. 2, trans. Pálsson 1971, 114)

The value and status given to silver as bullion during the Viking Age is further shown by the association of silver hoards with domestic buildings. Majvor Östergren has demonstrated that on Gotland, the most silver-rich area of Scandinavia, silver hoards are strongly associated with archaeological evidence suggesting that they were concealed within and under houses (Östergren 1989, 37-66), as accessible banks of

wealth. The volume and ubiquity of such silver hoards on Gotland indicates that their presence is not an indicator of particular wealth or status, but of a society on that island in which everyone had access to, collected, and valued, silver (*op. cit.* 248). This impression of universal access to silver, albeit on a smaller scale elsewhere than in Gotland, is reinforced by the ubiquitous presence of weights and scales on Viking Age sites, both settlements and cemeteries, throughout Scandinavia, even in areas which have much lower levels of discovered hoards than has Gotland. Many of these weights appear to have had wide acceptance, although there may have been a number of different systems of weights in use at the same time (Gustin 1997, 166), again emphasising the coherence and wide acceptance of the bullion based value system.

Alfred's treaty with Guthrum, setting the terms and parameters of the Danelaw, famously also set the value in silver of the life of all classes and categories of person (Whitelock (ed.) 1979, 417-418). This use of cash compensation to resolve grudges and feuds is paralleled in the Icelandic sagas (Byock 1982, 98-113, 260-265), and seems to have been a commonplace solution to the problem of honourably rebuilding a working relationship in a close community riven by murderous disagreements. Silver could be equated with honour, though occasions are documented when blood vengeance was overridingly important.

Viking Age Scandinavian society, therefore, was arguably a society in which the highest social value was wealth. Blood feud could be resolved by silver (Byock 1982, 98-113, 260-265), wars could be stopped or postponed by silver, as in the case of the Danegeld, hostages ransomed, legal cases brought (*Laxdælasaga* ch. 16, trans. Magnusson & Pálsson 1969, 76), labour, loyalty, lands or goods purchased. Silver was one of the most important unifying and motivating factors that allowed the functioning of the Viking world, with its diverse languages, ethnic groups, polities and far-flung geographical limits. In this case, it can be argued that the physical enclosure of trading and manufacturing centres was an expression of the value placed upon the individuals and activities that generated and manipulated this most desirable of commodities.

VI.2.2 Craft Production, Subsistence, and Economic Control

The discussion of differing modes of craft production, subsistence and economic control leads naturally out of the question of the enclosure or exposure of the trading settlements. What, if anything, was different about the nature and scale of the activities closed within the ramparts of the eighth and early ninth century Scandinavian towns, and those outwith the contemporary Anglo-Saxon central places of what was later to be the Danelaw? How was craft production organised, and subsistence sustained? Here, the evidence is weak, particularly for the Anglo-Saxon settlements. Again, the necessary comparisons can really only be made between York and Birka, with London and Hedeby providing supporting evidence.

As regards subsistence, the most suggestive studies have been carried out on material from Fishergate in York (O'Connor 1994, 136-147). The site provided substantive evidence for highly controlled access to foodstuffs, with a limited supply of animals of a restricted age range, both on the hoof and as jointed meat, and a distinct and remarkable lack of wild food, with the sole exception of species of fish which could have come from the river alongside the site (*op. cit.* 139). This could be interpreted in a number of different ways, of which O'Connor favours the idea that the distribution patterns reflect the redistribution of food rents by a controlling landlord (*op. cit.* 141). Equally, however, the species and age distributions could be the result of strict market control by the suppliers, in the context of a cash market, or of prohibitive pricing or monopolising of certain types of meat by a community of different status or function, such as the church or aristocracy, or of the conscious economic isolation of the community from its surrounding area by an authority. There can nonetheless be no real doubt that in some manner, whether economic or political, the subsistence base of the Fishergate settlement was strongly controlled, and by implication, that the economic life of the community there was, to a greater or lesser degree, subject to a concomitant degree of control.

In the light of this evidence, it is interesting that the evidence for subsistence from excavations on the Strand in London have shown a similarly limited food base (Rackham 1994). The number of species present was few, their age range restricted,

and there was little evidence for the keeping of stock in the area of the settlement, with the exception of the National Gallery site, which was on the very fringe of the known area of Middle Saxon *Lundenwic*. In this case, the author interprets the distribution patterns as reflecting a limited market economy, with very little import of any food, even of saltwater fish by river (*op. cit.* 132), but the underlying similarity between the evidence from both London and York is striking. Whatever the mechanism, and it may indeed have been different in the two settlements, there is little doubt that the supplies of food to both were under a rigorous control that carried with it the implication of wider political, ideological and/or economic control of the community.

This implication of wider political, economic and possibly ideological control of the trading and manufacturing communities in the Anglo-Saxon polities would seem superficially to be contradicted by the impression of lack of physical control given by their relatively unenclosed position outwith the Roman defences of both York and London. It is worth, however, considering that this impression of lack of physical control could be turned on its head. If the position of the communities reflected not freedom from constraint, but instead, as suggested above, exclusion from a defined high status area, to which they were bound in service, the location of the trading settlements then reinforces the paleoenvironmental evidence for strong control over their economy and function.

The contemporary settlement at Birka, of the late eighth and early ninth century, provided copious evidence for the consumption of all types of meat, both wild and domesticated (Bengt Wigh, pers. comm.). The poor organic preservation on site made it difficult to assess the vegetable content of the diet, but coprolites from the site would seem to indicate a high fibrous component, and macrofossils and pollen of a number of herbs, both edible and medicinal, were found (Sven Karlsson, pers. comm.). Although the proportion of different meats in the diet appears to have changed over time, with an increase in pork in relation to sheep/goat, the overall picture of free access to foods does not seem to have changed (Bengt Wigh, pers. comm.). Imported Slavonic ceramics from the salt producing areas of the South Baltic coast may represent an import of salt (Mathias Bäck, pers. comm.), and were

widely spread throughout all areas and levels of the site. There does not seem to have been rigid economic or political control of subsistence supplies to the settlement.

Relative levels of craft production in the settlements at Fishergate and Birka also contrast strongly. Though less well dated than Birka, Fishergate's two-century span of occupation and excavated area conform sufficiently well to provide a reasonable basis for a comparison of industrial and craft activity between the two sites. Both were dry sites, with minimal organic preservation, but the volume of finds was staggeringly different. It must be taken into account that there is paleoenvironmental evidence from Fishergate for the selective removal of rubbish, reflected in the very low levels of plant macrofossils from the site (O'Connor 1994, 139), but the wide spread and variety of craft debris on the site indicates that if selective deposition was practised on industrial materials, it was not particularly effective.

