The Archaeology of the Early Viking Age in Norway

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Since 1960 three major works on the history of Norway have been published (Dahl, Coldevin and Schreiner 1961–3; Mykland 1976–80; Helle 1994). The Viking Age volumes are all written by historians, whilst archaeologists have been responsible for the volumes about prehistory down to AD 800. It is not surprising, therefore, that the interpretation of written sources has come to dominate the study of this important transitional period between prehistory and historic times. Archaeologists have mainly concerned themselves with regional or local studies, or with selected topics such as settlement, grave customs, trade, technology, artefacts, chronology, and art. When it comes to problems concerning religion, and social and political history, archaeologists have been more modest, and they have usually depended on interpretations and hypotheses put forward by historians. To understand the economic and political organization of ninth-century societies we have also to study the history of preceding centuries. In Norway we are mainly dependent on archaeological sources. Historical analogy is of course of the greatest importance, but the further back in time we go, the more we must also rely on anthropological and archaeological analogies and on general social and economic models.

During the last three decades Norwegian archaeology has made progress in three main fields relevant to the study of the Viking Age. First, a large body of new archaeological data has been brought to light from settlements, graves and especially from sites used for the exploitation of inland and mountain resources. Secondly, the co-operation between archaeologists and natural scientists should be emphasized, as well as the use of new dating methods such as radiocarbon and dendrochronology, and a better understanding of the cultural and natural environment. Thirdly, the theoretical debate has led archaeologists to consider symbolic and ideological aspects of material culture, and to be more aware of the hermeneutic problems of archaeology.

As the Viking Age is a transitional phase between prehistoric and historic times, its study must be based on interdisciplinary work, with all the problems and difficulties that this entails. Prehistoric archaeologists often have a background in subjects such as social anthropology, geography and the natural

sciences. They tend to see the Viking Age as a continuation of the Iron Age, the end of a long development. For scholars with a background in history and languages the Viking Age is thought of as an introductory period to the high Middle Ages. Prehistorians and historians sometimes have difficulty in understanding each other: we may speak different scientific languages, we use different concepts and focus on different problems because of different scientific traditions. This is one of the main obstacles for future interdisciplinary Viking Age studies.

Another problem that Scandinavian scholars face when studying the Viking Age is the emotional and ideological attitudes and feelings which have dominated public and political opinion throughout history, and which have also influenced scientific research. The saga writers of the twelfth and thirteenth centuries, the romanticism of the late eighteenth and nineteenth centuries, the nationalism of the early twentieth century or the new nationalism of our own time are parts of a tradition that is still current. On the other hand, British and Irish archaeologists and historians have contributed substantially to an understanding of the period, but view history from the perspective of the other side of the North Sea. The Vikings are often seen as foreign conquerors, pirates and raiders, a standpoint that has also influenced Norwegian public opinion and scholars. It appears that Alcuin's letters from 793 describing the attacks by heathen barbarians, ignorant of Christian beliefs and culture, still colour our image of the Scandinavians of the Viking Age.

Generally speaking, however, Norwegian archaeologists, historians and other scholars are now better equipped than ever before to co-operate in interdisciplinary studies of the Viking Age. A new basis for the interpretation of religious, economic, social and political conditions has been created. It is to be expected that new and challenging questions and hypotheses may contradict the traditional interpretation of the written sources. Since a major review of the archaeology of the early Viking Age in Norway has yet to be written, in this essay it is possible only to present and discuss a few current trends and problems of Norwegian Viking archaeology.

DEFINING THE VIKING AGE BY ARCHAEOLOGICAL MATERIAL

As a consequence of the current debate on the chronology of archaeological material from the eighth and ninth centuries, the problem of how to define the Viking Age has come up anew. A possible contradiction between 'an archaeological Viking Age' and 'an historical Viking Age' has been postulated – the former concept being defined according to archaeological material, the latter according to written sources (Roesdahl 1994, 112; Thunmark-Nylén 1995, 611; Sawyer 1995, 2). As an historical period, the Viking Age has been

defined by most scholars in terms of Scandinavian raids on the British Isles. Since the first raids mentioned in written sources are about 787 in Dorset (Hines 1984, 294; 1996, 28), 793 on Lindisfarne and 795 in Ireland, it has been convenient to date the beginning of the Viking Age to *c*. 800. Archaeologists have constructed a relative and an absolute chronology of the material remains of the period, and have defined the beginning of the Viking Age by the introduction of features such as Berdal-type oval brooches, the gripping beast motif or special weapon types. The end of the earlier period – called the Vendel Period in Sweden, the late Germanic Iron Age in Denmark and the Merovingian Period in Norway – is defined by, among other elements, late Style III and a certain set of artefact types. As long as the absolute date of the archaeological material was agreed upon, and the transition between the Merovingian Period and the Viking Age was set at 800, there were no disagreements between archaeologists and historians about when the Viking Age began.

Problems gradually came to light when new excavations and datings of archaeological material based on natural sciences, such as radiocarbon and dendrochronology, indicated that some of the features used to define the beginning of the Viking Age seemed to appear before 800 (Arrhenius 1983; Jansson 1985, 176–95; Høilund Nielsen 1987, 69; 1991; Lund Hansen 1988, 33). Of greatest importance for the discussion were the new results from the Ribe excavations, based on detailed stratigraphical investigations combined with dendrochronology and dated sceattas. The earliest Berdal-type oval brooches, as well as the gripping beast motif, seemed to appear about 750 or even earlier (Bencard 1988; Bencard and Bender Jørgensen 1990a, 130–48; 1990b). After a new study of the stratigraphy at Ribe, however, L.B. Frandsen and Stig Jensen argue against such an early date (1987; 1988; Jensen 1991). Recent excavations of the 'black earth' at Birka seem to indicate that the production of early oval brooches (Type P 27), which are traditionally placed in the early 800s, can be dated to AD 750–800 (Ambrosiani and Eriksen 1994, 22).

During the 1980s and the early 1990s Scandinavian archaeologists split into two groups: those who date the transitional phase between the Merovingian Period and the Viking Age to the mid-eighth century, and those who follow the traditional dating of *c*. 800, contemporary with the beginning of the historically defined Viking Age (for a discussion see Thunmark-Nylén 1995, 606–18). The complexity of the problem can be illustrated by a book on recent archaeological research in Denmark: one article dates the beginning of the Viking Age to the first half of the eighth century (Lund Hansen 1993, 169), the general timetable puts it at 750 (Hvass and Storgaard 1993, back cover), while another article gives a date of *c*. 800 (Näsman and Roesdahl 1993, 182). In other recent Danish publications AD 700 is used as the date of the beginning of the Viking Age (Hedeager and Tvarnø 1991, 309; Bender Jørgensen and Eriksen 1995, 15).

The new dendrochronological dates for the Oseberg ship of *c*. 820 and for the grave chamber of 834 are very important for the chronological debate (Bonde 1994). There are again good arguments for dating the earliest Viking Age material culture to *c*. 800, as is shown in Lena Thunmark-Nylén's publication on the Ire cemetery on Gotland (1995, 606–18). But before the debate on the archaeological chronology of the eighth and early ninth centuries can come to an end, we shall need more high-precision dates for archaeological material from reliable contexts. We need local as well as regional and national chronological studies which take into consideration the period of production, distribution and deposition of different types of artefact (Thunmark-Nylén 1995, 614).

DEFINING THE VIKING AGE BY RAIDING IN THE WEST

In a recent contribution to the discussion on the beginning of the Viking Age, Else Roesdahl argues that 'it is the beginning of Scandinavian raids in the west which defines the beginning of the Viking Age – not, for example, trade networks or village features or brooch types. This is in accordance with the meaning of the word "Viking"' (1994, 112). Since there is also a contemporaneity between the first mentioned raids and a larger number of written sources about Vikings, she suggests 'that archaeologists accept that the beginning of the Viking Age is defined on the basis of written sources, and that we stick to the traditional date for the beginning of the Viking Age: the late eighth century or *c*. 800, based on the Lindisfarne episode' (1994, 113). Peter Sawyer takes a similar stand:

> It is clear that the early years of the eighth century marked the beginning of a period of great change in Scandinavia that led, eventually, to its integration into western Europe, but that does not justify including the whole of that century in the Viking Age. What distinguished the Viking Period in European history was not brooches, gripping beasts, or emporia, but Vikings. The Viking Period is, therefore, best defined as the period when Scandinavians played a large role in the British Isles and western Europe as raiders and conquerors. It is also the period in which Scandinavians settled in many of the areas they conquered, and in the Atlantic islands (1995, 2–3).

If we use the main criteria of Else Roesdahl and Peter Sawyer, we are faced with at least two problems: how to identify the raiders mentioned in written sources as Scandinavians, and how to decide when Scandinavians played a large role as raiders and conquerors. This may be difficult because raiding and plundering, even of churches, seem to have been common in all countries

around the North Sea during these centuries (Lucas 1967; Reuter 1985, 78). Both Roesdahl and Sawyer claim that 793 at Lindisfarne or a more minor incident about 787 in Dorset by 'men from Heredaland, probably Hordaland in Norway' (Hines 1984, 294; 1996, 28) should be the starting point of the Viking Age.

Archaeological sources may also be of importance for the discussion of the earliest Scandinavian raids in the west. A starting point may be to study anew the grave finds from Norway with Insular ecclesiastical objects that might have come from raiding churches or monasteries. I have re-examined the earliest grave finds of Insular objects together with small, thin-bodied oval brooches, zoomorphic oval brooches or other objects decorated in Style III D or E, and Berdal oval brooches. Both Egil Bakka and Egon Wamers chose to date such graves to *c.* 800 (Bakka 1963; 1971; 1973, 11; 1982, 33; Wamers 1985, 45–57). If the early chronology of the eighth century, mentioned above, is to be accepted, some of these graves could be from the middle or the later part of the 700s. That would bring these graves more into line with the time of production of the Insular objects found in them, since many of these objects were made in Britain or Ireland during the eighth or even the seventh century (Myhre 1993b, 187, 199). If it can be shown that such Insular objects came to Norway during the eighth century, they may be an indication of early Norwegian plundering, but ecclesiastical objects could also have been traded as prestige items or as symbols of an early Christian faith (Hernæs 1993, 81).

EARLY CONTACT BETWEEN NORWAY AND THE BRITISH ISLES

If the raiding criterion is used to define the beginning of the Viking Age, the problem of early settlement or trade by Scandinavians in the west could be discussed independently of the Viking Age concept. Several archaeologists have argued for a direct line of communication between Norway and the British Isles after the Migration Period (Vierck 1970; Hines 1984, 293; 1993; 1996; Carver 1990). A debate is going on about the possibility of contacts across the North Sea and the Atlantic during the seventh and eighth centuries, prior to those mentioned in written sources. The arguments may be summarized as follows:

1. Radiocarbon dates from settlement sites and houses of a west Scandinavian type found on Iceland (Hermanns-Auðardóttir 1989, 46–53; 1991; 1992. For a discussion see Nordahl 1988, 113; Sveinbjarnardóttir 1990; Vilhjálmsson 1990; Crawford 1991; Kaland 1991; Mahler and Malmros 1991; Morris 1991a).

2 Radiocarbon dates for the first indication of agriculture, documented by pollen analysis on the Faroe Islands (Johansen 1985, 56–60. For a discussion see Arge 1986, 14–16; Krogh 1986).
3 The use of reindeer antler for comb-making on Pictish and early Norse sites on Orkney and Shetland (Weber 1993, 171; 1995; Smith 1995. For a comment see Roesdahl 1994, 112).
4 A few Viking grave finds from the British Isles that might be from the late eighth century if the early chronology mentioned above can be shown to be correct (Brøgger 1930, 282; Shetelig 1954, 102; Myhre 1993b, 190. For a discussion see Wilson 1976; Sawyer 1982; Morris 1985, 221; 1991b; 1996; Crawford 1987, 40, 206; Graham-Campbell 1994).
5 Insular objects found in Norwegian graves that may be earlier than 790 (Vinsrygg 1979, 67–70; Myhre 1993b, 189. For a discussion see Vierck 1970; 1978; Bakka 1971; 1973; Wamers 1985; Geber 1991; Hines 1996).

Final proof for direct contact across the North Sea between Norway and the British Isles during the Merovingian Period has yet to be presented. The discussion, however, should be taken as a challenge and an inspiration for further research on early Scandinavian settlement and trade in the west before Viking raids are mentioned in written sources. New open-minded studies are called for to investigate the results presented and to evaluate the hypotheses carefully.

EXPLAINING THE BEGINNING OF THE VIKING AGE BY ECONOMIC, TECHNOLOGICAL AND DEMOGRAPHIC FACTORS

Much discussion of the beginning of the Viking Age has focused on external factors, especially on raiding or settling abroad, and the effect such actions may have had on the British Isles. I shall now examine contemporary culture and society in Norway to see if there are developments during the sixth to the ninth centuries, particularly within the economic and political spheres, that could be used to explain the beginning of the Viking Age and why the raids started in the late eighth century. My inspiration is the excellent work on this topic done by Danish archaeologists and historians during the last decade (Roesdahl 1987; 1992; Mortensen and Rasmussen 1988; 1991; Fabech and Ringtvedt 1991; Hedeager 1992).

The problem of 'the dark 600s'

The rich archaeological finds from the Viking Age in Norway are traditionally explained by rapid cultural and social advances following new contacts with

western Europe after 793. An argument for a rather sudden change in society at that time is the hypothesis that the 600s represented a dark age of stagnation in southern Norway after an economic and political collapse of society in the late sixth century (Magnus and Myhre 1976, 398; Gudesen 1980, 124, 136; Helgen 1982, 51). In northern Norway and Trøndelag, however, the economic, social and political situation appears to have been stable throughout these centuries. Recent archaeological research in southern Norway may indicate that the proposed stagnation of the 600s was not so dramatic as was earlier believed. New intensive investigations in marginal agrarian areas in the mountains, woodlands and along the Atlantic coast show that hunting, the use of summer pastures, iron extraction, and fishing continued, and in some places were even expanding during the seventh century (Magnus 1974; 1986; Bjørgo 1986; Martens 1988, 82–5; Bjørgo, Kristoffersen and Prescott 1992, 302–8; Myhre 1993a and b, based on Alsaker 1989; Johannessen 1996). Clearly these marginal areas must have been exploited by people from neighbouring agrarian settlements and population centres, but so far we have not been able to find these sites. This must in some measure be due to a lack of intensive research.

Recent investigations at Borre in Vestfold (Fig. 1.1) are an example of how intensive research in a zone of rich farmland may give us a new understanding of settlement development during the so-called 'dark 600s' (Myhre 1992a and b). Borre is well known as a Viking Age cemetery of large mounds where the rich ship-burial dating to *c*. 900 was found in 1853. New investigations showed, however, that the earliest large mounds were built by *c*. 600 and that others were built during the following centuries down to *c*. 900. Pollen analysis and landscape studies indicate continuity of land use and settlement from the early Iron Age in the vicinity (Jerpåsen 1993; 1996, 88, 109, 163). From *c*. 600 cultivation was intensified, large fields were put to use, the woodland was cleared and new kinds of herbs and crops were introduced. Few archaeological finds and graves from the Migration and Merovingian Periods were known from the Borre area; it was a blank spot on the map. Instead of a pronounced stagnation during the seventh century, we are now able to demonstrate settlement expansion and the development of an intensively used agrarian landscape. Such a change in the landscape happened at the same time as the first large mounds were built, probably as burial places for a political élite: chieftains or petty kings. We have not yet found the houses and graves of the ordinary people of the Borre district. Further investigations must be carried out, not only at Borre, but in other core areas in southern Norway, to enable us to demonstrate continuity of settlement and land use through the seventh and eighth centuries.

We must accept that many farms and settlements in southern Norway were abandoned during the sixth century, and that in some areas the