The suite of crafts represented at the two sites is very similar; both produced evidence for iron working, non-ferrous metal working, bone and antler work, with a particular emphasis upon the manufacture of composite combs, and also textile working (McDonnell 1993, 1228; Bayley 1993, 1232-1235; Rogers 1993, 1245-1264; 1265-1273; see above, III.6.1). In addition, Birka produced evidence of glass bead manufacture, though not within the excavated area. At Fishergate, however, there were no demonstrable foci of craft activity (Rogers 1993, 1441), in stark contrast to Birka, where the finds distributions were extremely strongly localised, to the extent that it may be possible to discuss the use of different areas of the buildings for different aspects of a single craft. Given the comparable size of the excavations of the two sites, this cannot merely be the result of the limited area excavated at Fishergate nor, given the amount of material from Fishergate, does it seem likely that it is the result of selective rubbish disposal, which would have tended to reduce the amounts of craft debris without necessarily altering their distribution patterns. Interestingly, this non-focal, relatively low debris level pattern conforms to that observed in other Anglian non-rural sites, particularly London (Cowie & Whytehead 1989, 712) and Ipswich (Wade 1988, 95), suggesting that it is the real result of a difference in the organisation and probably in the scale of production in trading settlements in Scandinavia and in the Anglo-Saxon kingdoms.

There are two obvious explanations for the phenomenon: first, that this is the result of a much lower craft production level on these sites than on the Scandinavian sites, and that the resultant rubbish accumulation was therefore less and did not accumulate faster than the natural processes of redistribution over the site; second, that careful and large-scale rubbish disposal took place on the site, as was suggested in relation to the paleoenvironmental evidence from Fishergate, *Eoforwic* (O'Connor 1994, 139). In all probability, elements of both explanations are valid. The rubbish disposal cannot have been too careful and selective, as industrial debris is found widely distributed over all the Anglo-Saxon sites, and includes a wide variety of sizes and types of finds, but the relatively limited stratigraphic build-up on these sites suggests that disposal of some sort was taking place. Equally, the lack of foci of distribution suggests that craft production may have been not only relatively small-scale, but possibly also relatively unspecialised, perhaps concentrating largely on a domestic level of production. This need not have precluded a high degree of expertise on the part of the craftspeople.

The relatively low level of craft production at Fishergate would seem to indicate a comparatively low level of demand for the specialised products of the craftsmen. When linked to the evidence for a limited subsistence base to the site, and the lack of evidence for on-site agricultural production, there are two potential interpretations of the archaeological pattern. The first would suggest that the site was an *emporium* of Hodges' type A (Hodges 1982, 50-52), occupied only seasonally, with a seasonal subsistence base. This, however, is apparently not suggested by the environmental evidence, which assumes permanent occupation of the site (O'Connor 1994, 139-141). The second is that the site was a tied settlement, producing for one consumer, and sustained by that consumer. This is certainly O'Connor's interpretation of the environmental evidence, which he suggests reflects the redistribution of food rents (*ibid.*), and the environmental evidence would seem to be supported by the evidence of a limited production of specialised craft work on the site. Thus, Fishergate's social and economic position would in some ways be analogous to that suggested for Helgö (Ennen 1975; Ambrosiani 1985, 108-109), rather than Birka.

The excavated Middle Saxon trading settlements within the Danelaw do not show large, identifiable status variations from site to site, within the settlement. This could easily be a function of the limited areas which have been excavated, but it is interesting that this is a pattern which is also to be observed in Middle Saxon Southampton, *Hamwic*, where much larger areas have been excavated (Andrews 1997, Morton 1992). The Middle Saxon settlements do appear, where sufficient paleoecological analysis has been carried out, to have access to limited and controlled, though not inadequate sources of foodstuffs (O'Connor 1994; Rackham 1994). Rackham (*op. cit.* 131) suggests that in London, the Middle Saxon meat may have been supplied on a market economy basis, in contrast to O'Connor (1994, 145) who indicates that the Middle Saxon community in Fishergate may not have been free to trade widely for food. The limitation of food species in both settlements, however, suggests a degree of economic limitation, whether expressed by the redistribution of food by a landholder to the population, or by social or political control of what commodities were marketable and to whom.

VI.2.3 Buildings and Plots

Domestic buildings and their immediate surroundings, their plots, whether rural or urban, are the physical focus of human social life. They are the context in which people can be found at their most emotionally and physically vulnerable, where the personal, social, and demographic dramas of life are most commonly played out. They contain and provide a context for birth and death, for the education of children and the protection of the elderly, for the sustenance of a family and the creation of economic gain or loss. As such, it would be curious indeed if the intimacies and necessities of the physical demands of these processes were not reflected in the form of the buildings that contained them.

The social control and acceptable practices of all the commonalties of domestic life vary widely from society to society. Concepts of privacy vary, both in amounts required for certain activities and the activities to which the need for privacy is applied. The number of individuals housed under one roof varies, as do their gender, age, roles and interrelationships. The degree to which space is divided to reflect the

activities of the household also varies, as does the nature of the divisions, whether fixed or flexible, concrete or abstract. All these variations are cultural expressions and therefore have social implications. Such facts are no modern revelation; *Orkneyingasaga* pinpoints an important physical expression of social change when Svein Asleifarson's hall was divided following his death:

‘This was how Svein used to live. Winter he would spend at home on Gairsay, where he entertained some eighty men at his own expense. His drinking hall was so big, there was nothing in Orkney to compare with it. In the spring he had more than enough to occupy him, with a great deal of seed to sow which he saw to carefully himself. Then when that job was done, he would go off plundering in the Hebrides and in Ireland on what he called his ‘spring-trip’, then back home just after mid-summer, where he stayed until the cornfields had been reaped and the grain was safely in. After that he would go off raiding again...’ (*Orkneyingasaga* ch. 105, trans. Pálsson & Edwards 1978, 215)

‘After Svein's death, his sons, Olaf and Andres, divided the inheritance between them. The summer after his death they set up partition walls in the great drinking hall he had built on Gairsay’ (*op. cit.* ch. 108, 218)

Importantly, then, domestic buildings were a conscious reflection of social values as early as the end of the Viking Age, and presumably before that date.

The variables in buildings and plots that can be examined in this particular group of archaeological cases, primarily in York and in Birka, include size, constructional technique, external architecture insofar as it is represented in sometimes fragmentary ground plans, internal spatial organisation (with a similar proviso), building function or functions, orientation, spacing between buildings and between plots, the constructed density of excavated areas, and the relationship between buildings, plots and roads or streets. There are problems and areas of weakness in the examination of all these elements, dependant upon the quality of the excavated evidence, but sufficient information exists to attempt a comparison between the settlements in Birka and York based on these factors.

There is no evident chronological change in the constructional and carpentry techniques used over time in the buildings at Birka (see above, III.5.1, for details). The one consistent constructional detail throughout the occupation of the site is the use of earth-fast posts for the strong points of the structures. This was evident in the

first building on the site (A2) and in the latest. While undoubtedly partly a pragmatic element, the use of sill beams in various structures (e.g. A49, B6) suggests that the technical competence existed to create buildings which were not tied into the underlying soil; the use of interlocking log technique for building small structures in Hedeby (see IV.2.1.2, fig. 45) confirms that the use of earth-fast posts was not a technical necessity during the Viking Age. The limited use of sill beams, and the lack of evidence for interlocking log structures in Birka, suggests that possibility that the continuing use of earth-fast posts was a cultural preference; log and sill beam techniques provide distinctly improved building lives, as the foundation elements of a structure are lifted above the surface of the soil by sill or pad stones. Log structures may, however, have existed at Birka; A49 could have had log walls, but the lack of organic preservation makes it extremely difficult to determine whether this was the case. The general lack of any evidence for other than post structures at Birka, and the association of post-holes with every structure make it more probable that A49 was a post and sill-beam structure as were so many others.

The favouring of post-built structures was paralleled in the early settlement at York, at Fishergate. None of the structures at Fishergate were of sill-beam construction. This pattern was continued in the first occupation at Coppergate, where the majority of the structures were of wattle and post construction, and none were of sill-beam construction throughout. Only with the Period 5B buildings of the late tenth century, did full sill-beam construction appear on the site, at which point it formed the foundations of cellar walls, rather than buildings above ground level.

Three halls and a sunken-featured building were excavated at the Anglian site of Fishergate in York. Two further structures were too damaged to interpret, and have therefore to be excluded from the analysis. The three halls that were identified were each 5.5m in width, and at least 11m in length, and two of them had identifiable internal walls 3m and 3.5m from one end of the structure, creating two rooms, of vastly dissimilar size. The third building extended outwith the excavated area (Kemp 1996, 27-36 & see fig. 64). The sunken featured buildings was only 3.25 x 1.6 x 0.5m in size, and lay close to one of the halls. In none of the buildings was there evidence of

a fixed hearth or furniture. All four buildings lay within one large plot, c. 1 200m², bounded by a shallow ditch to the east and an alignment of pits to the south (*ibid.*).

The contemporary buildings at Birka, in Periods B2 and B3, were of very different character, and were organised differently. The earliest building on the site, the metal workshop A2 of Period B2, was only 5 x 6m in size, with a central hearth. This was replaced by two parallel, larger buildings, A66/68/69 and A19/30, on a plot only c. 260 m² in size. A66 was, at 5m in width and c. 11.5m in length, one of the largest buildings excavated in the centre of Birka. A19 was c. 4.5m in width and 7m in length. Although A19 appears to have been internally undivided, A66 was divided into two rooms of near equal size, the northern room being at least 5m in length, while the southern was c. 6m long. There were fixed hearths in both the northern and the southern rooms, with a wall bench along one wall of the northern room (see above, III.5.1.1). These buildings were set on a plot bounded by two streets, a waterfront and a path, and measuring only c. 195m².

These architectural traditions, despite their technical and constructional similarities, were sharply different. The Anglian halls, as excavated at Fishergate, were noticeably larger both in width and length, than the contemporary buildings at Birka. Their proportions, insofar as they were identifiable, conformed precisely to those of other contemporary Anglo-Saxon buildings, which appear to have been constructed on the basis of multiples of a square module (James *et al.* 1984, 186-8). The formality of this building tradition was lacking in the contemporary Scandinavian corpus, particularly at Birka, but also at Hedeby and other non-rural sites, where proportions of buildings appear to have been more flexible.

The internal divisions of the buildings were also different; the Fishergate buildings were divided into rooms of markedly different size, where the smaller room was less than a quarter of the floor area of the building. This conforms, again, to the commonest pattern of Anglo-Saxon hall (*op. cit.* 189). At Birka, in contrast, the rooms in A66, and in the later buildings on the site, were much more nearly equal in size. This corresponded to apparent differences in use of the internal space. At Birka, the distribution of finds within A66 suggested a functional difference between the two

rooms, with domestic activity perhaps concentrated in the northern room, whilst metalworking was concentrated in the southern room, and extended from that room into the adjoining building A19 (see above, III.4.3.3). Such functional differences could not be identified at Fishergate, where the analysis of the distribution of finds both within and outwith the buildings did not identify any particular foci of activity (Rogers 1993, 1441). The extremes of size difference between the rooms, however, would suggest different levels of use, and presumably different types of use.

The one sunken-featured building excavated at Fishergate also highlights a difference between the Anglian settlement at York, and its contemporary at Birka. There is only tenuous and highly disputable evidence for the existence of sunken-featured buildings in the settlement at Birka (Holmquist-Olausson 1993, 100 & 103, and see above, III.5.1.2). It may be that they were not found in the excavated centre of the town because the Viking Age water table was too high for them to have been practicable, but it is certainly interesting that they have not been found in the later settlements at Sigtuna and Visby, although undoubtedly present in the earlier settlement at Helgö. There seems to have been a chronological tendency for their numbers to decrease.

The functions of the sunken-featured building as a concept seem to have varied. In some cases, for example the large settlement at Åhus, there is no evidence that they contained hearths, and they seem to have been associated in groups with halls which are presumed to have fulfilled a domestic function (Ericsson-Borggren 1993, 10-14). In this case, the finds from the fills and back fills of the sunken-featured structures gave a consistent picture of their use for craftwork (*op. cit.* 14-15). In the *Südsiedlung* at Hedeby, in contrast, the majority of the sunken buildings had well constructed hearths, and there was only one, very large, hall or long house associated with the entire settlement outwith the southern part of the rampart (Steuer 1974, 16). Within the rampart, only one sunken-featured building was found (Schietzel 1969, 49). In this case, however, there would seem to be a valid argument for the buildings of the South Settlement having had at least partially, a domestic function. A similar argument could probably be proposed for the settlement at Löddeköpinge, where no post-built structures at all were found (Ohlsson 1976, 71, 93).

Where sunken-featured buildings do occur in quantity in Scandinavian settlements, they seem to have been associated with settlement forms less rigidly organised than Birka or the settlement within the walls at Hedeby. The *Südsiedlung* at Hedeby had no obvious plot divisions, or other permanent internal organisation, and neither, despite its rampart, did that at Löddeköpinge. That at Åhus, though apparently organised into separate economic units, was not densely occupied, nor were the buildings in different plots rigidly aligned, and the plots themselves were very much larger than those at either Birka or Hedeby (see fig. 53).