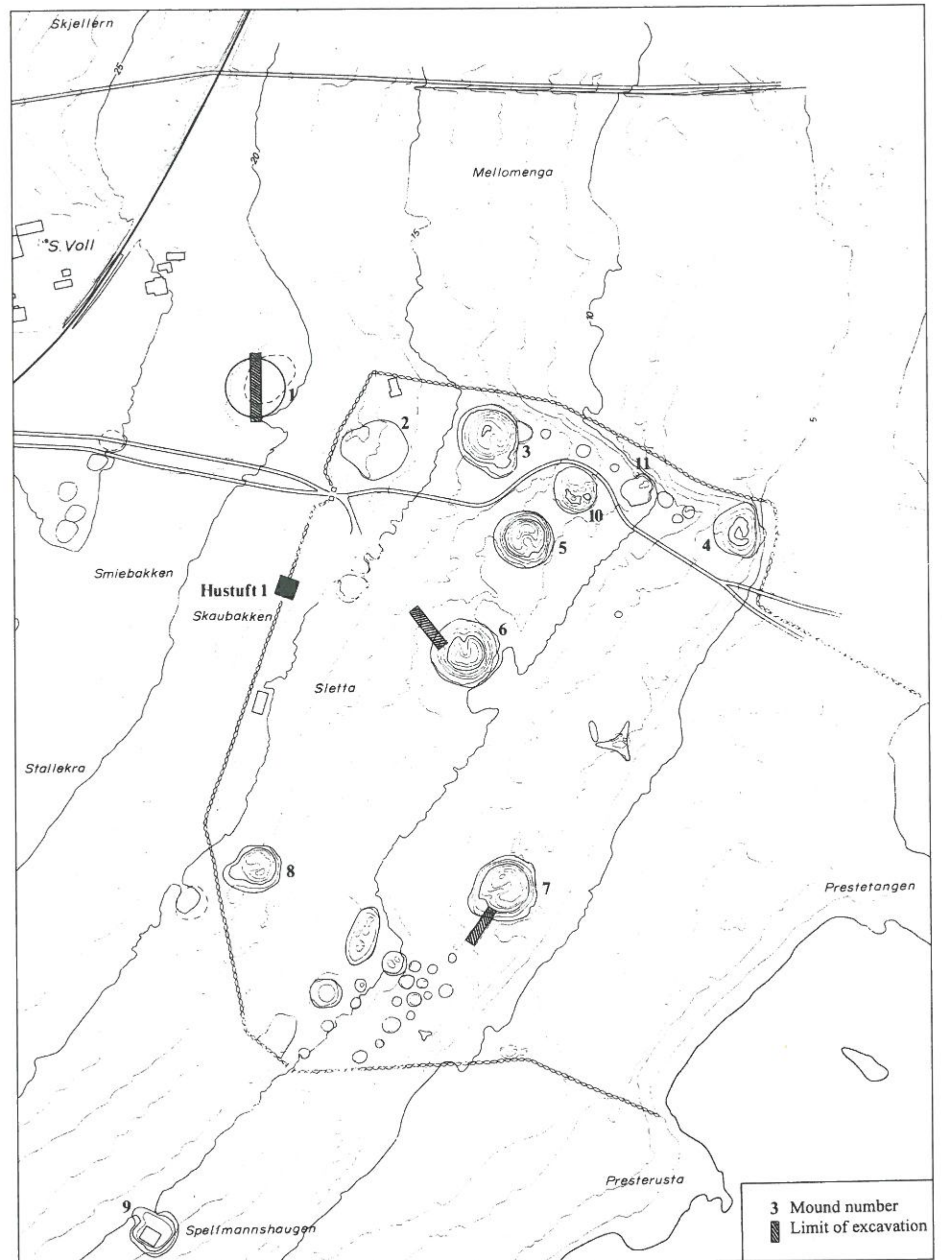

FIG. 1.1: The cemetery of large mounds at Borre, Vestfold, which can be dated to *c*. 600 (Mounds 6 and 7) and to *c*. 900 (Mound 1 where the rich ship-burial was found in 1853) (after Myhre 1992a, fig. 58).

population declined. This may not have been the result of a general crisis in society, but rather, as found in Denmark, of a reorganization of individual settlements, a new general settlement pattern and other ways of using the landscape (Näsman and Lund 1988, 227–50; Näsman 1991, 168; Hedeager 1992, 224). The hypothesis put forward here is that a new economic and social organization may have led to a centralization of farms and agrarian settlements, allowing better control of the land and of agrarian resources in the hands of the aristocracy and the richest farmers. These powerful landowners may also have organized a major part of the exploitation of resources in the mountains and along the coast.

The agrarian settlements of the Viking Age

In southern Norway few farms and houses from the seventh and eighth centuries have been discovered and excavated. Strangely enough, however, considering the archaeological material from the ninth century, we realize that the situation is not much improved when we consider the early Viking Age. The traditional interpretation of settlement expansion and an increase in population during this century has been based mainly on the large number of grave finds and on a study of the chronology of farm names. Many of the farms traditionally dated to the Viking Age, because of their names ending in *-staðr* and *-land*, can now be shown to have been in use during the preceding centuries (Løken and Særheim 1990; Salvesen 1990). The arguments for a rapid settlement expansion during the early Viking Age, based on farm name studies alone, are no longer convincing.

Archaeological investigations in western Norway have demonstrated that many farms from the Migration Period were deserted during the sixth and seventh centuries. If in fact there was population pressure during the early Viking Age, we should expect a resettlement of these deserted farms. In south-western Norway several hundred farm-houses from the Roman and Migration Periods have been excavated, and about fifty from the high Middle Ages (1050–1350). The number of excavated houses from the Viking Age, however, is small (Myhre 1980, 94–140). It is surprising that most of the deserted farms from the Migration Period were resettled as late as the high Middle Ages, but only very few during the Viking Age. Even large deserted farms in central parts of the plain of Jæren, like Lyngaland and Hanaland in the county of Time (Fig. 1.2; Petersen 1936, 37, 81; Myhre 1980, 125, 236, 348), were not resettled before 1000.

The general impression is that early Iron Age settlements, as well as those from the Viking Age, were concentrated in what has always been considered to be the best farmland. From these population cores a rapid settlement expansion into more marginal areas can be traced during the Roman and Migration Periods and during the high Middle Ages, but only on a small scale during

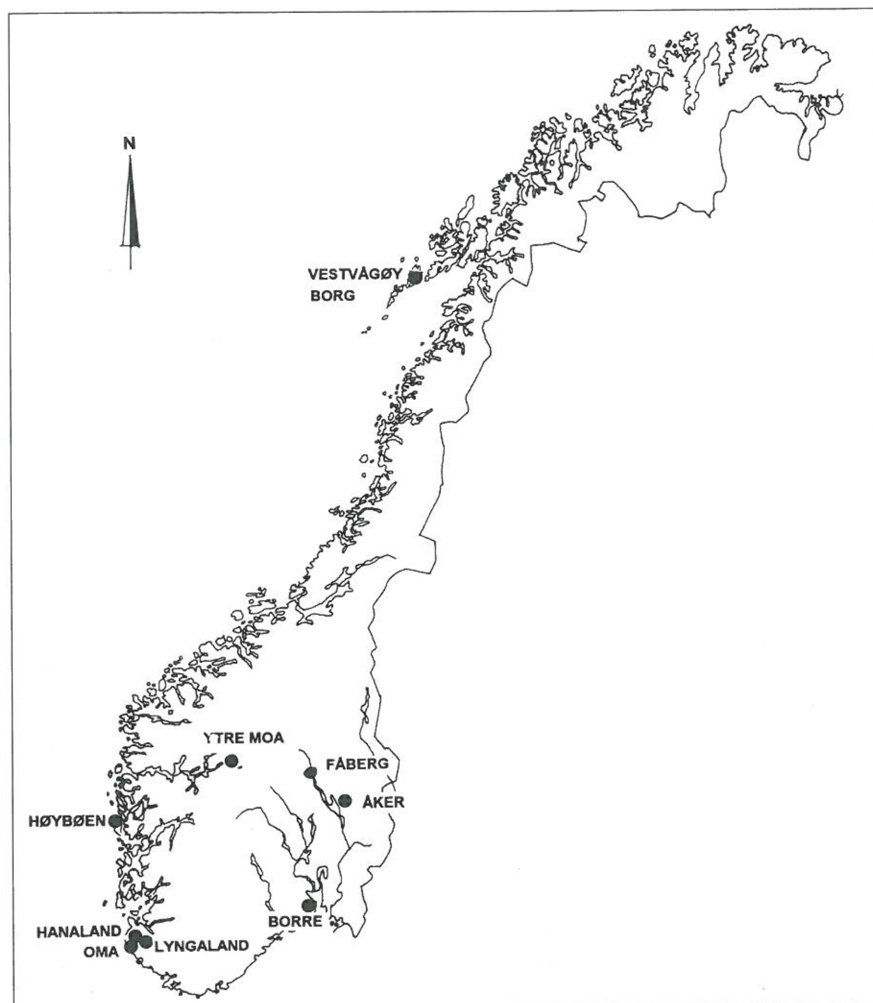

FIG. 1.2: Norwegian settlement sites mentioned in the text.

the Merovingian Period and the early Viking Age. Such a development was also found at Borre in Vestfold. During the Iron Age and the Viking Age, most farms are found in the valleys and on the ridges where the majority of barrows are mapped. A rapid settlement expansion into the woodlands, where late farm names such as those ending in *-ruð* are found, cannot be detected before the high Middle Ages (Jerpåsen 1993; 1996, 29, 127).