The sunken-featured building appears to have been a structure whose use in a non-rural context was rapidly declining during the Viking Age. Why this was the case must have depended upon what its precise function was in the first place, and what its structural advantages were. Although there appears to have been a strong link between this type of structure and craft production, this was clearly neither universal nor exclusive, and it seems likely that although it was a characteristic north-western European building type, the use of the sunken featured building may have varied geographically and chronologically. Its decline, paralleled in Scandinavia by the decline of the great Iron Age halls, may have reflected aspects of the same social changes.

VI.2.4 Emergent Themes

The themes that emerge from this discussion of the Middle Anglian settlement at Fishergate, and the Early Viking Age settlement at Birka are of variations in political prioritisation and social control, and in the physical and economic expressions of these characters. The prioritisation of trade and the products of trade, was expressed in Scandinavia by the enclosure of the dwellings and workshops of traders, and of the physical arena of trade. In contrast to this, the trading settlement at Fishergate appears to have been deliberately located outside the *enceinte*, paralleled at the Middle Saxon settlement on the Strand in London. These differences resulted from a divergent organisation of trade and production, marked within the sites by a contrast between clear specialisation of different types of activity and craft in different buildings and areas of buildings at Birka and Hedeby, in contrast to a lack of local foci of production

at Fishergate, and in London, on the Strand. Trade and manufacture, in Scandinavia apparently of the utmost importance, in the Anglo-Saxon kingdoms seem to have been subservient to administrative and ecclesiastical foci.

This apparent difference in the social and political meaning of the trade centre is underlined by the emerging patterns of subsistence within the different settlements. In the Anglo-Saxon kingdoms, evidence suggests that occupants had access only to a limited supply of subsistence resources, whether limited because they consisted of redistributed food rents, or because the occupants had access only to a controlled market. The most likely interpretation seems to be that the trading and manufacturing communities were tied settlements, supplied by a political power, whether an individual, a family or a group, and in turn producing for that very limited market. This is very different to the emergent pattern from the Scandinavian towns, where the ubiquitous presence of imported luxuries and diverse subsistence supplies from the mid-eighth century onwards would seem to indicate the probability that the occupants had access to all the resources of the hinterland, and probably to a market for both sales and purchase which was politically uncontrolled.

Although there can be no simplistic analogy between the physical and the social, the degree of segregation of function within the Anglo-Saxon settlements should also be noted. Whereas the ramparts of the settlements at Birka and Hedeby enclosed a variety of functions, the walls of the old Roman settlements in what was later to become the Danelaw seem only to have enclosed aristocratic, administrative and ecclesiastical functions, all intimately interlinked. In this context, it is hard not to see a link between the physical segregation of the trade and manufacturing functions of the settlement, and a socio-political valuation of trade and traders that regarded them as a separate and socially distinct group, to be relegated to decentralised locations.

This archaeological expression of political and social control does not, however extend to the detail of the settlement organisation. Here, political and social control of the internal organisation of trading settlements, as expressed by the density of occupation, the number of buildings with direct access to roads, the density of roads,

plot size, and boundary permanence, seems more apparent in the Scandinavian settlements of Birka and Hedeby.

The most immediate difference between the organisation of the two settlements, of Fishergate and Birka, is in the different plot sizes, c. 1 200 m² as against c. 195 m². On the former site, three buildings occupied the plot, with no clear evidence as to their contemporaneity, and despite the relatively large size of these structures, the percentage of the land area of the plot that was occupied by buildings cannot have been much more than 20%. In contrast, the plot at Birka, with two rather smaller buildings in the third and most typical period of occupation (B3), was not less than 55% overbuilt. Similarly, the buildings on the excavated plots at Birka were constructed parallel to each other, centrally within the plot, and with the minimum possible gap between the two, so that each presented a gable end to what appears to have been the major road, parallel with the waterfront, along the south-eastern side of the site. In contrast, insofar as it was possible to determine the position of the roads adjoining the Fishergate site, it appears that the buildings were located with their long axes parallel with the roads, thus leaving an open area in the centre of the plot, and providing a minimal number of buildings with access to the main road. A similar pattern can be observed in excavations of the contemporary Anglo-Saxon trading site at Southampton (Morton 1992).

This high density of roads, small plot size, and maximum access between buildings and roads all emphasises the premium placed on occupation of the enclosed area within the Scandinavian towns, and on movement within this area. The organisation of such a dense settlement, the maintenance of plot boundaries in a situation where land appears to have been desirable, the evidence in the earlier phases of Birka's occupation for maintenance and cleaning of the jetty access, all suggest a degree of firm political control over the centre of the urban area at Birka, a further reflection, perhaps of the values expressed in its enclosure. The unenclosed development of Fishergate outwith the walls of York is perhaps the explanation for the relative lack of density of the settlement, the clear contrast in the amount of open area around its buildings and roads, and the lack of stratigraphic build-up, but would also seem to suggest a lesser concern with maximising the occupation of this particular area.

Again this would appear to reflect the values implicit in the unenclosed nature of the settlement.

VI.3 THE DANELAW TRANSFORMATION

In the light of these demonstrable differences in social and political preconceptions of trade and manufacturing, and their physical expression, between the two societies, it is remarkably striking that the ninth century saw such a dramatic social and physical change in the organisation of the settlements of the Danelaw. This change is, of course, most clearly understood for York, but there is substantial evidence to support the case from the majority of the other Danelaw settlements.

The historical context of this change in York (see ch. V.2.1 for a more detailed discussion of this issue) is the capture of the city in AD 867, and the establishment of a series of short-lived Anglian kings of Northumbria under variously the Viking Army and Archbishop Wulfhere (Rollason *et al.* 1998, 27, 32, 63). This sequence of Anglian puppet kings was drawn to a close by the occupation of Northumbria by Halfdan and a part of the Great Army, some nine years later in AD 875-6 (Swanton 1996, 72-75). From that time forward, York was ruled by kings of Scandinavian descent almost without a break until the eleventh century.

Whilst the archaeological dating for the end of Anglian occupation at Fishergate is generally weak (see ch. V.2.3.1), the numismatic evidence provides a *terminus post quem* for the latest period of Anglian occupation of AD 841-8 (Kemp 1996, 56-58), and a poorly stratified coin of AD 858-866 provided a possible *terminus post quem* for the Anglian occupation of whole of the site, supported by a notable lack of late ninth century York wares in the pottery assemblage (*ibid.*). This links to an archaeomagnetic date from the post-Roman reoccupation of Coppergate, Period 3, of AD 860+/-20, supported by numismatic evidence from the same period suggesting a date for the reoccupation of the second half of the ninth century (Hall 1997, 1692; 1990, 382; 1984, 43-48). Cumulatively, the evidence indicates on purely archaeological grounds, an abandonment of the Fishergate area and reoccupation of

the old Roman town sometime in the third or fourth quarter of the ninth century, a date strikingly close to the historically known political disruption caused by the conquest, and later the occupation, of York by the Great Army. In other words, at about the time the Scandinavians gained control of the town, the trading and manufacturing functions previously settled in the Fishergate area were moved inside the defensive *enceinte* .