Settlement development has been well studied in the Lofoten area in northern Norway, especially on the island of Vestvågøy. Olav Sverre Johansen has come to the conclusion that the number of farms was maintained at the

same level from the Migration Period and through the Viking Age and the high Middle Ages. This extraordinary result is explained by a stable economy based on husbandry and fishing in a special coastal climate throughout these centuries (Johansen 1982, 63). One conclusion to be drawn from such local studies is that major settlement expansion into marginal agrarian lands did not, as a rule, begin before the late Viking Age or the high Middle Ages. Population pressure during the Merovingian Period and the early Viking Age has not so far been documented.

Viking Age houses

The few excavated Viking Age houses from southern Norway are generally speaking rather small. Some houses are of a similar type to the well-known Viking hall found in Scandinavia and on the Atlantic islands, for example, at Oma in Jæren (Petersen 1933, 66; Myhre 1980, 345) and at Søndre Nygård in Fåberg in eastern Norway (Komber 1989, 153). At Ytre Moa in Sogn the small houses were rectangular with an entrance at one end (Bakka 1965), a house type not very different from the Dublin Viking houses. The Ytre Moa farm-houses are exceptional among the excavated Viking Age houses and they indicate that the division of the Iron Age long-house into smaller buildings with different functions had started *c.* 800 or earlier. A characteristic of most Viking Age houses is that the byre was no longer a part of the long-house, as was normally the case during the Migration Period, but was now usually a separate building (Myhre 1982, 195; Skre 1996).

In northern Norway, however, several long-houses with a byre have been excavated. They are divided into smaller rooms, as in the Migration Period. The best example is the great building from the eighth century at Borg in Lofoten, which is 83 m long (Munch 1991). A long-house 40 m in length with a byre, dated to the eighth and ninth centuries, has recently been excavated at Åker, Hedmark in eastern Norway (Pilø 1994). The corner timbering technique, known from the Gokstad grave chamber, has been discovered in domestic houses from the late Viking Age at Vesle Hjerkinn, Dovre (Weber 1986, 197). A kind of stave construction in three-aisled buildings seems to be the predominant building technique during both the Merovingian Period and the early Viking Age.

A variety of Viking Age building techniques, therefore, has been recorded and regional and social differences are evident. A clear change of house types *c.* 700, as has recently been detected in Denmark (Hvass 1993), cannot yet be demonstrated in Norway, but it is highly probable that new house types were introduced into southern Norway before 800.

The exploitation of non-agrarian resources

Intensive archaeological investigations in the mountain areas, in the woodlands and along the Atlantic coast have produced a large amount of empirical data

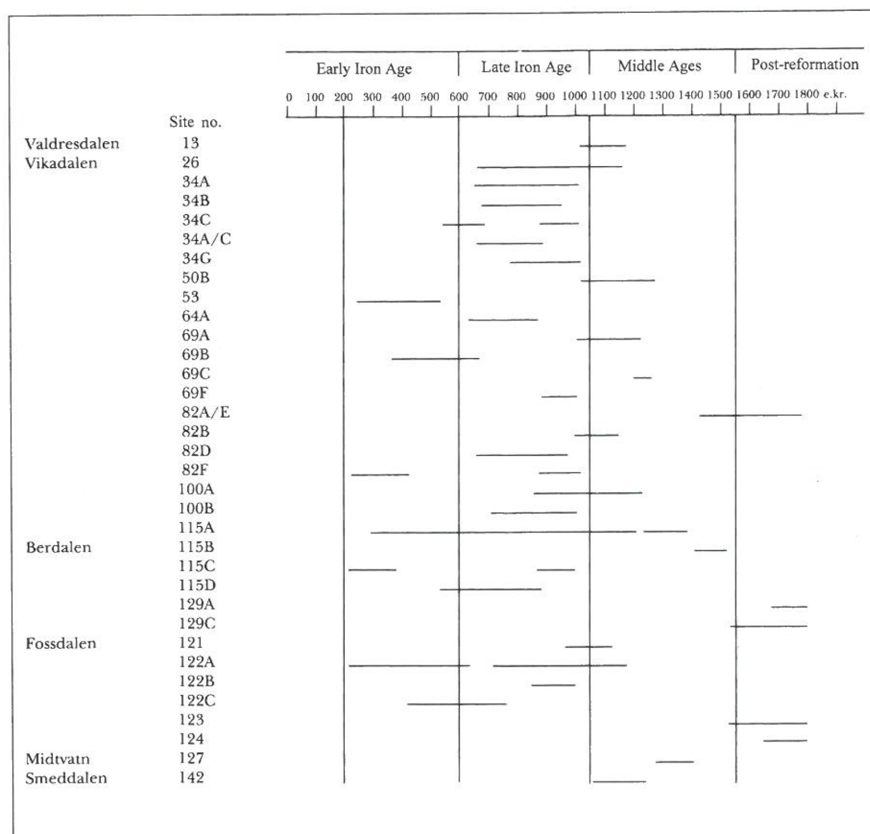

FIG. 1.3: Radiocarbon dates from thirty-three house sites in the mountain valleys at Nyset-Steggje in Sogn. These were used as settlement sites and for iron extraction (after Bjørgo, Kristoffersen and Prescott 1992, fig. 213).

on the exploitation of non-agrarian resources during the Viking Age and the preceding centuries. Of special interest is the extraction of iron, the quarrying of soapstone and slate for hones, the hunting of reindeer and elk, and the use of summer pastures in the mountains (Magnus 1986; Bjørgo, Kristoffersen and Prescott 1992, 285; Fig. 1.3). Along the coast specialized fishing sites have been found (Magnus 1974), and it can be shown particularly in northern Norway that fishing activities became more important for farmers in the Atlantic coastal districts. The so-called 'farm mounds', which are the equivalent of tells created by continuous settlement through the centuries down to the present day, have presented us with excellent evidence for intensive

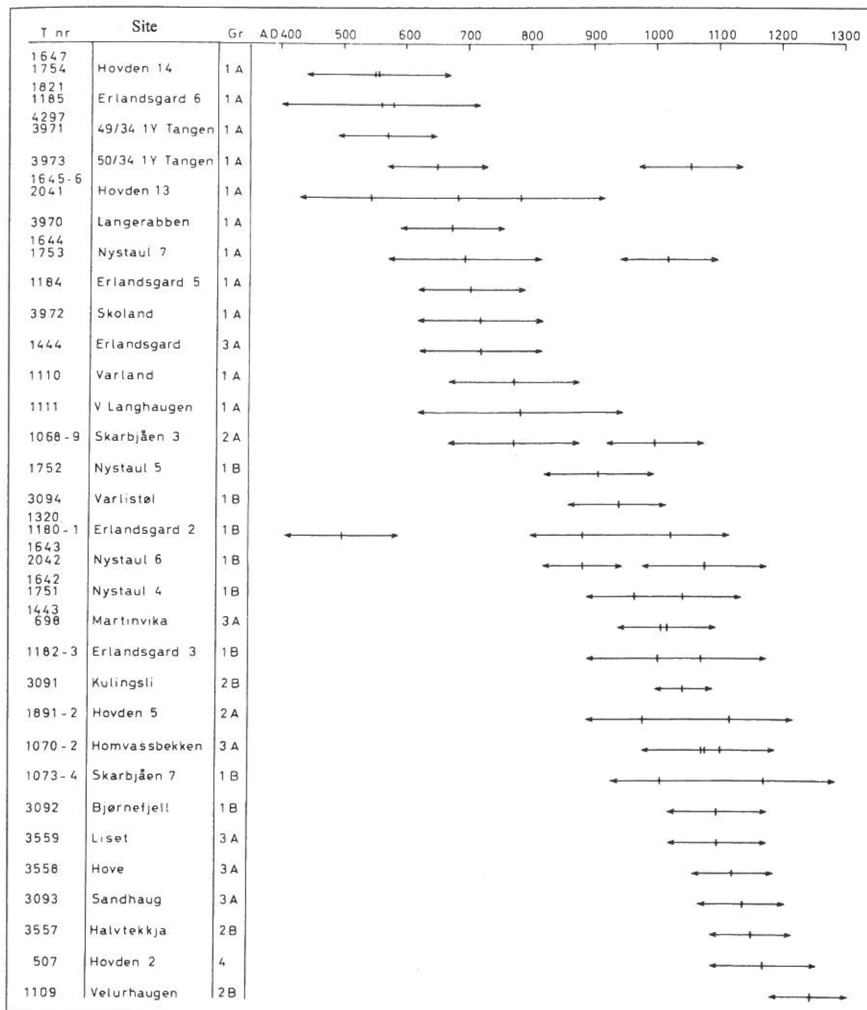

FIG. 1.4: Radiocarbon dates from iron extraction sites at Møsstrand, Hardangervidda (after Martens 1988, fig. 101).

fishing activities and husbandry after a stabilization of farmsteads in the Viking Age, and at some sites even earlier (Bertelsen 1984, 144; 1989; Urbańczyk 1992, 105).

The process of iron extraction has been especially well studied at Dokkfløy, Møsvatn and Hovden in southern Norway and in Trøndelag (Fig. 1.4). At Dokkfløy and in Trøndelag production started around the birth of Christ (Farbregd, Gustafson and Stenvik 1985; Jakobsen and Larsen 1992, 73), at Møsstrand during the sixth century (Martens 1988, 85), and at Hovden *c.* 900 (Bloch-Nakkerud 1987, 135). In general, iron production during the

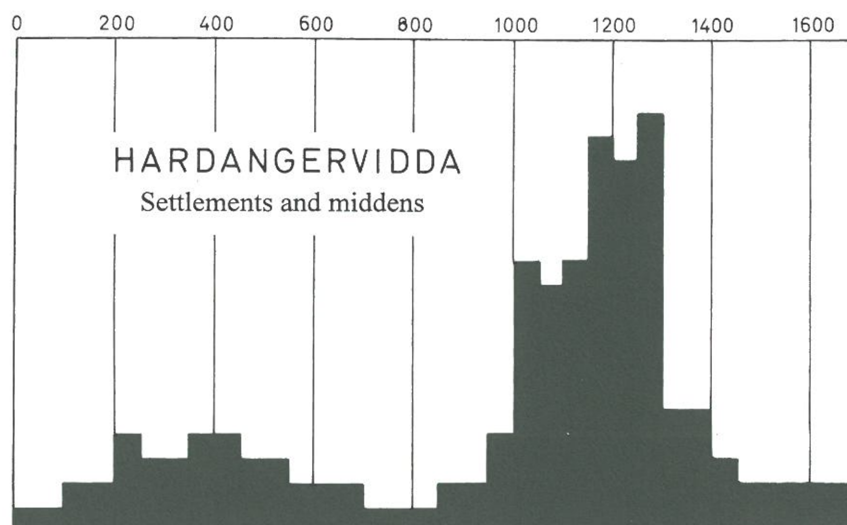

FIG. 1.5: Radiocarbon dates from house sites and middens at Hardangervidda (after Mikkelsen 1994, fig. 75, based on data from the Hardangervidda project).

early Viking Age does not seem to have been much greater than during the Iron Age. A major expansion is clearly evident from about 900 and into the high Middle Ages.

A similar development is found when it comes to the hunting of reindeer and elk. At Hardangervidda and in the Dovre area hunting lodges, bone and refuse deposits, pitfall traps and intricate trapping systems for large-scale hunting have been excavated. In Dovre, Egil Mikkelsen found that both the large trapping system and the pitfall traps were mainly medieval; earlier hunting was mostly carried out with bow and arrow (1994, 98–111; Fig. 1.5). At Hardangervidda trapping systems seem to have been used on a moderate scale already during the Migration Period, but here, too, mainly in the Middle Ages (Blehr 1973, 108). The large-scale trapping system for elk hunting at Dokkfløy is dated to Roman and medieval times (Jakobsen and Larsen 1992, 131–5). Similarly, in northern Norway (Olsen 1987; Storli 1994, 78) and in northern Sweden (Mulk 1994, 168, 249) most large trapping systems are medieval in date.

Generally speaking, therefore, the exploitation of non-agrarian resources was carried out on a similar scale during the Roman/Migration Period and the early Viking Age. It was intensified enormously during the late Viking Age and particularly during the high Middle Ages. We must conclude that it is not possible to show that there was undue pressure on these resources during the eighth and ninth centuries.

Demographic developments

Many scholars claim that there was considerable population growth in Norway during the eighth century and population pressure is often mentioned as a factor that might explain the first emigration to the west. The recent archaeological investigations referred to above do not support such a conclusion. Most important in this connection are the signs that so many farms with names ending in *-land* and *-staðr* were settled during the Migration and Merovingian Periods. Hence, these names cannot be taken as evidence for settlement expansion in the early Viking Age without specific investigation of each site (Løken and Særheim 1990, 184–90; Salvesen 1990). The number of grave finds from the Viking Age is in some regions much greater than that of the Merovingian Period, but the increase is continuous through the centuries; there are more graves from the ninth and early tenth centuries than from the eighth century. A possible change in burial customs may also be taken into consideration when interpreting such an increase in the number of graves.

Agrarian settlements seem to have been concentrated in the same core areas during both the Iron Age and the Viking Age, and a major expansion into marginal agrarian areas did not start before the late Viking Age and was particularly a feature of the high Middle Ages. One explanation of such a development may be that when settlement abroad came to an end during the tenth century, more marginal land at home had to be put to use. It is problematic that we have found so few big farms or houses from the Viking Age. The large houses at Borg in Lofoten, at Åker in Hedmark and at Oma in Jæren are exceptions. On sites to be excavated in the future we may expect to find groups of both large and small, specialized houses. Villages, similar to those found in Jutland (Hvass 1993; Bender Jørgensen and Eriksen 1995), may also have existed in Norway. Therefore it is very difficult to calculate population size. One of the main tasks of Norwegian archaeologists in the future is to locate and to excavate primary rural settlements of the Viking Age.

Technological developments

Major technological improvements have been mentioned as a significant factor in our understanding of the development of Viking Age society. I shall comment briefly on the techniques of soil cultivation and iron extraction and on the change from rowing to sailing ships. An intensive method of soil cultivation is known from post-medieval times: in western Norway it is called mould or turf manuring. Earth, mould, turf and humus were brought into the cattle byre, mixed with animal manure, and later used as fertilizer on the fields. Over the years thick layers of soil accumulated and very high lynchets developed at the lower edges of the fields. As a consequence of this intensive soil preparation and manuring, the fields did not have to lie fallow. Even rather small fields, which could be tilled by spade, gave very high yields of

barley or oats. A similar cultivation technique called *Plaggendüngung* in northern Germany is recorded from the Roman Period onwards. In Norway this kind of turf manuring was long thought to be a medieval invention, but can now be shown to be at least as old as the eighth century, and perhaps even as early as the Migration Period (Øye Sølvberg 1976, 110; Kvamme 1982, 129; Myhre 1985, 81; Opedal 1994). This must have been a great technological improvement, yielding larger crops from smaller fields.

In the early Iron Age iron was produced in shaft ovens, built over pits dug into the ground. The slag was collected in the pit and the process had to be stopped when the pit was full. To continue, new pits were often dug and a new shaft of baked clay had to be made. During the Viking Age and the high Middle Ages another technique existed: permanent shaft ovens could now be used since it was possible to tap and collect the slag at the side of the oven. The works around the furnace were better organized with special pits for charcoal burning and for smelting bog ore. The oven was often covered by a roof and even special houses were built. Extraction became more efficient and it was possible to produce iron in greater quantities. Recent investigations in Norway and Sweden have shown that this new technique was introduced long before the Viking Age, probably as early as the seventh century (Espelund 1989; Larsen 1991, 275; Jakobsen and Larsen 1992, 80).

The introduction of the sailing ship has been regarded by many scholars as the decisive factor that triggered Viking activities across the open sea. Since the Oseberg ship, now dated to *c.* 820 (Bonde 1994, 141), is the oldest preserved ship that we know which was certainly built for sailing, it fits very well with the time of the first recorded Viking raids. The badly-preserved ships from the grave mounds near Avaldsnes in Rogaland, which probably date from the late eighth century, seem to have been built primarily for rowing. Such was apparently the case with the Kvalsund ship from the seventh century (Shetelig and Johannessen 1929). But ships with sails are depicted on the Gotlandic picture stones from the seventh century onwards, and the use of sailing ships in the North Sea area long before 800 is possible (Crumlin-Pedersen 1990).

Peter Sawyer has recently published a new reading of part of Alcuin's letter on the raid at Lindisfarne, which is of great interest for the discussion of the early use of sailing ships (1995). The passage *nec eiusmodi naufragium fieri posse putabatur* is usually read 'nor was it thought that such an inroad from the sea could be possible'. Traditionally it has been suggested that Alcuin by this meant that the use of sailing ships coming in from the sea was something new and surprising. According to J.F. Niermeyer *naufragium* in Alcuin's time did not mean 'shipwreck' as in classical Latin, but 'the meaning is clearly "loss" or "ruin" with no maritime association' (Sawyer 1995, 3). Thus, according to Sawyer, Alcuin was not referring to the use of sailing

ships and a crossing of the North Sea as something unusual, but to the destruction of a holy place. It must be admitted that we have in fact very limited knowledge about the introduction of the sail in western Scandinavia, and we cannot use the introduction of sailing ships, therefore, to explain the first Viking raids. It may equally be that the sail was introduced because Scandinavian chieftains in the eighth century wanted to intensify trading and raiding across the open sea (Hines 1996).