The initial, Period 3, occupation at Coppergate appears to have had strong artefactual and organisational likenesses to that at Fishergate. The ceramic assemblages on the two sites were certainly strongly similar (Mainman 1990, 650-651). Only one possible building seems to have occupied the area, at an angle to later plots and surrounded by open land (Hall 1997, 1693). The archaeological evidence for this structure was insufficient to allow any architectural analysis, so it is not possible to say whether the building was in the Anglian tradition or more like a Scandinavian structure, but the lack of density of occupation is certainly reminiscent of the Fishergate settlement.

The later buildings of the Anglo-Scandinavian settlement, Periods 4B and 5B, at Coppergate in York were sharply different from those excavated at Fishergate, but also noticeably at variance with those from Birka and Hedeby. The plots at Coppergate were very much smaller than the single plot excavated at Fishergate, at c. 250 m², and each contained only one or two buildings, densely occupying the streetwards end of the plot, with little open space between them. The buildings were parallel with each other and gable end to the street, providing a continuous street frontage, and allowing as many structures as possible direct access to the thoroughfare. The contrast to the loose organisation and relative lack of density of the Fishergate plot is marked, but the density of occupation along the street front is strongly reminiscent of the organisation of plots at Birka, although in that case, each plot appears as likely to have had two parallel buildings on it as not. The plots at Birka were similar in size to those at Coppergate, at c. 260 m², though wider, to accommodate the parallel buildings.

The Period 4B buildings at Coppergate were smaller than the Fishergate buildings, measuring at least 4.4m x 6.8m, rarely wider, though often longer. This was rather smaller than the buildings at Birka, which varied somewhat depending upon their function, but were typically c. 5m x 10m. Internally, the Coppergate buildings were undivided by walls, but each had a large, permanent central hearth, measuring c. 1.8 x 1.2m, occupying nearly a third of the width of the structure and up to a quarter of its length. Typically, to either side of this were wall benches extending along around two thirds of the long walls of the structure. The use of permanent, inbuilt furniture was also characteristic of the buildings excavated in Birka, though, as discussed above, not a feature of the Fishergate buildings. Multiple renovations of each Coppergate structure meant that the walls of any one building might consist of a number of different building techniques (Hall 1994, 56-7), another feature paralleled at Birka.

The size and careful construction of the hearths might be seen as a functional characteristic; these buildings were commonly destroyed by fire (*op. cit.* 49-66). Each hearth extended as a large, kerbed clay and stone surface well outside the area of burning in the centre which indicated the size of the fire. On the other hand, the buildings at Birka were also frequently destroyed by fire (see above, III.4.3), and there, as also at Hedeby, hearths were much smaller, only exceptionally more than 0.6 x 1.3m, though equally carefully constructed of clay and stone. It seems unlikely that the Birka and Hedeby houses were less vulnerable to fire than those at Coppergate, and an additional understanding must therefore be sought for the extreme size of the hearths at Coppergate.

Another feature of the Coppergate buildings that contrasted with those at Birka and Hedeby was the number of occurrences of wall benches along both long walls of a building. Within the area excavated in the centre of Birka, this never occurred; wall benches were only to be found along one wall. The effect of the combination of two wall benches and a large hearth within the Coppergate building must have been to control and channel movement within the building rigidly. Despite the lack of internal walls, activity and motion within the Coppergate buildings would have been delimited by the fixed furniture, the wall benches and the large hearths, into three longitudinal zones, separated by two corridors of movement. This is emphasised by

the simple fact that, as one would expect, the wall benches break off at entrances to the building, channelling the incomer into the centre of the building.

This effect contrasts interestingly with the internal organisation of the buildings at Birka. Hearths in these structures also tended towards centrality, but in these cases, centrality within a room rather than within the building, as the majority of the most intact buildings were clearly divided into rooms. Building 13 (A56, Period B7) (see fig. 27) could be taken as the archetype of the Birka building, and was also one of the best preserved on the site. It had two rooms, of which the northern was very slightly smaller. Within the southern room was an oval hearth, near, but not absolutely central, being displaced very slightly to the west. Within the northern room were two hearths, not contemporary, one of which was near central, the other towards the western corner. In the northern room, a row of three ridge posts¹ divided the room effectively into two aisles, and although there were no posts in the southern room, this linear division into two zones continued, with an area to the east of the hearth, marked by the end of the wooden floor, which was probably covered by a wall bench or similar structure. Here, even in the room without roof posts, the division of the building into two longitudinal zones was created by the internal furniture. The same pattern was visible in building A66 (Period B3), similarly a two room building, which had a single wall bench in its northern room, and in the southern room, a hearth in the western half of the room, with casting bowls built into the floor of the eastern half, again emphasising a bipartite division of activities. In no case was the internal space as confined by the presence of fixed furniture as at Coppergate, and similarly, in no case could a tripartite longitudinal division be identified.

This tripartite longitudinal division, with its central hearth and wall benches, was a form that appeared fully-fledged at Coppergate, seeming to reflect an established pattern. But this pattern was clearly not the commonplace of Anglo-Saxon architecture. Aisle posts were not a characteristic of Anglo-Saxon architecture (James

¹ This was the only occurrence of ridge posts amongst the buildings excavated at Birka, and would appear to have been anomalous. Although these seem to have been primary within the structure, rather than a later repair, they can only be explained by the absence of sufficiently long structural timbers for the ridge, or perhaps a particularly heavy roof construction. The walls of the building appear also to

et al. 1984, 191), and ridge posts were atypical (*ibid.*), while the construction generally envisaged for Anglo-Saxon halls, including those from Fishergate, involved the use of paired crucks or wall timbers (*op. cit.* 191-195), neither of which constructions were evident in Birka², or at Coppergate. The pattern of tripartite division of space was, however, characteristic of buildings of the Roman Iron Age and later in continental northwestern Europe, and most relevantly, in Scandinavia.