Summary

Economic, technological and demographic factors have been used by Norwegian scholars to explain why Viking activity and settlement in the west began *c.* 800. On the other hand it has been postulated that Viking expansion and contact with other northern European countries led to marked cultural and social changes in Norway. Drawing on recent archaeological research, I have found reasons to question some of these hypotheses. New house types and the sailing ship appear in the archaeological record *c.* 800, but there are reasons to suspect that these changes were introduced earlier in the eighth century. Most of the economic and technological developments mentioned above have a history going back to the sixth and seventh centuries, and major cultural changes seem to have occurred *c.* 600 rather than *c.* 800. It is difficult, therefore, to use economic, technological and demographic factors to explain the beginning of the Viking Age.

ECONOMIC AND POLITICAL CENTRES

To identify economic and political centres during the Viking Age, archaeologists have studied the distribution of graves rich in grave goods, hoards, imported precious objects and coins, large monuments like grave mounds, special house sites, large boat-houses and trading sites (Sognnes 1979; Ringstad 1986; Fabech and Ringtved 1991; Wik 1991; Mikkelsen and Larsen 1992). I should like to present briefly some examples of recent studies on political centres from different parts of Norway. In this connection the earliest dating of these centres will be of special interest.

In northern Norway centres have been predicted on the basis of special clusters of houses, so-called 'court sites' (Fig. 1.6). At the biggest court sites as many as sixteen houses may be found. They have been interpreted as military sites, barracks where the chieftain's men could gather when needed. Another interpretation is that they were *þing*-sites lying close to the chieftain's farm. Large boat-houses, numerous grave finds and a concentration of farm sites are often found near the court sites. On this basis a chieftain's centre at Borg in Lofoten was predicted before the large long-house was found

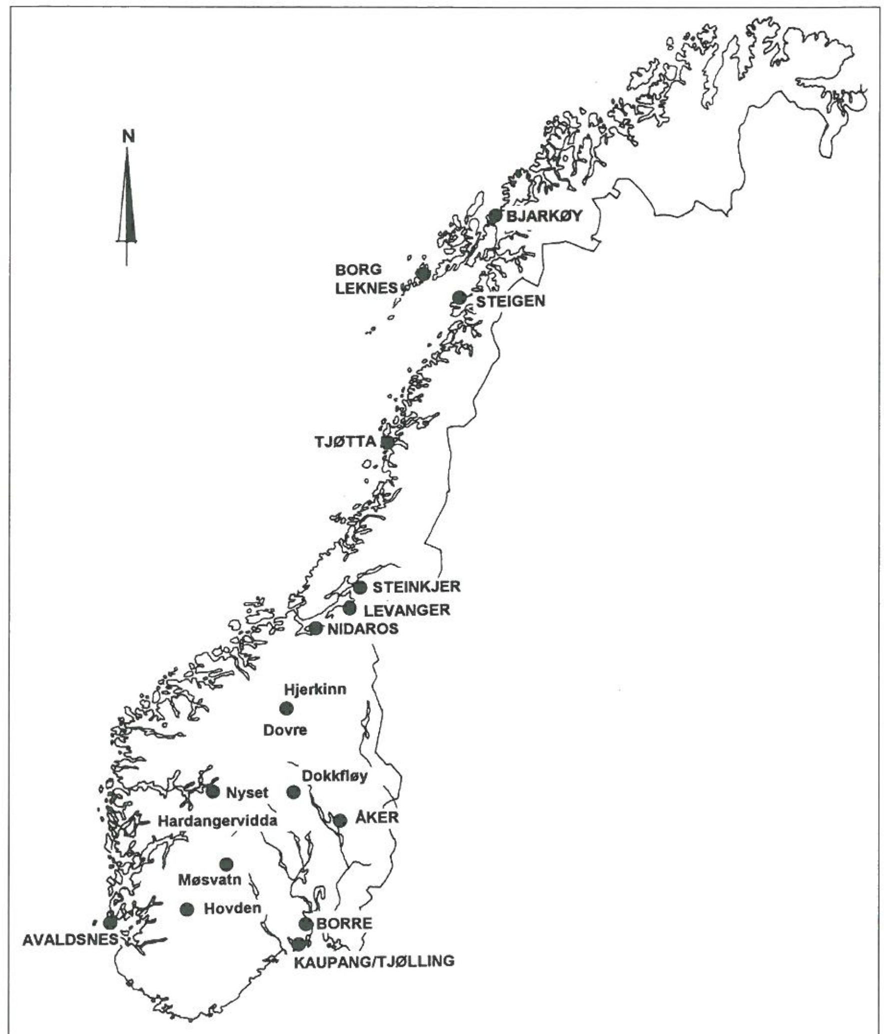

FIG. 1.6: Norwegian central places (in capitals) and mountain sites mentioned in the text. The central places in northern Norway are all so-called 'court sites'.

(Johansen 1982, 65). The building, 83 m in length with finds of imported luxury goods, gives us an impression of how such aristocratic sites may have looked during the eighth and ninth centuries.

At least eleven court sites have thus far been found in northern Norway. The largest ones at Bjarkøy (Fig. 1.7), Steigen, Leknes and Tjøtta have been dated from the Roman Period down to the Viking Age. Some smaller sites

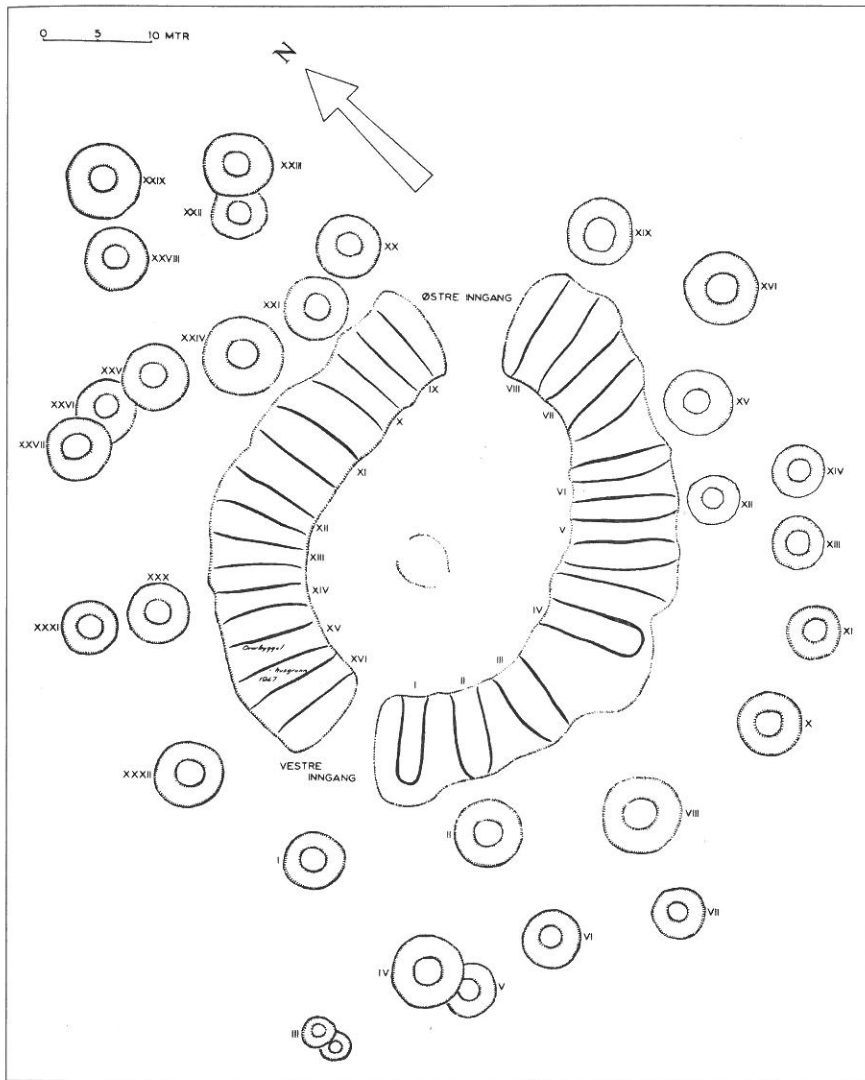

FIG. 1.7: The court site with sixteen houses at Bjarkøy, surrounded by large cooking pits (after Johansen 1989, fig. 3).