The classic Iron Age building of Scandinavia is the aisled hall, or the longhouse, divided into three longitudinal activity areas by the presence of aisle posts, but not normally by cross walls, typified by the Migration Period buildings at Helgö, Foundation I and Foundation III (see above, ch. IV.1.1). That the tradition continued into the Viking Age, under certain specialised circumstances, is demonstrated by the presence of this type of building adjacent to the rampart at Birka (Holmquist-Olausson 1993, 98), and by the hall or longhouse in the South Settlement at Hedeby (Steuer 1974, 16-18). In all these cases, however, the buildings are much larger than those at Coppergate, which seem to have perpetuated an ideal of internal arrangement, on a scale radically different from the original, and based around a completely different structural format.

The implications of this are fascinating. At the beginning of Period 4B at Coppergate, a group of strongly similar buildings were constructed on the four plots. These had integral, immobile furniture that created internal spaces reflecting, though not identical to, the organisation of internal space in Scandinavian and northwestern European buildings of a longstanding architectural tradition. This architectural tradition was not the same as that native to the Anglo-Saxon kingdoms, and the Coppergate buildings therefore represented a coherent and marked break with the local architectural form. The form that they did reflect was, however, not the common, flexible, urban, small building tradition of the contemporary Scandinavian towns, itself a distinct development from the earlier aisled hall architecture, but the architecture of the traditional hall or longhouse, a much larger and differently

have borne some of the load of the roof, and load bearing walls were the single universal structural characteristic of all the Birka buildings.

constructed building. The internal organisation of the hall was imposed on a group of very small buildings with load bearing walls, where the rigid and constricted delineation of internal space was unnecessary, and must have been potentially extremely inconvenient. That the inconvenience of the arrangement was ignored would seem likely to have been the result of an overriding ideological need for this cultural identification.

The Fishergate picture of rigid economic control appears also to have changed at Coppergate (see above, V.2.3.2 & V.2.5.3). Associated with the Period 4B buildings of the tenth century was evidence of a very diverse diet of wild and domesticated meat, berries and herbs (O'Connor 1994, 143-145), indicating free access to the products of the hinterland, and access to imports. This pattern of availability was also evident in trade in luxury goods. Although access to international subsistence trade goods was established at Fishergate, as shown by the pottery assemblage from the site (Kemp 1996, 73), both Coppergate (Walton 1989, 360-382) and Ousegate (Oakey 1991, 236) yielded large amounts of evidence for access to imported luxuries, such as Baltic amber, and silk, in addition to imported ceramics, which could represent a trade in subsistence items such as salt. This general access to imported luxuries was also evident on the site at Birka, where, apart from Oriental silver, silk, amber and mosaic beads were all among the exotic finds from the centre of the settlement (see Chapter III.4.3). Large volumes of hack silver and clipped coin fragments from the site support the evidence of an economic system where bullion silver was the increasingly common medium of exchange for even very small transactions (Ingrid Gustin, pers. comm.), and provided the mode of access to all types of resource.

This pattern of increased economic freedom is paralleled by strong evidence for expansion in craft production in the Danelaw towns. This is particularly easily traced in the pottery of the Danelaw. The characteristic pottery of late ninth century York, whose absence does so much to date the end of occupation at Fishergate (Kemp 1996, 83), is York ware; wheel-turned, kiln fired and produced in large amounts (Mainman 1990, 510-512) from the late ninth century onwards. This in itself is a relatively weak

² The sole exception to this was building 17 (A58), at Birka, which appears to have had both paired wall posts and a central hearth (fig. 31).

piece of evidence; no kilns have been excavated in York. Interestingly, however, the adoption of the wheel and kiln, facilitating rapid production of standardised vessel types, seems to have coincided with, or post-dated, Scandinavian occupation throughout the Danelaw. The sole exception to this rule is at Ipswich, where the production of wheel-turned, kiln-fired, Ipswich wares dates back to the mid-seventh century (Wade 1988). Production of Stamford ware expanded in the second half of the ninth century, with copious amounts of wasters in the town ditch (Hall 1989, 195) and other sites in the occupied area of the late ninth and tenth century settlement (Musty 1982, 11; Kilmurray 1977) suggesting large scale manufacturing from the end of the ninth century onwards. Leicester, similarly, provides evidence of the start of production of wheel-turned, kiln fired wares analogous to Thetford types, some time after the start of the ninth century (Hebditch 1967, 8) and a kiln site in Northampton, at the Horsemarket, produced similar evidence (Williams 1974, 55-6). Thetford wares themselves provide the classic example of this type of ninth century industrial transformation, with the settlement's economic importance expressed through the ubiquitous presence of Thetford-type wares throughout the Danelaw during the latter part of the ninth century and later (Hurst 1976)

Wheel-turned and kiln fired pottery was not characteristic of Scandinavia during the Viking Age. Norway was verging on aceramic, with the vast majority of vessels apparently made from soapstone or from wood. Swedish domestic pottery has been little studied; it occurs in large amounts, but is invariably handmade by coiling or slab construction, of simple form, and clamp or pit fired (Selling 1955). Danish Viking Age ceramics, although more highly decorated than Swedish or Norwegian vessels, were not technologically sophisticated, and are not known to have been either wheel-turned or kiln fired.

The technology for this Danelaw development in ceramic production did not, therefore, come from the Scandinavian homelands. It was, however, present within the Danelaw itself, in Ipswich, where a substantial Middle Saxon pottery industry had existed, probably based on technology imported from the Merovingian kingdoms on the Continent (Wade 1988). Interestingly, prior to the Scandinavian take-over of the Danelaw settlements, this technology seems not to have spread beyond Ipswich,

whilst within a half century of the treaty of AD 877, Stamford, Leicester, Thetford, Northampton, York and London ((Mahany, Burchard and Simpson 1982, 90-104; Hebditch 1967, 5-9; Williams 1974; Mainman 1990) had all adopted the technology. This enabled an expansion in the volume of production, presumably either meeting or generating a demand sufficient to absorb all the vessels, and seems also to have created an increased geographical range in the trade of vessels, either for their own sake, or as containers. Whether this pottery production increase and change in technology was consciously encouraged by Scandinavian overlords is probably irrelevant. The creation of the Danelaw, and the alterations in the political landscape associated with its creation, would appear to have triggered the change. Amounts of pottery went up generally, and it would seem likely that this reflected a general increase in trade and movement of goods, facilitated perhaps by the relative political unity of the Danelaw, compared to the earlier Middle Anglo-Saxon kingdoms of the North and East.

Both Birka, and its contemporary settlement within the walls at Coppergate in York, provide a picture of economic liberty superficially at odds with the physical control implied by the walls that surrounded them, a picture sustained by the evidence from other settlements within the Danelaw. Fishergate, outwith the walls at York, and the Strand, outwith the walls of London, provide a contrasting picture of economic control, negating any simplistic analogy between the physical and economic expressions of cultural values. Rather the patterns emerging appear to reflect, indirectly, a deeper variation in cultural priorities, a more profound difference in social organisation between the Anglo-Saxon and Scandinavian societies, based on the Scandinavian political and social prioritisation of trade and the concrete, material products of trade, in particular, silver.