date from the earlier part of this period; the biggest ones from the later part. Only a few sites have so far been totally excavated, with the result that there are still chronological problems to be solved (Johansen and Søbstad 1977, 13; Wik 1983; Johansen 1989, 30). A special study of possible political centres on the Helgeland coast in northern Norway shows that they are to be found on islands along the main sailing route, where there was good arable land. Most

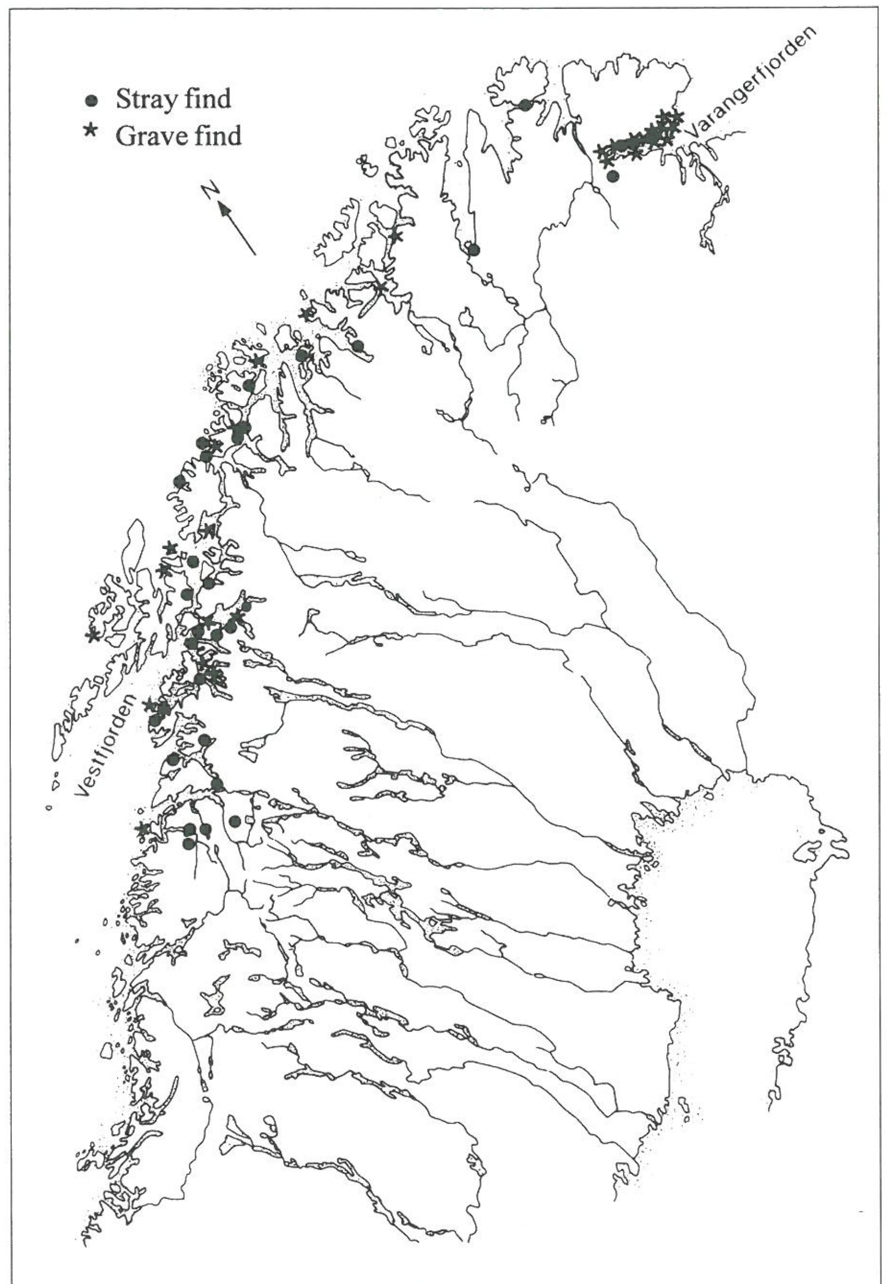

FIG. 1.8: Distribution of objects of Finnish and Baltic origin found along the coast of northern Norway (after Storli 1994, fig. 36).

centres are found at the mouth of large fjords going into the mountainous hinterland that seems to have been settled by the Saami people. These sites have been interpreted as centres in redistributive economic systems reaching from the sea to the northern Scandinavian interior (Wik 1985, 231).

Written sources indicate close co-operation between the Saami people and the Norse population during the Viking Age. The Saami may have paid some sort of tax to the chieftains, as Óttarr (Old English Ohthere) told King Alfred of Wessex at the end of the ninth century. They may also have been incorporated into the redistributive system and may even have been protected by the chieftains as important producers of valuable goods (Odner 1983, 85; 1985). In the mountains and the nearest valleys on the Swedish side of the border, many Saami house sites and settlements have been excavated and can be shown to date from the sixth century onwards (Storli 1994, 45; Mulk 1994, 141). An archaeological indication of trade and exchange of goods across the Scandinavian peninsula is the many items of Finnish or Baltic origin found along the Atlantic coast of northern Norway from the eighth century onwards (Fig. 1.8; Sjøvold 1974, 360–4; Storli 1991; 1994, 108). It is important to note that the archaeological material represents continuous economic, social and demographic development in northern Norway from the sixth to the ninth and tenth centuries (Vinsrygg 1979, 73–7). At Borg in Lofoten a house 55 m long dating from the Migration Period was enlarged to 83 m in the seventh or eighth century (Munch 1991).

In the region of Trøndelag, distribution maps of Viking Age material pinpoint two central areas in the inner parts of Trondheimsfjord (Fig. 1.9). Near the late Viking Age and high medieval town of Nidaros there are no traces of an earlier central place. Around Levanger/Steinkjer in the north and at Stjørdal in the south, however, rich finds have come to light from all periods from Roman times onwards. Iron extraction sites are numerous in the immediate hinterland and the archaeological material indicates contacts eastwards along the valleys and through the woodlands to the Baltic Sea (Sognnes 1991, 260).

Viking Age central places in western Norway are found in the fjord areas, where the main trade routes cross the mountains and where utility goods could be collected (Sognnes 1979, 45–9, 87). Avaldsnes is situated at the mouth of one of the largest fjord systems at a strategic spot along the main coastal sailing route. Close to the site of the medieval church, and possibly also to the royal site of King Harald Finehair (Haraldr *hárfagri*), the rich ship-burials at Storhaug and Grønhaug, probably from the late eighth century, have been excavated. Another large mound, where no grave has so far been found, is radiocarbon dated to the sixth or seventh century (Ringstad 1986, 66; Myhre 1993a, 55).

As shown above, the cemetery of large mounds at Borre in Vestfold was in use from *c.* 600 to *c.* 900. During the early part of this period large mounds

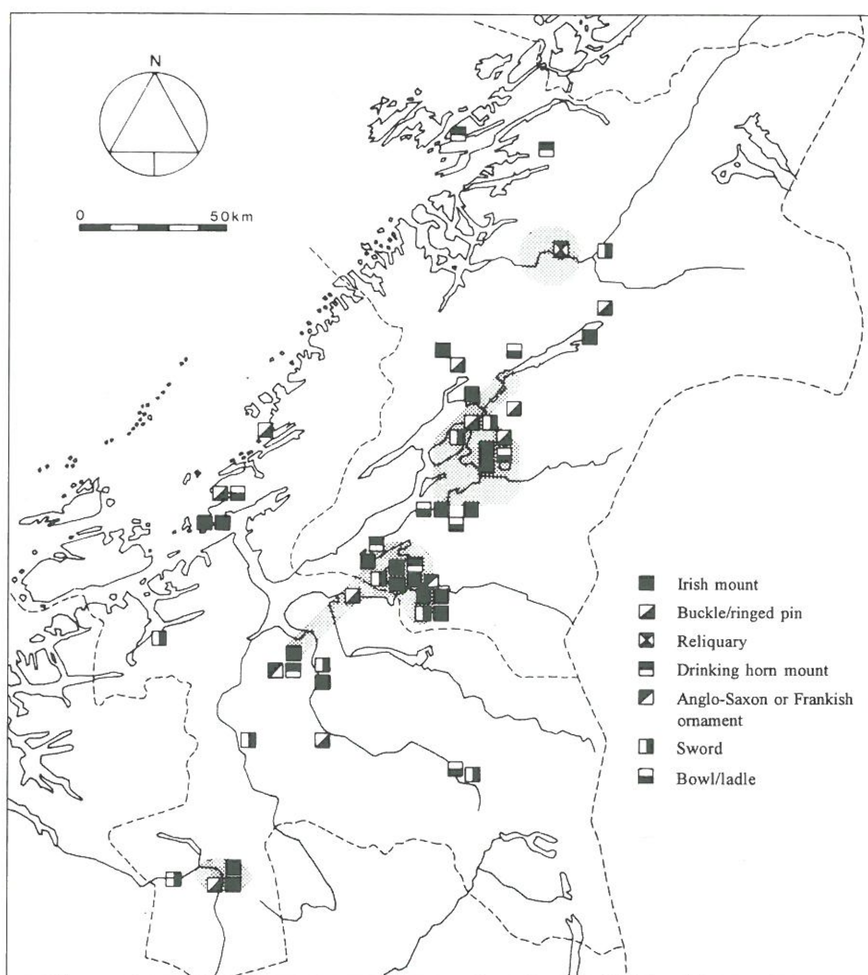

FIG. 1.9: Central places in Trøndelag, in the region of Levanger/Steinkjer in the north and around Stjørdal in the south, based on the number of imported objects from Britain and Ireland (after Sognnes 1991, fig. 6). Shaded areas indicate concentrations of Merovingian and Viking Age finds.

of a similar size were built in some centres in eastern Norway, along the main river valleys and at Oslofjord, at places with good agrarian potential and a dense population, where it was possible to exercise some control over the important communication and trade routes between the coast and the places inland. While large mounds from the early Iron Age were built for the most

part at ordinary cemeteries belonging to a farm or to a group of farms, after 600 we often find them isolated from other monuments, individually placed in the landscape (Gansum 1995, 228).

In southern Vestfold the Kaupang area must have been a central place during the early Viking Age (Blindheim, Heyerdahl-Larsen and Tollnes 1981; Hougen 1993; Blindheim and Heyerdahl-Larsen 1995). We should probably look for the seat of a petty king at Huseby-Tjølling, a few kilometres inland from the trading site itself. The excavators have come to the conclusion that the earliest finds from the black earth area are older than 800, and can probably be dated to the second half of the eighth century. In neighbouring cemeteries very few graves can be dated to the seventh and eighth centuries (Blindheim, Heyerdahl-Larsen and Tollnes 1981, 39–47; Forseth 1993; Blindheim and Heyerdahl-Larsen 1995, 12), but bearing recent research results from Borre in mind, and remembering that only a very small part of the black earth has so far been excavated, it would not be surprising if the earliest phase of the trading site at Kaupang is dated to the early part of the eighth century, as at Ribe in Jutland.

Many new trading places from the Migration and Merovingian Periods have recently been found in Denmark and Sweden. They are situated at good harbours close to rich settlement sites where political centres existed long before the Viking Age, as at Gudme on the island of Fyn (Jørgensen 1995) and Helgå in Skåne (Callmer 1995, 53). In Norway, Kaupang in Vestfold is still the only known Viking Age trading place. Central places in northern Norway and Trøndelag, at Avaldsnes in Rogaland and at Borre in Vestfold seem to have a history going back several centuries before 800, as we have seen. Continuity and a gradual development from the sixth and seventh centuries onwards have been demonstrated. One of the major tasks of Norwegian archaeology in the future should be to search for trading sites from both the Merovingian Period and the early Viking Age, similar to those found recently in Denmark and Sweden.

CONCLUSION

In this short review it has been my aim to demonstrate that the extant archaeological material indicates that the period around 800 in Norway was not one of such dramatic economic and cultural change as is often postulated. New house types appear, the sailing ship is possibly introduced, and the number of grave finds is larger than before. But when it comes to settlement patterns, the number of farms and the exploitation of non-agrarian resources, major new developments have not been identified. It is not possible to find evidence for strong population pressure that would have made it necessary to

start a process of emigration westwards. Important technological improvements connected with iron extraction and the manuring of fields had been introduced by the seventh century. Many of the major political centres have a long history predating 800.

The traditional hypothesis of an economic and demographic crisis in the late sixth and early seventh centuries has been questioned. In northern Norway, in Trøndelag and in some districts of eastern Norway, settlement continuity has been demonstrated. The changes that can be seen in the archaeological record from southern and western Norway are tentatively interpreted as a consequence of a reorganization of settlements and of social and political developments that led to centralization of power in the hands of the aristocracy and leading farmers. During the seventh and eighth centuries a few strong petty kingdoms were established and from their political centres widespread redistributive economic systems were created. To these centres various goods from different ecological zones could be transported and converted into prestige and authority through gift exchange, generosity, feasts and administrative processes (Christophersen 1989, 121). From such strongholds it was also possible to exercise some control over important communication routes along the coast and fjords and through the inland valleys up to the mountain plateaux.

I have argued that these Norwegian petty kingdoms were integrated into the large-scale economic and political networks that developed around the southern shores of the North Sea during the late seventh and eighth centuries. On both sides of the English Channel the first emporia and market places were established; after 700 not only prestige goods were exchanged, but also commodities produced by craftsmen and specialists in the emporia. Long-distance trade included natural products such as iron, whetstones, lava for quernstones, antlers, whale-bone and probably also furs and hides (Hodges 1989, 162; Näsman 1990; 1991, 171; Jensen 1991, 23; Myhre 1992a and b). Norwegian petty kings and chieftains seem to have participated in a network of trade, alliances and warfare between political centres in Scandinavia and in the North Sea region. This exchange system brought valuables such as glass, bronze, beads, jewellery and weapons from the Continent (and probably also from the British Isles) to Norwegian chieftains as far north as Borg in Lofoten as early as the eighth century. In addition to the above-mentioned commodities, ideas, ideologies and knowledge were probably exchanged.

The Scandinavian upper social strata, therefore, were not isolated from the rest of northern Europe during the Merovingian Period, but shared cultural ideas and values with other Germanic kingdoms, even if they were non-Christian. Christian symbols and impulses may have been introduced into Norwegian society during the eighth and ninth centuries (Hernæs 1993, 108; Fuglestvedt and Hernæs 1996). Some Insular ecclesiastical objects may have

come to Norway by the eighth century, but the number of such objects found in Norwegian graves from the ninth century is considerably greater. There must be a direct connection between the plundering of churches and monasteries in the British Isles, as recorded in the extant written sources, and the many Insular objects found in Norwegian graves (Bakka 1963; 1971; Wamers 1985). Such objects, as well as hoards and single finds of gold, silver and coins, show that chieftains were now able to enlarge their income through plundering and through the acquisition of valuables paid as ransom.

It seems to me that a relatively peaceful period of trade and interaction across the North Sea was followed by a more warlike situation during the eighth century. Insular missionary activities on the Continent were intensified and the Carolingians expanded northwards as far as the Elbe, threatening the Danes. This ideological and military conflict was probably concerned with control of long-distance trade and of the emporia around the North Sea. A challenging hypothesis to be investigated is that the political situation on the Continent was one of the reasons for the interest among Norwegian chieftains in contact and trade with the British Isles across the North Sea (Hines 1996; Titlestad 1996; Hernæs 1997). Conflicts between heathen Scandinavian kingdoms and the Christian powers on the Continent and in England may also be one of the reasons for the Viking raids and for the plundering of churches and leading monasteries after 790. The construction of more advanced sailing ships in Scandinavia during the eighth century could then be an answer to the need for more regular crossings of the rough northern seas (Hines 1993; 1996; Myhre 1993b). According to this hypothesis, raiding should not simply be attributed to population pressure at home, the invention of the sailing ship, or the freebooting of pirates. Many of the Viking raids in the late eighth and early ninth centuries may be considered as actions by chieftains to acquire wealth and treasure, but probably also as incidents in a conflict between powers around the North Sea. In a broader context the raids may be seen as part of a conflict between a heathen Germanic culture in the north and Christian kingdoms in the south and west.

If the beginning of the Viking Age should be defined by Scandinavian raiding and conquest in the west, then it is not because of the plundering itself. What is more important is that the first raids may indicate when the Danish kingdom and the Norwegian petty kingdoms had reached such a level of political organization, and were so powerful, that chieftains felt strong enough to begin such attacks across the sea. That is why it seems reasonable to me to draw a line between the Merovingian Period and the Viking Age in the late eighth century. For the moment 790 is an acceptable date, but if it should prove possible by archaeological means to show that the raids began earlier, we must accept that so too did the Viking Age. Hence, the chronological debate on brooches, styles and Insular ecclesiastical objects in Scandinavian

graves and settlements is crucial. From written sources we know that Viking activities abroad were important for the economic and political organization of Scandinavia during the ninth and tenth centuries. What we need now is new archaeological research and analysis to understand more of the economic and political developments during the formative centuries between AD 600 and 800. We need more empirical data and a better chronology, but equally we need bold hypotheses and ideas to inspire us.

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