VI.4 SCANDINAVIAN URBAN CULTURE: THE IMPACT ON THE DANELAW

In Scandinavia, the mid-eighth century saw the emergence of a small group of sites whose integrated social, political and economic functions merit their description as

urban. They were established, deliberately, in the context of a society that knew a number of specialised types of settlement, some perhaps only seasonally occupied, fulfilling aspects of separate social, political and economic functions. Only in a very few cases as early as the eighth century, demonstrably at Birka, Hedeby and possibly Ribe, were these functions integrated within the bounds of one settlement, a settlement type that has sufficient common resonances with our perceptions of urban function that it could be called a 'town'.

The very rarity of these settlements in Scandinavia, and their appearance 'full-fledged' on the Early Viking Age landscape emphasises their importance. By their creation, they dominated almost instantly the economic life of areas far larger than the individual manors that seem to have characterised the Late Iron Age or Vendel Period, creating widespread trade in subsistence goods that cannot be demonstrated to have existed at the earlier date. They attracted international and national trade routes, drawing raw materials and manufactured goods towards their guaranteed markets, and providing a focus for the manipulation of economic and political power by small groups. Whether their environs were kingdoms prior to the creation of the towns is, as yet, a moot point. What cannot be denied is that, at the end of their limited lifespans, the local hinterlands of Hedeby and Birka had become, respectively, the kingdoms of Denmark and Sweden, and their successor towns were widespread, successful, and survived until the present day. As expressions of political power, they were, perhaps as much the means of the creation of political power.

The physical form of these towns was rigid and characteristic. They contained, within a rampart, dense areas of buildings in new architectural forms that expressed status and functional variations in radically different ways, but they also contained derivatives and exemplars of the traditional rural building forms. Manufacturing, trade, ritual, military and political power were apparently all enclosed within the same walls, but outwith the walls there is some evidence for the provision of services or accommodation in some way inappropriate for inclusion. There is no evidence, however, for the function of these external settlements, or that they were either long-lived or economically important to the life of the town; the early demise of the South Settlement at Hedeby confirms this. Segregation of functions within the rampart,

although visible as a tendency, was not absolute; there is evidence of trade and manufacturing throughout the whole of the enclosed settlements.

Characteristically, the rampart formed a semi-circle, with the chord of the circle formed by a waterfront. Access to the waterfront was of crucial importance, and was controlled by the creation of waterfront structures of stones, wood and clay, some apparently to deny boats and people free access, others, like the jetties, to provide it. The curve of the rampart, and the line of the waterfront, determined the lines of concentric and radial roads and lanes through the settlement, and therefore the shape of plots. All buildings seem to have had direct access to a road, and to have clustered as closely as possible to the waterfront, emphasising its importance. Densely built-up street fronts of single-storey, gabled buildings, probably with touching eaves, characterised the radial, wood-paved roads, with the street frontages regularly pierced by lanes and wider roads giving access to the shoreline after every two or three buildings.

Debris accumulated rapidly on plots and in rarely used lanes, but efforts were made to keep the main roads and accesses open. Rubbish was disposed of on every unused surface; temporarily empty plots acquired their share, but most commonly, the debris was dumped into harbour, and then built upon. Inevitably, however, the passer-by walked over the characteristic waste of the craftsmen resident alongside the street; scraps of fur and leather, chips of bone and antler, broken crucibles, moulds and scrap bronze, tiny sherds of coloured glass, all advertised the functions of the adjacent buildings. Buying and selling took place everywhere, on the plots, in the buildings, on the edges of the street, with large amounts of silver changing hands in bullion purchases.

This pattern of enclosure and intensity of urban life contrasts with what is known of contemporary Anglo-Saxon settlements. The ecclesiastical and political centres of York and London, enclosed within their Roman walls, appear to have been surrounded by wide gardens or fields, traversed by few roads leading to the old Roman gates. Outwith these gates, at distances of as much as two kilometres from the political settlements, large plots were bounded by gravelled roads. Large buildings

were loosely arranged along the roadsides, widely spaced, often around a central open area, perhaps containing a couple of sunken-featured loom sheds or workshops. The accumulation of rubbish was slight, and the population density relatively low. There is little evidence for the intensity of economic transactions suggested by the large amounts of coin and hack silver found on the Scandinavian sites, nor for the scale of manufacturing that typified them. Orders for specific goods might emerge from the walled settlement, in exchange, perhaps, for regularly remitted subsistence goods.

The Scandinavian take-over of the Danelaw, however, triggered a shift in the character of trading and manufacturing settlements. Within the *enceinte* of the Roman walls, or within ramparts whose dates, where ascertainable, coincided closely with the occupation, a multitude of functions were gathered. Trade and manufacturing were enclosed together with political and ecclesiastical functions. Multitudes of small buildings were constructed, parallel with each other in dense areas of occupation near to the waterfronts, and the craft production levels from these buildings expanded enormously. Technological change and innovation suddenly and profoundly affected at least one of the important crafts of the area, pottery, allowing production increases, and providing evidence of widespread and increased trade between the settlements of the Danelaw. Throughout the changed settlements there is copious evidence for active trade and manufacturing, with clipped coinage and hack silver indicating the presence of a bullion economy, alongside the production of minted coins.

Although elements of these changes were derived from factors present in the area prior to the Scandinavian occupation, such as the technological changes in pottery production, the end result was the rapid and radical development of settlements that had more in common with the rare earlier and contemporary Scandinavian towns, than with their Anglo-Saxon predecessors. In London, York, Lincoln, Northampton, Stamford and Ipswich, multi-functional, densely occupied, enclosed settlements recognisable to the modern eye as 'towns', and to the Scandinavian eye as analogous to Birka and Hedeby, were established rapidly in the century following their absorption into the Scandinavian political sphere.

The relatively large numbers of such 'towns' in the Danelaw, in comparison to the relatively few numbers of such in Scandinavia itself, is of particular interest, as is their rapid appearance following on the creation of the Danelaw. The vast majority of the Danelaw towns had Anglo-Saxon predecessors, functioning variously as economic, political and ecclesiastical centres. Many of these had been the political or economic foci of Early and Middle Anglo-Saxon political units, small kingdoms, some of which survived until the Scandinavian occupation, others of which had succumbed to Anglo-Saxon adversaries at an earlier date. It could, nonetheless, be argued that they all, at the time of the creation of the Danelaw, formed the centres of greater or lesser economic hinterlands, the majority of which may still have had some sort of political or cultural identity. If the two occurrences, the creation of the Danelaw, and the creation of the new towns, are linked, as does indeed seem likely from the dating and character of the new settlements, then an element of political motivation for their creation would appear to be logical. Their reorganisation recreated them as foci for Scandinavian economic networks, for areas of Scandinavian political influence, imposed upon, deriving from, and reinforcing the new control of, the earlier Anglo-Saxon economic and political relationships.

The reorganisation of the physical appearance of the settlements, leading to the creation of towns, and the reorganisation of trade, manufacturing, and economic life appear also to have been contemporary, suggesting that the political motive for recreating these pivotal settlements might have been supplemented by an economic motive. Within the walls of the towns, there is evidence for intensive economic activity, for the production and consumption, sale and purchase, of everything from the most basic subsistence goods to exotica and luxuries from as far afield as the Indian Ocean. While the creation of the towns stamped elements of a Scandinavian cultural pattern onto an alien population, it also gathered in economic activity to the doorstep of political power, where it could be protected, prioritised, and perhaps most importantly, taxed and overseen.

VI.5 BIRKA: HOW, WHY AND WHEREFORE? TOWNS IN THE SCANDINAVIAN WORLD

The implications of these political and economic motivations for the creation of towns in the Danelaw feeds back into the question of the motivations for the creation of Birka, and to the issues raised in relation to its role and demise (see above, III.5). The manipulation of the process of urbanisation, and of urban populations, in the Danelaw, strongly indicates that the 'town' was a political tool, to the Scandinavian mind.

Economic power was not, however, simply to be equated with political power. The majority of 'manorial' sites, local foci of wealth in Scandinavia, did not develop large urban settlements, or become the centres of supra-manorial political developments, though sites such as Vendel and Valsgärde were more noticeably wealthy than the pre-urban settlement on Björkö, and other high status settlements in the Mälars area. The evidence argues that the creation of towns was a conscious strategy on the part of individuals or small groups for the creation and maintenance of political power, by the creation and manipulation of economic control. In some cases, such as Västerås, it seems that the strategy failed.

The context in which this political strategy was a natural development was a society in which variations in wealth were seen as natural and desirable, in which wealth justified itself, and provided a natural means of increasing an individual's status in society. By AD 750, the Scandinavian population was rising, and had been for a couple of centuries. Parts of the population were highly mobile, and had been expanding the Scandinavian cultural sphere of influence south and eastwards into the Slavonic and Finno-Ugric lands, not merely by trading and raiding, but by colonisation, since the beginning of the eighth century. Raw materials on a large scale, particularly iron and furs, were being traded from Scandinavia and its colonies, throughout Europe, and the volume of imported goods and silver returning was undoubtedly also on the increase.

It is interesting, in the light of all these factors, that it is the Scandinavian settlements in Russia which appear to have been founded as the first Scandinavian 'towns'. Scandinavian colonies in the Eastern Baltic and Russian areas were faced with the

logistical problems of how small numbers of people were to organise and control trade in the midst of a larger, non-Scandinavian population. Dendrochronological dates from the first phases of occupation at Staraja Ladoga indicate that its foundation dated from c. AD 760 (Ambrosiani & Clarke 1991, 120); the same phases of occupation produced substantial amounts of typically Scandinavian finds, dominating an assemblage with relatively little Slavonic material (*ibid.*). Here, potentially, is a strong piece of evidence for the creation of towns as tools for the creation and maintenance of political power, as foci for the control of a population by a small, in this case alien, group. The relationship between these towns and the slightly later settlements in Scandinavia deserves closer study than it has had in the past; perhaps modern political conditions will now allow it.

The towns at Hedeby and at Birka were rather later than the Russian towns, although the settlement at Ribe was apparently contemporary with them. The nature of the early settlement at Ribe is still debatable; the small size of the excavated sample means that it is difficult to resolve the question of whether the site was only seasonally, or was permanently, occupied. If it was permanently occupied, then it was probably the first of the Scandinavian towns, with multiple functions enclosed within one settlement. Its proximity to the Frisian sphere of influence, and the similarities in some aspects of the finds assemblage from the site, has led to suggestions of its being a Frisian colony, or of less formal links to the great Frisian trading settlement of Dorestad. This is also an issue that deserves more rigorous study; the limited published material from Dorestad makes a comparison between the two at present impossible. The chances of a formal Frisian settlement in a country then pagan seem low, but close trading and cultural links, rooted in the similar Iron Age culture and geographical links of their two hinterlands, seem very probable.

The evident role of the Swedish, Danish and Danelaw towns in the political control of populations throws into sharp relief the lack of Viking Age urban development in Norway. Assumptions that have in the past been made about the urban nature of the settlement at Kaupang must be reconsidered in the light of the published evidence. Defining a site as urban must depend upon more than evidence for trade or the presence of crafts and manufacturing. If, indeed, Viking Age Norway did not have a

culture that considered urbanism a tool for socio-political control, then this explains the lack of urban settlements in the areas of the Scandinavian colonies most strongly subject to Norse influence. There were no Viking Age towns in Scotland or the Atlantic islands. Interestingly, the early rulers of Dublin were largely Norwegians who competed intermittently but fiercely with their predominantly Danish neighbours across the Irish Sea in Northumbria (Smyth 1976; 1987, 15-113;). This cultural difference, as well as the political instability, might go some way to explain the lack of evidence for the development of a town at Dublin prior to the tenth century (Wallace 1992, 1).

In conclusion, a group of socio-political characteristics, and their physical expressions, can be seen as typical of, and defining, Viking 'towns'. First among these is the use of a town as a tool of socio-political and economic control, reflecting the over-riding social value of wealth in Viking Age Scandinavian society. As a result, these towns are few and far between, and closely linked with the emergence of kingship in the Scandinavian world. Physically these values were expressed by the enclosure of multiple functions within a defended area, inseparable links between water transport and towns, and the very dense and highly organised population of the area of the settlement adjacent to the waterfront. In areas of settlement abroad, the number of towns appears to have been higher than in the Scandinavian homelands, perhaps because of the necessity for closer socio-political control, but shows a similarly strong link to polity formation. These Viking settlements abroad adopted Scandinavian forms and functions, but not rigidly, exploiting instead the economic possibilities of existing crafts, such as pottery, within a context of Scandinavian-type physical and political control. Birka, as the most clearly understood of the Scandinavian towns, stands as a type site against which the form and development of towns throughout the Scandinavian sphere of influence can be compared, and from which the profound impact of Scandinavian Viking Age urbanism upon the physical and economic culture of the Danelaw can be assessed.

